

# Wireless Sensor

## Window / Door Sensor

### M9-EDWS



#### Product Description

The Magnum Door / Window Sensor helps provide energy savings for an area by detecting when a door or window opens or closes. It is a wireless solar-powered sensor that can be used on its own to detect the open and closed status of entry doors or windows, or it can be paired with a Magnum occupancy sensor to accurately detect whenever someone enters or exits a room. The sensor is easy to install on door and window frames, and virtually anything indoors that opens and closes.

#### Features Include

- Sends wireless message to other devices whenever a door or window opens or closes
- Harvests ambient solar energy to power the sensor and send wireless communication
- Mounts easily on standard doors or windows
- Works with motion sensors to track room occupancy and temperature control
- Supplemental battery option for extreme low-light failover
- Discreet and low-profile

#### Specifications

Part Numbers	M8-EDWS (868MHz - Europe and China) M9-EDWS (902 MHz - North America) MJ-EDWS (928 MHz - Japan)
Power Supply	Solar harvesting, supplemental battery option
Transmission Range	80 ft. (25 m)
Light Required to Maintain Operation	15 lux for 6 actuations/hour 50 lux for 30 actuations/ hour 100 lux for 60 actuations/hour
Charge Time to Setup	2.7 hours @ 10 lux 3.7 minutes @ 200 lux
Charge Time to Fully Charge	21 hours @ 200 lux (after startuP) 42 hours @ 200 lux (cold start)
Fully Charged Operating Life in Darkness	174 hours: heartbeat only 67 hours @ 10 actuations/hour 10 hours @ 100 actuations/hour
Maximum Sensor Gap	0.25 inch (6.4 mm)
Sensor Dimensions	3.15" L x 0.83" W x 0.59" D ( 8.0 cm x 2.1 cm x 1.5 cm)
Magnet Dimensions	3.15" L x 0.47" W x 0.5" D (8.0cm x 1.2cm x 1.3cm)
Total Weight	0.97 oz. (27.5 g)
Environment	-Indoor use only - 32° to 131° F (0° to 55° C) - 5% to 95% relative humidity (non-condensing)
Agency Compliance	FCC and I.C.

#### Planning

Take a moment to plan for the sensor's successful operation and optimal communication with other system components. Remove the sensor from its packaging and place it under a strong light to charge it for installation.

- Ensure the location provides consistent and adequate light
- Install according to the alignment requirements
- Determine which sensor profile is appropriate, see the Linking section
- Consider the construction materials in the space and obstacles that may interfere with RF signals

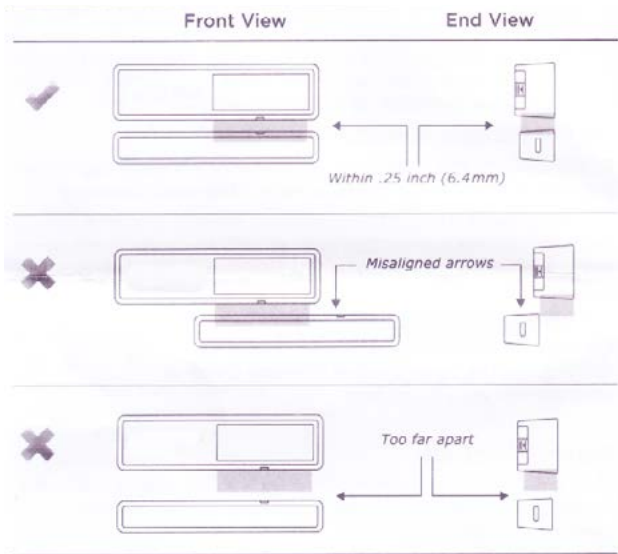
#### Alignment Requirements

The proximity of the magnet to the sensor is important for proper detection. The alignment arrows on the sensor and the magnet must point to each other and the gap between them must not exceed .25 inch (6.4 mm) in any direction.

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#### Installing

1. Based on your requirements, decide where you want to install the sensor and the magnet. For door installations, locate the sensor:

- On the knob side of the door jamb, away from hinges.
- At least 1 ft. (30cm) above the floor to avoid damage.

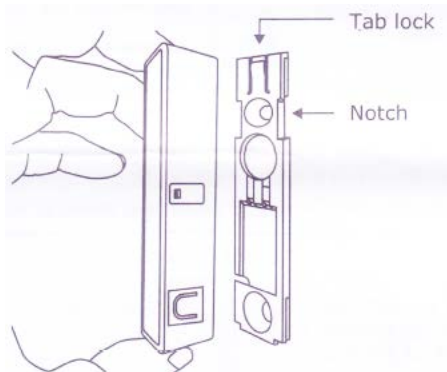
For window installations, make sure the location does not expose the sensor to contact with water.

2. Follow the alignment requirements that are described in the Planning section.

**Note:** For easy access and handling, it is recommended that the sensor be linked to a transceiver before installing it.

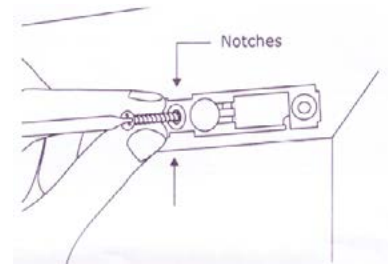
3. Install the sensor on the interior side of the fixed frame.

- a. Remove the mounting bracket from the sensor.



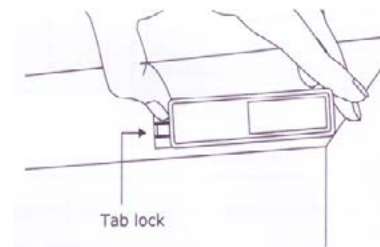
- b. Position the mounting bracket and mark the two mounting screw drill points.

c. Insert the first screw loosely and level the mounting bracket.



d. Install the second screw, and then hand-tighten the first screw.

e. Snap the sensor onto the mounting bracket where the notches are located.



f. Slide the sensor on the bracket until it snaps into place on the tab lock.

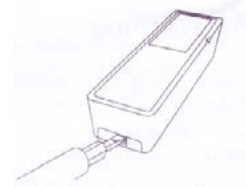
#### Installing Supplemental Battery (optional)

If the sensor is installed where the light levels are consistently too low or there are days of darkness, battery power can be used to supplement the solar energy harvester. Only use a CR1216 battery.

1. Press the tab lock to release the sensor from the mounting bracket.

2. Slide the sensor about .5" (1cm) and remove it from the mounting plate.

3. Insert the battery with the positive pole (+) up and slide it between the two contact terminals with your finger.



**Warning:** Ensure the battery is properly oriented. Improper handling of lithium batteries may result in heat generation, explosion, or fire.

4. Replace the sensor on the mounting plate and slide it until it snaps into place.

5. Open and close the contact to test for power. There should be a faintly audible click and a fast LED blink.

