



# PIRAMID LT Outdoor Motion Sensor With Direction Control

**"LT" Version – for Protecting Ladders and Towers**



**Proudly Made  
In The USA**

## GENERAL

The "LT" (Ladder and Tower) Version of PIRAMID is an Outdoor Dual Technology Motion sensor specifically designed to protect against intruders climbing up ladders and towers. The PIRAMID LT Version features PROTECH's proprietary Stereo Doppler Microwave Technology combined with Passive Infrared. The sensor is configured so that both technologies must activate simultaneously for a sensor alarm. PIRAMID LT is equipped with a three-position Direction Control Switch that selects the direction of movement required for a sensor alarm. The Direction Control Switch can be set to one of three detection modes:

- 1) **Approach Mode** – Sensor detects only approaching targets
- 2) **Recede Mode** – Sensor detects only receding targets
- 3) **Both Mode** – Sensor detects both approaching and receding targets

For protecting ladders and towers the PIRAMID LT is generally mounted at the top of the structure looking downward. The Direction Control Switch is set in the "Approach" mode so that the sensor detects only approaching targets, i.e. someone climbing up the ladder or structure.

## FEATURES

**Stereo Doppler Microwave Detector** - Two receiving channels with the ability to eliminate vibration and periodically moving objects as sources of false alarms.

**Dual Element Infrared Detector** - Ignores normal temperature variations yet is very responsive to rapid infrared changes created by an intruder.

**Microprocessor Controlled** - Proprietary integrated circuit design provides enhanced digital signal processing for both microwave and passive infrared technologies.

**Balanced Temperature Compensation** - Stereo Doppler Microwave and Passive Infrared portions automatically adjust detection parameters to compensate for the loss of range that occurs at elevated temperatures.

**Stereo Doppler Supervision** - A component failure will cause the sensor to lock-in alarm.

**Direction Control Switch:** Three-position digital switch that controls the direction of movement required for a sensor alarm. The sensor can be set in one of the three modes:

1. Sensor detects only approaching targets
2. Sensor detects only receding targets
3. Sensor detects both approaching and receding targets

**Digital Range Control** - Ten-position digital switch adjusts how far the sensor detects (to its maximum range).

**Digital Sensitivity Control** - Ten-position digital switch adjusts the amount of movement required to initiate an alarm condition.

**Master Alarm LED** - Displayed on the face of the unit indicating the alarm relay status.

**Analytic LED's** - Alarm and Environmental Caution LED's for both technologies are displayed on the face of the sensor. An internal switch can disable both Master and Analytic LED's.

**Walk-Test Sounder** - Optional audible tester to assist in walk-test and initial sensor set-up. The **XL-Sounder** greatly simplifies the installation as it enables walk-testing and adjustment by a single installer.

**Swivel Mounting** - Multi-directional

**Tamper Proof** - Housing tamper switch with terminal connection.

**All Solid State Relay** - User selectable form C relay output. A Solid State relay is flexible, silent and more reliable than an electromechanical relay.

**Metal Housing** - Rugged, weather-proof housing offers maximum protection against RFI and EMI interference.

**Weather Shroud** - Metal enclosure that keeps rain away from the sensor's face and provides maximum protection from ice, snow, wind and sun loading.

## SPECIFICATIONS

**Input Voltage:** 8.5 to 20 VDC  
**Current Consumption:** 150 mA@12 VDC (LED's off)  
**RF Power Density:** 120 uW/cm<sup>2</sup> max. at the face of the unit

**Operating Environment:**  
Temperature -30F to 130F (-34C to 54C)  
Humidity 0 to 100% Relative Humidity

**Relay Contact Rating:** 0.1A, 50V  
**Microwave Frequency:** 10,525 MHz USA

**Housing Dimensions:**  
6 1/2" (16.5cm) L x 5 1/4" (13.3cm) W x 3 1/2" (8.5cm) H  
**Shroud Dimensions:**  
7 1/2" (19.0cm) L x 6" (15.2cm) W x 4" (10.1cm) H

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Protection Technologies Incorporated  
**(800) 428-9662**

## MOUNTING ON LADDERS

For mounting on a ladder, it is recommended that the PIRAMID LT version be ordered with one of PROTECH's Ladder Mounting Brackets (PH-6 or PH-6JB). These specially designed brackets will reduce installation time and offer maximum flexibility when mounting to both caged and non-caged ladders.



Front view of PH-6JB mounting bracket and junction box.

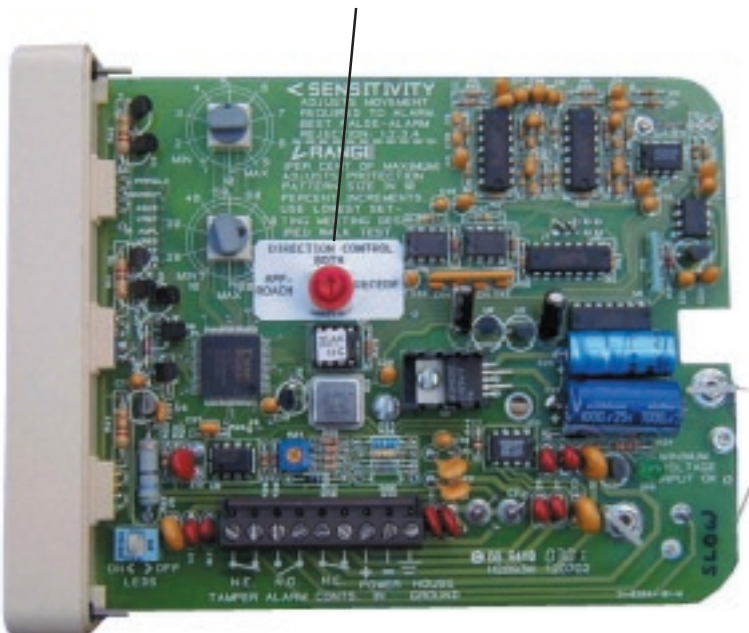


Rear view of PH-6JB mounting bracket and junction box.

## SPECIAL DISCRIMINATION CIRCUITRY

The PIRAMID LT is configured with enhanced immunity to fast moving targets so that flying birds and moving vehicles are ignored by the sensor. The Sensitivity Control Switch precisely controls the amount of movement required to initiate an alarm. The benefit of controlling the amount of motion required for an alarm is that in lower sensitivity settings the PIRAMID LT can ignore movement on the ground such as animals, pedestrians, small vehicles, etc.

Direction Control Switch



## ORDER INFORMATION

|                 |   |
|-----------------|---|
| SDI-76XL-DIR-LT | Wide Angle – 50 ft. (17m) maximum range   |
| SDI-77XL-DIR-LT | Narrow Angle – 50 ft. (17m) maximum range |
| PH-6            | Ladder Mounting Bracket                   |
| PH-6JB          | Ladder Mounting Bracket w/Junction Box    |

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