PARADOX PMD75 Digital Wireless Motion Detector Instruction Manual

Contents

PARADOX™

PARADOX PMD75 Digital Wireless Motion Detector

Product Specifications

- **Model:** PMD75
- **Type:** Digital Wireless Motion Detector with Pet Immunity V2.0

Product Usage Instructions

At the recommended height of 2.1m (7 ft) ±10%, the PMD75 motion detectors provide full coverage from 1.5m to 11m (5 ft to 35 ft). The installation height is measured from the center of the detector (Figure 1).**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. Avoid bending, cutting or altering the antenna or mounting the detector near or on metal as this may affect signal transmission. 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.

Walk-testing

In High Shield mode, the movement required for the alarm is doubled. When walk-testing, move across the detection path, not towards the detector.

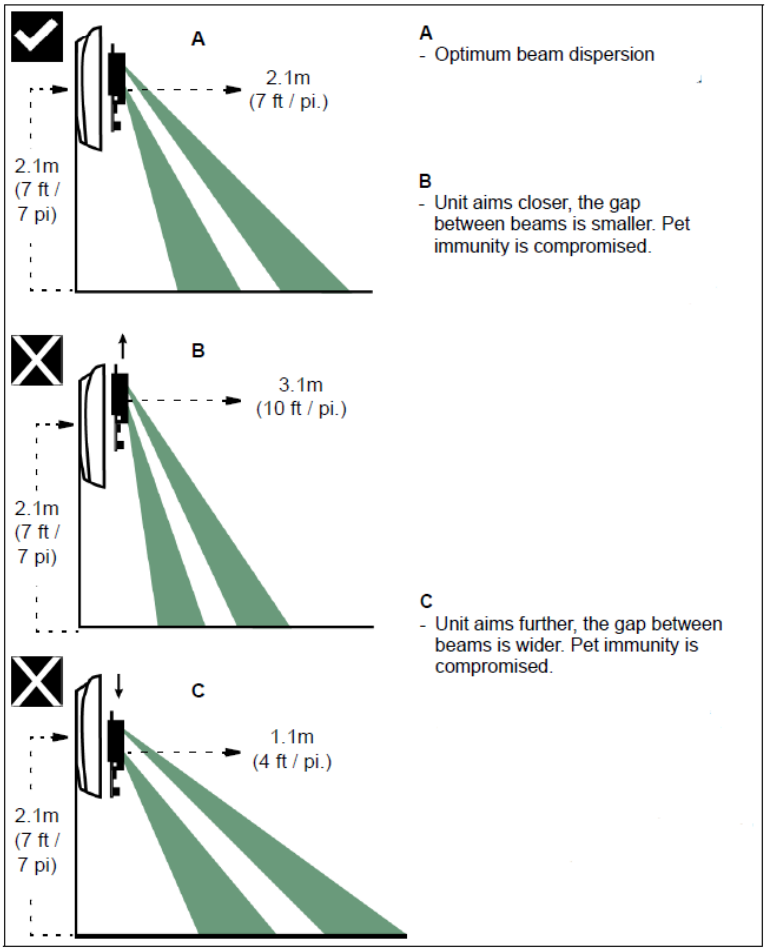
Placement and Interference

Avoid placing near reflective surfaces, vents, fans, windows, sources of steam/oil vapor, infrared light sources, or objects causing temperature changes. Do not alter the antenna or touch the sensor surface.

PCB Height Adjustment

Adjust PCB height as needed for installation. The PMD75 is designed for optimal performance at a height of 2.1m (7 ft), 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 (see “H” in Figure 1). For example, if the detector is installed at a height of 2.1m (7 ft), the PCB should then be adjusted to 2.1m (7 ft) (Figure 1). Align the desired marking (height) with the back cover’s plastic tab. If another installation height is called for, readjust the PCB accordingly. Any PCB adjustments should be followed by a walktest of the protected area. Walk-testing verifies that the required coverage is in place.

Figure 1



LED Setting (J5)

Adjust LED settings based on requirements. This setting enables or disables the red LED (Table 1). 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 and the motion detector will send a low battery signal to the receiver. Trouble will then be generated and transmitted to the central monitoring station. The red LED will flash rapidly when the motion detector transmits a signal to the receiver.

LED Indicator	
J5	OFF = Disabled
Digital Shield (sensitivity)	
J4	OFF = High Shield (low sensitivity) ON = Normal Shield (high sensitivity)
Processing Type	
J3	OFF = Dual edge ON = Single edge
Operating Mode	
J2	OFF = N/A ON = Magellan **r**

