



1

**CROW SCIENTIFIC RESEARCH™**

# ***SRP-PET 2***

**PASSIVE INFRARED  
INTRUSION DETECTOR  
WITH PET UP TO 45LBS IMMUNITY**

**ELECTRONIC ENGINEERING LTD.**


**INSTALLATION INSTRUCTIONS  
P/N 7101022**

2

## **SRP-PET 2 FEATURES**

- \* Immunity to animals up to 45 lbs.
- \* Dual element Pyrosensor.
- \* Hard type full pattern spherical lens.
- \* Variable pulse width adjustment.
- \* Sensitivity adjustment.
- \* Automatic temperature compensation.
- \* Low current compensation.
- \* Height installation (calibration free) from 6ft to 8ft.
- \* Environmental immunity.
- \* High - tech design.
- \* Fully insulated sensor chamber.
- \* Totally sealed sensor chamber.

3



The SRP – PET 2 provide immunity to 45lbs pet active below 3 ft. For better immunity, avoid installation in area reached by pet.

4

## **SELECTING MOUNTING LOCATION**


Choose a location most likely to intercept an intruder. See detection patterns in figure 5. The dual-element high quality sensor detects motion across the beam. It is slightly less sensitive when detecting motion toward the detector.

The SRP-PET 2 performs best when provided with a constant and stable environment.

5

## **AVOID THE FOLLOWING LOCATIONS**

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



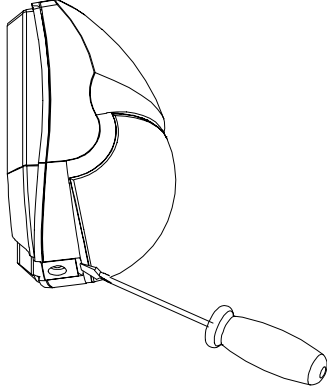
## **MOUNTING THE DETECTOR**

For PET immunity mount flat on the wall or in the corner.

It is recommended to mount the detector between 7ft and 8ft for optimal coverage, and pet immunity.

6

## **FIG. 1 - REMOVAL OF FRONT COVER**



7

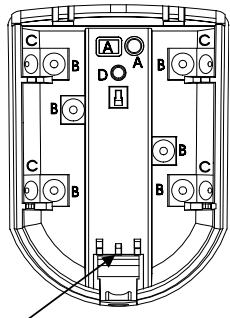
1. To remove the front cover, insert a flat screwdriver in the slot between the front and the bottom, above the holding screw hole and push gently, until the front cover is disengaged and the opening click is heard (Fig 1.).
2. To remove the PC board, carefully loosen the holding screw located on the PC board.
3. Break out the desired holes for proper wiring as per fig 2.
4. Insert the wire through the wire access hole, and mount the detector base to the wall, corner or ceiling with the necessary number of screws and the suitable bracket.

8

5. Reinstall the PC board, set it as low as possible - till stopper (see fig.2). Tight the holding screw.
6. Access for wiring located on the PCB. See fig 3.
7. Replace the cover by inserting it back in the appropriate closing pin until the closing click is heard.

9

## **FIG. 2 - KNOCKOUT HOLES**

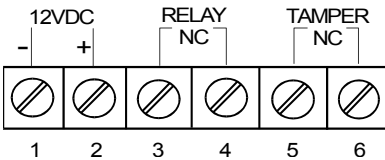


- A. Wires access hole (2).
- B. Flat wall mounting holes (2 or 4).
- C. Corner mounting holes (2 or 4).
- D. Bracket mounting hole (1).

Stopper pins for PCB

10

## **FIG. 3 - TERMINAL BLOCK**



12VDC - + RELAY [NC] TAMPER [NC]

1 2 3 4 5 6

## **NOTES for UL referring countries**

1. Connect the SRP-PET 2 to a " U.L. " listed burglar alarm Power Supply or control panel capable of providing standby power for at least four (4) hours.
2. Refer to national electric code, NFPA-70 for wiring methods.
3. The SRP-PET 2 production batch can be identified by the 4 digits printed on the terminal strip side of the PC board.

11

## **TERMINAL BLOCK CONNECTIONS**

Run the cable through the cable entry hole and connect the wires in accordance with the following instructions:

**Terminal 1 - Marked - ( - 12V )**  
Connect to the negative Voltage output or ground of the control panel.

**Terminal 2 - Marked + ( + 12V )**  
Connect to a positive Voltage output of 7.8-16 Vdc source (usually from the alarm control unit)

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

**Terminals 5 & 6 - Marked TAMPER**  
If a Tamper function is required connect these terminals to a 24hour 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.

