

Detection Method	Dual PIR AND MW
Microwave Frequency	24.125 GHz
Power Input	9.6 to 16Vdc
Current Draw	Active: 24mA ($\pm 5\%$) Standby: 21mA ($\pm 5\%$)
Temp Compensation	Yes, Dual slope temperature compensation
Alarm Period	2 sec (± 0.5 sec)
Alarm Outputs	Form C (NC, NO, Common) 28Vdc 0.1 A with 10 Ohm series protection resistor
Tamper Switch(s)	Two Switches N.C 28Vdc 0.1 A with 10 Ohm Series protection resistors Opens when cover is removed from unit's base or if base is removed from wall
Warm up Period	120sec (± 5 sec)
LED Indicator	LED is ON during ALARM (configurable)
RF Immunity	10 V/m plus 80% AM from 80 MHz to 2GHz
ElectroStatic Immunity	6kV contact, 8kV air
Transient Immunity	1kV
Operation Temp	-35°C ~ +55°C (-31°F ~ +131°F)
Dimensions	200mm x 86mm x 80mm (7.8" x 3.4" x 3.2")
Weight	500gr. (1.1 lb)
European directives	RTTE directive: 1999/5/EC EMC directive: 2004/108/EC Low Voltage directive: 2006/95/EC RoHS directive: 2002/95/EC
European standards requirements:	EN300 440-2; EN301 489-1; EN50130-4 +A1 +A2; EN61000-6-3+A11 EN60950-1 EN50131-1 / EN50131-2-4 / EN50130-5
USA & Canada	47CFR part 15, subpart C, section 15.245; 47CFR part 15, subpart B RSS210; ICES-003
Protection Degree	IEC 60529: IP 65

- Specifications are subject to change without prior notice.

FCC COMPLIANCE STATEMENT

FCC ID: F5309LC171

CAUTION: Changes or modifications not expressly approved by Digital Security Controls could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

INDUSTRY CANADA COMPLIANCE STATEMENT

IC:160A-LC171

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

This Class B digital apparatus complies with Canadian ICES-003
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

RTTE Compliance Statement:

DSC erklærer herved at denne komponent overholder alle vigtige krav samt andre bestemmelser givet i direktiv 1999/5/EC.

Por este meio, a DSC, declara que este equipamento está em conformidade com os requisitos essenciais e outras determinações relevantes da Directiva 1999/5/EC.

"DSC bekräftar härmed att denna apparat uppfyller de väsentliga kraven och andra relevanta bestämmelser i Direktivet 1999/5/EC".

Con la presente la Digital Security Controls dichiara che questo prodotto è conforme ai requisiti essenziali ed altre disposizioni rilevanti relative alla Direttiva 1999/5/CE.

Por la presente, DSC declara que este equipo está en conformidad con los requisitos esenciales y otros requisitos relevantes de la Directiva 1999/5/EC.

Hierdurch erklärt DSC, daß dieses Gerät den erforderlichen Bedingungen und Voraussetzungen der Richtlinie 1999/5/EC entspricht.

"Δία του παρόντος, η DSC, δηλώνει ότι αυτή η συσκευή είναι σύμφωνη με τις ουσιαστικές απαιτήσεις και με άλλες σχετικές προνομιές της Οδηγίας 1999/5/ΕΚ".

Hierbij verklaart DSC dat dit toestel in overeenstemming is met de eisen en bepalingen van richtlijn 1999/5/EC.

Par la présente, DSC déclare que cet article est conforme aux exigences essentielles et autres dispositions stipulées de la directive 1999/5/EC.

DSC vakuuttaa laitteen täyttävän direktiivin 1999/5/EC olennaiset vaatimukset.

Herby, DSC, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The complete R & TTE Declaration of Conformity can be found at www.dsc.com/intl/rttedirect.htm.

