



Total Lighting Control



Wall Switch Occupancy Sensor



DESCRIPTION

The RSENSWT-xxx is an ultrasonic motion sensor designed to control a single room up to 15 by 20 feet. It is a self-contained unit which can be used to replace a conventional wall switch for automatic energy savings. It is available in two voltage ratings: RSENSWT-115, rated at 115 volts, and RSENSWT-277, rated at 277 volts.

The unit produces a low intensity, inaudible sound. It detects changes in the sound waves caused by motion, such as walking into the room, reaching for a telephone, turning in a chair, etc. The sensor does not respond to audible sound.

The lights are turned ON when entering the room by pressing the pushpad on the face of the RSENSWT-xxx:

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FEATURES

- Manual ON, Auto OFF operation for maximum energy savings.
- Built-in ON/OFF switch.
- Full coverage. No gaps in coverage pattern.
- Separate time delay and sensitivity adjustments.
- Self-contained electronics for direct replacement of existing switches.
- Self-resetting thermal cutoff for built-in protection from overloads.
- Positive override switch to bypass the unit for maintenance purposes.

Before starting, read the installation instructions inside. If you have questions, call GE TLC Service at:

1-877-584-2685 (LTG-CNTL) in the United States or
1-800-661-6619 in Canada.

INSTALLATION

continued from previous page —

they do not turn ON automatically when the room is entered. When the lights are turned ON, they will remain ON as long as there is someone in the room. If the wall switch sensor fails to detect motion during the user-selected time delay period, it will turn the lights OFF automatically.

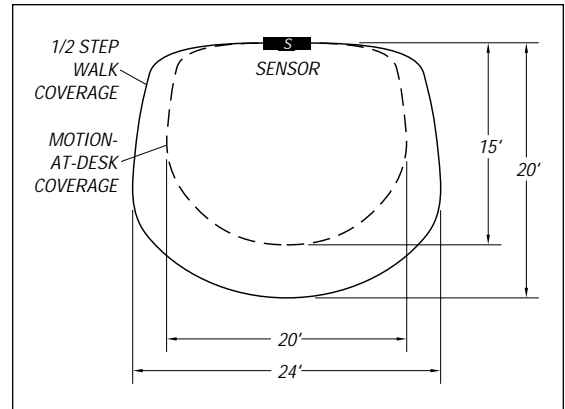
The lights may also be turned OFF and ON while the room is occupied by pressing the pushpad (it alternately toggles the lights ON/OFF).

If the lights go OFF for lack of motion in the room, a ten-second "grace" period begins, which allows lights to be turned ON again by motion. After this ten-second period, the lights can be turned ON by pressing the pushpad.

Locating Sensor

If installing the RSENSWT-xxx in a new junction box, choose the location carefully to provide optimum coverage of the occupied area. If replacing an existing wall switch, bear in mind that there must be a clear line of sight between the wall switch sensor and the area being covered. The line of sight must be through air. The sensor cannot "see" through glass or partitions.

Consideration should also be given to the path of entry, but avoid pointing the RSENSWT-xxx directly into the hallway where it may detect movement from passers-by.

