

DIGIGARD™ DG85 SERIES

Outdoor Digital Dual-Optic High-Performance PIR V1.3

Instructions
Instrucciones

P R D O X
SECURITY SYSTEMS
Printed in China - 9/2009 PARADOX.COM DG85-T107



English

Beam Patterns

The DG85 series features the following beam patterns:

Detector	Beam Pattern
DG85	Pet Array beam pattern (see figure 3)
DG85L1	Horizontal Curtain beam pattern (see figure 4)
DG85L2	Vertical Curtain beam pattern (see figure 5)

Installation

There are three different types of mounting methods that can be used for the DG85, they include corner-mount, flat surface mount, or swivel-mount using the SB85. When installing the DG85, avoid placing the detector within proximity of sources of interference such as direct sunlight, reflective surfaces and moving cars.

To Install the DG85:

- Select the detector's location.
- Remove the front cover screws holding the cover into place; open the cover.
- Loosen the screw holding the PCB into place and gently slide and lift from back cover.
- Drill or punch out the selected knockout holes from the DG85 back cover as shown in figure 1 and secure to surface using appropriate mounting screws.

The DG85 can also be mounted using the Paradox Heavy Duty Swivel Mount Bracket (SB85). 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 DG85 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 DG85 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 DG85 communicates alarm signals, tamper signals, data and detector settings via the panel's 4-wire combus.

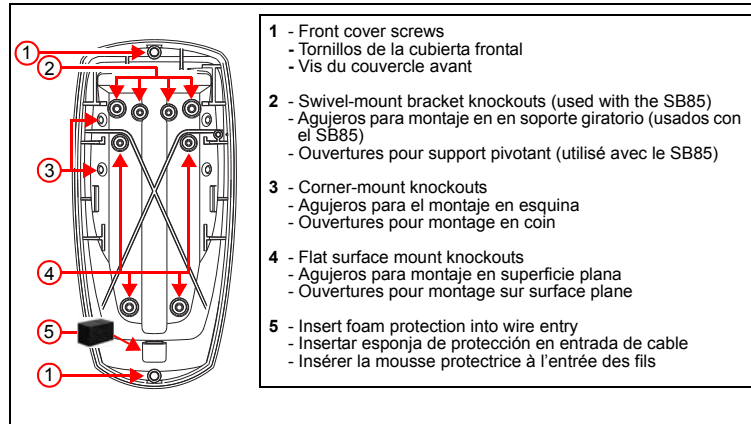
The detector's relay output always remains active even when set to combus mode and can be used to activate other devices.

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 DG85 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 DG85 even after it has been powered down.

