The Intelligent Lighting Controls wireless ceiling mount occupancy sensor is a simple, yet reliable battery powered control solution. Preferred by contractors for their flexible mounting methods, ILC wireless sensors greatly reduce total installation time and wireless pairing fuss. Requiring just a few seconds per device, ILC wireless sensors can be linked to one or more wireless load controllers (such as the ILC-SWX-851 wireless wall switch, or a ILC-SWX-950 series wireless power pack). Additionally, these sensors can be configured to work in applications with other wireless or wired ceiling, corner, or hallway sensors to provide extended coverage in large or irregularly shaped spaces. As with all ILC products, the latest passive infrared technology and digital signal processing techniques are used to provide unmatched occupant detection performance and energy savings.

OVERVIEW

BASIC OPERATION

Sensors detect movement in the infrared energy that radiates from occupants as they move within the device’s field-of-view. Once occupancy is detected, the sensor immediately signals a wirelessly linked load controller (e.g. power pack) to switch on or dim up the connected lighting. At regular intervals, the sensor will retransmit its latest occupancy status such that the load controller can keep lights on for occupants during brief periods of inactivity, while returning the space to an energy saving lights off (or dim) state once no longer occupied.

FEATURES

- Pairs in Seconds with Wireless Controllers
- Passive Infrared (PIR) Detection
- 360° Small Motion Coverage Pattern
- 10 Year Battery Life Design
- Compact Size and Matte Finish
- Four Contractor Friendly Mounting Methods
- Mounting Nipple Attachment with Integrated Hole Saw
- Convenient Test Modes

SPECIFICATIONS

BATTERY POWERED

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SPECIFICATIONS

ELECTRICAL & WIRELESS

BATTERY TYPE
Requires one CR123(A) Lithium Battery

BATTERY LIFE
Designed for 10 Year Life
(under default settings)
Non-Volatile Memory (saves all settings regardless of battery state)
Blink Warning @10% Life

RANGE
80’ line of site w/o obstruction (walls)
40’ with obstruction (walls/floors)

FREQUENCY
915 MHz ISM Band

WIRELESS LINKING
Simple 3 sec. Push Button Process

SECURITY
All Wireless Data is Encrypted

ENVIRONMENTAL

OPERATING TEMP
32°F to 122°F (0°C to 50°C)

RELATIVE HUMIDITY
0-95% Non-Condensing.
Indoor Use Only

CODE COMPLIANCE
These sensors can be used to meet ASHRAE 90.1, IECC, & Title 24 energy code requirements.

PHYSICAL

SIZE
4.00” Diameter x 1.25” H (10.16 x 3.17 cm)

WEIGHT
4.75 oz

COLOR
White

LED INDICATION
Motion Detection (when in Test Mode)*
Wireless Linking (Pairing)

OPERATION

OPERATING MODES
Occupancy & Vacancy Modes
Configured on Linked Controller

COMPATIBLE LOAD CONTROLLERS
ILC-SWX-851 Wall Switch
ILC-SWX-950 Series Power Packs

WIRELESS TEST MODE
Button Toggles On/Off
Wirelessly Linked Loads

COVERAGE TEST MODE
White LED Illuminates Upon Detected Occupancy

TIME DELAY OPTIONS
Configured at Load Controller(s)
1, 5, 10, 15, 20, 30 min.
APPLICATIONS

SMALL SPACES
For control of small spaces like a private office, a single sensor linked to a wireless wall switch controller (ILC-SWX-851) is recommended (see diagram on right). Linking additional sensors is also an option if necessary. Switching from a second location (e.g. 3-way) is achieved by linking a remote wireless wall switch to the wireless switch controller. Both occupancy (auto-on) and vacancy (manual-on) operation are achievable in order to meet energy code requirements.

- Small Offices
- Copy Rooms
- Private Restrooms

LARGE SPACES
Multiple wireless sensors can be easily linked to a wireless power pack load controller (ILC-SWX-950) to provide coverage for larger spaces (or larger loads) like an open office. Additional functionality such as switching/dimming from multiple locations (e.g. 3-way) or interfacing with wired control devices is achieved by linking to a wireless power pack with appropriate functionality.

- Classrooms
- Open Areas
- Conference Rooms
- Hallways
- Break Rooms

COMPATIBLE WIRELESS DEVICES
The below chart lists the devices that can be used in a Intelligent Lighting Controls wireless application. Note that sensors and remote switch & dimmer devices are transmit only devices and therefore must be linked to a load controller for switching or dimming of lighting.

