

# NEO PIR-CRT

DIGITAL QUAD PIR CURTAIN  
DETECTOR WITH MIRROR OPTICS



## INSTALLATION INSTRUCTIONS

P/N 7107860 REV. B (DZ)

## INTRODUCTION

The Neo PIR-CRT detector is a small and elegant motion curtain detector based on mirror optics.

This detector is the ideal barrier solution to protect doors and windows of your commercial and/or residential facilities.

The Neo PIR-CRT offers an advanced selectable detection range of 4-6m or 6-8m.

The Neo PIR-CRT has been specially designed in two separate pieces with easy-open enclosure, easy access to the wiring terminal block.

The Neo PIR-CRT is for indoor use only and require professional installation.

## FEATURES

- Digital Quad Curtain detection
- High precision mirror optics
- Selectable detection range (4-6m or 6-8m)
- Slim and Elegant design
- Height installation calibrations free
- Easy access to terminal block
- Tamper Open/Close transmission
- Bi-Color LED indications
- Temperature compensation
- Integrated dipperswitches to control:
  - Leds indication
  - Pulse count
  - Motion Detection range

FIG 1 – COVER OPENING

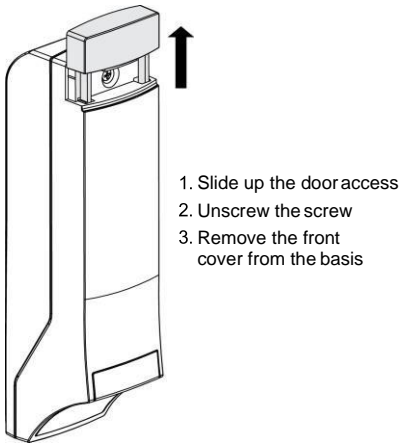


FIG 2 – DETECTOR BACK VIEW

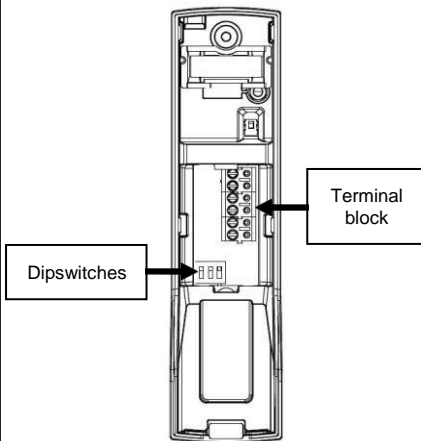


FIG 3 – DETECTOR WALL BASIS

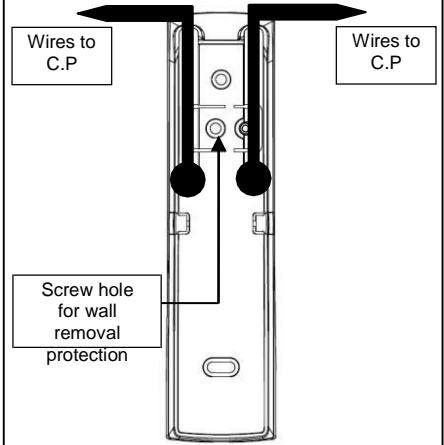
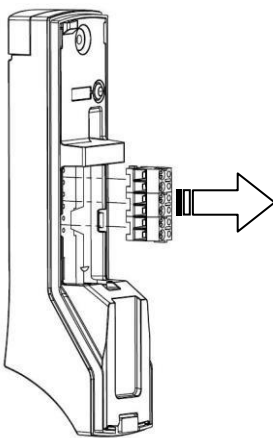
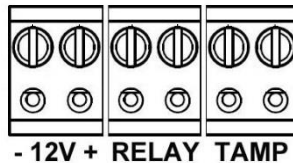


