PIR Motion Detector with Pet Immunity up to 25kg

Installation Instructions

The PIR Motion detector uses a special designed optical Lens with unique Quad (Four element) PIR Sensor and new ASIC based electronics optimized to eliminate false alarms, caused by small animals and Pets. The PIR Motion provides unprecedented levels of immunity against visible light. The Detector offers an exceptional level of detection capability and stability for every security installation. The PIR Motion is supplied with Wide Angle lens.

The PIR Motion provides Pet immunity up to 25Kg (55 lbs). For better immunity avoid installation in areas where pets can reach upwards.

TYPICAL INSTALLATION

Select mounting location

Choose a location most likely to intercept an intruder. See detection pattern(Fig.5). The Quad high quality sensor detects motion crossing the beam; it is less sensitive detecting motion towards the detector. The PIR Motion performs best when provided with a constant and stable environment.

Avoid the following locations

* Facing direct sunlight. * Facing areas subject to rapid temperature changes. * Areas with air ducts or substantial air flows.

MOUNTING THE DETECTOR

1. To remove the front cover (Fig.4), unscrew the holding screw (Fig.4-11) and gently raise the front cover.
2. To remove the PC board, carefully unscrew the holding screw (Fig.4-9) located on the PC board (Fig.4-10).
3. Break out the desired holes (Fig.2-B or C) for proper installation (flat or corner).
4. The circular and rectangular indentations at the bottom base are the knockout holes (Fig.2-D) for wire entry. You may also use mounting holes that are not in use for running the wiring into the detector.(For option with bracket (Fig.1 & 3)(Fig.4-7), lead wire through the bracket)
5. Mount the detector base to the wall, corner or ceiling. (For options with bracket install bracket).
6. Reinstall the PC board by fully tightening the holding screw. Connect wire to terminal block.
7. Replace the cover by inserting it back in the appropriate closing pins and screw in the holding screw.

DETECTOR INSTALLATION

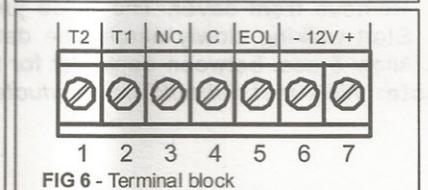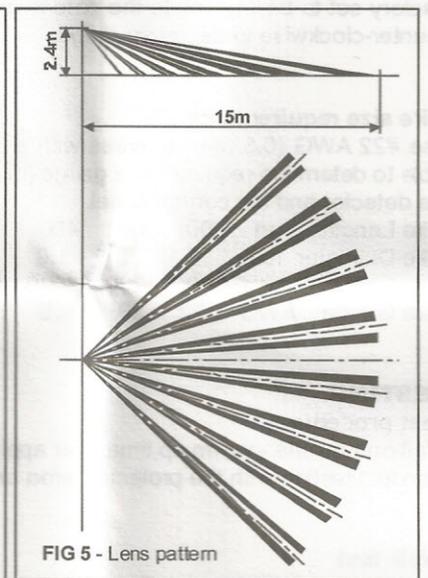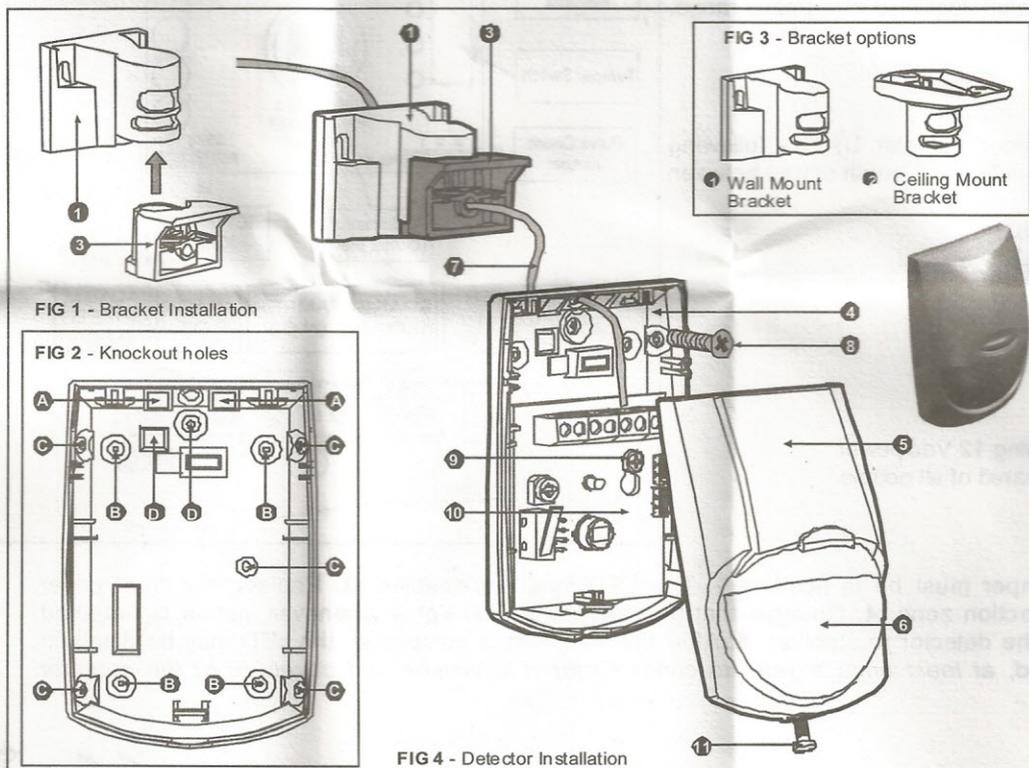### Terminal block connections (Fig.6)

Terminals 1 & 2 - Marked T2 and T1 (TAMPER) If a Tamper function is required connect these terminals to a 24-hour normally closed protective zone in the control unit. If the front cover of the detector is opened, an immediate alarm signal will be sent to the control unit.

