

INSTALLATION GUIDE OF DG-85 FOUR-ELEMENT INTELLIGENT PIR INTRUSION DETECTOR

1. Brief Introduction

DG-85 is a kind of PIR intrusion detector integrating the most advanced security technology. It adopts 2 dual PIR sensors with high accuracy, intelligent digital chip, advanced, <True Motion Recognition & Anti-pests> of two-way technology, which can help it to make an accurate judgment of true intruder or other interference that can cause wrong alarm. And it is with function of automatic memory of environmental change, which can avoid wrong alarm caused by hot & cold air, operation machine interference. It can prevent effectively the interference caused by a 25 kg past or 10 cats, insect, mouse, birds etc. Its super filter can be used indoor and outdoor. This has clear various interference that common PIR detector can't overcome; and put an end to wrong alarm and miss alarm. DG-85 has two different working modes: bus mode and relay mode, can be used for all kinds of control panels on the market.

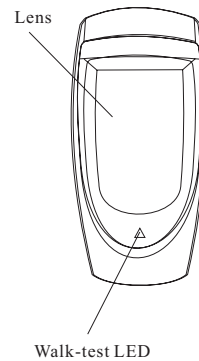


Figure 1. General View

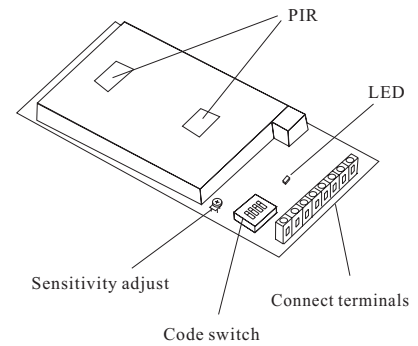


Figure 2. Inside View

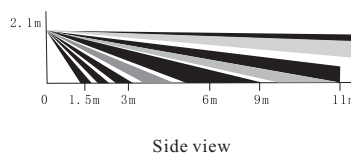
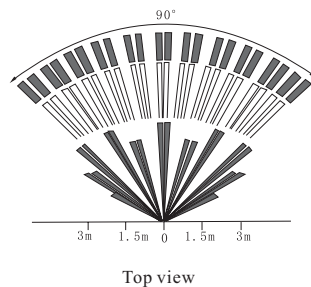
2. Specifications

Models: DG-85
DG-85DMF
DG-85DMT

Input Voltage: 9-16VDC
Current Drain: 30mA@ 12VDC
Detection Range: 11.6m*11.6m

Alarm output: NC.>100mA/28VDC
Anti white light resistance:
>20000LUX
Installation height: 2m-2.7m

Tamper switch: NC.100mA/28VDC
PIR Section: Lens Date
NO. of Curtain Beams: (11+11+9)*2=62
Tripping Indication:
Indicator lights for about 10-30 seconds



Anti -EMI/RFI: 10V/m (10MHz-1000MHz)

Motion test: 0.2m/s-3.5m/s(0.6ft-11ft)

Accessories:

BR-1: Surface mounted swivel bracket, adjustable 30° down and 45° left/right.

Environmental:

Operating Temp: -10° C to 50° C (14° F to 122° F)

Humidity: 5%-95% (RH)

Storage Temp: -20° C to 60° C (-4° F to 40° F)

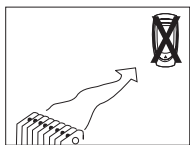
Physical

Size(H*W*D): 176*85*69mm

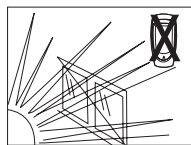
This device is coherent to Europe parliament direct 1999/5/EC necessary items and rules, and also coherent to the main spirits of radio and telecom terminal equipments on March 9th, 1999. The device also reaches the Canadian standard RSS-210. It can be used indoor and outdoor, which can reach its maximum protection and avoidance of above interference.

3. Installation

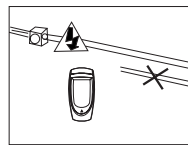
3.1 General Guidelines



No direct facing cold /hot source



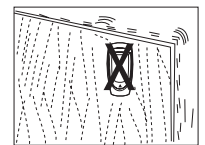
No direct sun shine



Keep away from high pressure power

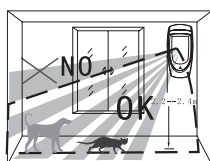


No facing metal wall

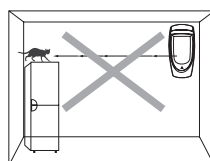


Installation base should be stable

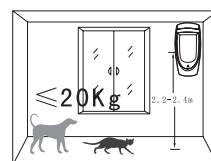
3.2 Anti-pests installation



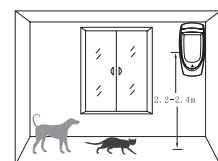
The upper part of the detection area is non anti-pests area



