PRINTER'S INSTRUCTIONS
INSTR, INSTL, 2GIG-PIR100-345, ENGLISH - P/N: 10034947 Rev-X10 - INK: BLACK - MATERIAL: 20 LB. MEAD BOND - SIZE: 11.000" X 17.000" - TOL. +/- 0.020"- SCALE: 1-1 - FOLDING: FOLD FOUR TIMES TO: 2.83" x 2.75"

2GIG
a **Nice** brand

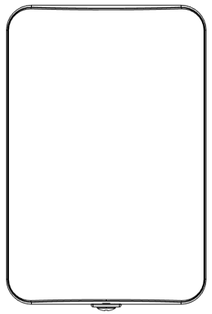
2GIG-PIR100-345

Passive Infrared Motion Detector with Enhanced Security

General Information

The 2GIG Passive Infrared Motion Detector (2GIG-PIR100-345) is a wall mounted unit with wide-angle motion protection and enhanced wireless range with encrypted communications to the control panel using the 345Mhz frequency. The PIR has a maximum range of 30 ft deep x 50 ft wide (9.1 m x 15.2 m). The Pet-immune feature can be set to tolerate animals up 85 lbs (38 kg).

Figure 1 Passive Infrared Motion Detector



Box Contents

Verify that the package includes the following (see *Figure 3 PIR and Mounting Bracket Detail on page 2, Figure 3)*:

- (1) Passive Infrared Motion Detector (Part A)
- (1) Plastic Mounting Bracket (Part B)
- (1) Plastic Wall Mount (Part C)
- (1) Plastic Corner Mount (Part D)
- (2) Plastic Wall Anchors With Screws (not pictured)
- (1) Short Phillips Head Screw with Fender (not pictured)
- (1) Short Phillips Head Screw (not pictured)
- (1) Lithium CR123A Battery (not pictured)

Battery Installation and Replacement

To insert or replace the battery:

1 Remove the front cover using a bottom-to-top lifting motion.

2 Insert the battery. Please make sure to follow correct polarity for proper functioning (positive side to the right).

3 Replace the PIR cover.

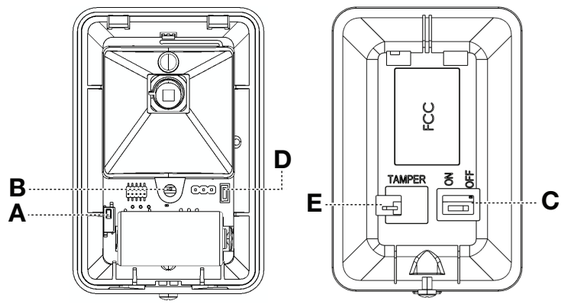
WARNING: Failure to follow these warnings and instructions can lead to heat generation, rupture, leakage, explosion, fire, or other injury, or damage. Do not insert the battery into the compartment in the wrong direction. Always replace the battery with the same or equivalent type (see **Specifications** on page 4). Never recharge or disassemble the battery. Never place the battery in fire or water. Always keep batteries away from small children. If batteries are swallowed, promptly see a doctor.

- Always dispose and/or recycle used batteries in accordance with the hazardous waste recovery and recycling regulations for your location. Your city, state, or country may also require you to comply with additional handling, recycling, and disposal requirements.

Configuring the PIR Features

Configure the features as follows:

Figure 2 PIR Pet Immune and Sensitivity Features



A **Tamper Switch:** Sends a Tamper message when the sensor's housing is opened.

B **Encrypted/Non-encrypted Mode Switch: ON** setting indicates *Encrypted,* and **1** setting is *Non-encrypted* mode.

C **Pet:** This is the pet-immune tolerance setting. Setting it to **ON** enables pet immunity up to 85 lbs. **OFF** position (default) disables pet immunity.

D **Test Button:** Initiates local Test mode.

E **Backplate Tamper**

Setting the Pet Immune Feature

To set the pet immune feature:

NOTE: Do not aim the PIR at stairs, furniture, or other surfaces that a pet may climb on. The PIR provides immunity when the room temperature is above 50° F (10° C) and below 90° F (32° C). When mounting the PIR with the plastic mounting bracket, for best protection ensure the PIR is mounted to the wall or corner with NO tilt (see **Lens Pattern** and **Tilt Angles** on page 3).

