



Dual / Quad Element Motion Detector Module (DM50 / DM60)



Instructions / Instrucciones



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English

Select the detector's installation site, based on required coverage and the recommended height of 2.1m (7 ft). If another installation height is called for, move the PCB to the proper installation height indicated on the left side of the PCB. A small adjustment may be required depending on the protected area. Any PCB adjustments should be followed by a walk-test of the protected area. Walk-testing verifies that the required coverage is met as per the lens pattern.

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

! Do not touch the sensor surface as this could result in a detector malfunction. Clean with a soft cloth and pure alcohol if necessary.

After selecting the detector's location, drill or punch out holes for the screws as described in Figure 3.

Power the Motion Detector

Connect the four terminals labeled red, black, green and yellow of each detector to the corresponding terminals on the control panel as shown in Figure 1. Powering the detector initiates a self-testing program for the signal processor and memory. The red and green LEDs will flash to indicate that the system is fully operational. When the LEDs are no longer flashing, the detector is ready.

Module Programming

To enter the Module Programming Mode:

1. Press and hold the **[0]** key
2. Key in the **[INSTALLER CODE]**
3. Key in section **[4003]** (EVO)
4. Key in the detector's 8-digit **[SERIAL NUMBER]**
5. Key in the 3-digit **[SECTION]** you wish to program
6. Turn the desired option on/off, or key in the required data

Please note that the serial number is located on the detector's metal shield (refer to Figure 1).

Single / Dual Edge Processing

Section **[001]**: Option **[1]**

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.

ON = Single Edge (default)
OFF = Double Edge

Alarm Indication

Section **[001]**: Option **[2]**

When option **[2]** in section **[001]** is enabled and the detector detects a signal that matches the characteristics of a movement signal and reaches the required accumulated energy level for an alarm, the red LED will turn on for 5 seconds. Refer to Table 1.

Movement and Non-Movement Signal Indication

Section **[001]**: Options **[3]** and **[4]**

Movement Signal Indication: When option **[3]** in section **[001]** is enabled and the detector detects a signal that matches the characteristics of a movement signal, but does not reach the required energy levels for an alarm, the red LED will flash once indicating the signal was kept in memory. Refer to Table 1 on the reverse side.

Non-Movement Signal Indication: When option **[4]** in section **[001]** is enabled and the detector detects a non-movement signal, the green LED will flash once indicating the signal was rejected. Refer to Table 1.

Tamper Recognition

Section **[001]**: Option **[5]**

When option **[5]** in section **[001]** is enabled and the tamper switch is open (cover removed), the detector will send a tamper message to the control panel. Refer to Table 1 on the reverse side.

Digital Shield Setting

Section **[002]**: Sensitivity

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.

000 = Very Low Shield (Very High Sensitivity)

001 = Low Shield (High Sensitivity)

002 = Normal Shield (default)

003 = High Shield (Low Sensitivity)

Walk-Testing

At 20°C (68°F) 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. When using higher level digital shield settings, the amount of movement required to generate an alarm is increased. The approximate width of a full beam at 12m (40ft) from the detector is 1.8m (6 ft). When walk-testing, always move across the detection path, not toward the detector. The installer should test the detectors at least once per year.

Warranty

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

This device complies with Part 15 Subpart (B) of 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.

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Technical Specifications	DM50	DM60
Infrared Sensor type	Dual element	Quad element
Sensor geometry	Rectangular	ISG† (Interlock)
Detection speed	0.2m to 3.5 m/s (0.6 ft to 11.5 ft/s)	
Operating temperature	-20°C to +50°C (-4°F to +122°F)	
Voltage input	9-16 Vdc.	
Current Consumption	16 mA (typical); 30 mA (maximum)	
RFI / EMI rejection	10 V/m	
Lens	2nd Generation Fresnel lens*	
Coverage - 110° viewing angle	12m x 12m (40 ft x 40 ft)	
Installation height	2s to 2.7m (7 ft to 9 ft)	
Alarm Indication	Red LED, constant light for 5 sec.	
Movement signal indication	Red LED, 0.25 sec.	
Non-movement signal indication	Green LED, 0.25 sec. (lights when RFI / EMI rejected)	
Alarm output / Tamper switch	Via Combus	

