### WARNINGS AND CAUTIONS

- **To Avoid Fire, Shock, or Death:** Turn OFF Power at circuit breaker or fuse and test that power is off before wiring!
- **For Indoor use only.**
- **Disconnect power when servicing fixture or changing bulbs.**

### INSTALLATION INSTRUCTIONS

**DESCRIPTION**

The power pack contains a power supply, a load switching relay and on some models, a HVAC relay. The power supply provides Class II low-voltage power for SCOs, SCOVs, ODCVs, and ODCSx Sensor Occupancy Sensors. The OSP power packs can also supply power to the OSA20 Add-A-Relay. The relay in the power pack is controlled by the occupancy sensors connected via the 22 Gauge Blue “occupancy” wire. Multiple occupancy sensors can be connected to a single power pack in order to fully cover an area. The power packs include zero crossing switch circuitry to minimize inrush current associated with incandescent and electronic ballasts. This reduces wear and tear on the relay contacts making the power pack last longer.

**Application Notes:** Loads that exceed the ratings of a single power pack can be connected to an Add-A-Relay, which is powered from the low-voltage output of the power pack (OSPxx). The Add-A-Relay contains the load switching and HVAC relays and is powered by an OSPxx Power Pack.

1. When a lighting load exceeds a single power pack’s rating, the load can be split between multiple power packs. The low voltage occupancy input (Blue wire) and return (Black wire) of the power packs must be connected together for all power packs to operate together as one. Connect the Blue (occupancy) wires of all power packs and sensors together. Connect the Black (return) wires of all power packs and sensors together. Connect the Red (+24VDC) wires of the sensors to the Red wires of only one power pack. Never connect the Red (+24VDC) wires of two different power packs together.

2. When more sensors are required than one power pack can supply, multiple power packs can be used to supply power to the occupancy sensor, but not switch any load. The primary power pack is the power pack switching the load. The secondary power packs only provide low voltage power to the occupancy sensor(s). Connect as many sensors to the primary power pack as possible (see current capacity section below), by connecting the Red wires of the sensors to the Red wire (+24VDC) of the primary power pack. Connect the Red wires (+24VDC) of the remaining sensors to the Red wires of the secondary power pack. Connect the Black (return) wires of all power packs and sensors together. Connect the Blue (occupancy) wire of all sensors together to the Blue wire (occupancy) of the primary power pack. Never connect the Red (+24VDC) wires of two different power packs together.

**LOW-VOLTAGE CURRENT CAPACITY**

<table>
<thead>
<tr>
<th>OSP20</th>
<th>Total Number of Sensor</th>
<th>Total Number of Add-A-Relay</th>
<th>150mA</th>
</tr>
</thead>
</table>

*Input voltage tolerance: 15% Frequency tolerance: 0.5%

<table>
<thead>
<tr>
<th>OSP15</th>
<th>Total Number of Sensor</th>
<th>Total Number of Add-A-Relay</th>
<th>120mA</th>
</tr>
</thead>
</table>

### OPERATION

**Close Relay:** When the attached occupancy sensor detects motion, it will apply +24V to the Occupancy wire causing the relay to close. This includes the HVAC relay on equipped models.

**Open Relay:** When the attached occupancy sensor does not detect motion the relay will open. This includes the HVAC relay on equipped models.

### WIRE DESIGNATIONS

**Cautions:**

- **Low-voltage miswired.** Verify wiring connections per appropriate Wiring Diagrams for the low-voltage wiring. Jacketing over the low-voltage wires may be required to provide appropriate insulation from the high-voltage wiring. Wiring Diagrams.
- **Lamp is burned out.**
- **Circuit breaker or fuse has tripped.**
- **Wires not secured firmly with wire connectors.**
- **Lamp has a bad connection.**

**Troubleshooting:**

- **Lights Flickering:**
  - Lamp has a bad connection.
  - Condenser lamp with incandescent or any other type.

- **Lights do not turn ON:**
  - Circuit breaker or fuse has tripped.
- **Lamp is burned out.**
- **Neutral connection is not wired.**
- **Wiring connections miswired.** Verify wiring connections per appropriate Wiring Diagrams.

- **Lights stay ON:**
  - Constant motion. To Test: Adjust sensor; move motion source. If unsatisfactory, move sensor.

- **Light turns ON too long:**
  - Adjust sensor.
**LIMITED 5 YEAR WARRANTY AND EXCLUSIONS**

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time it is sold by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton’s only obligation is to correct such defects by repair or replacement, at its option. For details visit [www.leviton.com](http://www.leviton.com) or call 1-800-824-3005.

**FOR CANADA ONLY**

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1 800 405-5320.

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**FCC COMPLIANCE STATEMENT (OSP20 ONLY)**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device must not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

**WEB VERSION**