1 Remove the sensor from mounting plate, locate the right switch on the bottom right (see Figure 2, C). The default position is OFF. See *Figure 2 PIR Pet Immune and Sensitivity Features*.

2 Gently move the switch to ON position to enable pet-immune setting.

Encryption Mode Switch

The sensor is capable of transmitting signals in *Encrypted mode* or *Non-encrypted mode*. The mode is set through a switch inside the sensor (See Figure 2).

By default, the factory setting is non-Encrypted mode. To change to Encryption mode, do the following:

1 With the front cover off, remove battery from the slot

2 Locate the dip switch directly above battery compartment (see A in Figure 2), and note the switch setting: **ON** indicates *encrypted,* and **1** is *non-encrypted* mode. Move the switch position to **ON** for encrypted mode.

3 Insert the battery back, and close the housing.

4 If the sensor was learned in to a panel in a different mode previously, update sensor class field, and if applicable, sensor equipment code in sensor zone programing.

Programming

The following steps describe general guidelines for programming (Learning) the sensor into the alarm control panel memory. For details, refer to the **2GIG Panel Installation & Programming Instructions**.

1 Put the panel in sensor Learn mode.

2 Install batteries in the sensor. After the sensor is powered on, tamper the sensor to complete learn-in process.

IMPORTANT: The following can cause a false alarm when testing: • Leaving the cover off • Positioning the PIR in direct sunlight or close proximity to a heating or an air conditioning duct.

Local Testing

This test ensures that the PIR sees motion in the desired areas. Please note that PIR does not transmit motion trigger events to the panel while in test mode.

1 Press the **Test** (Figure 2, D) 5 times in 3 seconds to enter local test mode. The LED will blink twice to acknowledge being in test mode.

2 Place the PIR in the preferred mounting location.

3 Move something to the area that is to be covered by the PIR, and make sure that the LED on the PIR flashes every time you move. There is a 3 second delay between sensor looking for motion and lighting the LED. The test mode continues for 10 minutes, so you have time to check the PIR beam coverage.

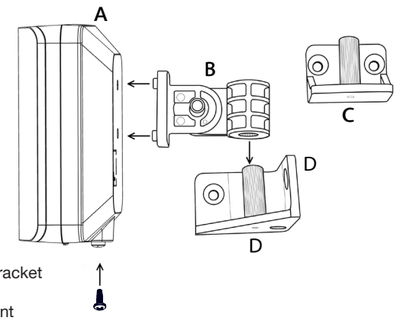
4 If you're using the included mounting bracket, adjust the PIR left or right, down 1 or 2 clicks, or up 1 click, to see movement in the desired area(s). Each click represents 9° tilt.

5 The PIR will automatically return to normal operation after 10 minutes.

Mounting Guidelines

Before mounting the detector, ensure that the PIR mounting location provides good RF communication to the panel. There are two methods for mounting the PIR: Option A: Bracket Mounting or Option B: Direct-to-Wall Mounting. For both methods, always mount the PIR at a height of 7.5 ft (2.3 m).

Figure 3 PIR and Mounting Bracket Detail



A PIR
B Plastic Mounting Bracket
C Plastic Wall Mount
D Plastic Corner Mount

Option A: Bracket Mounting

See *Figure 3 PIR and Mounting Bracket Detail*. If you plan to mount the PIR to either the Plastic Wall Mount or Plastic Corner Mount, you must first attach the Plastic Mounting Bracket to the PIR backplate.

Step 1: Attaching the Plastic Mounting Bracket to the PIR

1 Remove the PIR backplate.

2 Insert the two stubs on the Plastic Mounting Bracket into the corresponding holes on the exterior side of the PIR backplate.

3 On the interior of the PIR backplate (see *Figure 4 PIR Backplate—Direct-to-Wall Mounting Guides*), use the Short Phillips Head Screw (provided) to secure the Plastic Mounting Bracket to the backplate.

4 Replace the PIR backplate.

5 Reattach the screw that was removed earlier to the bottom of the PIR.

6 Continue with either *Step 2a: Wall Mounting Option or Step 2b: Corner Mounting Option*.

NOTE: For optimum pet immunity when using the Plastic Mounting Bracket, ensure that the PIR is mounted to the wall or corner with NO tilt (see **Lens Pattern** and **Tilt Angles** on page 3).