Figure / Figura 1

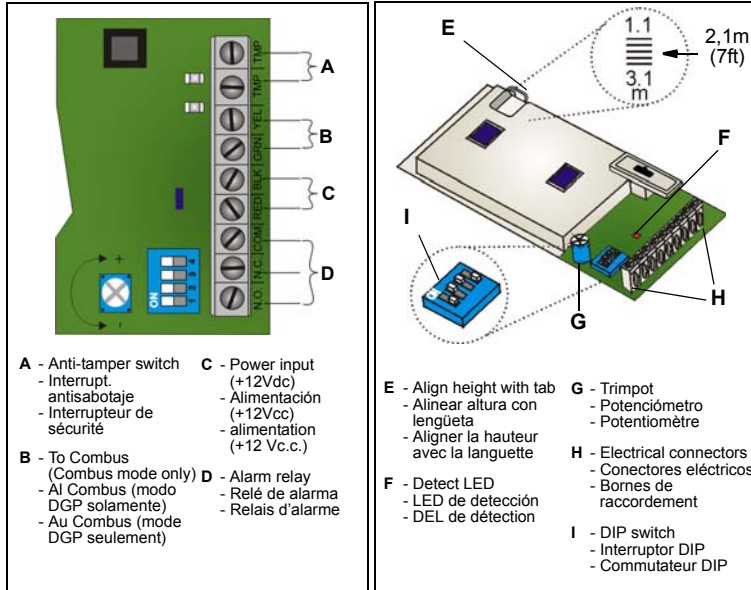
Installation / Instalación



- Front cover screws
- Tornillos de la cubierta frontal
- Vis du couvercle avant
- Swivel-mount bracket knockouts (used with the SB85)
- Agujeros para montaje en soporte giratorio (usados con el SB85)
- Ouvertures pour support pivotant (utilisé avec le SB85)
- Corner-mount knockouts
- Agujeros para el montaje en esquina
- Ouvertures pour montage en coin
- Flat surface mount knockouts
- Agujeros para montaje en superficie plana
- Ouvertures pour montage sur surface plane
- Insert foam protection into wire entry
- Insertar esponja de protección en entrada de cable
- Insérer la mousse protectrice à l'entrée des fils

Figure / Figura 2

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



- A** - Anti-tamper switch
- Interrupt. antisabotaje
- Interrupteur de sécurité
- B** - To Combus (Combus mode only)
- AI Combus (modo DGP solamente)
- Au Combus (mode DGP seulement)
- C** - Power input (+12Vdc)
- Alimentación (+12Vcc)
- alimentation (+12 V.c.c.)
- D** - Alarm relay
- Relé de alarma
- Relais d'alarme

- E** - Align height with tab
- Alinear altura con lengüeta
- Aligner la hauteur avec la languette
- F** - Detect LED
- LED de detección
- DEL de détection
- G** - Trimpot
- Potenciómetro
- Potentiomètre
- H** - Electrical connectors
- Conectores eléctricos
- Bornes de raccordement
- I** - DIP switch
- Interruptor DIP
- Commutateur DIP

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: 30mA Maximum
Anti-tamper switch: 150mA/28Vdc, N.C
Lens: 2nd generation Fresnel lens, LODIFF®, segments

Alarm output: Form A relay 100mA/28Vdc, N.C. or optional form C relay 5A/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)

	Angle	Coverage	Installation Height	Pet Immunity
DG85	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

Detector Settings

Step	Section/ DIP	Details
1	Operational Mode	DIP switch 1 ON =Combus mode (go to step 2)
		DIP switch 1 OFF =Relay mode Δ (go to step 3)
2		Enter detector programming mode. Press and hold [0] + [INSTALLER CODE] + [4003] (EVO) or [953] (DGP-848) + SN (located on PCB cover).
3	Signal Processing Mode	[001] OFF =Dual edge
		[1] ON =Single edge Δ
		DIP switch 2 OFF =Dual edge
		DIP switch 2 ON =Single edge Δ
4	LED Settings	[2] OFF =LED disabled
		[2] ON =LED enabled Δ
		DIP switch 3 OFF =LED disabled
		DIP switch 3 ON =LED enabled Δ
5	Movement Signal Indication	[3] OFF =Movement signal disabled
		[3] ON =Movement signal enabled Δ
		Note: In relay mode, this feature is enabled if DIP switch 3 = ON.
6	Tamper Recognition	[5] OFF =Tamper recognition disabled Δ
		[5] ON =Tamper recognition enabled
7	Sensitivity	000 =Lowest sensitivity
		010 =Highest sensitivity Δ
		Turn clockwise =Increase sensitivity
		Turn counterclockwise =Decrease sensitivity

Δ = default settings

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.

© 2009 Paradox Security Systems Ltd. All rights reserved. Specifications may change without prior notice. One or more of the following US patents may apply: 7046142, 6215399, 6111256, 6104319, 5920259, 5886632, 5721542, 5287111, 5119069, 5077549 and RE39406 and other pending patents may apply. Canadian and international patents may also apply. LODIFF® lens: patent #4,787,722 (U.S.). Digigard is a trademark or registered trademark of Paradox Security Systems Ltd. or its affiliates in Canada, the United States and/or other countries. LODIFF® is a registered trademark of Fresnel Technologies Inc. **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.

