Wireless Occupancy Sensor
User Guide
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Welcome to the Dialight Wireless Occupancy Sensor overview. This product allows you to customize your entire lighting network using independent Occupancy Sensors throughout your facility by turning lights on when occupancy has been detected.

This guide provides you with the information you need to get started.
## Wireless Occupancy Sensor Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Wide Angle and Long Range Wireless High Bay Occupancy Sensors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
<td>UL916, CSA C22.2 NO.205</td>
</tr>
<tr>
<td>Power Input</td>
<td>2x “AA” Lithium Batteries 1.5V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>Operating Temperature: -40°C to +60°C</td>
</tr>
<tr>
<td>Estimated Battery Life</td>
<td>Up to 10 years</td>
</tr>
<tr>
<td>Radio Frequency</td>
<td>2.4Ghz</td>
</tr>
<tr>
<td>Sensing Area</td>
<td>Wide Angle 20’-30’ (minor – major motion range), 1250 sq ft, 120°</td>
</tr>
<tr>
<td></td>
<td>Long Range 100’ (maximum range), 7600 sq ft (floor + distance coverage), 10° coverage angle</td>
</tr>
<tr>
<td>Sensing Technology</td>
<td>Passive Infrared</td>
</tr>
<tr>
<td>Dimensions</td>
<td>5”D x 2.38”H</td>
</tr>
<tr>
<td>Weight</td>
<td>~8.8oz</td>
</tr>
<tr>
<td>Green LED</td>
<td>Flashes one time when motion is detected. Repeatedly flashes 2x while searching for a network connection.</td>
</tr>
<tr>
<td>Red LED</td>
<td>A single red LED flash indicates low battery.</td>
</tr>
</tbody>
</table>
Unboxing

What’s in the box:

1 – Wireless Occupancy Sensor
3 – #8 Plywood Screws
3 – #8-32 Machine Screws
2 – Lithium “AA” Batteries
2 – Battery Clips
1 – Wireless Occupancy Sensor Manual
Sensor Overview

- Mounting Plate with Twist Lock
- LED Indicators
- Sensor Lens
- Mounting Holes
- Sensor Housing

Front View

- 5.0”
- 2.38”
Removing Battery Cover

To remove the sensor, twist sensor cover counterclockwise to unlock it from the back plate.

Once cover has been removed you’re now ready to add or remove the batteries.

Installing Batteries

1. Remove AA batteries from their packaging.
2. Install batteries in the battery holder on the sensor making sure to orient them according to the +/- symbols on the holder. Install provided battery clips.
3. Lock sensor to the back plate. Installation is the opposite of removal.
4. The sensor is now on and ready to be discovered.

To power off the sensor, remove the batteries from unit.
Sensor Lights

To turn on the LED Indicators

1. Twist open the sensor from the mounting plate.
2. Move the LED switch to the right to turn on the LED indicators.
3. Twist close the sensor back on to the mounting plate.

Sensor Notifications

- One green blinking LED means motion has been detected.
- Double green LED mean sensor is looking for a network to join.
- Single red blink means that the battery is low and needs to be replaced. Only replace batteries with same size and type.
It is advised to mount the sensor before discovering it.

**Adding Sensor to Gateway**

1. When the green LED double blinks on the sensor, the sensor is ready to be discovered/commissioned.
2. Use your gateway to discover the sensor. (Please refer to your gateway owner’s manual for further instructions.)
3. Once the sensor has been added to the gateway, the green double-blinking LED will stop. You have now connected the sensor to the gateway.
4. The green LED will then single blink when motion is detected.

**Removing Sensor from Gateway**

1. Begin by deleting the sensor from your gateway. (Please refer to your gateway owner’s manual for further instructions)
2. Go to the sensor and trigger motion.
3. After triggering motion the green LED will periodically double blink indicating it is now removed from the network.
4. Your sensor is now ready to be added to another gateway.
Where to Mount

The wide optic sensor is best used as a ceiling mounted sensor. The recommended install for this sensor is 2.7 meters or 8.8 feet from the floor.

Sensor should be mounted 6ft away from any open air vent or strong air supply openings.
How to Mount (Installation should be performed by properly trained personnel)

1. Use the sensor’s mounting plate to mark the surface of the ceiling with the appropriate hole spacing.
2. Drill holes in ceiling.
3. Align sensor mounting plate to the ceiling matching the drilled holes.
4. Use the three provided screws and secure sensor to the ceiling.
5. Attach and lock the sensor to the mounting plate.
Where to Mount

The long range sensor is best used as a wall mounted sensor. The recommended install for this sensor is 3.2 meters or 10.5 feet from the floor.