Step 2a: Wall Mounting Option

See *Figure 3 PIR and Mounting Bracket Detail*. If using the Plastic Wall Mount (C), do the following:

NOTE: Ensure that you have attached the bracket to the PIR backplate *(see Step 1: Attaching the Plastic Mounting Bracket to the PIR).*

1 On the intended wall, use the two (2) Plastic Wall Anchors to hang the Plastic Wall Mount at a height of 7.5 ft. (2.3 m).

2 Locate the barrel end of the Plastic Mounting Bracket. Locate the barrel end of the Plastic Mounting Bracket and carefully set it onto the ribbed pin of the Plastic Wall Mount at the desired angle (see *Lens Pattern and Tilt Angles on page 3*).

3 From the topside of the Plastic Wall Mount, use the Short Phillips Head Screw with Fender (provided) to secure the mount to the barrel end of the bracket.

Step 2b: Corner Mounting Option

See *Figure 3 PIR and Mounting Bracket Detail*. If using Plastic Corner Mount, do the following:

NOTE: Ensure that you have attached the bracket to the PIR backplate *(see Step 1: Attaching the Plastic Mounting Bracket to the PIR* on page 2).

1 Use the two (2) Plastic Wall Anchors to hang the Plastic Corner Mount at a height of 7.5 ft (2.3 m).

2 Locate the barrel end of the Plastic Mounting Bracket and carefully set it onto the ribbed pin of the Plastic Wall Mount. Ensure that you set it at the desired angle (see *Lens Pattern and Tilt Angles on page 3*).

3 From the topside of the Plastic Wall Mount, use the Short Phillips Head Screw with Fender (provided) to secure the mount to the barrel end of the bracket.

Option B: Direct-to-Wall Mounting

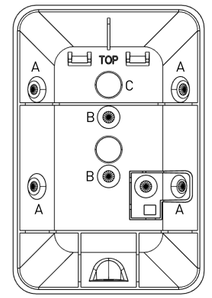
If planning to mount the PIR directly to a wall, use the built-in mounting guides on interior of the PIR backplate to screw the backplate into the wall.

1 Remove the PIR backplate.

2 Use the two (2) Plastic Wall Anchors to screw the PIR backplate into the wall at a height of 7.5 (2.3 m):

- Use the wall mounting guides (see B below).
- Corner Mount. Use the left- or right- corner mounting guides (see A below).

Figure 4 PIR Backplate—Direct-to-Wall Mounting Guides



A Corner Mounting Guides (For *Option B: Direct-to-Wall Mounting*)
B Wall Mounting Guides (For *Option B: Direct-to-Wall Mounting*)
C Wall Mount Bracket Guide (For *Option A: Bracket Mounting*)

Environmental & Other Useful Information

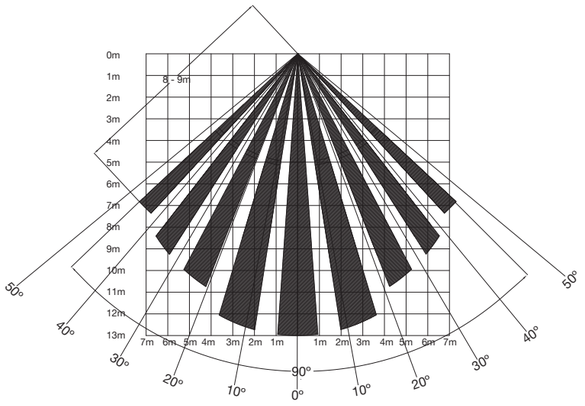
While the PIR is a highly reliable intrusion detection device, it does not guarantee against burglary. Any intrusion device is subject to a “failure to warn” for a variety of reasons. Consider the following when installing and setting up the PIR:

