



DGI85

Outdoor Digital Dual-Optic High-Performance PIR



Instructions  
Instrucciones

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**English**

**Beam Patterns**

The DGI85 series features the following beam patterns:

Detector	Beam Pattern
DG85W	Pet Array beam pattern (see figure 3)
DG85L1	Horizontal Curtain beam pattern (see figure 4)
DG85L2	Vertical Curtain beam pattern (see figure 5)

**Installation**

After selecting the detector's location, drill or punch out holes for the wiring and mounting screws as shown in Figure 1.

Avoid placing the detector within proximity of sources of interference such as direct sunlight, reflective surfaces and moving cars.

The DGI85 can also be mounted using the Paradox Swivel Mount Bracket (469). The swivel mount may allow for easier mounting. If using the swivel mount, it is recommended that you seal the space where the swivel mount is connected to the back cover with some silicon or with a rubber gasket to ensure that moisture does not enter the detector.

After you have installed the detector, ensure that the adjustable height markings on the upper right of the PCB's cover inside the unit match the installation height (see Figure 2). Any PCB adjustments should be followed by a walk-test to verify detector coverage.

**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.**

**Ensure that the unit's front and back cover are tightly joined together without any spacing (around the rim of the unit) before tightening the screw, otherwise the weatherproof casing may be compromised and moisture may enter the unit.**

**Operational Modes**

The DGI85 can function in two different operational modes: combus mode or relay mode. This option can only be configured using DIP switch 1.

**Relay Mode: (DIP switch 1 = OFF)**

When set to Relay Mode, the DGI85 functions as would any standard motion detector by communicating its alarm and tamper signals via relays. The GRN and YEL terminals are not used in relay mode.

In Relay Mode, the detector's settings can only be modified using the DIP switches and trimpot (see figure 2).

**Combus Mode: (DIP switch 1 = ON)**

When set to combus mode, the DGI85 communicates alarm signals, tamper signals, data and detector settings via the panel's 4-wire combus.

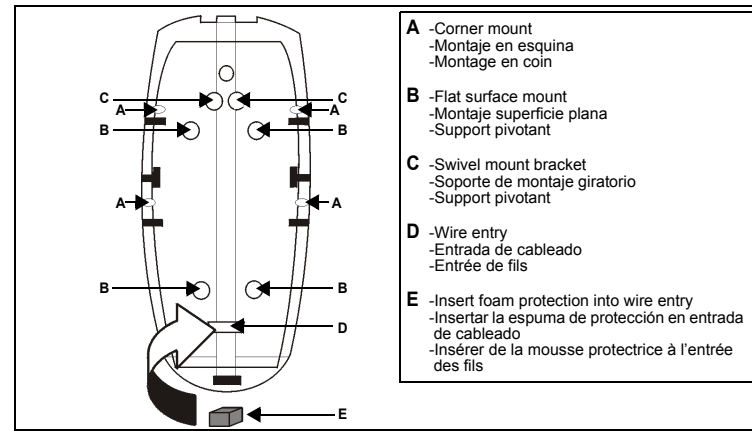
The detector's relay output always remains active even when set to combus mode and can be used to activate other devices.

In combus mode, the motion detector can be modified using the DIP switches and trimpot or by entering module programming mode.

In combus mode, the DGI85 will respect the most recent modification whether it is made through the DIP switches and trimpot or through section programming. As a result, current DIP switch and trimpot positions may not represent actual settings. All settings are stored in the DGI85 even after it has been powered down.