FIG 4 – REMOVE TERMINAL BLOCK



## TERMINAL BLOCK

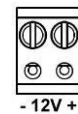


### WIRE SIZE REQUIREMENTS

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

| Wire Length   | m   | 200 | 300  | 400  | 800  |
|---------------|-----|-----|------|------|------|
| Wire Diameter | mm  | 0.5 | 0.75 | 1.0  | 1.5  |
| Wire Length   | ft. | 800 | 1200 | 2000 | 3400 |
| Wire Gauge    | #   | 22  | 20   | 18   | 16   |

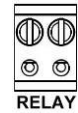
## DETECTOR CONNECTION



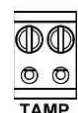
**Terminal 1 Marked " - " (GND)**  
Connect to the negative supply voltage output



**Terminal 2 Marked " + " (+12V)**  
Connect to a positive supply voltage output of 9V -16Vdc source



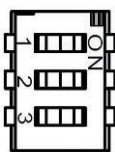
**Terminal 3 & 4 Marked "RELAY"**  
These are the output relay contacts of the detector. Connect to a normally closed or normally opened zone in the control panel



**Terminal 5 & 6 Marked "TAMP"**  
Connect these terminals to a 24-hour normally closed zone. If the front cover of the detector is opened, an immediate alarm signal will be sent to the control unit

## SETTING UP THE DETECTOR

DIP SWITCHES



**SWITCH 1 – LED SETTINGS** (this setting does not affect the detector operation)  
Use for setting LED Enable / Disable

Position Up (ON) – LED Enable (activated by motion detection)  
Position Down (OFF) – LED Disable

**SWITCH 2 – PIR PULSE COUNT ADJUSTMENT**

Use for setting the count function to provide PIR sensitivity control according to the environment.

Position Up (ON) – High Sensitivity for stable environment  
Position Down (OFF) – Low Sensitivity for harsh environment

**SWITCH 3 – GAIN FOR MOTION DETECTION RANGE**

Use to select the range of detection.

Position Up (ON) – Low Gain – Detection range up to 6 meters (4-6m)  
Position Down (OFF) – High Gain – Detection range up to 8 meters (6-8m)

## SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. (See Fig 11 - Detection Pattern).

Recommended mounting height – 1.6m-2.3m.

Avoid the following locations:

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

This device detects or performs better when provided with a constant and stable environment.

## MOUNTING THE DETECTOR

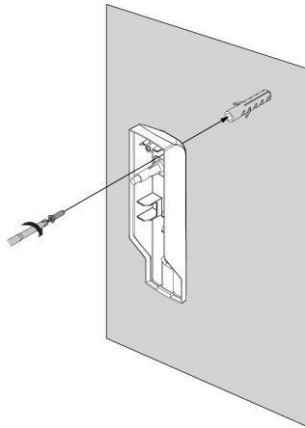
**There are 2 options for mounting this detector:**

- Option 1:** Using a 90° bracket.  
**Option 2:** Direct on wall using screws.

- In all installation options the device shall be opened by opening the screw cover as shown in Figure 1, unscrew the holding screw and separate the device from the bracket by tilting the front cover.
- Mount the Bracket to the wall using 1 out of the 2 options as showed in Figures 6 to 10.
- Make sure the device is wired to the C.P.
- Place the device in the bracket by inserting it back into its appropriate position as shown in Figure 10.

Fasten the holding screw and close the screw cover.

## FIG 8 – OPTION 2 (ON WALL) – STEP A



## TESTING THE DETECTOR

- Wait 1 minute warm up time after applying 12V DC power.
- Conduct testing with the protected area cleared of all people.
- Start walking slowly across the detection zone.
- Observe that the detector's LED lights whenever motion is detected.
- Allow 5 sec. between each test for the detector to stabilize.
- After the walk test is completed, the LED may be disabled.

### NOTE:

Walk tests should be conducted at least once a year to ensure proper operation and optimal coverage.

## 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 24 months 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 from 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.