CLASS 2



24.125 GHz

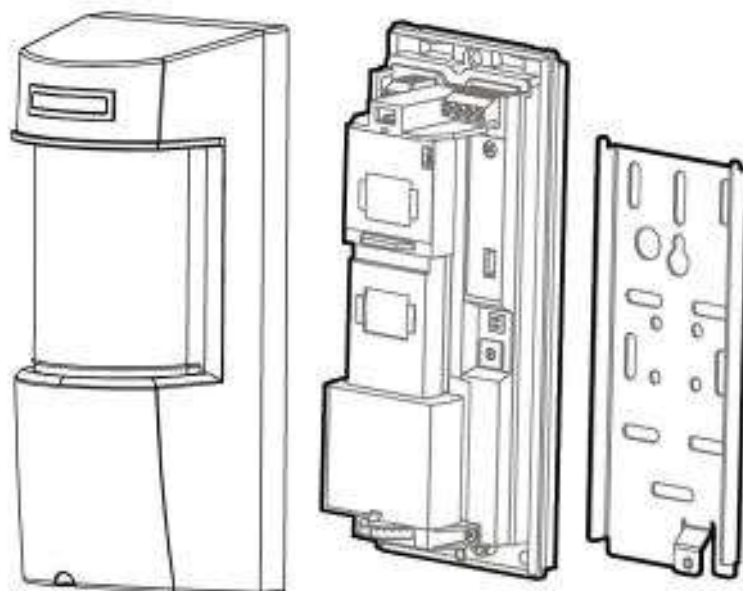
No restrictions in all European countries



3 **Assembly description**

The LC-171 is a robust detector which includes a large LED indicator that can be easily observed from long distances and an optional buzzer to provide indication of intrusion.

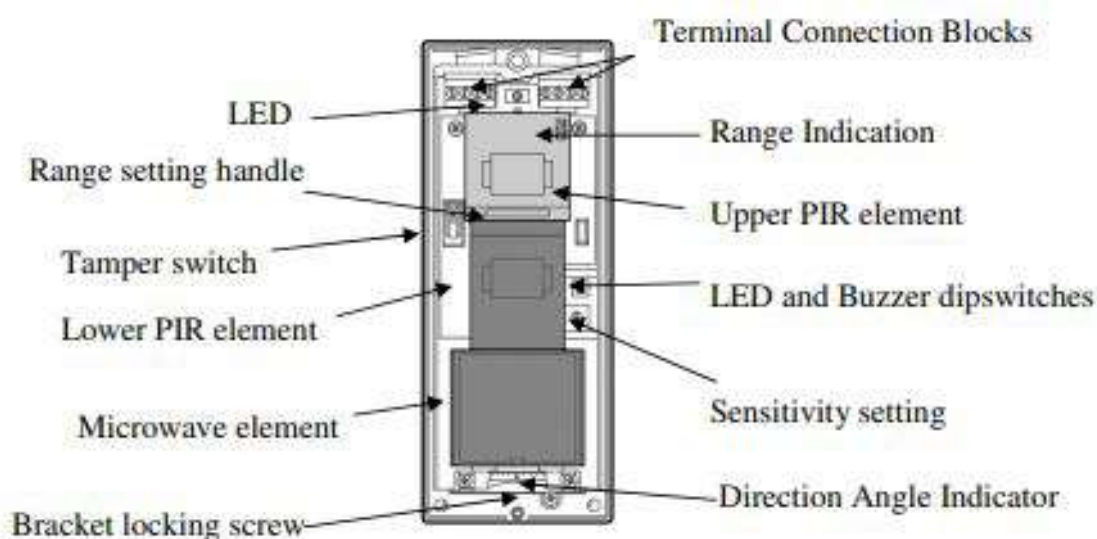
Using the supplied mounting bracket, the LC-171 can be easily mounted to walls using mounting screws and poles using the supplied metal bands.



The LC-171 is combined of three detection elements:

- Upper PIR element
- Lower PIR element
- Microwave element
- The upper PIR element has an adjustable detection height while the other two are fixed.

