1. INTRODUCTION

The NEXT QES is a microprocessor-controlled quad 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).

Advanced True Motion Recognition™ algorithm (patented) allows the NEXT QES 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.

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°  
- Sensor: Quad element PIR

**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

**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

1. Disassemble unit
2. Open holes in base
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.