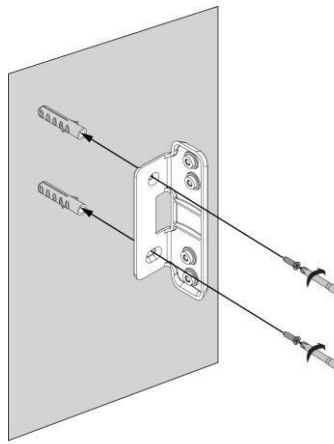
In no case shall Crow be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Crow or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. 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.

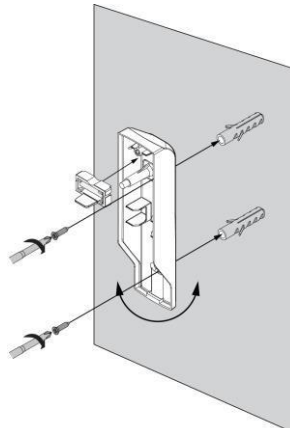
Consequently, Crow shall have no liability for any personal injury; property damage or any other loss based on claim that these products failed to give any warning.

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.

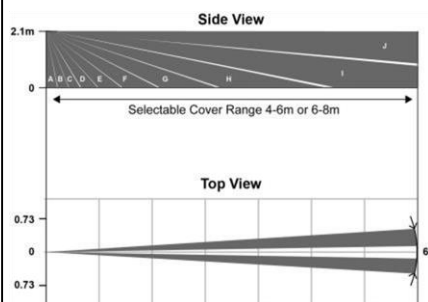
## FIG 6 – Option 1 (Bracket) – Step A



## FIG 9 – OPTION 2 (ON WALL) – STEP B



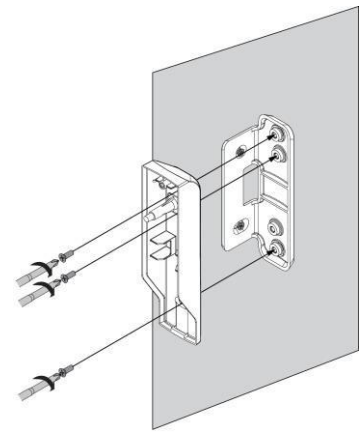
## FIGURE 11 - DETECTION PATTERN



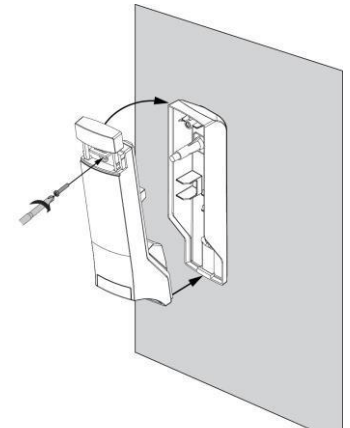
Security Grade2, Environmental Class II



## FIG 7 – Option 1 (Bracket) – Step B



## FIG 10 – ALL OPTIONS – FINAL STEP



## TECHNICAL SPECIFICATIONS

|                    |   |
|--------------------|---|
| Model              | NEO PIR-CRT   |
| Detection Method   | Quad Element with Mirror Optics   |
| Power Input        | 9V to 16V DC  |
| Current Draw       | Standby ~2 mA<br>Active with LED: 3.5mA<br>Active without LED: 0.5mA                |
| Tamper Switch      | Front Cover Removal   |
| Alarm Period       | 2 sec (±0.5sec)   |
| Alarm Output       | N.C 28Vdc 0.1 A with 10Ohm series protection Resistors                              |
| Tamper Switch      | N.C 28Vdc 0.1A with 10 Ohm series protection resistor<br>Open when cover is removed |
| Warm Up Period     | 1 min   |
| LED Indicator      | Red LED is ON during Alarm  |
| Operating Temp.    | -10°C to +55°C  |
| Temp. Compensation | Yes   |
| Dimensions         | 120.4mm x 30.7mm x 36.7mm   |
| Weight             | 80 gr.  |



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These instructions supersede all previous issues in circulation prior to February 2018