

### Package Contents

- Occupancy Sensor
- Desk mounting plate with double sided adhesive tape for easy mounting (screwing optional)
- CR2032 battery

### Product Description

The Sub-desk mounted Occupancy Sensor is detecting when a desk is occupied or vacant based on motion in the space underneath the desk.

This device is wireless, and uses a passive infrared (PIR) sensor to detect such motion. The occupancy sensor transmits RF signals to control desk power supply or sends people counting information to an IoT space utilization system.

### Functional Description

If motion is detected by the permanently active PIR sensor, a radio telegram indicating the occupied status will transmit immediately. A transmission interval timer starts to run with a 2 minute lockout timer. No radio telegrams will be sent out until the timer expires.

After the timer has expired, the unit will transmit occupancy upon new motion detection. An unoccupied message will be sent if no motion is detected for an extended period - sending the first at 10 minutes, then again at 30 minutes. A heartbeat message can also be enabled (see "Optional Settings").

### Specifications (typ. values)

Power Supply:	CR2032 battery
Optional:	2-wire connector for external power or remote solar cell (3-5 VDC)
RF Transmission Range	80 ft. (25 m)
Battery Life:	6.5 yrs
Motion Transmission Interval	2 minutes
Unoccupied Transmission	10 and 30 minutes since last motion
Heartbeat Transmission Interval (unoccupied)	Disabled by default Enabled = heartbeat @ 1 hr interval (after unoccupied messages)
EnOcean Equipment Profile	EEP A5-07-01
RF Communications	EOSDA: EnOcean 868 MHz EOSDU: EnOcean 902 MHz
Dimensions	6.30" L x 2.35" W x 1.47" D (160mm x 60mm x 37mm)
Weight	4.4 oz. (125 g)
Mounting Height	2.45-3.15 feet (70 – 90cm) recommended
Environment	Indoor use only 14° to 104°F (-10° to 40°C) 20% to 95% relative humidity (non-condensing)
Agency Compliance	EOSDA: RoHS, CE, RE-D EOSDU: FCC, IC

### Safety Instructions

#### Intended use:

This product is intended for indoor usage in closed dry rooms. The product must not be used in any relation with equipment that supports, directly or indirectly, human/animal health or life or with applications that can result in danger for people, animals or real value. The product is not suitable for use in mechanically or environmentally challenging environments including (but not limited to) environments with heavy vibrations, mechanical shocks, very high humidity, very dusty or in explosive atmosphere. The installation and assembly of electrical equipment may only be performed by a skilled electrician.

#### Basic safety instructions:

Risk of suffocation! Do not leave the packaging material lying around. Children could swallow the small parts and choke on them. Install and operate product according to user manual and do not modify product. The product should not be exposed to rapid temperature changes shortly before or during operation; condensation of moisture has to be avoided. Wrong cleaning may damage the product; we suggest cleaning with soft and damp tissue.

#### Disposal:

Product: Dispose of the used components at an official collection point for electronic waste or at your local dealer. Packing: Please use the recycling operators known to you. Germany: WEEE-Reg.-No.: DE 93770561

### 1 Planning

Take a moment to plan for the sensor's successful operation and optimal communication with the other system components.

- Fix the sensor a little behind knee position under the table top, with a distance of 70 to 90 cm between the floor and the sensor.
- Provide a minimum clearance of 4 ft. (1.2 m) away from any heat source, like heating radiators, forced air, or ventilation systems.
- Consider the construction materials (such as metal) in the space and obstacles that may interfere with RF signals.

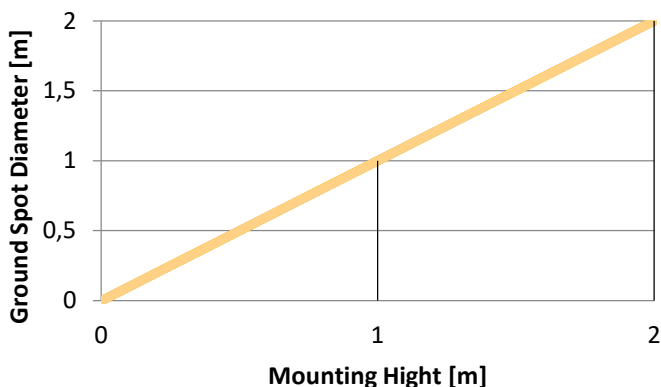


#### Sensor Range

A single occupancy sensor provides sufficient coverage for one seat area. For people counting in a room multiple sensors will be required.

#### Coverage Diagram

Rough reference values:



### 2 Installing

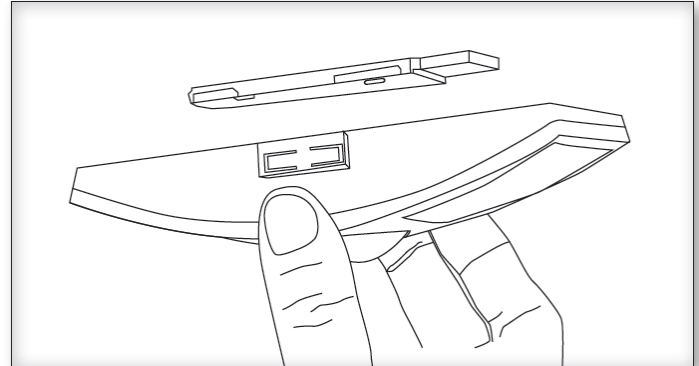
estimated time: 5 minutes



The occupancy sensor can be mounted at the sub-desk surface with the double sided adhesive. If needed, screws can also be used to fix the mounting plate.

