

# SRX-360

## 360° CEILING MOUNT PIR AND MW DETECTOR



N345



**INSTALLATION INSTRUCTIONS**  
P/N 7101317 REV. C A.Y.

## SRX-360 FEATURES

- PIR and MW sensor with 360° coverage pattern.
- Up to 3.6m mounting height.
- 360°/20m diameter coverage when mounted at 3.6m.
- Fully sealed sensor chamber.
- VLSI Technology (Very Large Scale Integration).
- Omni directional 4 Element Pyro Sensor.
- Microwave detection based on Doppler concept.
- Unique Microwave Motion Sensor Module with microstrip patch antenna.
- AND & OR alarm signal selection.
- 2-way Microwave sensitivity adjustment.
- 2-way PIR sensitivity adjustment.
- Sophisticated signal processing.
- Hard Spherical Lens 360° coverage.
- Bidirectional temperature compensation.
- Fluorescent light stability.
- Maximum RFI & EMI Immunity.

The SRX-360 is a combination of 4-element passive infrared intrusion detector for use in ceiling mount applications & MW detector, providing protection from intruders by PYRO sensor element and MW (based on Doppler concept).

Using micro controller for PIR & MW signal analyzing, with special ASIC technology for PIR pulse processing, assure "false alarm free" operation.

### HARD SPHERICAL LENS

The SRX-360 is equipped with a special hard lens. This lens is the latest development in the security field and complies with all the new standards requirements. It gives wide coverage patterns, even at low mounting heights. It is especially immune to sunlight, halogen lights and fluorescent lights and is impervious to attack.

### 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.

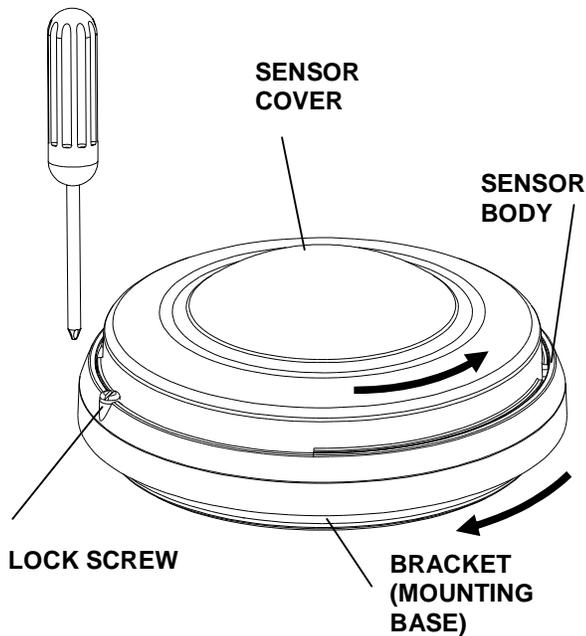
Wire Length	m	200	300	400	800
Wire Diameter	mm	.5	.75	1.0	1.5
Wire Length	ft.	800	1200	2000	3400
Wire Gauge	#	22	20	18	16

## MOUNTING THE DETECTOR

Choose location most likely to intercept an intruder. Refer to the following recommendations for best installation location.

- Temperature changes  
Do not install the detector outdoor or in a place exposed to sudden temperature changes or near equipment such as air conditions, ventilation, fans, heaters etc.
- Bright light  
Avoid bright light, direct or reflected sunlight, automobile headlights or other light sources.
- Moving or vibrating objects.  
As the curtains, blinds and other waving items may activate the detector avoid moving and vibrating objects.
- Clean atmosphere  
The atmosphere should be clean and clear of contaminants. When water, water vapor, oil or etc make contact with the detector – it may cause malfunction.
- Curtains, Glass and Screens  
Infrared energy can not pass through opaque objects or transparent and semi transparent objects such as glass, paper, curtains and etc, that is why the opposite sides of curtains, glass, screens are blind spots.
- Detection zones  
To choose location carefully, please, refer to pattern of the detection zones provided with the unit.

