



**SD-R400-BQ**

Microwave RTE Sensor

**Manual**



**Features:**

- 12~24 VDC Operating voltage
- 24.150GHz Microwave Doppler technology
- 10ft (3m) Sensing range, adjustable
- Adjustable relay output time, 1~33 s
- Small size allows for a wide range of applications
- Universally compatible, install the sensor above automatic doors for no-touch ingress/egress
- More consistent detection in large areas and over a wide range of temperatures
- Indoor use only

## ENFORCER Microwave RTE Sensor

### Introduction:

The ENFORCER Microwave RTE Sensor is a compact motion sensor with an adjustable output timer that can be connected to an access control keypad, gate opener, and can be used to trigger any device with an egress input.

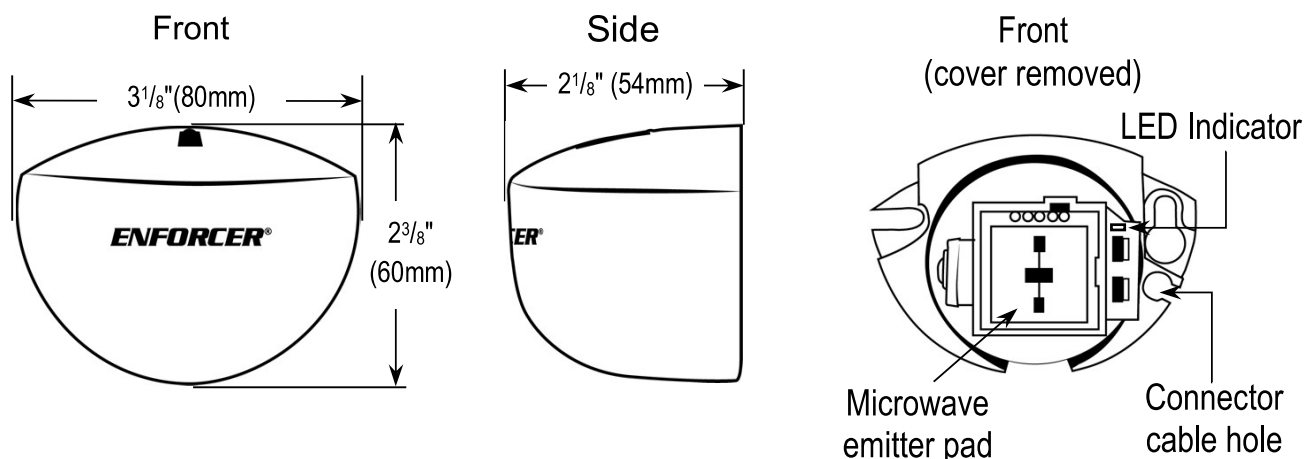
### Parts List:

|                          |                    |                      |
|--------------------------|--------------------|----------------------|
| 1x Microwave sensor      | 2x Mounting screws | 1x Mounting template |
| 1x 5-Pin connector cable | 1x Manual          |                      |

### Specifications:

|                       |            |                                                                                                               |
|-----------------------|------------|---------------------------------------------------------------------------------------------------------------|
| Operating voltage     |            | 12~24 VDC                                                                                                     |
| Current draw          | Standby    | 23mA@12VDC / 14mA@24VDC                                                                                       |
|                       | Active     | 39mA@12VDC / 21mA@24VDC                                                                                       |
| Sensor frequency      |            | 24.150GHz                                                                                                     |
| Sensor range          |            | 3'~10' (0.9~3m), adjustable                                                                                   |
| Sensor angle          | Vertical   | 0°~90°                                                                                                        |
|                       | Horizontal | ±30°                                                                                                          |
| Detection angle       | Front/back | 20°~30°                                                                                                       |
|                       | Left/right | 60°~70°                                                                                                       |
| Min. detection speed  |            | 5cm/s                                                                                                         |
| Output relay          |            | 2A@30VDC (0.5A@125VAC) Dry relay, NO/NC/COM                                                                   |
| Relay output time     |            | 1~33 s                                                                                                        |
| Mounting height       |            | 6'~10' (1.8~3 m)                                                                                              |
| Cable length          |            | 8' (2.5m)                                                                                                     |
| LED Indicator         |            | Red on relay activation                                                                                       |
| Case material         |            | Black ABS and polycarbonate                                                                                   |
| Operating temperature |            | -4°~131° F (-20°~55° C)                                                                                       |
| Dimensions            |            | 3 <sup>1</sup> / <sub>8</sub> "x2 <sup>3</sup> / <sub>8</sub> "x2 <sup>1</sup> / <sub>8</sub> " (80x60x54 mm) |
| Weight                |            | 2.5-oz (70g)                                                                                                  |