NOTE: Sometimes it's easier to link the sensor before it is mounted sub-desk. Refer to the "Linking" section.

1. Remove the sensor from packaging.
2. Remove the mounting plate from the sensor.
3. Insert the CR2032 battery under the clip with the positive pole (+) up and press it in place.
4. Define where you want to install the occupancy sensor (see "Planning").
5. Decide which of the two installation options is appropriate (gluing or screwing).
6. Fix the mounting plate.
7. Attach the sensor to the mounting plate.
8. Slide the sensor on the mounting plate until it snaps into place.



9. Confirm the sensor is properly positioned to detect motion - refer to the "Walk Test" section.

### 3 Linking

Linking is the process by which different devices are configured to work with each other in a system. Sometimes this process is also called Teach-in or Learn-in.

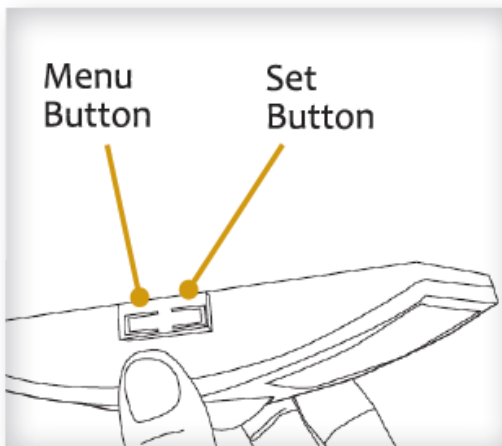
During Linking, the occupancy sensor has to communicate its unique device address and the profile that it uses to the receiver that will receive and react to telegrams from the sensor.

This information is available either from the device label (QR code) or can be communicated via a dedicated telegram (a so-called teach-in telegram).

#### To Link or Unlink an Occupancy Sensor

1. Set the desired receiver of the sensor telegram to Link or Unlink mode (refer to the receiver device's installation guide).
2. Click the Menu button on the bottom of the sensor once. This sends a link/unlink radio telegram.

**NOTE:** The button interface on the sensor is used for linking and testing only. The occupancy timer settings are configured on the transceiver to which the sensor is linked.



Refer to the "Linking" section of the receiver installation guide to complete the linking & setup process.

### 4 Walk Test

Use the walk test to confirm that motion is within the sensor's range.

**NOTE:** Before starting the test, ensure the battery is inserted for 5 minutes at least. If the sensor does not have a sufficient power, it cannot enter into the test mode. No LED light or 1 red blink when the set button is pressed indicates insufficient power.

1. Press and hold the Set button for 5 seconds.
  - > Red LED will blink to confirm that a walk test is active.
2. Move in and out of the sensor's range to determine its coverage area.
  - > Sensor will blink when it detects motion.
3. Make small hand movements just inside the limit of the sensor's range to see if the motion triggers a response.
4. The test mode will stay active for 3 minutes. To exit the test before and resume normal operation, press and hold the Menu button for 5 seconds.

**NOTE:** Ensure the sensor does not falsely trigger from user activity outside the desired zone or other heat and motion sources. If false triggering occurs, adjust the sensitivity switch (next to the battery slot) from REG to LOW.

### 5 Optional Settings

Two additional settings can be configured via button presses which may be useful in some installations. Note that these settings consume additional energy:

**LED Blink on Motion Transmission** - Red LED under PIR lens will blink whenever motion is transmitted (disabled by default).

••> To enable/disable - press and hold Menu button for 3 seconds (green Menu LED will blink once)

- Enabled = 3 blinks from green Menu LED
- Disabled = 3 blinks from red Set LED

**Heartbeat Transmission** - unoccupied heartbeat message will be sent at 1 hr intervals with no motion (disabled by default).

••> To enable/disable - press and hold Menu button for 5 seconds (both green and red LEDs will blink once)

- Enabled = 3 blinks from green Menu LED
- Disabled = 3 blinks from red Set LED

### 6 Supplemental Power Supply (Optional)

If needed, an auxiliary 3-5 VDC power source can be used.

1. Remove the sensor from the mounting plate and identify the auxiliary power connector on the circuit board
2. Insert the 3-5 VDC + and - leads into the appropriate screw terminals.
3. Remount the sensor on the mounting plate.

### 7 Troubleshooting

Problem	Solution Checklist
Sensor does not generate a wireless message	<ul style="list-style-type: none"> <li>▪ Press Set button to transmit motion message</li> <li>▪ Verify the LED blinks when motion is detected during a walk test</li> <li>▪ Verify the battery is inserted properly</li> </ul>
Sensor is activated when there is nothing to detect	<ul style="list-style-type: none"> <li>▪ Verify there is 4 ft. (1.2 m) clearance from heat sources that may disturb sensing</li> <li>▪ Reduce sensitivity setting by moving the PIR sensitivity switch on the back from REG to LOW (the left-hand position)</li> </ul>
Linked device does not respond to wireless messages	<ul style="list-style-type: none"> <li>▪ Force motion message by pressing Set button</li> <li>▪ Check for environment or range issues</li> <li>▪ Verify the device is linked</li> <li>▪ Check the transceiver connection and the wiring for errors</li> <li>▪ Check if appropriate devices are linked according to good system planning</li> </ul>

### 8 Agency Compliance



868,300 MHz: contains: RE-D, RoHS, REACH



902 MHz: contains:

FCC: SZV-STM300U  
IC: 5713A-STM300U

This device complies with part 15 of the FCC rules and Industry Canada ICES-003. 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 undesired operation.

IMPORTANT! Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.



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