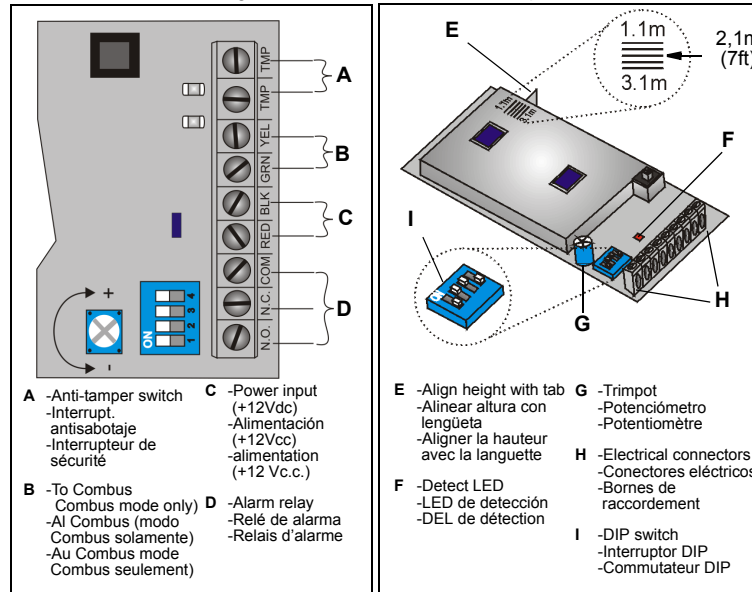
**Figure / Figura 1**

Installation / Instalación



**Figure / Figura 2**

PCB Connection and Setup / Conexión y Configuración de la PCI / Connexion et configuration de la carte de circuits imprimés



**Technical Specifications**

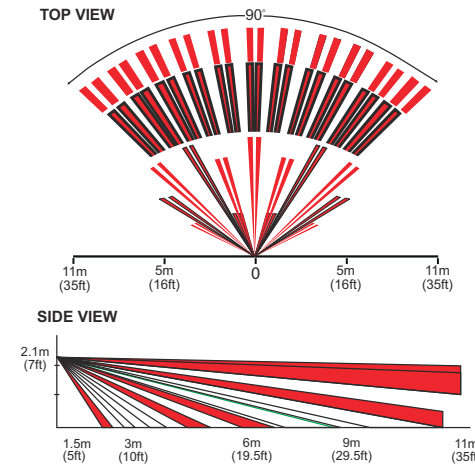
Protection Level: IP45  
Sensor type: Dual Element Infrared X 2  
RFI / EMI rejection: 10V/m  
Sensor geometry: Rectangular  
Voltage input: 9 to 16Vdc  
Current consumption: 35mA Maximum  
Anti-tamper switch: 150mA/28Vdc, N.C 2nd generation  
Lens: Fresnel lens, LODIFF®, segments  
Alarm output: Form A relay 100mA/28Vdc, N.C. or optional form C relay 200mA/28Vdc, N.C./N.O.  
Detection speed: 0.2m/s to 3.5m/s (0.6ft/s to 11.5ft/s) Ingress  
Operating temperature: -35°C to +50°C (-31°F to +122°F)  
Compatibility: Digiplex and Digiplex EVO series control panels, and Imperial V32 control panel  
Software: Babyware, Winload

	Angle	Coverage	Installation Height	Pet Immunity
DG85W	90°	11m x 11m (35ft x 35ft)	2.1m (7ft)	40kg (90lbs)
DG85L1 (Horizontal)	85°	11m x 11m (35ft x 35ft)	1.1m (3.6ft)	Multi/large pet
DG85L2 (Vertical)	5.64°	13m (43ft) x 2 beams	2.1m (7ft)	N/A

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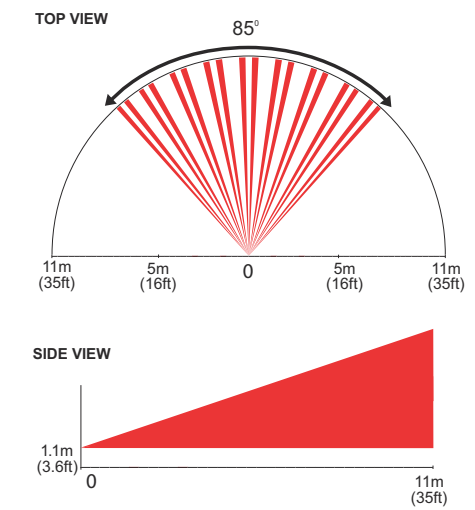
**Figure / Figura 3**