## REMOVE COVER and BRACKET



## INSTALLATION

1. **Remove Cover**  
Remove cover from detector body by loosening the lock-screw about 5mm and turning the cover counterclockwise.
2. **Remove Body from Bracket.**  
The body is removed from base by turning it counterclockwise.
3. **Mount Bracket to ceiling**  
Place the bracket at the ceiling.  
Mark and drill 4 holes for bracket installation at the ceiling.  
Insert the cables through the appropriate grooves in the silicon gasket.  
Mount the bracket to ceiling.
4. **Wiring and Connecting**  
Connect the wires to terminals in accordance with the instructions in page 7 and 8.
5. **Attach Detector Body**  
Place detector body with the sign arrow against the dot market on the bracket.  
Turn clockwise until the sign arrow on body placed in front of the sign arrow on bracket.
6. **Attach Cover**  
Place the four tabs of the cover in to the matching notches in the base and turn the cover clockwise until it is fit tightly.  
Tighten the external lock screw.

## WIRING AND CONNECTING

Connect wires to terminals in accordance with the following instructions:

### Terminal marked " - " ( GND )

Connect to ground of the control panel.

### Terminal marked " + " ( + 12V )

Connect to a positive Voltage output of 8.2-16 Vdc source (usually from the alarm control unit).

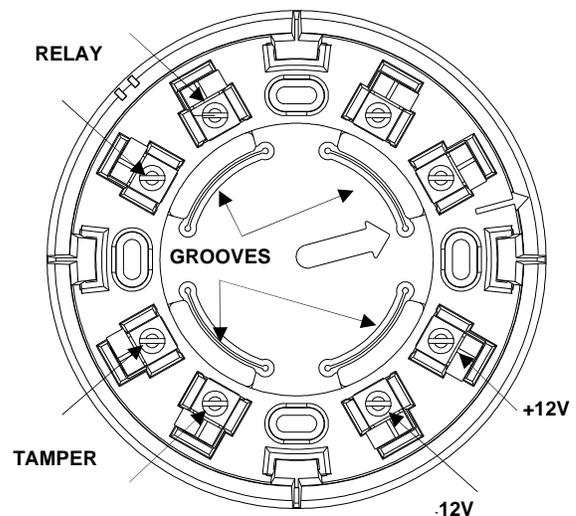
### Terminals marked " TAMPER "

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.

### Terminals marked " RELAY "

These are the output relay contacts of the detector. Connect to a normally closed zone in the control panel.

## BRACKET WITH SILICON GASKET AND WIRES TERMINALS.



**MW SENSITIVITY ADJUSTMENT**

**JUMPER "JP6"** - provides sensitivity control of MW (DOPPLER) according to the environment.

**Position Left - "H" - High sensitivity**  
For normal operation - immediately detection.

**Position Right - "L" - Low sensitivity**  
For harsh environments.

**POTENTIOMETER "RV2"** - adjustment according to protected area range.

**PIR SENSITIVITY ADJUSTMENT**

**JUMPER "JP2"** - provides sensitivity control of PIR according to the environment.

**Position Right - "1" - High sensitivity**  
For stable environments.

**Position Left - "2" - Low sensitivity**  
For harsh environments.

**POTENTIOMETER "RV1"** - adjustment according to protected area range.

Rotate the potentiometer clockwise to increase range, counter-clockwise to decrease range.

**ALARM MODE SETTING - JUMPER "JP5" AND - OR**

**Position Right "OR"**

The alarm signal (relays activation) occurred when one of the sensor's signals - PIR **OR** MW - is present.

The effective detection range is the range of the PIR pattern **OR** MW pattern correspondently.

**Position Left "AND"** - The alarm signal occurred only when both sensors (PIR **AND** MW) are present at the same time.

The effective detection range is the range of which the PIR patterns **AND** MW lobe are intersected.

