WARNINGs AND CAUTIONs:
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult a qualified electrician.
- Sensors must be mounted at least 6 feet away from air vents.
- Do not mount sensors closer than 10 feet from each other.
- Do not touch the surface of the lens. Clean outer surface with a damp cloth only.

CATALOG ITEMS

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Description</th>
<th>Current Consumption</th>
<th>Operating Frequency</th>
<th>Coverage</th>
<th>Suggested Mounting Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSP-55-M</td>
<td>1-Way Multi-Technology</td>
<td>20mA</td>
<td>40KHz</td>
<td>1000 sq. ft.</td>
<td>Mount in center</td>
</tr>
<tr>
<td>OSP-59-M</td>
<td>3-Way Multi-Technology</td>
<td>20mA</td>
<td>40KHz</td>
<td>2000 sq. ft.</td>
<td>Mount in center</td>
</tr>
<tr>
<td>OSP-59-M</td>
<td>3-Way Multi-Technology</td>
<td>20mA</td>
<td>40KHz</td>
<td>2000 sq. ft.</td>
<td>Mounts in corner/over doorway</td>
</tr>
<tr>
<td>OSP-59-M</td>
<td>3-Way Multi-Technology</td>
<td>20mA</td>
<td>40KHz</td>
<td>2000 sq. ft.</td>
<td>Mount in center</td>
</tr>
</tbody>
</table>

Tools needed to install your Sensor:
- Slotted Phillips Screwdriver
- Electrical Tape
- Cutters
- Pencil

Parts Included List:
- #8-32 Washer and Nut (2)
- #8-32 x 1/2” Screw (2)
- Half Mask (1)
- Plastic Washer (1)
- Pliers
- Pencil

INSTALLING YOUR OCCUPANCY SENSOR

NOTE: Use check list below when Steps are completed.

Step 1: WARNING! TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!

Step 2: Preparing and connecting wires:
- 1/2” (1.3 cm) screw Gage (measure bare wire here)

Step 3: Typical Installations:
- Listed are 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.

A. Drop Ceiling Installation (Mounting Option A):
- NOTE: Use the threaded rod included.
- 1. Select location for mounting of sensor and proper masking for your application (refer to Mounting Location Diagram).
- 2. Use the supplied threaded rod or other methods to make a hole (1/2” to 1”) in the ceiling tile large enough to pass the body of the threaded rod through.
- 3. Insert the sensor wires through the flared end of the threaded rod. Position the threaded rod to the base of the sensor.
- 4. Insert the flared end of the threaded rod into the opening in the bottom of the sensor and twist to lock into place.

B. Wallboard or Drop Ceiling Installation (Mounting Option B):
- 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 and proper masking for your application (refer to Mounting Location Diagram).
- 2. Make a hole in the ceiling tile or wallboard large enough to pass the wire connections and wire routes through (approximately 1” diameter).
- 3. Remove the back cover of the sensor. Hold the cover and body of the sensor and rotate until the two arrows line up and pull apart.
- 4. Insert back cover of the ceiling sensor to the wallboard or drop ceiling using the included screws, nuts, and washers, or screws in combination with commercially available wall anchors.
- 5. Class III Wiring: Connect low-Voltage wires from Power Pack to Sensor per WIRING DIAGRAM as follows: Two strands of each lead tightly twisted together, with circuit conductors, push firmly into appropriate wire connector. Screw connectors on clockwise making sure that no bare conductor shoves below the wire connectors. Secure each connector with electrical tape.
- 6. Push wire connections through the center hole of the back cover and into the ceiling.
- 7. Secure the sensor body to the back cover by aligning the arrows. Lock it by turning the sensor such that the arrows do not line up.
- 8. Restore the sensor to the desired orientation.

C. Junction Box or Surface Mount Raceway Installation (refer to Mounting Diagrams):
- NOTE: Listed below are suggested JUNCTION BOX installation applications which require mounting to conduit in one of the following three ways:

- Class I Wiring: Connect low-Voltage wires from Power Pack to Sensor per WIRING DIAGRAM as follows: Connect bare wire of sensor to junction box using wire connectors, secure each connector with electrical tape. When using the Photocell function, connect the Blue wire of sensor.

- Wire Mold Round Fixture (use applicable fittings)
- Wire Mold Back Cover (4 places)
- Octagon Box (4 places)
- Wallboard Ceiling (use applicable fittings)

TABLE 2: WIRE DESIGNATIONS

<table>
<thead>
<tr>
<th>Name</th>
<th>Color</th>
<th>Gauge</th>
<th>Temp/Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power (24VDC)</td>
<td>Red</td>
<td>#16</td>
<td>30°C - 60°C</td>
</tr>
<tr>
<td>DC Return</td>
<td>Black</td>
<td>#16</td>
<td>30°C - 60°C</td>
</tr>
<tr>
<td>Low-Voltage</td>
<td>Blue</td>
<td>#24</td>
<td>30°C - 60°C</td>
</tr>
<tr>
<td>Occupancy</td>
<td>Blue</td>
<td>#24</td>
<td>30°C - 60°C</td>
</tr>
<tr>
<td>Occupancy</td>
<td>White</td>
<td>#24</td>
<td>30°C - 60°C</td>
</tr>
</tbody>
</table>

WIRING DIAGRAM: Multiple Sensor, Single Power Pack

- OSPxx Series
- Power Pack
- Sensor

- Note: When using the Photocell function, connect the Blue wire of the sensor to the Blue wire of the power pack. Do not use the Blue wire of sensor.
- Note: Ensure to cap wire that is not being used.