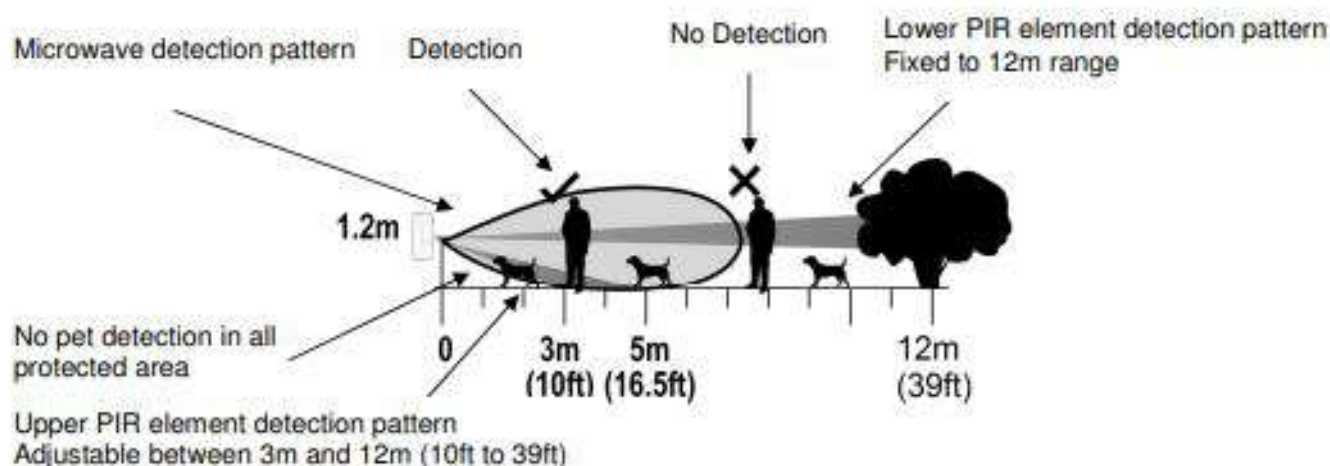
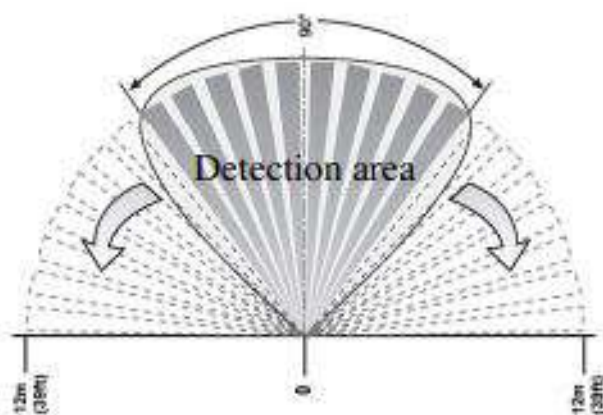
The following drawing shows all internal elements:



4 Detection Pattern

The LC-171 has a 90° top view PIR and MW detection pattern with over 12m (39 ft.) detection distance (when installed at 1.2m (4 ft.) above the ground surface).

The LC-171 has an internal rotating housing (which includes the 2 PIR elements and the MW) that can be adjusted horizontally, so its 90° coverage may vary between 0° and 180°.



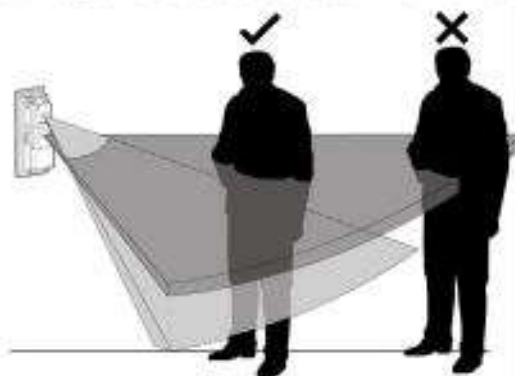
The LC-171 can differentiate between pets and human bodies and alert accordingly by having microwave movement detection combined with two PIR detection beams:.

A. Lower PIR element which is fixed to 12m (39ft.) range and 60cm (2ft) above ground level which helps avoiding pet detection over the entire area.

B. Upper PIR element which has adaptive range between 3 and 12m (10 and 39 ft).

An intrusion is defined by both PIR detection beams being crossed and a Microwave detection occurring, causing an alarm.

No alarm will be generated if only one of the PIR detection beams is crossed and microwave detection occurs.



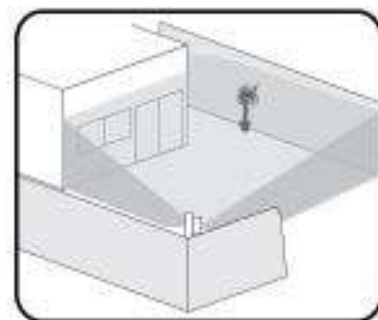
5 Selecting mounting location

The installation of the LC-171 requires a solid, level base for the mounting bracket and must be located in a manner that when the detector is mounted, it is facing the center of the desired detection zone.