Terminals 3 & 4 - Marked NC and C (RELAY) These are the output relay contacts of the detector. Connect to a normally closed zone in the control panel.

Terminal 5 - Marked ◻EOL◻ End of line option.

Terminal 6 - Marked ◻-◻ (GND) Connect to the negative Voltage output or ground of the control panel.

Terminal 7 - Marked ◻+◻ (+12V) Connect to a positive Voltage output of 8.2 -16Vdc source (usually from the alarm control unit).

FIG 1 - Bracket Installation

FIG 2 - Knockout holes

FIG 3 - Bracket options

Wall Mount Bracket

Ceiling Mount Bracket

FIG 4 - Detector Installation

FIG 5 - Lens pattern

T2	T1	NC	C	EOL	- 12V +
1	2	3	4	5	6	7

FIG 6 - Terminal block

SETTING - UP THE DETECTOR

PULSE WIDTH JUMPER SETTING

Very stable environment
Position 1
Without PET
PULSE

Moderate nuisance situation
Position 2
PET up to 15Kg (33.1 lb)
PULSE

Relatively high change of false alarms
Position 3
PET up to 25Kg (55 lb)
PULSE
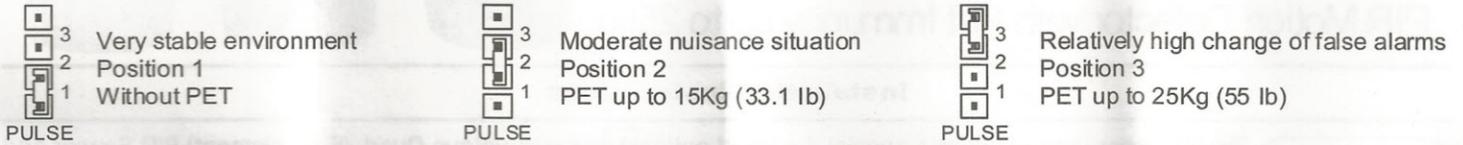
LED ENABLE JUMPER SETTING

LED ON   LED OFF

PET IMMUNITY JUMPER SETTING

PET 25Kg 15Kg Immunity to an animal up to 15Kg (33.1 lb)

PET 25Kg 15Kg Immunity to an animal up to 25Kg (55 lb)

TECHNICAL SPECIFICATION

Model	Pet Immunity PIR Detector
Detection Method	Quad (Four element) PIR
Power Input	8.2 to 16 VDC
Current Draw	Standby: 8mA (± 5%) Active: 10mA (± 5%)
Temp. Compensation	YES
Alarm Period	2 sec (± 0.5sec)
Alarm Output	N.C 28VDC 0.1 A with 27Ohm series protection resistor
Tamper Switch	N.C 28VDC 0.1A with 10 Ohm series protection resistor - open when cover is removed
Warm Up Period	60sec (± 5sec)
LED Indicator	LED is ON during alarm
RFI Protection	30V/m 10 - 1000MHz
EMI Protection	50,000V of electrical interference from lightning or power through
Dimensions	92mm x 62.5mm x 40mm(3.62 x 2.46 x 1.57)
Weight	40gr (1.4oz)

PIR sensitivity adjustment
POTENTIOMETER "SENS" adjustment according to protected area range.
Use the potentiometer to adjust the detection range between 68% and 100% (factory set to 84%). Rotate the potentiometer clockwise to increase range, counter-clockwise to decrease range.

Wire size requirements
Use #22 AWG (0.5 mm) or wires with a larger diameter. Use the following table to determine required wire gauge (diameter) and length of wire between the detector and the control panel.

Wire Length	m	200	300	400	800
Wire Diameter	mm	.5	.75	1.0	1.5
Wire Length	ft.	800	1200	2000	3400
Wire Gauge	AWG	22	20	18	16

TESTING
Test procedures
Wait one minute - warm up time after applying 12 Vdc power.
Conduct testing with the protected area cleared of all people.

Walk test
1. Remove front cover. The pulse jumper must be in position 1. The LED must be enabled. 2. Replace the front cover.
3. Start walking slowly across the detection zone. 4. Observe that the detector's LED lights whenever motion is detected.
5. Allow 5 sec. between each test for the detector to stabilize. 6. After the walk test is completed, the LED may be disabled.
Note: *Walk tests should be conducted, at least once a year, to confirm proper operation and coverage of the detector.*

PCB LAYOUT

BLOCK CONNECTOR
LED JAMPER
TAMPER
PULSE WIDTH TAMPER
SENSITIVITY ADJUSTMENT
PET IMMUNITY ADJUSTMENT
PYROSENSOR
Digital Security Control Ltd
LC-LOOPI

Cover
LED Indicator
Lens

Terminals
LED ON/OFF Jumper
Holding Screw
LED Alarm Indicator
Tamper Switch
Sensitivity Potentiometer
Pulse Count Jumper
Sensor (Do not touch)
PET Immune Jumper

POWER INPUT 8.2~16V DC
SPARE (E.O.L.)
TAMPER (N.C.)
SPARE (E.O.L.)
ALARM OUTPUT (N.C.)

CE