OCCUPANT SENSOR
LOS-W SERIES
Installation Instructions

Please Read

DESCRIPTION

The LOS-W Series of wall-mounted sensors incorporate infrared (WIR) and dual technologies—ultrasonic and infrared (WDT). They are used in spaces with pendant fixtures, ceiling fans, or high ceilings. They integrate into Lutron systems or function as stand-alone controls using a Lutron power pack.

FEATURES

- Intelligent, continually adapting sensors
- 20-24 V, Class 2 (PELV) low voltage, 33 mA nominal
- 1600 sq.ft. coverage
- Flexible mounting on wall or ceiling
- Second dry contact closure output available on R models
- LED indicators: Ultrasonic (US)-green, Infrared (IR)-red
- For indoor use only

COVERAGE AND PLACEMENT

- The occupant sensor must have an unobstructed view of the room entrance. Do not mount behind or near tall cabinets, shelves, indirect hanging fixtures, etc.
- Keep the occupant sensor away from air flow.
- Place the sensor on the same wall as the doorway so that hallway traffic does not affect the sensor.
- Closely follow the diagrams for major and minor motion coverage.
- Decrease total coverage area by 15% for “soft” rooms (for example, heavy draperies or heavy carpeting).
- Indicated coverage is when sensor is mounted at 8 ft. high.

Model US Minor Dims. US Major Dims. IR Minor IR Major
WIR NA NA 20 (6.1) 40 (12.2)
WDT 23 x 23 (7.0 x 7.0) 32 x 32 (9.8 x 9.8) 20 (6.1) 40 (12.2)
WDT-R 23 x 23 (7.0 x 7.0) 32 x 32 (9.8 x 9.8) 20 (6.1) 40 (12.2)

LIMITED WARRANTY

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299, postage prepaid.

This warranty is in lieu of all other express warranties, and the implied warranty of merchantability is limited to one year from purchase. This warranty does not cover the cost of installation, removal or reinstalation, or damage resulting from misuse, abuse, or improper or incorrect repair, or damage from improper wiring or installation. This warranty does not cover incidental or consequential damages. Lutron’s liability on any claim for damages arising out of or in connection with the manufacture, sales, installation, delivery, or use of the unit shall never exceed the purchase price of the unit.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

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TROUBLESHOOTING

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lights stay on too long</td>
<td>Timer setting too high</td>
<td>Check switch settings</td>
<td>Typical setting is 8 min.</td>
</tr>
<tr>
<td>Hallway traffic turns lights on</td>
<td>“Sees” into hallway</td>
<td>Put in timer test mode; walk along hallway</td>
<td>Move sensor</td>
</tr>
<tr>
<td>Sensor not responding</td>
<td>Unit is locked up</td>
<td>--</td>
<td>Cycle power to sensor</td>
</tr>
</tbody>
</table>

Dimensions and Ranges are in feet (m).
**SENSOR ADJUSTMENTS**

**Override Settings**

- Off (Default)
- Automatic (Normal)
- Not used
- LED on (Normal)
- Retain Settings (Normal)
- Any change resets learned settings

** wires lengths (feet)**

<table>
<thead>
<tr>
<th># Sensors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td># Aux, PPs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22 AWG</td>
<td>750</td>
<td>375</td>
<td>250</td>
<td>375</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>20 AWG</td>
<td>1200</td>
<td>400</td>
<td>600</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>18 AWG</td>
<td>2400</td>
<td>1200</td>
<td>800</td>
<td>1200</td>
<td>800</td>
<td>800</td>
</tr>
</tbody>
</table>

**Mounting Plate Dimensions**

Measurements are in inches (mm)

- 2.25 (58)
- 3.35 (86)
- 2.5 (63)
- .52 (13.3)

**Mounting to Wall or Ceiling Tile:**
Redrill wiring routing hole and (2) mounting holes using Mounting Bracket as template. Route wires through wall and mounting bracket. Secure mounting bracket to wall/ceiling tile using mounting screws, nuts, and washers (included).

- Either Method:
  - Feed wiring harness through the back of the sensor body and out the exit slot. Snap sensor onto mounting post. Plug wiring harness into connector on the left side (opposite exit slot) and place wiring under wire tabs. Align sensor and tighten position locking screw.

**Mounting in Acoustic Ceiling Tile:**
Twist threaded mounting post onto Mounting Bracket. Drill through ceiling tile with assembly. Secure with washer and nut. Route wiring through Mounting Bracket and connect to wire harness. Snap bracket cover in place to conceal wiring and bracket.

**WIRING DIAGRAMS**

**Relay Model Option: LOS-WDT-R only**

- Gray wire: logic with photo cell active:
  - Room First Occupied
  - During Occupancy
  - Below set value: Turn on
  - Above set value: Remain off
  - Moves above set value: Remain on

**WIRING DIAGRAMS**

**Control Settings (Blue Knob): LOS-WDT-R only**

- Minimum (low): Lights will never come on, even though room is occupied.
- Maximum (high): Photo cell has no effect on operation (factory setting).
- Normal: 200 to 600 LUX is normal range.

**Choosing wire based on functionality:**
- Yellow/White: NO (normally open)
  - Open: Unoccupied
  - Closed: Occupied
- Black/White: NC (normally closed)
  - Open: Unoccupied
  - Closed: Occupied
- Cap off unused wire.

**CAUTION:**
- Disconnect power before installing. Never wire energized electrical components.
- Use COPPER conductors only.

**CAUTION:**
- Do not connect this Class 2/PELV product to line voltage/mains cable. Check to see that the device type and rating is suitable for the application. Do not install if product or lens have any visible damage. If moisture or condensation is evident, allow the product to dry completely before installation.