



## Installation

At the recommended height of 2.1m (7ft) ±10%, the OMN-PMD75 motion detectors provide full coverage from 1.5m (5ft) to 11m (35ft). The installation height is measured from the center of the detector as shown in figure 4.

**Avoid bending, cutting or altering the antenna or mounting the detector near or on metal as this may affect signal transmission.**

Avoid placing the detector within proximity of the following sources of interference: reflective surfaces, direct air flow from vents, fans, windows, sources of steam/oil vapor, infrared light sources and objects causing temperature changes such as heaters, refrigerators and ovens.

**Do not touch the sensor surface as this could result in a detector malfunction. If necessary, clean the sensor surface using a soft cloth with pure alcohol.**

### PCB Height Adjustment

The OMN-PMD75 is designed for optimal performance at a height of 2.1m (7ft), but can be installed lower or higher. After you have installed the detector, ensure that the adjustable height markings on the right side of the PCB matches the tab inside the back cover.

For example, if the detector is installed at a height of 2.1m (7ft), the PCB should then be adjusted to 2.1m (7ft). Align the desired marking (height) with the back cover's plastic tab (figures 1 and 3).

If another installation height is called for, readjust the PCB accordingly. Any PCB adjustments should be followed by a walk-test of the protected area. Walk-testing verifies that the required coverage is in place.

### LED Setting (J5)

This setting enables or disables the red LED. The red LED will illuminate for a period of 4 seconds to indicate detected movement. The motion detector performs a battery test every 12 hours. If the battery voltage is too low, the red LED will flash at 5-second intervals. The red LED indicator light will blink rapidly when the motion detector transmits a signal to the receiver. Refer to table 1.

### Digital Shield™ Setting (J4)

In Normal Shield mode, the detector is set for normal environments. In High Shield mode, the detector is set for high-risk environments (potential interferences) and therefore provides greatly increased false alarm immunity. However, response time and detector speed may be slower. Refer to table 1.

### Single or Dual Edge Processing (J3)

This setting determines the DSP (Digital Signal Processing) operational mode of the detector. Single Edge Processing mode should be used in normal environments with minimal sources of interference. Dual Edge Processing Mode provides better false alarm rejection in the case where the detector is placed near sources of interference that can adversely affect the motion detector. Refer to table 1.

### Check-in Supervision Timer (J1, J2)

These two jumpers set the time interval at which the motion detector will communicate a check-in signal. Refer to table 1.

### Powering the Detector

- Insert three "AAA" batteries into battery holder while verifying polarity (figure 3).
- Insert the battery holder into the back cover and connect the battery connector to the PCB.

**After connecting the battery connector, a power-up sequence will begin (lasting 10 to 30 seconds). During this time, the red LED will flash and the detector will not detect an open zone or tamper.**

### Replacing Batteries

- Disconnect the battery connector from the PCB. Remove the battery holder and remove the old batteries.
- Press and release the anti-tamper switch to ensure that the unit has been powered down.
- Follow the steps outlined in "Powering the Detector".

### Walk-testing

At 20°C (68°F), in Normal Shield (J4 = ON) mode and Single Edge Processing mode (J3 = ON), you should not be able to cross more than one complete zone (consisting of 2 beams, left and right sensor detecting elements) in the coverage area with any kind of movement; slow/fast walking or running. In High Shield mode, the amount of movement required to generate an alarm is doubled. The approximate width of a full beam at 11m (35ft) from the detector is 1.8m (6ft) (figure ). When walk-testing, always move across the detection path and not toward the detector.

#### To Perform a Walk-Test

Open the cover in order to trigger the anti-tamper switch, then snap the cover back into position. This will activate the motion detector's walk-test mode for 3 minutes.



Walk-test mode is also activated for 3 minutes once the motion detector is powered on.

### Signal Strength Test

In order to verify the receiver's reception of the motion detector's signal, perform a signal strength test as described in the appropriate receiver's *Reference and Installation Manual* before finalizing the installation of the motion detector. Prior to performing the test, make sure the batteries have been inserted into the battery holder to power the detector. Also verify that the motion detector has been assigned to a zone according to the instructions in the appropriate receiver's *Reference and Installation Manual*. If the transmission is weak, relocating the transmitter by a few inches can greatly improve the reception.

### Alive Software

If the motion detector transmits 2 alarm signals (LED on for 4 sec.) within a 5-minute period, the detector will fall into Energy Save Mode where it will not transmit any alarm signals for approximately 3 minutes. Due to the motion detector's Alive Software, the red LED will continue to flash to indicate a detection even when in Energy Save Mode. Once the 3-minute Energy Save Mode ends, the motion detector returns to normal operation.



If the detector's cover is removed and then replaced while in Energy Save Mode, the first detection will trigger an alarm signal.

