

# NEXT PIR

Digital PIR Detector with TMR™ Signal Processing



Installation Instructions

## 1. INTRODUCTION

The NEXT PIR is a microprocessor-controlled PIR detector, designed for easy installation, free of vertical adjustment. It features a cylindrical lens with uniform detection sensitivity beginning at 0.5 meter away from the detector up to a distance of 12 meters (40 ft).

The advanced **True Motion Recognition™** algorithm (patented) allows the NEXT PIR to distinguish between the true motion of an intruder and any other disturbances which cause false alarms.

A TST (Test) input permits switching the detector to the walk test mode remotely without removing the front cover. An on-board motion event jumper determines whether 1 or 2 consecutive motion events would trigger an alarm.

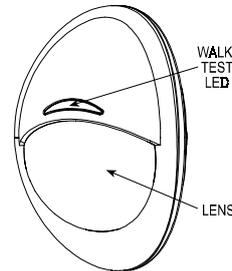


Figure 1. General View

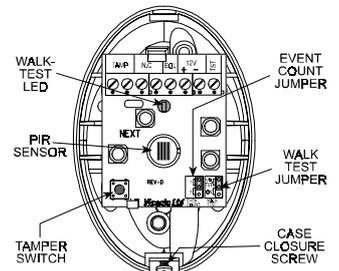


Figure 2. Inside View

## 2. SPECIFICATIONS

**Input Voltage:** 9 to 16 VDC

**Current Drain:** About 8 mA @ 12 VDC

**OPTICAL (see Figure 3)**

**Lens Data**

**No. of curtain beams:** 9 + 5

**Max. Coverage:** 12 x 12 m (40 x 40 ft) / 90°

**ALARM and TAMPER**

**Alarm Output:** Solid-state relay, N.C., up to 100 mA / 30 V, ~30 Ω internal resistance. Circuit opens for 2-3 seconds upon alarm.

**Alarm Indication:** LED lights for 2-3 seconds.

**Event Counter:** Selectable, 1 or 2 motion events

**Tamper Contacts:** Normally closed, 50 mA resistive / 30 VDC

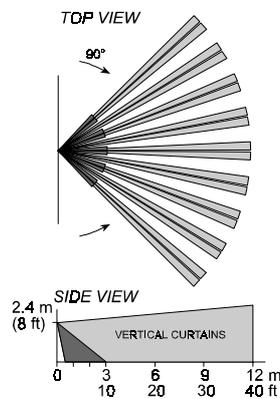


Figure 3. Coverage Pattern

### MOUNTING

Surface or corner, at the height of 1.8 to 2.4 m (6 to 8 ft)