Never face the detector to the place that pests can climb up directly



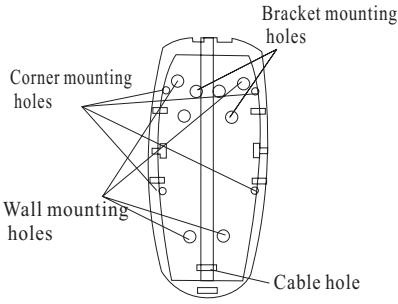
Anti-pests weight <20Kg



The installation height of the detector is 2.2-2.4 meters can Anti-pests

3.3 Illustrated Installation Procedure

1、Open holes on base:



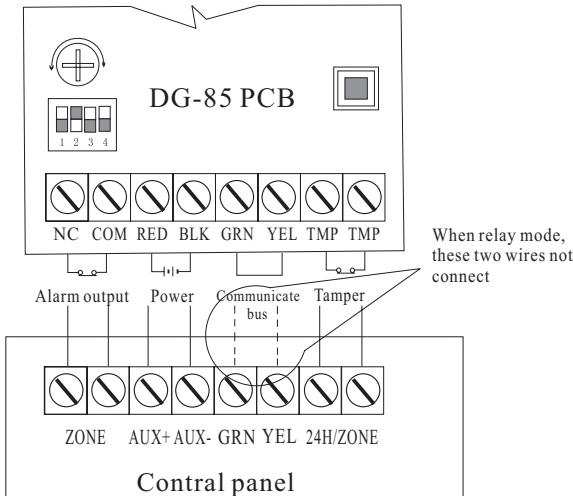
A.Mask the drilling porints and drill in the the wall.

B.Route the cables into the base via the rear channel.

C.Insert two nails and arrach the base to the wall with two screws.

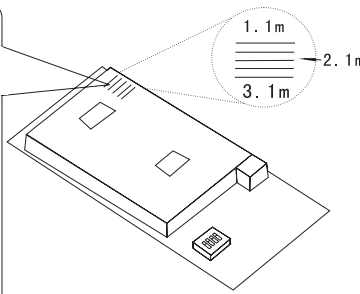
D.Insert the bottom edge of the large PCB under this tab&press the top edge in.

2. Wire up the terminal block



6. PCB height setting

The best operation height of DG-85 is 2.1 meter, a little higher or lower is also permitted. Confirm the adjustable height mark on the right upside on cover tally with the installation height. If another installation height is needed, re-adjust the PCB in accordance with your needs. Motion test is necessarily required in the protection area in order to confirm that areas need protection are within the protective area.



3、function of coding switch:

DG-85 has two different working modes: bus mode and relay mode, the mode choosing can be conducted by DIP switch.

Relay mode (the switch 1 of DIP=OFF)
When setting to the relay mode, DG-85 transmits alarm and temper signal by relay as standard sensors, same as the figure, can be powered by contacted the power of panel and the "RED", "BLK" of the sensor, "GRN", "YEL" unused, on relay mode, the setting only can be amended by DIP switch and trim potentiometer.

Bus mode (the switch 1 of DIP=ON)
When setting to bus mode, DG-85 transmits alarm, tamper signals and data by bus, and setting the sensor as well. On bus mode, DG-85 can be directly connected with control panel. Same as the figure, can be powered by contacted the power of panel and the "RED", "BLK" of the sensor, "GRN", "YEL" connected with the correspondence terminals. On bus mode, the setting can be amended by DIP switch and trim potentiometer, also can be by system keypad (should be compatible with system) get into programming mode.

Single or dual edge processing
This setting directs the DSP (digital signal process) working mode. Single side mode is used in the normal situation few of interference. Both sides process (out/in analysis) mode can effectively reduce fault alarm. So, we recommend use this working mode when the sensor is installed near interference resource.

LED setting
LED light 5 seconds when detected the energy of the moving signal can result in alarm enough, when the energy of the signal is not enough, LED blinks.

4、Setting of coding switch:

Function		Bus mode	Relay mode
Work mode	Relay	Unused	DIP switch 1=OFF
	Bus	Unused	DIP switch 1=ON
Digital signal process	Single side	(001)→(1)=OFF	DIP switch 2=OFF
	Both sides	(001)→(1)=ON	DIP switch 2=ON
LED	Invalid	(001)→(2)=OFF	DIP switch 3=OFF
	Valid	(001)→(2)=ON	DIP switch 3=ON
Moving signal instruct	Invalid	(001)→(3)=OFF	Unused
	Valid	(001)→(3)=ON	Unused
Tamper confirm	Invalid	(001)→(5)=OFF	Unused
	Valid	(001)→(5)=ON	Unused
Sensitivity		(002)→001=010	Trim potentiometer 0→40

5、Sensitivity adjustment:

The trim potentiometer will turn bigger when turned clockwise, reverse result when turned counter-clockwise (0.25s-2s)

4.Special comments

Even the most sophisticated detectors can sometimes be defeated or may fail to warn due to: DC power failure/improper connection, malicious masking of the lens, tampering with the optical system, decreased sensitivity in ambient temperatures near that of the human body and unexpected failure of a component part. The above list includes the most common reasons for failure. It is recommended that the detector and the entire alarm system be checked weekly, to ensure proper performance. An alarm system should not be regarded as a substitute for insurance. Home & property owners or renters should be prudent enough to continue insuring their lives & property, even though they are protected by an alarm system.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.

WARNING! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.