### Overview:



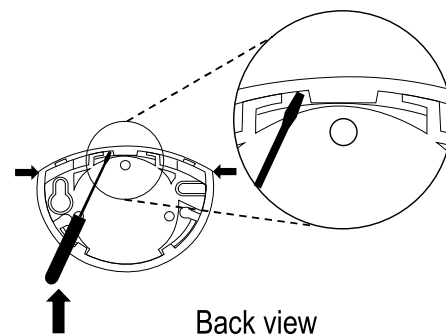
## Installation:

1. Find a suitable mounting location no more than 10ft (3m) high.
2. Apply the mounting template to the wall where the sensor is to be mounted.
3. Mark the locations for the screws, and drill one hole to the right of where it says "Insert connector here."
4. Remove the cover as described in *How to Remove the Cover Before Installation*, see below.  
**NOTE:** Make sure not to touch the microwave emitter pad once the cover is removed
5. Connect the 5-pin connector cable to the microwave sensor and feed the opposite end through the connector hole in the wall and complete wiring as necessary. See pg. 4 for *Wiring Diagram*.
6. Secure the microwave sensor to the wall with both screws.
7. Adjust the sensor's vertical angle and rotation as necessary.  
**NOTE:** Grip the sensor above and below the emitter pad. Do not pinch the sides as it may damage the trimpots.
8. Adjust the sensor's range and relay's output time using the two trimpots, see *Adjusting the Sensor Range and Relay Output Time* on pg. 4, and replace the cover.

## How to Remove the Cover Before Installation:

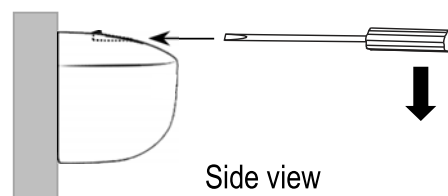
1. Squeeze the sides of the cover and wedge a thin flat-head screwdriver into the gap between the cover and the sensor base.
2. Apply moderate upward pressure to pry the cover off and away from the sensor base.

**NOTE:** Take care to inset the screwdriver into the gap between the cover and sensor base, and not into the recessed area of the base just below.



## How to Remove the Cover Once Installed:

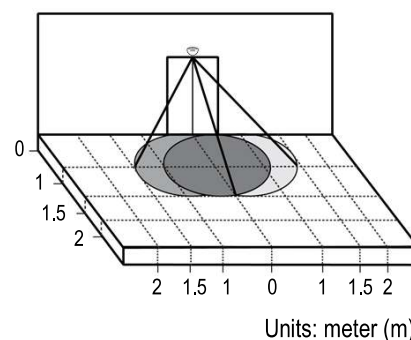
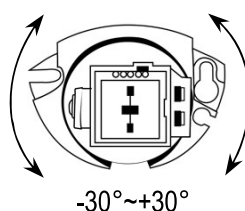
1. Insert a screwdriver into the hole at the top of the sensor cover.
2. Apply moderate downward pressure to pry the cover off and away from the sensor base.



