DESCRIPTION
The LOS-C Series of ceiling-mounted sensors incorporate ultrasounds (CUS), infrared (CIR), and dual technologies (CDT). They integrate into Lutron systems or function as stand-alone controls using a Lutron power pack.

FEATURES
- Intelligent, continually adapting sensors
- 20-24V, Class 2 (PELV) low voltage, 33 mA nominal
- 450 to 2000 sq.ft. coverage, as indicated in model number (when mounted on 8 ft. ceiling)
- Second dry contact closure available on R models
- LED indicators: Ultrasonic (US)-green, Infrared (IR)-red, Dual Tech (DT)-red and green
- For indoor use only

COVERAGE AND PLACEMENT
- The occupant sensor must have an unobstructed view of the room. Do not mount behind or near tall cabinets, shelves, hanging fixtures, etc.
- Keep the occupant sensor away from air flow.
- If installing a 180° occupant sensor, place the sensor on the same wall as the doorway so that hallway traffic will not affect the sensor; otherwise, place in center of room.
- 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 range is when unit is mounted on an 8 ft. ceiling.

WIRING DIAGRAMS (continued)

1 to 3 Sensors with Power Pack

2 or More Sensors to System

Switching Multiple Loads with Auxiliary Power Packs

TROUBLESHOOTING

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; postage pre-paid. 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 reinstallation, 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, sale, 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.

This warranty is a statement of Lutron's responsibilities and does not extend to others. 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 of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Lutron and the sunburst logo are registered trademarks of Lutron Electronics Co., Inc. © 2005.
**PRE-INSTALLATION**
1. For installation by a qualified electrician in accordance with national and local codes and the following instructions.
2. For indoor use only.
4. **CAUTION: USE COPPER CONDUCTORS ONLY.**
5. **CAUTION:** Do not connect this Class 2/PELV product to line voltage/mains cable.
6. Check to see that the device type and rating is suitable for the application.
7. Do not install if product or lens have any visible damage.
8. If moisture or condensation is evident, allow the product to dry completely before installation.

**INSTALLATION AND MOUNTING**

Normal Mounting:
Twist and lock threaded mounting post onto cover plate. Drill through ceiling tile with assembly, using cutter end of the threaded mounting post. Secure with washer and nut.

Mounting to Non-Standard Ceiling/Fixture:
Mount twist-lock cover plate using mounting screws, nuts, and washers (included). Drill/punch wire routing hole through ceiling tile at center of cover plate.

**SENSOR ADJUSTMENTS**

Override Settings

<table>
<thead>
<tr>
<th>Override Setting</th>
<th>Off (Default)</th>
<th>On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto/Manual</td>
<td>Automatic (Normal)</td>
<td>Manual on/off (Override)</td>
</tr>
<tr>
<td>Threshold</td>
<td>Auto Threshold Adjustment</td>
<td>High Sensitivity (Low turn-on threshold)</td>
</tr>
<tr>
<td>LED Motion Indicator</td>
<td>Lights indicate motion</td>
<td>Disable LED Indicator</td>
</tr>
<tr>
<td>Reset Learned Settings</td>
<td>Retain Settings (Normal)</td>
<td>Erase all learned settings, restart Learning (Toggle On)</td>
</tr>
</tbody>
</table>

**STRENGTH AIRFLOW COMPENSATION**

- **Open:** Unoccupied
- **Closed:** Occupied

**OVERDOORWAY INSTALLATION**

- **Black/White:** NC (normally closed)
- **Yellow/White:** NO (normally open)

**ADJUSTING THE “LIGHTS NOT ON” LEVEL:**

1. Ensure ambient light is at desired level.
2. Place sensor in Test Mode as indicated above.
3. Set photo cell: Turn the blue knob full clockwise (lights on no matter how bright the natural light is), then about 30 degrees counterclockwise.
4. Check for Lights-Out: Move from underneath the sensor, remain still until the lights turn off. Move around normally to turn the light on.
5. Adjust to desired level: If lights turn on, adjust the blue knob another 30 degrees counterclockwise and repeat step 3 until the lights remain off.

**NOTE:** Set blue knob to 100% to disable photo cell functionality and leave secondary dry contact closure output functionality intact.

**WIRING DIAGRAMS**

**Relay Model Option:** LOS-CDT-xxxxR only

**Factory Settings**

- **Red:** Infrared sensitivity
  - 75% default
- **Black:** Timer
  - 8 min. default

**Control Settings (Blue Knob):**

- **Blue:** Cap off

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

**WIRE LENGTHS (feet)**

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