

SRDT-15

PROFESSIONAL
PASSIVE INFRARED &
MICROWAVE DETECTOR



CROW
ELECTRONIC ENGINEERING LTD.

INSTALLATION INSTRUCTIONS

P/N: 7121287 REV.C A.Y.

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AVOID THE FOLLOWING LOCATIONS

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

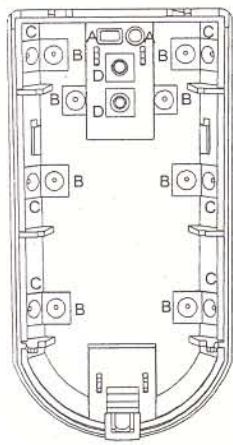
WIRE SIZE REQUIREMENTS

Use the following table to determine required wire gauge and length.

Wire Diameter	mm	.5	.75	1.0	1.5
Wire Gauge:	#	22	20	18	16
Wire Length:	m	205	310	510	870
	Ft.	800	1200	2000	3400

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FIG. 2 - KNOCKOUT HOLES



- A. Wire access holes
- B. Use for flat wall mounting
- C. Corner mounting - use all 6 holes. Sharp left or right angle mounting - use 3 holes (top, middle and bottom)
- D. For bracket mounting

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MW SENSITIVITY ADJUSTMENT

JUMPER "JP1" - provides sensitivity control of MW (DOPPLER) according to the environment.
Position Up - "H" - High sensitivity
For normal operation - immediately detection.
Position Down - "L" - Low sensitivity
For harsh environments.

POTENTIOMETER "RV1" - adjustment according to protected area range.
The potentiometer at mid-scale is equivalent to a distance of 15m, at min-scale - 7m and max-scale - is used with LR lens only.

Dimension change according to installation location and room size

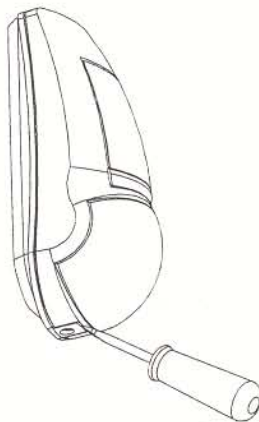
SRDT-15 FEATURES

A new generation of professional movement spread spectrum analyzing PIR & MW detectors.

- Dual element PYRO sensor and hard lens for outstanding detection performance and elimination of false alarms.
- Microwave detection based on Doppler concept.
- Unique Microwave Motion Sensor Module with microstrip patch antenna.
- VLSI based electronics with movement speed spectrum analysis.
- AND & OR alarm signal selection.
- Height installation calibrations free.
- User-friendly installation with or w/o swivel bracket.
- 2-way Microwave sensitivity adjustment.
- 2-way PIR sensitivity adjustment.
- BI directional temperature compensation.
- Environmental immunity.

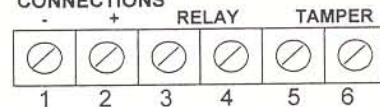
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FIG. 1 - REMOVAL OF FRONT COVER



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FIG. 3 - TERMINAL BLOCK CONNECTIONS



Terminal 1 - Marked "-" (GND)
Connect to ground of the control unit.
Terminal 2 - Marked "+" (+12V)
Connect to a positive Voltage output of 8.2 -16Vdc source (usually from the alarm control unit)
Terminals 3 & 4 - Marked "RELAY"
These are the output relays contacts of the detector. Connect to a normally closed zone in the control unit.
Terminals 5 & 6 - Marked "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.

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PIR SENSITIVITY ADJUSTMENT

JUMPER "JP4" - provides sensitivity control of PIR according to the environment.
Position Up - "H" - High sensitivity
For stable environments.
Position Down - "L" - Low sensitivity
For harsh environments.

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

After adjusting the sensitivity perform a walk test to verify optimum correct sensitivity in the protected area.

The SRDT-15 is a combination of PIR & MW detectors, 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.

MOUNTING THE DETECTOR

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See detection pattern in Fig.: 5, 6. The dual-element high quality sensor detects motion crossing the beam; it is slightly less sensitive detecting motion toward the detector. The SRDT-15 performs best when provided with a constant and stable environment.

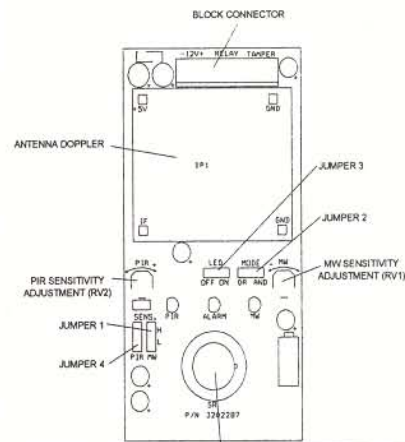
NOTE: recommended installation height is 2.1m (option: 1.5m to 3.0m).

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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. Remove the printed circuit board by spread out the two tabs, which are located on the either side of the lower half of the board.
3. Break out the desired holes for proper wiring.
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.
5. Reinstall the PC board by place it on the lower stoppers and push the PCB toward the bottom cover.
6. Access for wiring connections is easy via the terminal block located on the PCB. (Fig. 3)
7. Replace the cover by inserting it back in the appropriate closing pin until the closing click is heard.

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FIG. 4 - PCB LAYOUT



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ALARM MODE SETTING

JUMPER "JP2" OR - AND Position Left "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 Right "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.

You must reset the detector from Control Panel before the new settings will take effect.