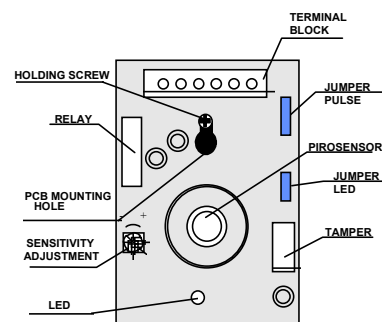
12

## **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

FIG. 4 - PCB LAYOUT



16

### LENSES-INTERCHANGEABLE HARD TYPE SPHERICAL LENSES PATTERN

COVERAGE WIDE ANGLE  
105°  
18m x 10m

TOTAL  
DETECTION  
ZONES 52

19

### CHANGING THE LENS

1. Remove the front cover by inserting a flat screw driver in the appropriate slot.
2. Using a small flat screwdriver, press on left or right side of the installed lens which will then pop out from its side right and left holding pins.
3. Select the desired lens and hold it while making sure its upper holding pin is pointed upwards.
4. Snap the lens to its place by pressing again from outside of the front cover until a click is heard, confirming the new lens is tightly inserted. See fig 6.
5. Replace front cover.

22

### TECHNICAL SPECIFICATIONS

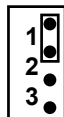
MODEL SRP-PET2  
Detection Method Dual element PIR  
Power Input 7.8 to 16 VDC  
Current Draw Standby: 14mA  
Active with LED: 8mA  
Active w/o LED: 5mA

Temperature Compensation YES  
Pulse Width Adjustable  
Alarm Period 2 +/-1 sec.  
Alarm Output N.C 28VDC 0.1 A with 10 Ohm series protection resistor  
Tamper Switch N.C 28VDC 0.1 A with 10 Ohm series protection resistor - open when cover is removed

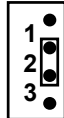
Warm Up Period 60 sec.  
LED Indicator LED is ON during alarm  
Operating Temperature -20°C to +60°C (-4°F to +140°F)  
RFI Protection 30V/m 10 - 1000MHz  
EMI Protection 50,000V of electrical interference from lightning or power through  
Dimensions 95mm x 70mm x 58mm (3.8"x2.8"x2.3")  
Weight 85 gr (3 oz.)

**Crow reserves the rights to change specifications without prior notice**

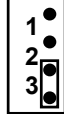
### PULSE WIDTH JUMPER SETTINGS



Jumper on No. 1  
This setting is for a stable environment without air drafts.



Jumper on No. 2  
This setting is for operation within a normal environment.



Jumper on No. 3  
This setting is for operation within a harsh environment.

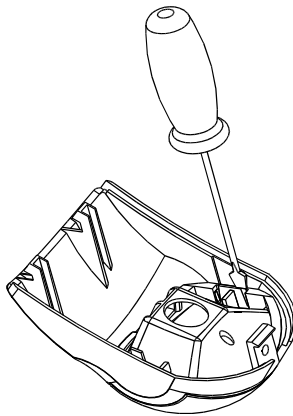
17

### NOTE:

DETECTION RANGES ARE SPECIFIED AT 20° C (68° F) AMBIENT TEMPERATURE.

20

### FIG. 6 REPLACING THE LENS



23

### CROW LIMITED WARRANTY

(Crow) warrants this product to be free from defects in materials and workmanship under normal use and service for a period of one year from the last day of the week and year whose numbers are printed on the printed circuit board inside this product.

Crow's obligation is limited to repairing or replacing this product, at its option, free of charge for materials or labor, if it is proved to be defective in materials or workmanship under normal use and service. Crow shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Crow.

There are no warranties, expressed or implied, of merchantability or fitness for a particular purpose or otherwise, which extend beyond the description on the face hereof. In no case shall Crow be liable to anyone for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever, even if the loss or damage is caused by Crow's own negligence or fault.

Crow does not represent that this product can not be compromised or circumvented; that this product will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise; or that this product will in all cases provide adequate warning or protection. Purchaser understands that a properly installed and maintained product can only reduce the risk of burglary, 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 this product failed to give any warning. However, if Crow is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of this product, which shall be the complete and exclusive remedy against Crow.



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### LED ENABLE JUMPER SETTING

Connect a jumper between the marked terminals to enable or disable the LED (ON or OFF).



Led ON



Led OFF

### SENSITIVITY ADJUSTMENT

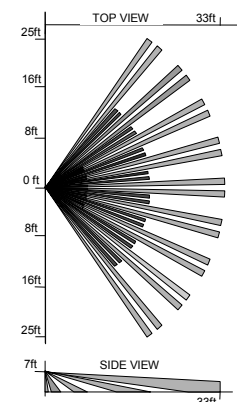
The sensitivity potentiometer should be adjusted according to the security risk level at the installation site.

For high-risk locations, the sensitivity should be adjusted close to MIN. In low risk situations, the sensitivity should be adjusted closer to MAX factory set to MIDDLE.

Always walk test and re-adjust if required.

18

FIG. 5 - WIDE ANGLE LENS PATTERN.



21

### TEST PROCEDURES.

WAIT ONEMINUTE 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 3. 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. After the walk test is completed, the led may be disabled.
6. Allow 5 sec. between each test for the detector to stabilize.

#### NOTE:

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

24

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These instructions supersede all previous issues in circulation prior to Feb. 1999.