It is recommended that the detector will face a solid border limiting the detection area, such as the building structure or fencing wall, to avoid undesired detection range.

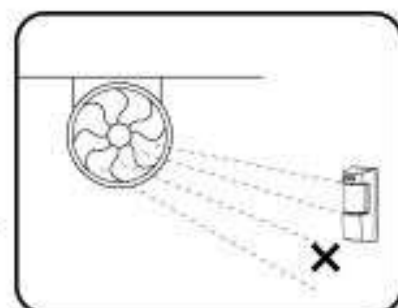
The protected area must be free from obstacles like walls, fences, trees, ditches and other microwave detectors.

Choose a location most likely to intercept an intruder according to detection pattern on page 5.



Avoid the Following Installation Locations:

- Facing direct sunlight.
- Facing areas subject to rapid temperature changes.
- Mounted at more than 10° from the vertical or horizontal plane.
- Facing metal doors.
- Near direct sources of heat or airflow.
- Clear all physical obstacles from the detection area (e.g. plants, laundry, etc.)
- Clear all light reflecting surfaces from the detection area, including puddles or other standing water.
- Avoid installation on the following types of ground:
Thick vegetation, Grass (un-mown), Water, Sand and Metal.



NOTES:

- Recommended installation height is 1.2m (4ft).
- The DUAL (Four Elements) high quality sensor detects motion crossing the beam; it is less sensitive detecting motion towards the detector.
- The LC-171 performs best when provided with a constant and stable environment.
- In order to ensure suitable operation of the LC-171 type of ground should be one of the following: Asphalt concrete, Cement, Soil, Clay, Gravel or Grass (mown).
- Sensitivity adjustment may be required upon extreme temperature changes.
Extremely high temperature will reduce detection range.
Extremely low temperature will increase detection range.
Choose proper installation location to avoid resetting.

6 **Detector Installation**

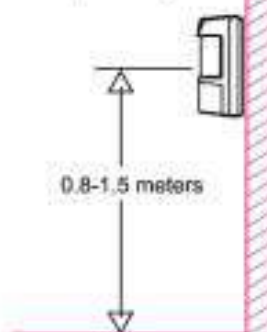
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Important! Prior to installation, read both "Operation" and "Selecting the mounting location" sections carefully.

1. Install the detector in such manner that the intruder is most likely to cross the detection area from side to side.



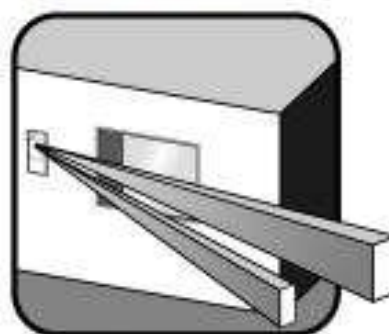
2. The detector is to be installed at height of 0.8 to 1.5 meter (2.6 to 4.9 ft.), ideally 1.2m (4 ft.)



3. Make sure to attach the metal bracket to a leveled straight and firm wall, leaving 15cm (5.9 inches) from the top and 15cm from both sides, for easy installation and maintenance.



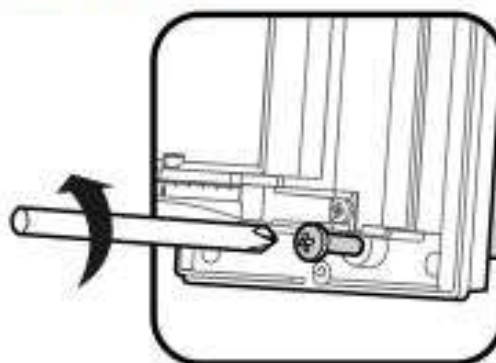
4. Rotating the detection beam may be required for guarding a side window opening while the detector is installed facing another direction.



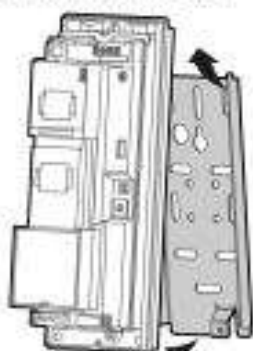
5. Open the detector unwinding the bottom screw.