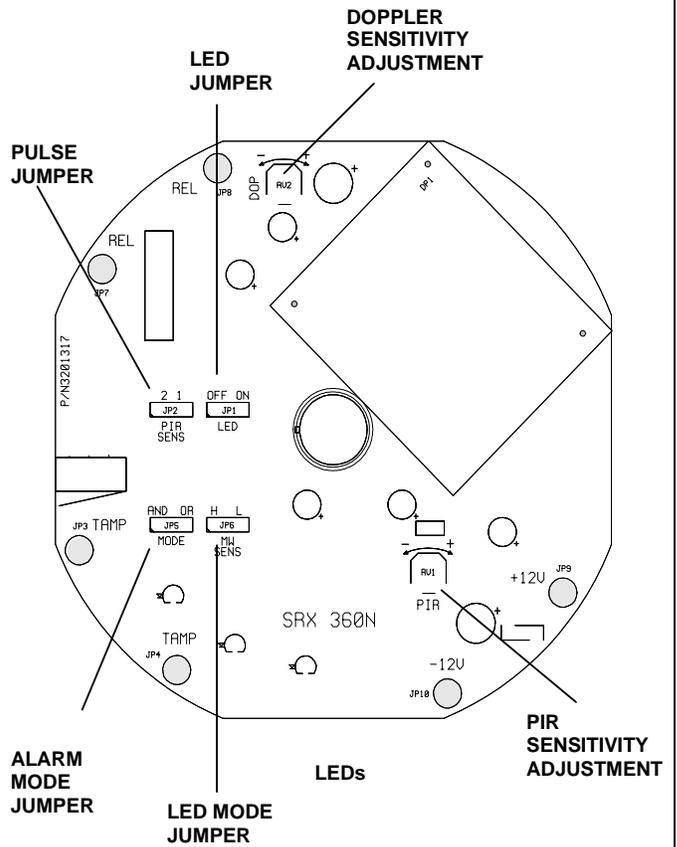
**LED ENABLE/DISABLE SETTING - JUMPER "JP1"**

**Position On (right) - LED ENABLE**

The RED LED will activate when the SRX-360 is in alarm condition.

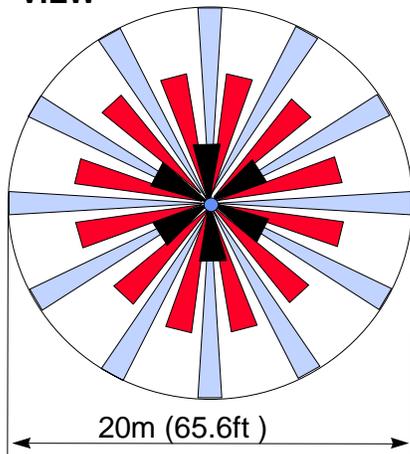
**Position Off (left) - LED DISABLE**  
The LEDS are disabled.