Figure / Figura 3

DG85 Pet Array Beam Pattern / Modelo Inmune a Mascotas Estandar DG85 / Diagramme de lentilles Couloir pour animaux DG85

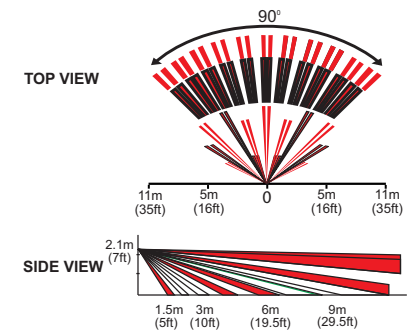


Figure / Figura 4

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

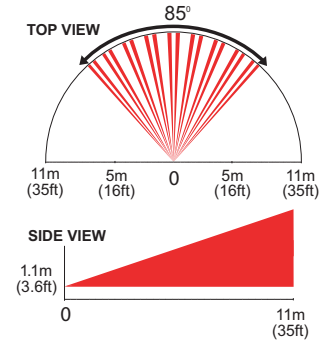
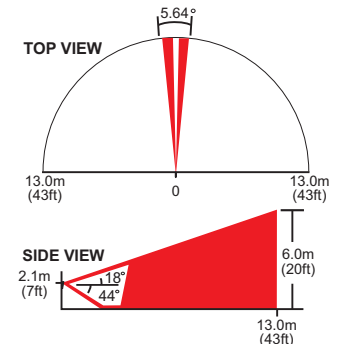


Figure / Figura 5

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



Changing the DG85 Lens

The DG85 is available with one of three optional lenses: pet array, horizontal curtain beam, or vertical curtain beam.

To Change the DG85 Lens:

- Remove the top and bottom screws from the DG85 front cover; remove the cover.
- From the inside cover, remove the top and bottom screws holding the bezel into place.
- Push and lift the locking tabs on both sides using a small screw driver. Gently lift the bezel out. Push the lens out and replace with new lens.

Align the tabs of the lens to the rubber gasket and secure into place. Ensure that there are no gaps between the lens and the rubber gasket that would allow water to leak into the DG85. Once the lens is replaced, reconnect the bezel and secure with screws.

Cambio del Lente del DG85

El DG85 está disponible con uno de los siguientes tres lentes opcionales: paso de mascotas estándar, cortina horizontal o cortina vertical.

Para cambiar el lente del DG85:

- Retirar los tornillos superior e inferior de la cubierta frontal del DG85, retirar la cubierta.
- En el interior de la cubierta, retirar los tornillos superior e inferior que sostienen el bisel en su lugar.
- Empujar y levantar las lengüetas de bloqueo en ambos lados usando un destornillador pequeño. Retirar delicadamente el bisel. Sacar el lente y reemplazarlo con uno nuevo.

Alinear las lengüetas del lente con la junta de caucho y fijarlo en su lugar. Asegurarse de no dejar espacios entre el lente y la junta de plástico que podrían permitir la infiltración de agua en el DG85. Una vez reemplazado el lente, reconectar el bisel y fijarlo con los tornillos.

Remplacer les lentilles du DG85

Le DG85 est offert avec un choix de trois lentilles optionnelles : couloir pour animaux, rideau de faisceaux horizontaux et rideau de faisceaux verticaux Pour remplacer la lentille du DG85

- Retirer la vis du haut et la vis du bas du couvercle du DG85; retirer le couvercle.
- À l'intérieur du couvercle, retirer les deux vis retenant le support en place.
- Pousser sur les languettes de verrouillage et les soulever à l'aide d'un petit tournevis. Retirer doucement le support. Retirer la lentille et la remplacer par la nouvelle.

Aaligner les languettes de la lentille avec le joint de caoutchouc et fixer le tout. S'assurer qu'il n'y ait aucun espace entre la lentille et le joint de caoutchouc afin d'éviter l'infiltration d'eau dans le DG85. Une fois la lentille remplacée, replacer le support intérieur et fixer à l'aide des vis.