Figure / Figura 1

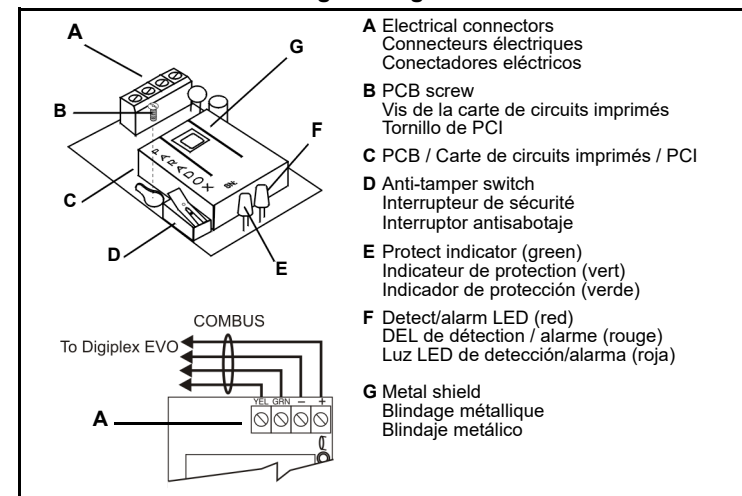


Figure / Figura 2

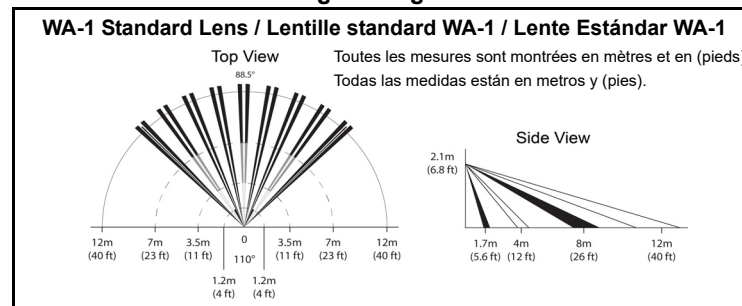
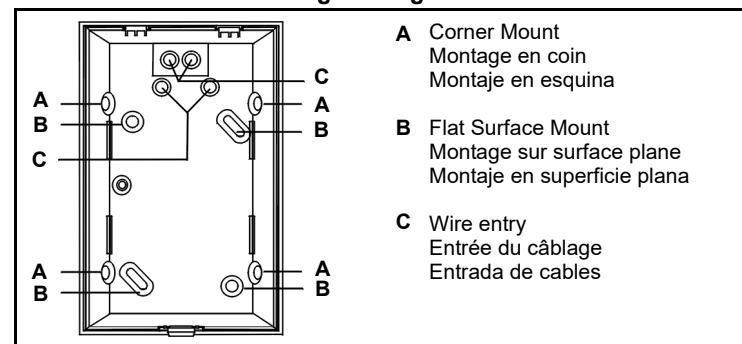


Figure / Figura 3



Section / Sección [001]	English	Français	Español
[1]	Single/Dual Processing ON = Single edge Δ OFF = Dual edge	Traitement simple/divisé INSTALLÉ = Simple Δ NON INSTALLÉ = Divisé	Procesamiento Simple/Doble ON = Polaridad simple Δ OFF = Polaridad dual
[2]	Alarm Indication (red LED illuminates for 5 secs.) ON = Enabled Δ OFF = Disabled	Indication d'alarme (la DEL rouge s'allume pendant 5 secondes) INSTALLÉ = Activé Δ NON INSTALLÉ = Désactivé	Indicador de Alarma (La luz LED roja se ilumina por 5 segs.) ON = Habilitada Δ OFF = Deshabilitada
[3]	Movement Signal Indication (red LED will flash) ON = Enabled Δ OFF = Disabled	Indication de signal de mouvement (la DEL rouge clignote) INSTALLÉ = Activé Δ NON INSTALLÉ = Désactivé	Indicador de Señales de Movimiento (Luz LED roja parpadeará) ON = Habilitada Δ OFF = Deshabilitada
[4]	Non-movement Signal Indication (green LED will flash) ON = Enabled Δ OFF = Disabled	Indication de Signal de Non-Mouvement (la DEL verte clignote) INSTALLÉ = Activé Δ NON INSTALLÉ = Désactivé	Indicador de Señales de No-Movimiento (Luz LED verde parpadeará) ON = Habilitada Δ OFF = Deshabilitada
[5]	Tamper Recognition ON = Enabled OFF = Disabled Δ	Reconnaissance de sabotage INSTALLÉ = Activé NON INSTALLÉ = Désactivé Δ	Raconocimiento de Sabotaje ON = Habilitada OFF = Deshabilitada Δ
[6] - [8]	Future Use	Utilisation future	Uso Futuro

Δ = Default setting/Réglage par défaut/Valor de fábrica

Section [002]: Digital Shield Setting

___/___/___ (000 to 003 sensitivity; default: 002)

000 = Very Low Shield (very high sensitivity) 001 = Low Shield (high sensitivity)

002 = Normal Shield Δ 003 = High Shield (low sensitivity)

Section [002]: Réglage du blindage numérique

___/___/___ (000 à 003 sensibilité; par défaut: 002)

000 = protection très faible (sensibilité très élevée) 001 = protection faible (sensibilité élevée)

002 = protection normale Δ 003 = protection élevée (sensibilité faible)

Sección [002]: Configuración del blindaje Digital

___/___/___ (000 a 003 sensibilidad; de fábrica: 002)

000 = Blindaje Muy Bajo (sensibilidad muy alta) 001 = Blindaje Bajo (alta sensibilidad)

002 = Blindaje Normal Δ 003 = Blindaje Superior (sensibilidad baja)



