



Wireless Occupancy Sensor

Installation Guide

Regulatory Compliance:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two 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.

Any changes or modifications of this product, not approved by Intuitious Inc. will void the user's authority to operate the equipment.

This device is Industry Canada Compliant. IC: 8354A-43870194

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Introducing the Intuitous Energy Conservation System

With most set-back thermostats, the only way to realize significant cost savings is if the occupants have a vested interest in energy conservation and highly predictable occupancy patterns. And even then, they have to understand how to program and manage the device.

With Intuitous, the system automatically monitors occupancy, current temperature, high and low temperature thresholds, as well as open doors and windows. Instead of asking your occupants to generate 20-35% energy savings, Intuitous does it for you seamlessly and automatically without compromising occupant comfort.

The Intuitous Energy Conservation System lets you maintain occupant-determined comfort levels while dramatically reducing your energy costs. Intuitous offers you a more flexible and manageable approach through Wireless Occupancy Sensors that capture real time dynamic information about the status of your residential spaces:

Wireless Occupancy Sensor

Intuitous occupancy sensors are the primary feedback mechanism for the Intuitous Energy Conservation System. The sensor provides the Intuitous HVAC Controller with human presence information that enables the intelligent controller to make decisions about when to conserve energy.

The ceiling mount design enables optimal range and accuracy and blends into the room's decor. In addition to detecting human body presence, the sensor also detects the level of lighting in the room to enable optional night setback modes. The occupancy sensor continually monitors the space for human presence; however intelligent circuitry optimizes communication with the controller to ensure maximum battery life. Under typical conditions, the sensors batteries will last up to 4 years.

Safety Information and Caution

1. The Intuitous sensors and controllers contain sensitive electronic components. Please do not touch the electronic components to avoid the risk of electrostatic discharge.
2. Please ensure that ALL batteries are inserted into the sensor correctly as marked on the device. Incorrectly inserted batteries can damage the batteries and/or the sensor.
3. Please DO NOT modify or attempt to repair the controller or sensors as this will void the warranty.

Maintenance

The Intuitous Energy Conservation System should require very minimal maintenance. The wireless occupancy sensors are powered by readily available "AA" Alkaline batteries. Under typical conditions the batteries will last up to 4 years. Given the relative ease and low cost of battery changes, we recommend a scheduled maintenance routine every two years to change the batteries and visually inspect the components for dust on the occupancy sensor or other obstructions that could interfere with proper operation of the system.

Installing the Occupancy Sensor(s)

Selecting a Location for the Sensor

Care must be taken to select the best possible location for the occupancy sensor to ensure optimum performance. The Intuitous sensors were designed for ceiling mounting to maximize the range and accuracy and to minimize the visual design impact. Large rooms may require multiple occupancy sensors, although most hotel rooms and bachelor style apartments can be serviced quite well with a single sensor.

Typically, a one bedroom apartment will require 2 sensors (1 for the bedroom and 1 for the common living space). Similarly, a 2 bedroom apartment will require 3 sensors. The maximum number of sensors that can be connected to a single controller is 40.

Each sensor will detect human presence within a 12 ft. radius of the sensor's location. Depending on the shape of the room and location of furniture, one sensor will handle a room size from 600 to 800 square feet.

Connecting the Sensor to the Controller

Each Intuitous Occupancy sensor has a unique ID that is sent to the controller each time it transmits. This unique ID needs to be learned by the controller so it can ensure that it is receiving a valid transmission. It is also important for the controller to know which sensor the transmission has come from. Consider a multi-story hotel or condo building with adjacent suites beside, above and below. Each Controller must be taught to only listen to sensors that are installed in the same suite.

Since each sensor has a unique ID, the controller simply needs to learn the ID's for each sensor that it should listen to. Learning these ID's is a very simple process that involves clicking on the controller's "learn" button and then clicking on the sensor's "learn" button. These steps are covered in more detail in the controller install guide.

Mounting the Sensor

Locate the sensor's base on the ceiling and fasten using two #6 screws in either of the opposing holes in the base. Insert the bottom half of the sensor into the base and twist until you hear a click.

Specifications

Wireless Occupancy Sensor	Model #: ECS-WOL
Operating Voltage	3.0 Vdc (4 AA Alkaline)
Supply Current - Standby detection	124ua
Supply Current - Transmit	4.60ma
Baud Rate	2400bps
Transmission Frequency	418 MHz
Wireless transmit range	50-100 ft.
Infrared Sensor	Dual element pyroelectric
Mounting configuration	Ceiling
Detection zones	38
Detection Range	3.5m (12 ft.) Radius
Light Sensor	Cds photocell
Battery Life Expectancy	3 – 5 years
Operating Temperature	-20C ~ 50C (4F ~ 122F)
Dimensions	45mm x 97mm dia. (1.8" x 3.8")