Figure 1 : Back Cover

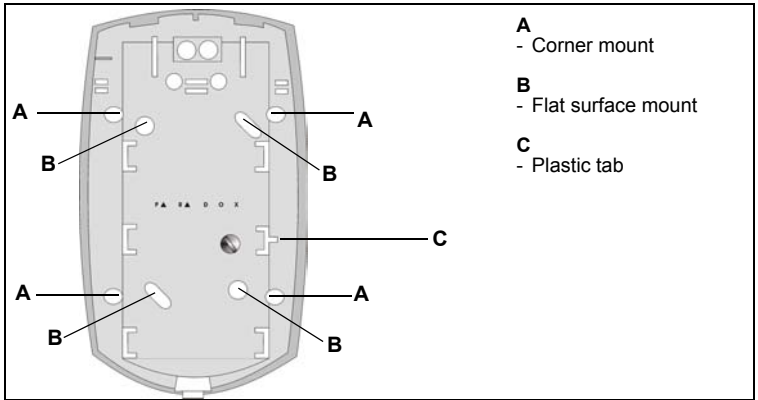


Figure 2 : Beam Dispersion

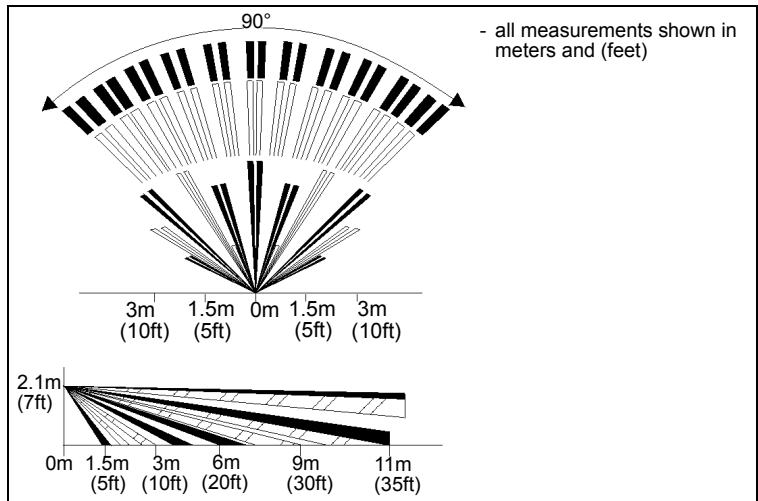


Figure 3 : Detector Overview

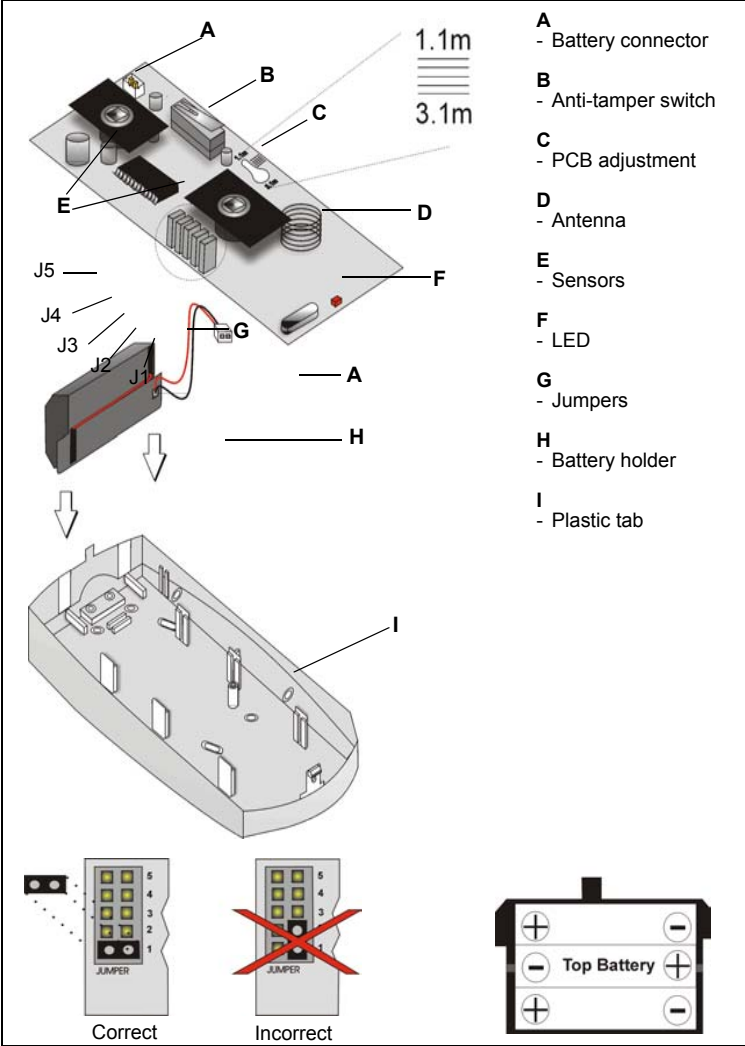


Figure 4 : PCB Settings

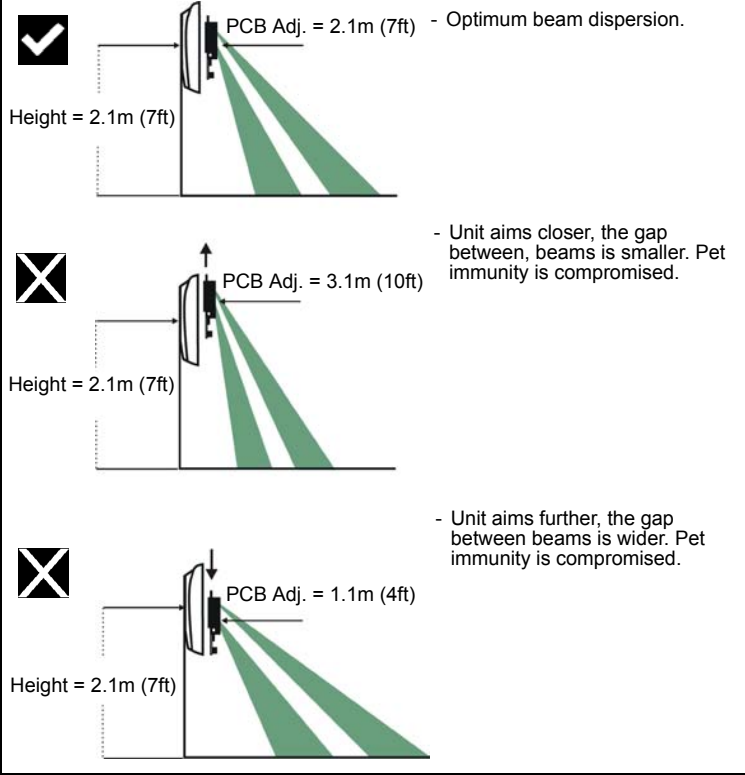


Table 1: Jumper Settings

| J5                                                                         | LED Indicator                                                                  |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                                                            | OFF = Disabled<br>ON = Enabled Δ                                               |
| J4                                                                         | Digital Shield (Sensitivity)                                                   |
|                                                                            | OFF = High Shield (low sensitivity)<br>ON = Normal Shield Δ (high sensitivity) |
| J3                                                                         | Processing Type                                                                |
|                                                                            | OFF = Dual Edge<br>ON = Single Edge Δ                                          |
| J2                                                                         | Base Time                                                                      |
|                                                                            | OFF = Minutes<br>ON = Hours Δ                                                  |
| J1                                                                         | Time Value                                                                     |
|                                                                            | OFF = 6<br>ON = 12 Δ                                                           |
