NOTE: All sensors must be mounted at least 6 feet away from air vents. If you are unsure about any part of these instructions, consult an electrician. To be installed and/or used in accordance with appropriate electrical codes and regulations.

**WARNINGS AND CAUTIONS**

1. All connections and wire nuts through (approximately 1" diameter).
2. Restore power at circuit breaker or fuse to Power Pack.
3. TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!

**INSTALLATION INSTRUCTIONS**

### INSTALLING YOUR OCCUPANCY SENSOR

**Step 1:**

1. **Step 1:** Preparing and connecting wires:
   - Strip Gage (measure bare wire here)

2. **Step 2:** Typical Installations:

   - 3 typical installation options (A, B and C). Choose one that best suits your needs. Other methods of installation may be possible but they have not been described here. Note that the wall sensor can be wall mounted or ceiling mounted simply by rotating the neck. This gives greater flexibility in attaining the desired coverage.

3. **Step 3 cont'd:**

   - A. Wall or Ceiling Installation Using Screws (Mounting Option A):
       - **NOTE:** You may use the mounting screws, nuts and washers included, or screws in combination with commercially available wall anchors.
       - 1. Select location for mounting of sensor for your application (refer to Mounting Option Diagram A).
       - 2. Make a hole in the wallboard or ceiling large enough to pass the wire connections and wire nuts through (approximately 1” diameter).
       - 3. Drill holes for mounting screws using wallboard base as template.
       - 4. Install the mounting base of the wall sensor to the wallboard or ceiling using the included screws, nuts and washers.
       - 5. Snap neck and base cover onto mounting base in the desired orientation. Align arrows on mounting base and base cover, push on and turn to lock base cover to mounting base.
       - 6. Push wires through the hole and begin to fasten the plastic nut around the back of the sensor body. Move the sensor body to the desired orientation and then continue to tighten the nut around the sensor body. **NOTE:** The neck is a two position assembly with catches to hold it in position for either ceiling or wall mounting.
       - 7. Remove one of the sensor heads from the sensor.
       - 8. Install the OPB15 per the installation sheet included with the OPB15.
       - 9. Align the raised arrow on the side of the base cover with the arrow on the mounting ring of the OPB15 and push on and hold to install.
       - 10. Rotate the assembly and adjust the neck for either ceiling or wall configuration setting per the diagram.
       - 11. Tighten the plastic nut on the neck to tighten position of the sensor.

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**Step 3 cont'd:**

B. Wall or Ceiling Using Junction Box or Surface Mount Raceway

**NOTE:** You may use the mounting screws, nuts and washers included, or screws in combination with commercially available wall anchors.

**NOTE:** Listed below are suggested JUNCTION BOX installation applications which require mounting to conduit in the following ways.

**Step 3 cont'd:**

C. OPB15 Power Base Installation:

In addition to the regular mounting methods shown, the OSWBox can be mounted to the OPB15 Power Base.

1. Install the OPB15 per the installation sheet included with the OPB15.
2. Remove the OSWBox from the box and pass the low-voltage wire through the neck/base cover assembly.
3. Screw the neck plastic nut to the sensor body to hold assembly together while connecting the wires.
4. Remove the two-part connector from the OPB15 noting the orientation it was in before removal.
5. Connect the wires from the sensor to the appropriate locations on the terminal block.
6. Push the terminal block on to the OPB15 pins.
7. Align the raised arrow on the side of the base cover with the arrow on the mounting ring of the OPB15 and push on and hold to install.
8. Rotate the assembly and adjust the neck for either ceiling or wall configuration setting per the diagram.
9. Tighten the plastic nut on the neck to tighten position of the sensor.

---

**TOOLS NEEDED TO INSTALL YOUR SENSOR**

Screwdriver Phillips Head 
Screwdriver Slotted/Phillips Head 
Screwdriver Flat Head 
Pliers 
Pencil 
Electrical Tape 
Infrared Wall Mounted Occupancy Sensor

**PARTS INCLUDED LIST**

- Sensor (1)
- #8-32 Washer and Nut (2)
- Mounting Base (1)
- OPB15 Power Base (1)
- Octagon Box (2)

**DESCRIPTION**

The Occupancy Sensor is a low-voltage infrared sensor that works with the OSPx series, OPB15, miniZ and CN100 power pack to automatically control lighting. The sensor turns the lights on and keeps them on whenever occupancy is detected and will optimize its performance. The latest microprocessor-based technology which permits it to continually adjust and

**CATALOG ITEMS**

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Description</th>
<th>Current</th>
<th>Consumption</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSWW-I0W</td>
<td>Long Range</td>
<td>25mA</td>
<td>100 ft.</td>
<td>mounted at 10 ft</td>
</tr>
<tr>
<td>OSWW-IW</td>
<td>Wide View</td>
<td>25mA</td>
<td>200 ft.</td>
<td>mounted at 30 ft.</td>
</tr>
</tbody>
</table>
ADAPTIVE FUNCTIONS

The Sensor continually analyzes the parameters of the motion detection signal and adjusts its internal operation to maintain duration of motion while retaining the effects of noise (electrical noise, air currents, temperature changes, etc.).