**COMPONENT PLACEMENT**

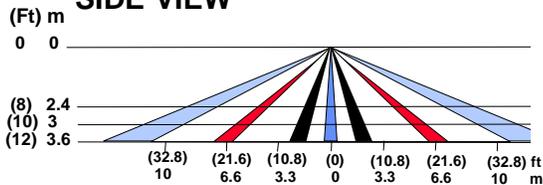


**LENS PATTERN**

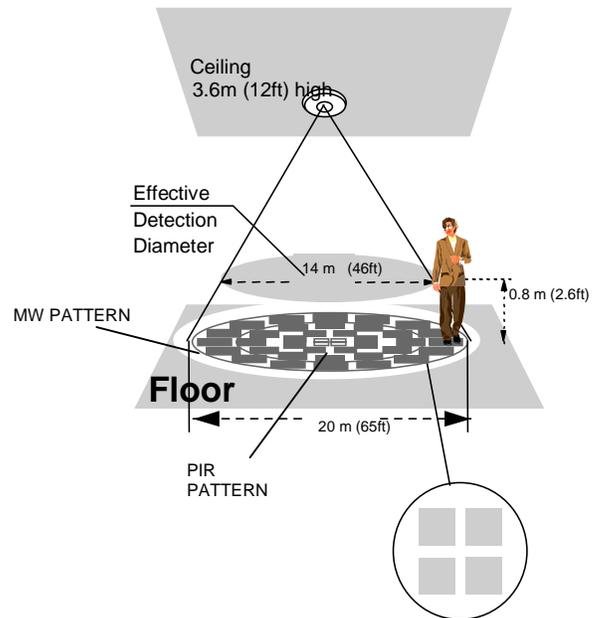
**TOP VIEW**

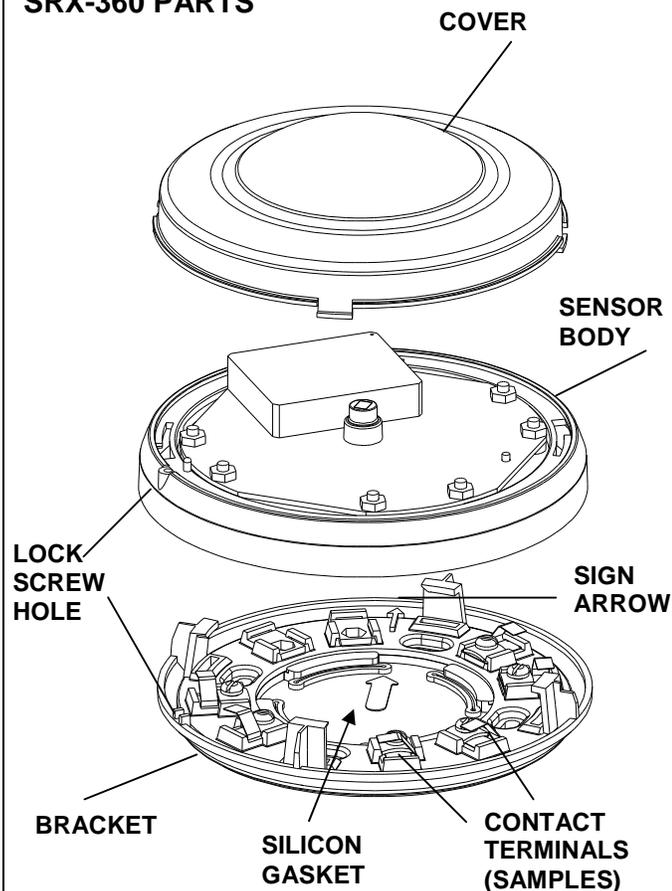


**SIDE VIEW**



**DETECTION PATTERN**



**SRX-360 PARTS****TECHNICAL SPECIFICATIONS**

Model	SRX-360
Detection Method	Four element PIR & microwave pulse Doppler
Power Input	8.2 to 16 Vdc
Current Draw	Active : 25.5 mA Standby: 16.5 mA
Temperature Compensation	YES
Alarm Period	2 +/- 1 sec
Alarm Output	N.C 28Vdc 0.1 A with 10 Ohm series protection resistors
Tamper Switch	N.C 28Vdc 0.1A with 10 Ohm series protection resistor - open when cover is removed
Warm Up Period	1 min
LED Indicator	Yellow LED is blinking during warm up period and self testing, Red LED is ON during alarm Red LED: UNIT ALARM Green LED: PIR CHANNEL Yellow LED: MW CHANNEL
Operating Temperature	-20°C to +50°C (-4°F to +122°F)
RFI Protection	30V/m 10 - 1000MHz
EMI Protection	50,000V of electrical interference from lightning or power through
Visible Light Protection	stable against halogen light 2.4 m (8ft) or reflected light
Dimensions	131mm x 57mm ( 5.2" x 2.25")
Weight	185gr ( 6.52 oz )

Crow reserves the rights to change specifications without prior notice

**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.

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**These instructions supersede all previous issues in circulation prior to April 2005.**