**Note:** Base allows single-sided corner mount at 45° to wall.

### ACCESSORIES:

**BR-1:** Surface mounted swivel bracket, adjustable 30° down and 45° left/45° right.

**BR-2:** BR-1 with a corner adapter

**BR-3:** BR-1 with a ceiling adapter

### ENVIRONMENTAL

**Operating Temperature:** -10°C to 50°C (14°F to 122°F)

**Storage Temperature:** -20°C to 60°C (-4°F to 140°F)

**RFI Protection:** Greater than 20 V/m (20 MHz to 1000 MHz)

### PHYSICAL

**Size (H x W x D):** 94.5 x 63.5 x 49.0 mm (3-11/16 x 2-1/2 x 1-15/16")

**Weight:** Approximately 50 g (1-3/4 oz)

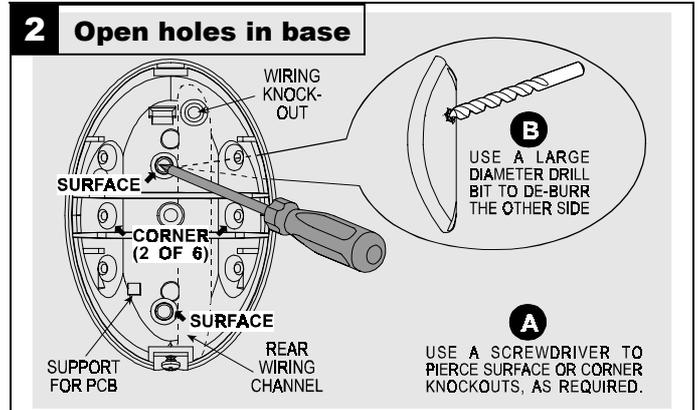
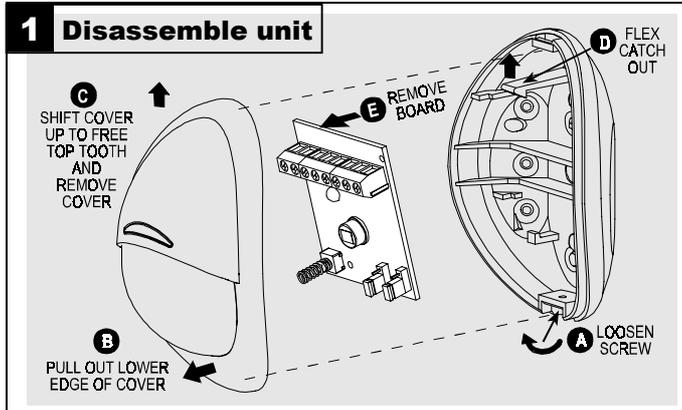
**PATENTS:** U.S. Patents 5,693,943 • 6,211,522 • D445,709 (another patent pending)

## 3. INSTALLATION

### 3.1 General Guidelines



### 3.2 Illustrated Installation Procedure



### 3 Mount base

1.8 - 2.4 m (6 - 8 ft) above ground

**A** MARK DRILLING POINTS AND DRILL IN WALL

**B** ROUTE WIRES INTO BASE VIA THE REAR CHANNEL

**C** INSERT DOWELS & ATTACH BASE TO WALL WITH TWO SCREWS

**D** PUT P.C. BOARD BACK IN PLACE

### 4 Set jumpers as needed

**A** 1 EVENT - FAST RESPONSE

**B** 2 EVENTS - HIGHEST FALSE ALARM PROTECTION

WALK TEST REMOTE CONTROLLED VIA TST INPUT:

TST Input grounded: walk test active

TST Input "floating" or "+12V": walk test disabled

WALK TEST ENABLED

### 5 Wire up the terminal block

**ALARM CONTROL PANEL**

24-HOUR TAMPER ZONE BURGLAR ZONE 12 VDC

**"NEXT PIR" TERMINAL BLOCK**

TAMP N.C. EOL 12V TST

TAMPER ALARM

TEST SWITCH (OPTION)

USING AN E.O.L. RESISTOR WHEN THE CONTROL PANEL IS SET FOR E.O.L. OPERATION

### 6 Walk-test the coverage area

**A** RE-MOUNT COVER AND TIGHTEN SCREW.

**B** WALK ACROSS FAR END OF COVERAGE PATTERN IN BOTH DIRECTIONS. THE LED SHOULD LIGHT FOR 2-3 SECONDS EACH TIME YOUR MOTION IS DETECTED.

**C** IMPORTANT! INSTRUCT THE USER TO WALK TEST AT LEAST ONCE A WEEK TO ASSURE PROPER FUNCTION OF EACH DETECTOR.

## 4. SPECIAL COMMENTS

### 4.1 Product Limitations

Although this detector is a highly reliable device, it does not guarantee complete protection against intrusion. Even the most sophisticated detectors can sometimes be defeated or may fail to warn because:

- A. The detector will not function if the DC power supplied to it is incorrect or improperly connected.
- B. A PIR detector does not provide full volumetric coverage. It can only detect motion that disturbs the sensitive beams spread within the protected area.
- C. Motion is not detected if it takes place behind closed doors, walls, glass partitions, windows and shutters.
- D. The detection ability of the PIR detector may be reduced by malicious masking or by spraying various materials on the lens or by mechanical tampering with the optical system.
- E. The PIR detector's performance depends on the temperature difference between the environment and the human body. If this difference is too small, the PIR performance may decrease.
- F. Even the most reliable electrical devices, including this detector, may go wrong due to an unexpected failure of a component part.

The above list includes the most common reasons for failure to detect intrusion, but it is by no means comprehensive. It is therefore recommended that the detector and the entire alarm system be checked weekly, to ensure proper performance.

An alarm system should not be regarded as a substitute for insurance. Home and property owners or renters should be prudent enough to continue insuring their lives and property, even though they are protected by an alarm system.

### 4.2 Compliance with Standards

This device 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 residential installations. 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 and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one which supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

**WARNING!** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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Refer to separate warranty statement