1. 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 (e.g. 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).
2. Windows reflect infrared energy. They also allow sunlight or light from other sources (e.g., cars) to pass through to the PIR. The PIR can detect these changes in infrared energy. For example, if sunlight passing through a window shines onto a hardwood floor and the change in infrared energy is quick enough, 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 shine directly into the PIR’s lens.
3. 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 PIR to “see” a change in infrared energy. **PIR’s cannot see air current, only the change in temperature of a physical object.**
4. 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.
5. Ensure that the area you wish the PIR to cover is free of obstructions (for example, curtains, screens, plants, and so on) that may block the pattern of coverage.
6. 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.
7. 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.
8. 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 appropriate sensor/zone type.
9. The PIR ONLY detects intrusion within the pattern of coverage.
10. The PIR does not provide volumetric area protection.
11. The PIR creates multiple beams of protection. Intrusion can only be detected in unobstructed areas covered by those beams.
12. The PIR cannot detect motion or intrusion that occurs behind walls, ceilings, floors, closed doors, partitions, glass doors, or windows.
13. Tampering with, masking, painting, or spraying of any material on the PIR lens or any part of the optical system can impair detection ability.
14. 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.

Lens Pattern and Tilt Angles

The diagrams below show the lens pattern and tilt angles for the PIR in meters.

Figure 5 Lens Pattern—Top View



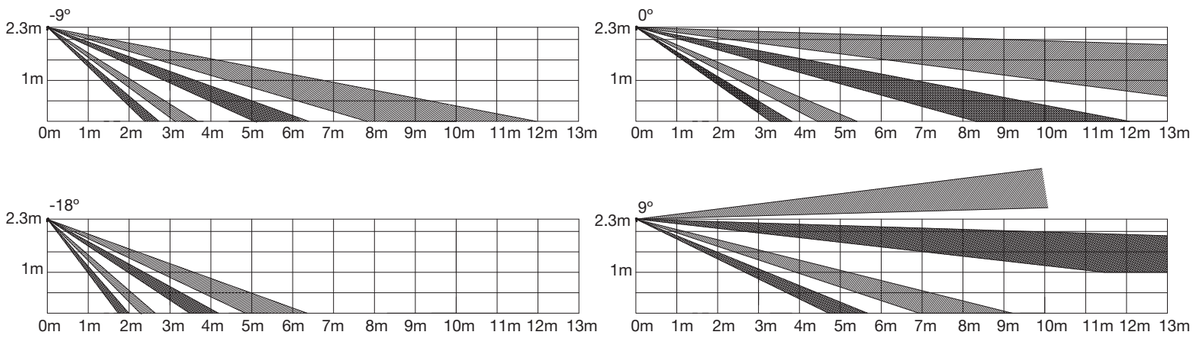


Figure 6 Lens Pattern—Side View

Specifications

Code Outputs	Alarm, Alarm Restore, Tamper, Tamper Restore, Supervisory, Low Battery
Transmitter Frequency	345MHz
Supervisory Interval	70 minutes
Sensor Type	Quad element
Pet Immunity Selectable	Dip Switch, up to 85 lbs (38 kg)
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	100°
Dimensions (L x W x H)	3.53" x 2.35" x 1.63" (5.4 x 6 x 4.1 cm)
Weight (including battery)	98g
Housing Material	ABS Plastic
Color	White
Operating Temperature	32°-120 F° (0°-49° C)
Relative Humidity	5-90% Non-Condensing
Battery (included)	One (1) CR 123A 3V or equivalent Lithium battery
Certification	ETL, FCC and IC
Panel Programming Sensor Loop	Loop 1
Sensor Equipment Code (encrypted)	2869
Sensor Equipment Code (non-encrypted)	0869

Industry Canada (IC) Compliance

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Regulatory Information

We, Nice North America, LLC of 5919 Sea Otter Place STE 100, Carlsbad, CA 92010, declare under our sole responsibility that the device, 2GIG-PIR100-345 complies with Part 15 of the FCC rules.

FCC & IC Notice

This device complies with Part 15 of the FCC Rules and Industry Canada license exempt standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. The device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003

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 or more 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

Federal Communication Commission (FCC) Radiation Exposure Statement:

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

IC

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

WARNING: Changes or modifications not expressly approved by the manufacturer could void the user’s authority to operate the equipment.

Limited Warranty

This Nice North America LLC product is warranted against defects in material and workmanship for two (2) years. This warranty extends only to wholesale customers who buy direct from Nice or through Nice’s normal distribution channels. Nice does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer’s warranty, if any.

There are no obligations or liabilities on the part of Nice for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation. All implied warranties for functionality, are valid only until the warranty expires. This Nice Warranty is in lieu of all other warranties expressed or implied.

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