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
<th>WIRELESS TYPE</th>
<th>POWER TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILC-SWX-201-B</td>
<td>Small Motion 360° Sensor, PIR</td>
<td>Transmit</td>
<td>Battery</td>
</tr>
<tr>
<td>ILC-SWX-401-B</td>
<td>Wide View Sensor, PIR</td>
<td>Transmit</td>
<td>Battery</td>
</tr>
<tr>
<td>ILC-SWX-402-B</td>
<td>Long Range Hallway Sensor, PIR</td>
<td>Transmit</td>
<td>Battery</td>
</tr>
<tr>
<td>ILC-SWX-851-xx</td>
<td>Wall Switch Load Controller, No Neutral Required, &lt;xx = color&gt;</td>
<td>Transmit &amp; Receive</td>
<td>120-277 VAC</td>
</tr>
<tr>
<td>ILC-SWX-852-B-xx</td>
<td>Remote Switch (On/Off), &lt;xx = color&gt;</td>
<td>Transmit</td>
<td>Battery</td>
</tr>
<tr>
<td>ILC-SWX-854-B-xx</td>
<td>Remote Dimming Switch (On/Off, Raise/Lower), &lt;xx = color&gt;</td>
<td>Transmit</td>
<td>Battery</td>
</tr>
<tr>
<td>ILC-SWX-950</td>
<td>Power Pack Load Controller, 20A</td>
<td>Receive</td>
<td>120/277 VAC</td>
</tr>
<tr>
<td>ILC-SWX-950-D2</td>
<td>Power Pack Load Controller, 20A, 0-10V Dimming</td>
<td>Receive</td>
<td>120/277 VAC</td>
</tr>
<tr>
<td>ILC-SWX-950-AX</td>
<td>Hybrid Wireless/Wired Power Pack Load Controller, 20A</td>
<td>Transmit &amp; Receive</td>
<td>120/277 VAC</td>
</tr>
<tr>
<td>ILC-SWX-950-AX-D2</td>
<td>Hybrid Wireless/Wired Power Pack Load Controller, 20A, 0-10V Dimming</td>
<td>Transmit &amp; Receive</td>
<td>120/277 VAC</td>
</tr>
</tbody>
</table>

ORDERING INFO

<table>
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<th>MODEL NUMBER</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ILC-SWX-201-B</td>
<td>Wireless Ceiling Mount Sensor, PIR, 360° Small Motion, Battery Powered</td>
<td>Transmit &amp; Receive</td>
<td>120/277 VAC</td>
</tr>
<tr>
<td>ILC-SWX-299-JP</td>
<td>Accessory Trim Ring for Mounting to Single Gang Mudring, Handy Box, or 4&quot; Octagon Box</td>
<td>Transmit &amp; Receive</td>
<td>120/277 VAC</td>
</tr>
</tbody>
</table>
INSTALLATION OPTIONS

WIRELESS LINKING (PAIRING)

Linking a sensor with a wireless wall switch controller or power pack load controller is quickly done via the following procedure:

**Step 1.** Enter pairing mode by holding down the wireless load controller’s button for 3 seconds until the LED starts alternating white then blue, then release.

**Step 2.** At the sensor, hold down the programming button for 3 seconds until the LED starts alternating white then blue. Releasing will link the sensor with any device in pairing mode (see note 1 below). The lights will toggle once as confirmation.

**Step 3.** Repeat step 2 to link another sensor or device.

**Step 4.** When all devices have been linked, exit pairing mode on the wireless load controller by pressing the button 1 time. Pairing will also be automatically closed after 15 minutes of no new devices being linked.

**Note 1:** When in pairing mode, the alternating LED colors on the wireless load controller will periodically pause and blink out the total number of linked devices. There will be no blinks during the pause until the first device is linked.

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**STEP 1**
WALL SWITCH OR POWER PACK

**STEP 2 & STEP 3**
WIRELESS SENSOR

**STEP 4**
WALL SWITCH OR POWER PACK

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**Note:** If mounting to a Single Gang Mudring, Handy Box, or 4” Octagon Box, a trim ring is required. Part Number: ILC-SWX-299-JP.
COVERAGE

SMALL MOTION 360 - PASSIVE INFRARED (PIR)

- Excellent detection of small motions from sitting or stationary occupants (e.g. hand motions).
- 8 to 12 ft (2.44 to 4.57 m) mounting height recommended.
- ~500 ft² of coverage
- Line of site between occupant and sensor is required for detection.
- Sensor can not see through glass windows or doors.
- Detection range improves when walking across beams as compared to into beams.*
- Spaces with small temperature differential between occupants and ambient may encounter reduced sensitivity/range.

OPERATION NOTES

- By default, every ~60 seconds the sensor transmits whether or not occupancy was detected during the previous period."
- Referred to as the sensor’s "heartbeat", this period can be reduced to ~30 seconds although this will decrease expected battery life.
- If a sensor transmitted “unoccupied” at its last heartbeat, any new occupancy detection event will be transmitted immediately.
- If a sensor transmitted “occupied” at its last heartbeat, new occupancy events will only be transmitted at the heartbeat interval, thus conserving battery life.
- The wirelessly linked wall switch load controller and/or power pack maintains a master time delay that is reset every time a linked sensor reports occupancy. Lights will be switched off once all linked sensors have continuously reported unoccupied for the duration of the time delay.

BATTERY INFORMATION

- The sensor runs on one CR123(A) Lithium Battery (included).
- Install battery prior to mounting sensor. Polarity is indicated on the battery compartment door.
- If the sensor’s battery life reaches 10%, all wirelessly linked load controllers will blink lights on/off/on upon initial occupancy as a replacement warning.
- Replacement batteries are available at most retailers or home centers where batteries are sold or from ILC

FCC INFORMATION (FCC ID: 2AVRY-SWX0002)

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

Changes and Modifications not expressly approved by BLP Technologies can void your authority to operate this equipment under Federal Communications Commission's rules.

INDUSTRY CANADA INFORMATION (IC: 26012-SWX0002)

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d’Industrie Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

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Five-Year Limited Warranty
DATA200-B | REV 001-200808

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