6. Release the rear metal bracket by unwinding internal bottom screw.



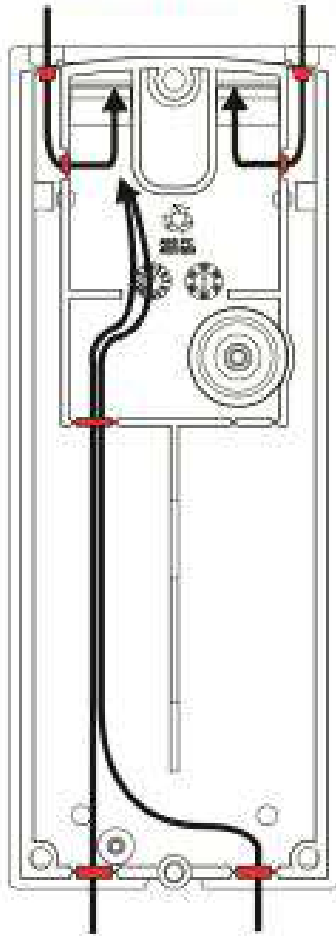
7. Release the detector body from the metal bracket by pulling the detector out and up.



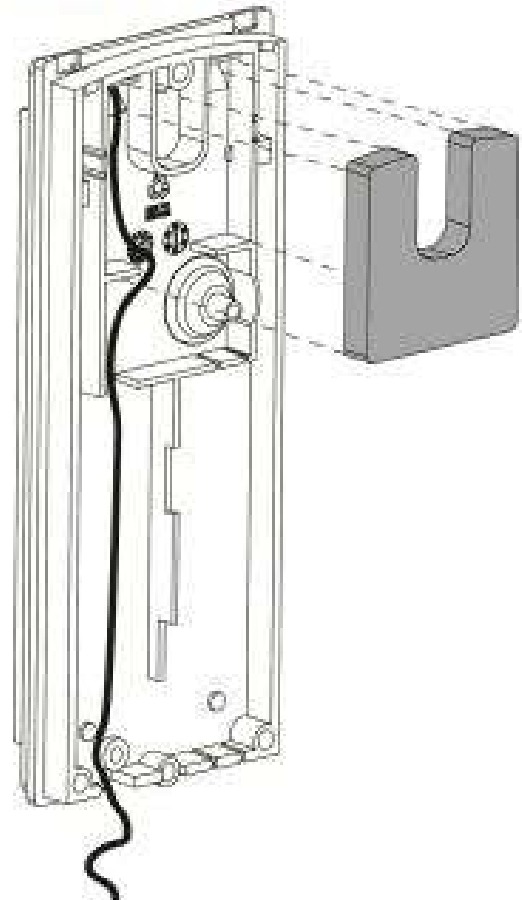
8. Attach the rear bracket to the wall or a pole using mounting screws or metal bands.



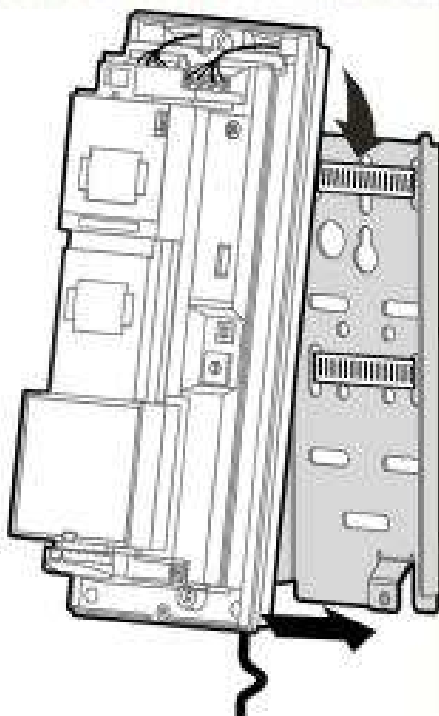
9. Break the relevant knockouts on the rear side of the plastic base and slide the wires from the outside via the paths and knockout to the internal side of the detector.



10. Attach the sealing "U" shaped Sponge Pad to the wire opening from the rear side after the wires have been connected and prior to final product affixing to the mounted bracket.



11. Place the detector on the mounting bracket from top side down and then lock the screw at the bottom.



12. Connect the wires to the terminal blocks according to the following chapter.