| <div><div>6 min</div><div>12 min</div><div>6hr</div><div>12 hr</div></div> |                                                                                |

Δ=default



After changing the jumper settings, snap the cover into place to close the anti-tamper switch or press and release the anti-tamper switch in order to save the changes.

## TECHNICAL SPECIFICATIONS

|                           |                                                |
|---------------------------|------------------------------------------------|
| Number of Sensors         | Two                                            |
| Sensor Type               | Dual Element Infrared                          |
| Sensor Geometry           | Rectangular                                    |
| Coverage - 90° (standard) | 11m x 11m (35ft x 35ft)                        |
| Pet Immunity              | Up to 40kg (90lbs)                             |
| Walk Speed                | 0.2m to 3.5m/sec. (0.6ft to 11.5ft/sec.)       |
| Installation Height       | 2.1m to 2.7m (7ft to 9ft)                      |
| Operating Temperature     | +0°C to +50°C (32°F to 122°F)                  |
| RF Frequency              | 433 or 868MHz 🇺🇸                               |
| Lens                      | 2nd generation Fresnel lens, LODIFF®, segments |
| Power                     | 3 X "AAA" alkaline batteries                   |
| Transmitter Range         | 150m (500ft)                                   |
| Anti-Tamper Switch        | Yes                                            |

### Battery Life

|                  |           |
|------------------|-----------|
| Check-in Setting |           |
| Lowest           | 3 years   |
| Highest          | 1.5 years |



868MHz (only) Ⓢ Ⓢ Ⓢ compliant to all EU and EFTA countries except Greece according to RTT&E directives.

Changes or modifications on equipment not expressly approved by Paradox Security Systems could void the user's authority to operate the equipment.

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