Avoid placing sensors where obstacles can block the sensors line of sight.
How to Mount (Installation should be performed by properly trained personnel)

1. Use the sensor’s mounting plate to mark the surface of the wall with the appropriate whole spacing.
2. Drill holes in wall.
3. Align sensor mounting plate to the wall matching the drilled holes.
4. Use the three provided screws and secure sensor to the wall.
5. Attach and lock the sensor to the mounting plate.
**Sensor is not discovered by the gateway.**

Steps to solve:

1. If you are using a desktop or laptop computer and are accessing the gateway through its wired connection to your building’s network, press `<ctrl> F5` to refresh the web page. If the page does not reload then the gateway is either off or not connected to your wired building network.

2. If you are using a tablet and are accessing the gateway through its wired connection to your building’s network, press the refresh icon in the web address window to demonstrate if the gateway is powered on and connected. If the page does not reload then the gateway is either off or not connected to your wired building network.

3. If you are using a laptop or tablet and are accessing the gateway directly as a Wi-Fi hotspot then verify the SSID name on the gateway display matches the name of the Wi-Fi access point you are connected to. Also verify that there are no other gateways in your building that are using the same SSID name.

4. On the gateway web page verify that discovery is turned on.

5. Follow the provided instructions to turn the internal LED switch to ON.

6. Check the condition of the LED lights through the front lens of the sensor.

7. If the red LED is blinking then the batteries need to be replaced.

8. If the green LED is double blinking then the sensor is still trying to join a network, then:
   a. Verify that it is within 100 ft. of a light that has already joined the network.
   b. Verify the lights are powered by commanding them to turn on from the web page.
   c. Replace the sensor.

9. If the green LED is not blinking at all then:
   d. Remove both batteries.
   e. Replace the batteries, verifying correct orientation.
   f. When plugging in the second battery, if the green LED does not blink at least once then:
      i. Try new batteries.
      ii. Replace the sensor.
g. After plugging in the second battery watch the behavior of the green LED for 30 seconds. If the green LED blinks at least one time after the batteries are installed and then stops then this sensor has joined a network, then:
   i. From your gateway’s web page, display the motion sensors (consult the gateway manual for instructions).
   ii. Wait until no motion sensor in the network is showing motion present.
   iii. Trigger motion on the sensor in question. If you see on the web page that a sensor is showing motion then this is your sensor and it has joined the network.

h. If the green LED continues double blinking then go to step 8.

**Motion at the sensor does not turn on any lights.**

Steps to solve:

1. If you are using a desktop or laptop computer and are accessing the gateway through its wired connection to your building’s network, press <ctrl> F5 to refresh the web page. If the page does not reload then the gateway is either off or not connected to your wired building network.
2. If you are using a tablet and are accessing the gateway through its wired connection to your building’s network, press the refresh icon in the web address window to demonstrate if the gateway is powered on and connected. If the page does not reload then the gateway is either off or not connected to your wired building network.
3. If you are using a laptop or tablet and are accessing the gateway directly as a Wi-Fi hotspot then verify the SSID name on the gateway display matches the name of the Wi-Fi hotspot you are connected to. Also verify that there are no other gateways in your building that are using the same SSID name.
4. On the gateway web page verify that the sensor in question is assigned to a group and that a motion event is currently ON in the schedule (see gateway manual).
5. On the gateway web page verify that the nodes in the network show with no connection errors (consult gateway manual).
6. Follow the provided instructions to turn the sensor LED switch to ON.
7. Check the condition of the LED lights through the front lens of the sensor.
8. If the red LED is blinking then the batteries need to be replaced.
9. If the green LED is double blinking then the sensor is trying to join a network. Follow steps in the gateway manual to discover the sensor and see if the problem persists.

10. From your gateway’s wireless devices page, display the motion sensors (consult the gateway manual for instructions).

11. Wait until no motion sensor in the network is showing motion present.

12. Trigger motion on the sensor in question.

13. If the green LED behind the front lens of the sensor does not blink once then:
   a. Try new batteries.
   b. Replace the sensor.

14. If the green LED does blink then verify that one sensor on the gateway web page shows motion present for a relatively short period of time.

15. If motion is shown on one sensor node then verify that that node is assigned to global mode or the group that you want to light up.

16. If none show motion present then this sensor is likely part of a different gateway network. Follow steps in this manual to remove the sensor from a different gateway.