DG85W Pet Array Beam Pattern / Modelo Inmune a Mascotas Estandar DG85W / Diagramme de lentilles Couloir pour animaux DG85W



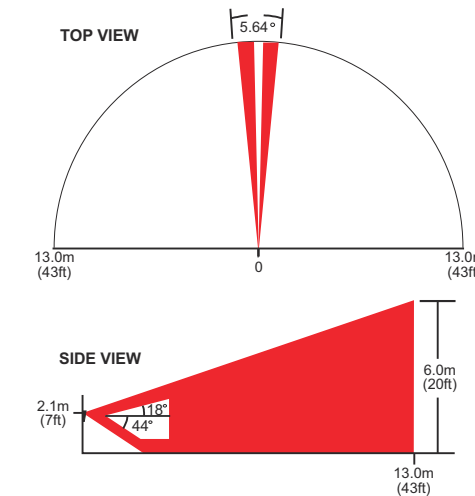
**Figure / Figura 4**

DG85L1 Horizontal Curtain Beam Pattern / Modelo Pasaje de Mascotas DG85L1 / Diagramme de lentilles Rideau horizontal DG85L1



**Figure / Figura 5**

DG85L2 Vertical Curtain Beam Pattern / Modelo Cortina Vertical DG85L2 / Diagramme de lentilles Rideau vertical DG85L2



**Detector Settings (Δ = default settings)**

Step	Section / DIP	Details
<b>1</b> Operational Mode	<b>DIP Switch 1</b>	DIP switch 1 ON =Combus mode (go to step 2) DIP switch 1 OFF =Relay mode Δ (go to step 3)
<b>2</b>		Enter detector programming mode (except Imperial V32) Press and hold [0] + [INSTALLER CODE] + [4003] (EVO) or [953] (DGP-848) + SN (located on PCB cover).
<b>3</b> Signal Processing Mode	[001] or <b>DIP Switch 2</b>	[1] OFF =Dual edge [1] ON =Single edge Δ DIP switch 2 OFF =Dual edge DIP switch 2 ON =Single edge Δ
<b>4</b> LED Settings	[001] or <b>DIP Switch 3</b>	LED flash = Movement without alarm (see step 5) LED on 5 sec. = Movement with alarm [2] OFF =LED disabled [2] ON =LED enabled Δ DIP switch 3 OFF =LED disabled DIP switch 3 ON =LED enabled Δ
<b>5</b> Movement Signal Indication	[001]	[3] OFF =Movement signal disabled [3] ON =Movement signal enabled Δ Note: In relay mode, this feature is enabled if DIP switch 3 = ON.
<b>6</b> Tamper Recognition	[001]	[5] OFF =Tamper recognition disabled Δ [5] ON =Tamper recognition enabled
<b>7</b> Sensitivity	[002] or <b>Trimpot</b>	The DGI85 features adjustable sensitivity. Adjust from 0 (lowest sensitivity) to 10 (highest sensitivity). Depending on the sensitivity setting, an alarm condition can be generated between 0.25 sec. (highest) and 2 sec. (lowest) after the actual movement. Viewing Sensitivity Settings Remove the cover to view how many times the LED flashes, then adjust the setting accordingly. The LED flashes a consecutive amount of times to show the setting. Thus if the sensitivity is set to 6, the LED flashes 6 times. 000 =Lowest sensitivity 010 =Highest sensitivity 008 =Δ Turn clockwise =Increase sensitivity Turn counterclockwise =Decrease sensitivity

**Utilities**

<b>Voltage Meter</b>	[900]	Used for trouble-shooting, the voltage meter. Indicates the unit's input voltage. Displays [3-digit number] which represents input voltage x 10 e.g. [133] = 13.3V
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**Walk-testing**

At 20°C (68°F), at the highest sensitivity setting and in Single Edge Processing mode, 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.

At the lowest sensitivity setting, 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). To walk-test, move across the detection path, not toward the detector.

