



WIRELESS CEILING MOUNT OCCUPANCY SENSOR

BATTERY POWERED

OVERVIEW

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.

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

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.



ORDERING INFO

MODEL NUMBER	DESCRIPTION
ILC-SWX-201-B	Wireless Ceiling Mount Sensor, PIR, 360° Small Motion, Battery Powered
ILC-SWX-299-JP	Accessory Trim Ring for Mounting to Single Gang Mudring, Handy Box, or 4" Octagon Box

APPLICATIONS

SMALL SPACES

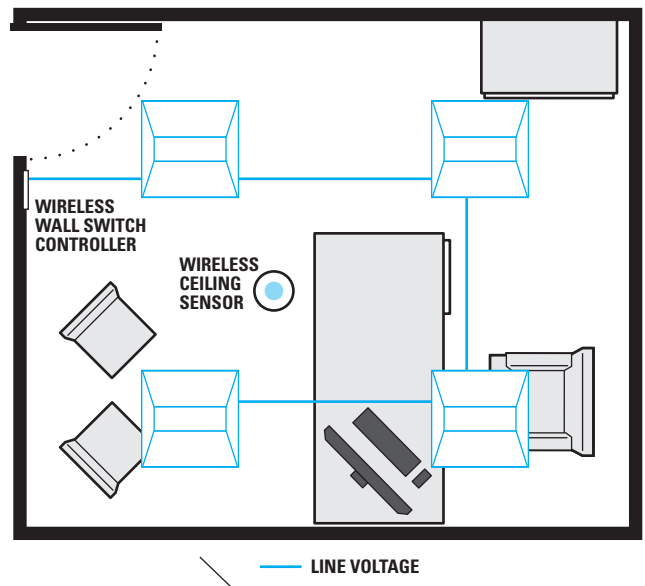
For control of small spaces like a private office, a single sensor linked to a wireless wall switch controller (**ILC-SWX-851**) is recommended (see diagram on right). Linking additional sensors is also an option if necessary. Switching from a second location (e.g. 3-way) is achieved by linking a remote 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
- Conference Rooms"
- Break Rooms
- Open Areas
- Hallways

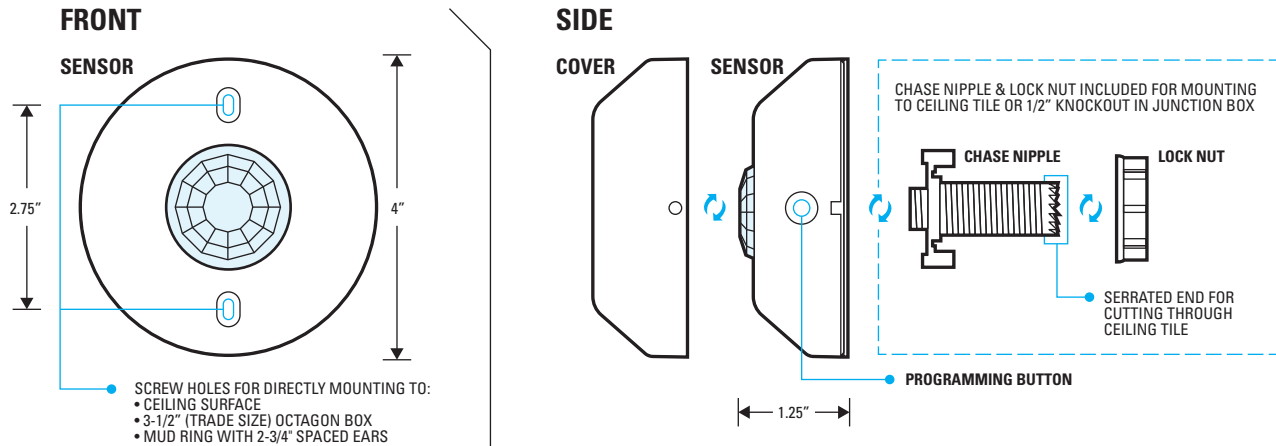


COMPATIBLE WIRELESS DEVICES

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.