- Mounting Option Diagram B
- Occupancy Sensor Mounted to Wallboard or Drop Ceiling Using Screws

- Mounting Option Diagram C
- Occupancy Sensor Mounted to Round Fixture with Raceway for Wallboard Installation

- Restore power at circuit breaker or fuse to Power Pack. INSTALLATION IS COMPLETE.

- Restore power at circuit breaker or fuse to Power Pack. INSTALLATION IS COMPLETE.
The sensor learns the occupancy patterns of a space during the course of a day, for motion signal properties and will minimize the delayed off time duration when there is no motion detected. The sensor will automatically change the delayed off time in response to the occupancy conditions. Whenever the sensor subsequently turns on, the value of the delayed-off time will change, based on how the sensor adapts to the room conditions.

**ADAPTIVE FUNCTIONS**

- **Walk-through Mode** – The walk-through feature is useful when a room is momentarily occupied. With this feature, the sensor will turn the lights off shortly after the person leaves the room.
- The walk-through feature works as follows: When a person enters the room, the lights will turn on. If the person leaves the room before the default walk-through time-out of 2.5 minutes, the sensor will turn the lights off immediately. If the person stays in the room for more than the specified time-out period, the lights will remain on the next time the sensor subsequently turns on.

**LED Operation** – There are two LED indicators that will flash when motion is detected. The LED flash can be disabled using the LED disable switch setting. Green flash indicates motion detection by ultrasonic technology. Red flash indicates motion detection by infrared technology.

**ADJUSTMENT KNOBS**

- **Blue Knob**
  - Sets the infrared range
  - Sets the ultrasonic range

- **Red Knob**
  - Delayed Off Time

- **Black Knob**
  - Ambient Light Override

**TABLE 3: ADJUSTMENT KNOB SETTINGS**

<table>
<thead>
<tr>
<th>Knob Color</th>
<th>Function</th>
<th>Knob Setting</th>
<th>Factory Default Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>Ambient Light Override</td>
<td>Off or Ultrasonic</td>
<td>Major Motion, Ultrasonic</td>
</tr>
<tr>
<td>Red</td>
<td>Delayed Off Time</td>
<td>Full CW = 30 min.</td>
<td>15 min.</td>
</tr>
<tr>
<td>Green</td>
<td>Sets the infrared range</td>
<td>Full CW = 30 min.</td>
<td>15 min.</td>
</tr>
</tbody>
</table>

**TABLE 4: SWITCH SETTINGS**

<table>
<thead>
<tr>
<th>Bank A</th>
<th>Bank B</th>
<th>Test Mode Switch Setting</th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>OFF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TROUBLESHOOTING**

- **Lights do not turn ON**
  - Circuit breaker or fuse has tripped.
  - Low-voltage miswired.
  - To Test: Connect RED to BLUE wire at power pack to force lights ON.

- **Lights do not turn OFF**
  - Constant motion.
  - To Test: Reduce RED and/or GREEN knob by 15%; remove infrared sensor to “see” into hallway.

**PRODUCT INFORMATION**

- For technical assistance, contact us at 1-800-824-3005.
- Visit our website at leviton.com.

**LIFETIME 10 YEAR WARRANTY AND EXCLUSIONS**

Leviton warrants this original purchaser of this product to be free from defects in materials and workmanship under normal and appropriate use for a period of ten (10) years from date of purchase. Leviton’s only obligation is to correct such defects by repair or replacement, at its option, if within such five year period the product is returned prepaid, with proof of purchase, and a description of the alleged defect. Except as stated herein, Leviton is not liable for incidental, indirect, special or consequential damages, including without limitation, damage to or loss of use of any equipment, loss of sales or profit or delay or failure to perform this warranty obligation. This warranty does not apply to damage caused by misuse, abuse, or accident, or to products which have been altered or modified. This warranty is void if the product is installed or fitted with any non-Leviton accessory or the instructions furnished with it are not adhered to. Leviton reserves the right to make changes in the product design without notice.

P-62364-16-GS
**LEVITON INSTRUCTION SHEET/MANUAL SPECIFICATIONS**

- Artwork No/Rev Level: PK:93586.10.00.0A
- Color(s): Black, over
  1. __________ 2. __________
  3. __________ 4. __________
- Font Families: Helvetica
- Material Type: 50 Lb. offset
- Coating: L3

**PAPER SIZE**

- Overall size: 17" X 11"
- Final fold size: 2.83" X 3.67"

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- ECO No.: N/A
- Artist: KSC Date: 12/30/04

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**FOLD SCHEME**

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<tr>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>__________</td>
<td>__________</td>
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<td>__________</td>
<td>__________</td>
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</tbody>
</table>

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#'s = Fold Sequence

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Fold Line

Panel Line

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