Operation:

When lights turn on, the sensor initially enters the “walk-through” mode. Once the room is occupied for longer than 2.5 minutes, the sensor exits the “walk-through” mode and enters the “Occupied” mode. When the sensor is first installed, the delayed-off time will change, based on how the sensor adapts to the room conditions. Whenever the sensor subsequence time-out, the value of the delayed-off time will be the adaptive value (refer to Operation Policy Learning For Delayed Off Time).

The adapted settings can be reset using the DIP switch.

Occupancy Pattern Learning For Delayed Off Time:

The sensor will automatically change the delayed-off time in response to the occupancy and environmental conditions of the space it is installed in. The sensor analyzes the motion signal properties and will minimize the delayed off time duration when there is frequent motion detection, and lengthen the delayed off time duration when there is weak or intermittent motion detection.

In the case of a false off condition, lights turn off when the room is occupied, the delayed off time duration will be lengthened to prevent further false turn offs.

Occupancy Pattern Learning for Infrared Technology:

The sensor learns the occupancy patterns of a space during the course of a day, for a seven day period. At any given time, the sensor will look at the collected data and adjust its infrared sensitivity. The sensor will adjust the sensitivity to make it less likely to turn on during a period of non-occupancy and more likely to turn on during a period of occupancy.

Default Settings:

Adjustment knob settings as for “Factory Default Setting” (refer to Table 1 and Figure 1). All switches in the OFF position, except A4, which is the ON position (refer to Table 2).

ADJUSTMENT KNOB SETTINGS

<table>
<thead>
<tr>
<th>No.</th>
<th>Knob Code</th>
<th>Function</th>
<th>Knob Setting</th>
<th>Factory Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Red</td>
<td>Set the infrared range</td>
<td>Full CCW (0 min)</td>
<td>75%</td>
</tr>
<tr>
<td>02</td>
<td>Black</td>
<td>Delayed-Off Time</td>
<td>Full CCW</td>
<td>75%</td>
</tr>
<tr>
<td>03</td>
<td>Blue</td>
<td>Ambient Light Override (Gray zone only)</td>
<td>Full CCW- Light stay ON (100 %)</td>
<td>100%</td>
</tr>
</tbody>
</table>

偏移表

<table>
<thead>
<tr>
<th>开关</th>
<th>选择功能</th>
<th>开关设置</th>
<th>工厂默认设置</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>A2</td>
<td>无</td>
<td>无</td>
</tr>
<tr>
<td>B1</td>
<td>B2</td>
<td>无</td>
<td>无</td>
</tr>
<tr>
<td>B3</td>
<td>B4</td>
<td>无</td>
<td>无</td>
</tr>
<tr>
<td>C1</td>
<td>C1</td>
<td>模式选择</td>
<td>A1 A2 B1 B2</td>
</tr>
<tr>
<td>C2</td>
<td>C2</td>
<td>模式选择</td>
<td>A1 A2 B1 B2</td>
</tr>
<tr>
<td>E1</td>
<td>E1</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>E2</td>
<td>E2</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>E3</td>
<td>E3</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>E4</td>
<td>E4</td>
<td>OFF</td>
<td>OFF</td>
</tr>
</tbody>
</table>

TABLE 2: SWITCH SETTINGS

<table>
<thead>
<tr>
<th>Switch</th>
<th>Function</th>
<th>Switch Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Delayed Off</td>
<td>OFF</td>
</tr>
<tr>
<td>B2</td>
<td>Blow Down</td>
<td>OFF</td>
</tr>
<tr>
<td>E1</td>
<td>Override To On</td>
<td>OFF</td>
</tr>
<tr>
<td>E2</td>
<td>Override To Off</td>
<td>OFF</td>
</tr>
<tr>
<td>E3</td>
<td>Override</td>
<td>OFF</td>
</tr>
</tbody>
</table>

TEST MODE:

1. Turn off all lights.
2. Press and hold the RED knob for 6 seconds.
3. Release the knob.
4. The lights will turn on once.
5. Press and hold the RED knob for 6 seconds.
6. Release the knob.
7. The lights will turn on once.

TROUBLESHOOTING:

- Lights do not turn ON
- Low-voltage miswired. To Test: Correct RED to BLUE wire to power pack of force lights ON.
- Circuit breaker or fuse has tripped. To Test: Correct BLUE to RED relay wires (off power pack) to force the lights ON.
- Lights stay ON
- Infrared sensor has “seen” hallway. To Test: RED knob to OFF position. If lights continue to come ON, move sensor.
- Timer setting too high. To Test: Check switch settings. Typical setting is 10 minutes.

PRODUCT INFORMATION:

- For technical assistance, contact us at 1-800-624-3005
- Visit our website at www.leviton.com