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

INSTALLATION OPTIONS



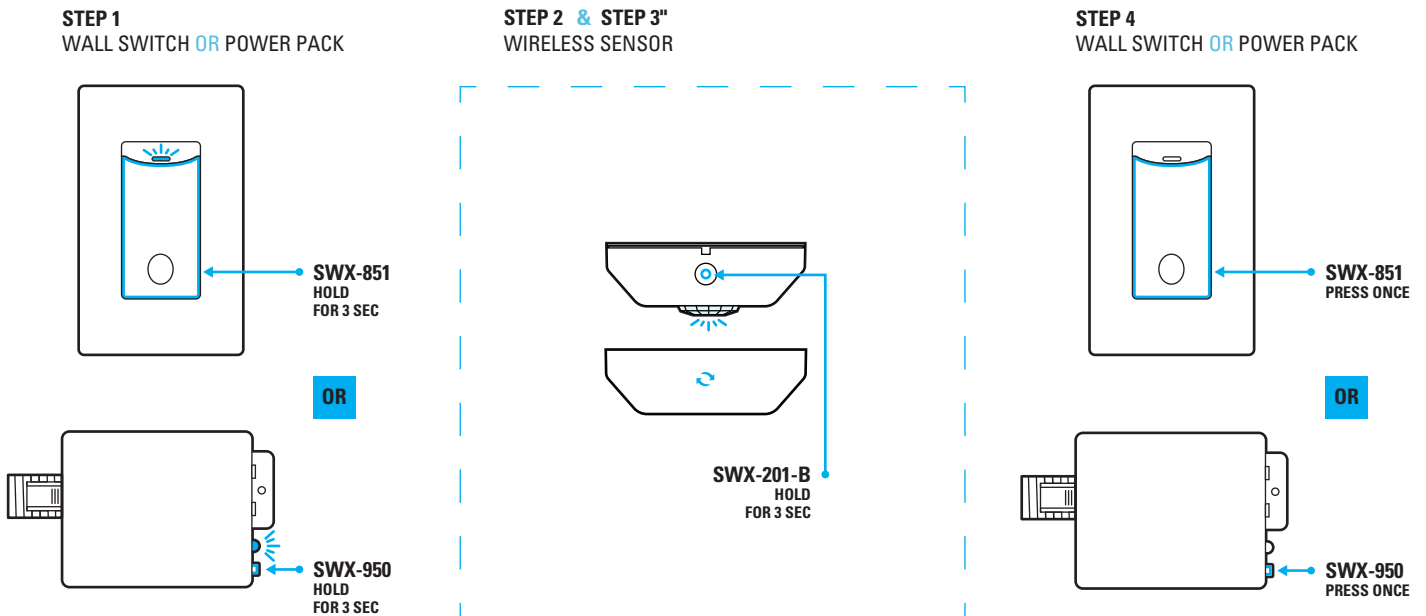
Note: If mounting to a Single Gang Mudring, Handy Box, or 4" Octagon Box, a trim ring is required. Part Number: **ILC-SWX-299-JP**.

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.

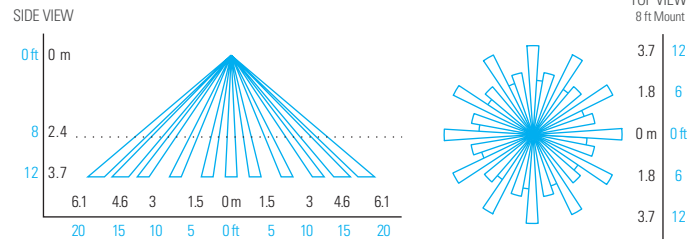
Note 1: When in pairing mode, the alternating LED colors on the wireless load controller will periodically pause and blink out the total number of linked devices. There will be no blinks during the pause until the first device is linked.



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.

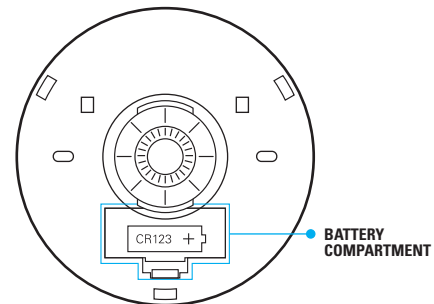


OPERATION NOTES

- 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 may 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.