## Detection Area:

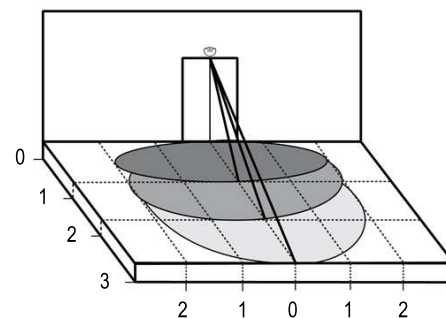
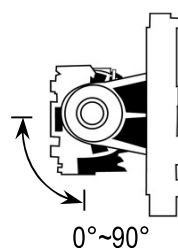
### Horizontal Area of Detection:

1. The horizontal area of detection will change depending on the horizontal tilt angle of the sensor.
2. Mounted 7ft (2.1m) tall at center 0°, the area of detection is 5ft (1.5m) wide and 5ft (1.5m) deep.



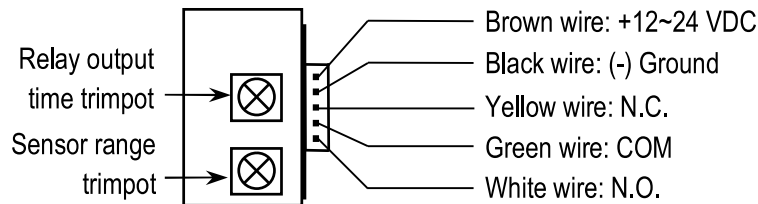
### Vertical Area of Detection:

1. The vertical area of detection will change depending on the vertical tilt angle of the sensor.
2. Mounted 7ft (2.1m) tall at center 0° with a 45° vertical tilt, the area of detection extends to 6ft (1.8m).



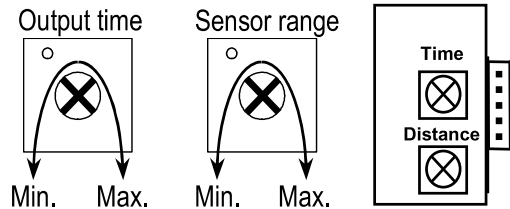
## ENFORCER Microwave RTE Sensor

### Wiring Diagram:



### Adjusting the Sensor Range and Relay Output Time:

1. To adjust the sensor's range, turn the trimpot counterclockwise (decrease) or clockwise (increase). Min: 3ft (0.9m) / Max: 10ft (3m)
2. To adjust the relay output time, turn the trimpot counterclockwise (decrease) or clockwise (increase).  
Min: 1 second / Max: 33 seconds



### Troubleshooting:

|                                      |                                                                                                                                                                                                                                                                  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LED is off                           | <ul style="list-style-type: none"><li>• Sensor power is off.</li><li>• Check wiring and plug into power supply.</li></ul>                                                                                                                                        |
| Door is not reacting normally        | <ul style="list-style-type: none"><li>• Make sure door is in automatic mode.</li><li>• Check the output configuration of the sensor. Typical wiring for the sensor's output is N.O.</li></ul>                                                                    |
| The door opens and closes on its own | <ul style="list-style-type: none"><li>• Sensor is disturbed when the door closes due to motion and vibrations.</li><li>• Make sure the sensor is properly secured.</li><li>• Adjust microwave emitter pad angle.</li><li>• Reduce detection area size.</li></ul> |
| Door opens for no reason             | <ul style="list-style-type: none"><li>• Adjust the angle and range of sensor.</li></ul>                                                                                                                                                                          |

**IMPORTANT:** Users and installers of this product are responsible for ensuring that the installation and configuration of this product complies with all national, state, and local laws and codes related to locking and egress devices. SECO-LARM will not be held responsible for the use of this product in violation of any current laws or codes.

#### FCC COMPLIANCE STATEMENT

FCC ID: K4ER400BQ

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**IMPORTANT NOTE:** To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

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### SECO-LARM® U.S.A., Inc.

16842 Millikan Avenue, Irvine, CA 92606  
Phone: (949) 261-2999 | (800) 662-0800

Website: [www.seco-larm.com](http://www.seco-larm.com)  
Email: [sales@seco-larm.com](mailto:sales@seco-larm.com)

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