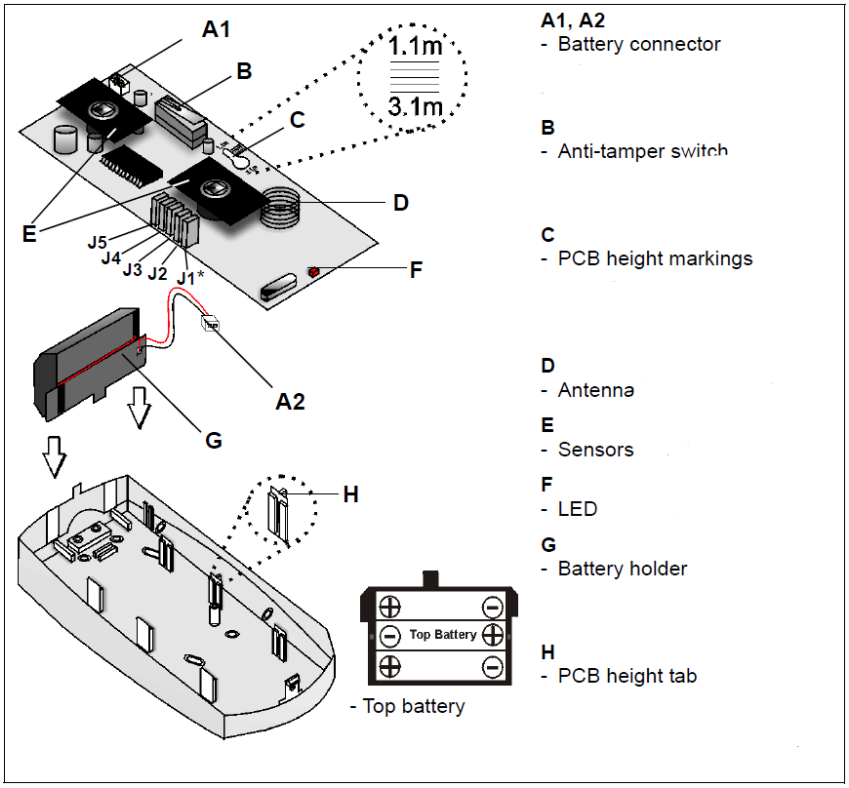
After connecting the battery connector, a power-up sequence will begin (lasting 10 to 30 seconds). During this time, the red LED will flash and the detector will not detect an open zone or tamper.

Digital ShieldTM Setting (J4)
Choose Normal Shield mode for regular environments and High Shield mode for high-risk environments. 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)
Select Single Edge Processing for normal environments and Dual Edge Processing for areas with potential interference. 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.

Powering the Detector

1. Insert 3 “AAA” batteries into the battery holder while verifying polarity (Figure 4).
2. Insert the battery holder into the back cover and affix the battery connector to the PCB (see “A1” and “A2” in Figure 4).



Replacing Batteries

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

Walk-testing
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. 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 (35 ft) from the detector is 1.8m (6 ft). When walk-testing, always move across the detection path and not toward the detector. 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 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. For more information on signal strength tests and zone programming, refer to 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 falls into Energy Save mode where it won't transmit any alarm signals for approximately 3 minutes. Due to the motion detector's Alive Software, the red LED continues 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.

Signal Strength Test
If 2 alarm signals are transmitted in 5 minutes, Energy Save mode activates. The red LED indicates detection even in Energy Save mode.

Technical Specifications	
Sensor Type	Two dual opposed infrared sensors
Coverage – 90° (standard)	11m x 11m (35 ft x 35 ft)
Pet Immunity	Up to 40 kg (90 lbs)
Detector Speed	0.2m to 3.5m/sec. (0.6 ft to 11.5 ft/sec.)
Installation Height	2.1m to 2.7m (7 ft to 9 ft)
Operating Temperature	0°C to +50°C (+32°F to +122°F)
RF Frequency	433* or 868 MHz
Lens	2nd generation Fresnel lens, LODIFF®, segments
Power	3 x “AAA” alkaline batteries
Transmitter Range	35m (115 ft) with MG6250 70m (230 ft) with MG5000 / MG5050 / RTX3
Anti-Tamper Switch	Yes
Battery Life†	Lowest check-in setting: 3 years Highest check-in setting: 1.5 years
Certifications (i.e. UL and CE)	For updated information on certifications, go to paradox.com
Compatibility	MG5000, MG5050, MG6250, RTX3

FCC ID: KDYOMNPMD75
Canada: 2438A-OMNPMD75

The PMD75 complies with part 15 of the FCC rules.

Operation is subject to the following two conditions:

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

Battery life expectancy will vary according to the check-in time interval and the amount of traffic (movement) the detector has processed. A higher check-in time interval and higher traffic will lower battery life.

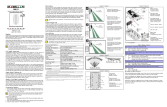
Warranty
For complete warranty information on this product please refer to the Limited Warranty Statement found on the website paradox.com/terms. Your use of the Paradox product signifies your acceptance of all warranty terms and conditions.

(FAQ)

Q: How do I perform a walk-test on the PMD75?
A: In High Shield mode, move across the detection path to test the motion detector.

Q: What should I avoid when placing the PMD75?
A: Avoid reflective surfaces, vents, direct air flow, infrared light sources, and objects causing temperature changes.

Documents / Resources

	**PARADOX PMD75 Digital Wireless Motion Detector** [pdf] Instruction Manual PMD75 Digital Wireless Motion Detector, PMD75, Digital Wireless Motion Detector, Wireless Motion Detector, Motion Detector, Detector

References

- **User Manual**