SWAN PIR

PIR MOTION DETECTOR With PET IMMUNITY up to 25 kg

PRODUCT FEATURES

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

- Quad (four element) Imaging Technology for sharp analysis of body dimensions and differentiation from background and animals.
- Immunity to animals up to 25kg (55 lbs).
- 18m Detection Range with Wide Angle Lens.
- Temperature compensation.
- Compact Design for Residential Installation.
- Variable pulse width adjustment.
- Sensitivity adjustment.
- Environmental immunity.
- Height installation calibration free (1.8m – 2.4m).
- LED Remote function.

SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See detection pattern fig.3. The quad-element high quality sensor detects motion crossing the beam; it is slightly less sensitive detecting motion toward the detector. The SWAN PIR performs best when provided with a constant and stable environment and background.
AVOID THE FOLLOWING LOCATIONS

- Facing direct sunlight.
- Facing areas that may change temperature rapidly.
- Areas where there are air ducts or substantial airflows.

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	#	22	20	18	16

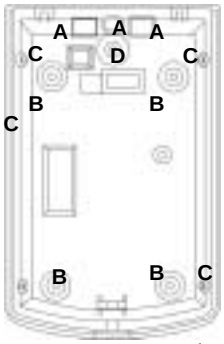
DETECTOR INSTALLATION

The detector can either be wall or corner mounted. If ceiling or special wall mounting is required, use the optional bracket base. Refer to bracket description. (See fig. 6)

1. To remove the front cover, unscrew the holding screw and gently raise the front cover.

Fig.1 Holding screw

2. To remove the PC board, carefully unscrew the holding screw located on the PC board.
3. Break out the desired holes for proper installation.

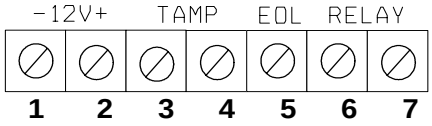


A. Wire access holes
B. Use for flat wall mounting
C. Corner mounting - use all 4 holes. Sharp left or right angle mounting - use 2 holes (top and bottom)
D. For bracket mounting

Fig.2

4. The circular and rectangular indentations at the bottom base are the knockout holes 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 - lead wire through the bracket)
5. Mount the detector base to the wall, corner or ceiling. (For option with bracket see fig.6).
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 CONNECTION



Terminal 1 - Marked " - " (GND)
Connect to the negative Voltage or ground of the control panel.

Terminal 2 - Marked " + " (+12V)
Connect to a positive Voltage of 8.2 -16Vdc source (usually from the alarm control unit)

Terminals 3 & 4 - Marked " TAMP "
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 5 - Marked " EOL " – End of line option.

Terminals 6 & 7 - Marked " RELAY "
These are the output relay contacts of the detector. Connect to a normally closed zone in the control panel.

TESTING THE DETECTOR

TEST PROCEDURES

WAIT FOR TWO MINUTES OF 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 and PULSE jumpers may be changed.

NOTE:
Walk tests should be conducted, at least once a year, to confirm proper operation and coverage of the detector.

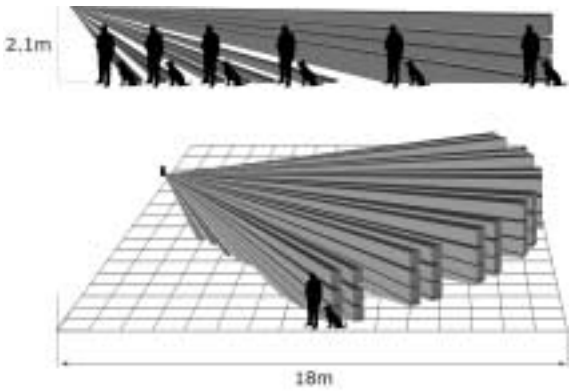


Fig.3

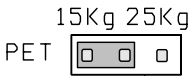
Fig.4

SWAN PIR

PIR MOTION DETECTOR With PET IMMUNITY up to 25 kg

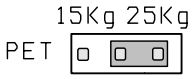
SETTING UP THE DETECTOR

PET IMMUNITYJUMPER SETTING

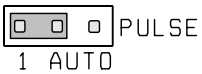


Immunity to an animal up to 15 kg

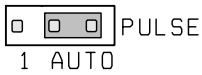
Immunity to an animal up to 25 kg



PULSE WIDTH JUMPER SETTING

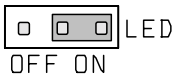


Stable environment without PET

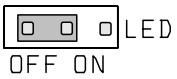


Automatic selection of the appropriate pulse count level (2 or 3) according to the strength of the incoming signal for harsh environment and PET up to 25 kg.

LED ENABLE JUMPER SETTING



LED ON



LED OFF

PIR SENSITIVITY ADJUSTMENT

According to protected area range.
The sensitivity potentiometer should be adjusted according to the security risk level at the installation site.
For high risk locations, the sensitivity should be adjusted close to MIN (9%). In low risk situations, the sensitivity should be adjusted closer to MAX (100%), factory set to 54%.

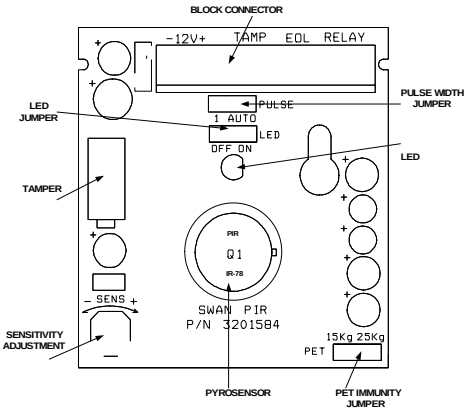
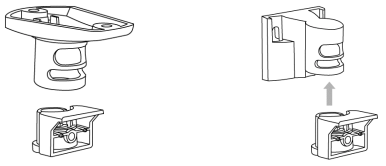


Fig.5

BRACKET INSTALLATION OPTION

Ceiling bracket base

Wall bracket base



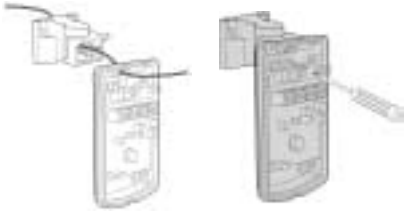


Fig. 6

TECHNICAL SPECIFICATION

MODEL	*SWAN PIR*
Detection Method	*Quad (Four element) PIR*
Power Input	*8.2 to 16 VDC*
Current Draw	*Standby: 14mA (± 5%)* *Active with LED: 8mA (± 5%)* *Active w/o LED: 5mA (± 5%)*
Temperature Compensation	*YES*
Pulse Width	*Adjustable*
Alarm Period	*2 sec (± 0.5sec)*
Alarm Output	*N.C 28VDC 0.1 A with 10Ohm series protection resistor*
Tamper Switch	*N.C 28VDC 0.1A with 10 Ohm series protection resistor - open when cover is removed*
Warm Up Period	*120sec (± 5sec)*
LED Indicator	*LED is ON during alarm*
Operating Temperature	*-20℃ to +60℃*
RFI Protection	*30V/m 10 - 1000MHz*
EMI Protection	*50,000V of electrical interference from lightning or power through*
Dimensions	*92mm x 59mm x 37mm*
Weight	*40gr*

N345

CROW ELECTRONIC ENGINEERING LTD. ("Crow") - WARRANTY POLICY CERTIFICATE

This Warranty Certificate is given in favor of the purchaser (hereunder the "**Purchaser**") purchasing the products directly from Crow or from its authorized distributor.

Crow warrants these products to be free from defects in materials and workmanship under normal use and service for a period of 1 year from the last day of the week and year whose numbers are printed on the printed circuit board inside these products (hereunder the "**Warranty Period**").
Subject to the provisions of this Warranty Certificate, during the Warranty Period, Crow undertakes, at its sole discretion and subject to Crow's procedures, as such procedures are form time to time, to repair or replace, free of charge for materials and/or labor, products proved to be defective in materials or workmanship under normal use and service. Repaired products shall be warranted for the remainder of the original Warranty Period.

All transportation costs and in-transit risk of loss or damage related, directly or indirectly, to products returned to Crow for repair or replacement shall be borne solely by the Purchaser.

Crow's warranty under this Warranty Certificate does not cover products that is defective (or shall become defective) due to: (a) alteration of the products (or any part thereof) by anyone other than Crow; (b) accident, abuse, negligence, or improper maintenance; (c) failure caused by a product which Crow did not provide; (d) failure caused by software or hardware which Crow did not provide; (e) use or storage other than in accordance with Crow's specified operating and storage instructions.

There are no warranties, expressed or implied, of merchantability or fitness of the products for a particular purpose or otherwise, which extend beyond the description on the face hereof.
This limited Warranty Certificate is the Purchaser's sole and exclusive remedy against Crow and Crow's sole and exclusive liability toward the Purchaser in connection with the products, including without limitation - for defects or malfunctions of the products. This Warranty Certificate replaces all other warranties and liabilities, whether oral, written, (non-mandatory) statutory, contractual, in tort or otherwise.
In no case shall Crow be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Crow or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Crow does not represent that these products can not be compromised or circumvented; that these products will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise; or that these products will in all cases provide adequate warning or protection.
Purchaser understands that a properly installed and maintained product may in some cases reduce the risk of burglary, fire, robbery or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss or damage as a result.
Consequently, Crow shall have no liability for any personal injury; property damage or any other loss based on claim that these products failed to give any warning.
If Crow is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Crow.

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These instructions supersede all previous issues in circulation prior to October 2004.