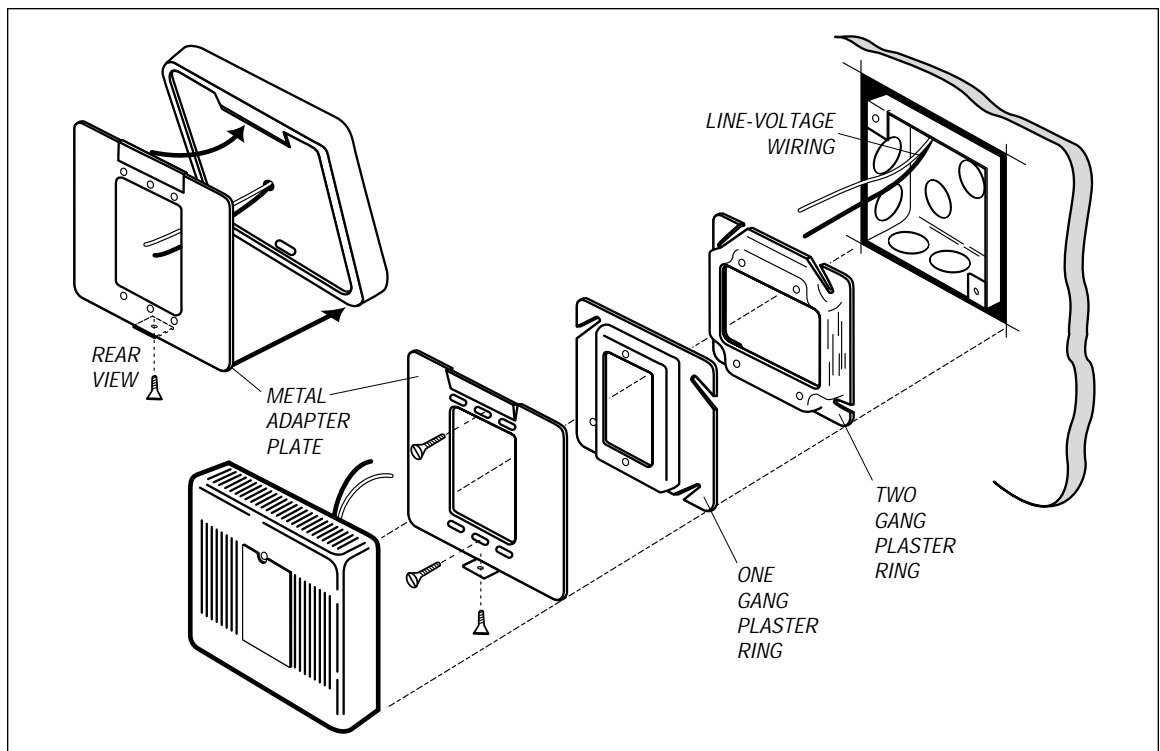


The RSENSWT-xxx is designed specifically for small offices up to 300 square feet with dimensions up to 15 by 20 feet. Refer to the coverage diagram above when selecting the mounting location.

Mounting Sensor

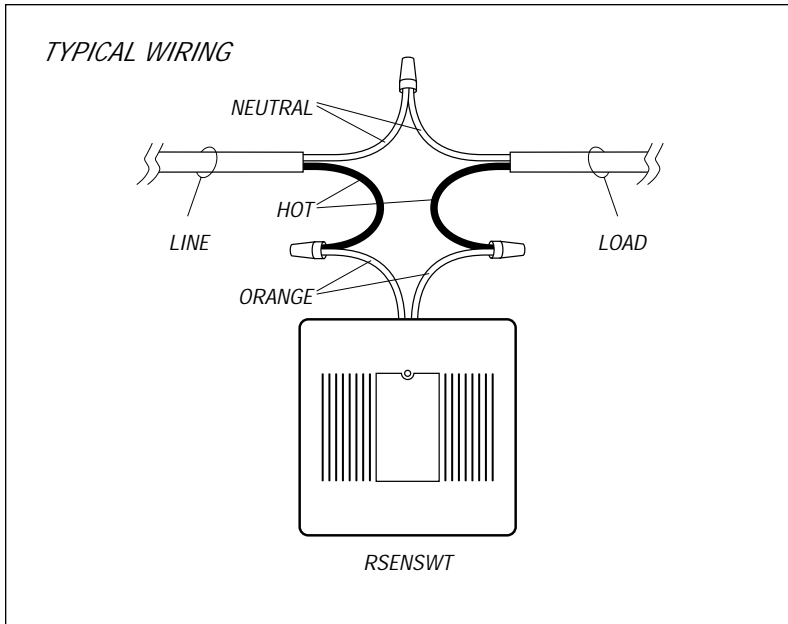
CAUTION: Before installing or doing any service on an RSENSWT-xxx, the power **MUST** be turned OFF at the circuit breaker.

The wall switch sensor can replace one or two standard single-pole wall switches in any single- or double-gang switch box, and it is installed in the same manner as an ordinary single-pole switch. The metal adapter plate mounts directly to the switch box or to a plaster ring



CAUTION: The RSENSWT-115 is for use only on 115 VAC circuits and the RSENSWT-277 is for use only on 277 VAC circuits. DO NOT USE ON THE WRONG LINE-VOLTAGE, OR TO REPLACE LOW-VOLTAGE SWITCHES.

INSTALLATION



using the screws supplied with the unit (see the illustration to the left). Wire the RSENSWT-xxx as described below.

Mount the wall switch sensor to the adapter plate by hooking the top of the unit over the top of the adapter plate as shown in the illustration, and fix in position with the screw through the bottom.

Wiring

Verify that the connected load does not exceed the rating of the wall switch sensor, and be sure to observe the minimum load ratings. Do not wire the unit to control receptacle circuits.

Ratings

RSENSWT-115: 115 VAC, 500 watt maximum, tungsten or ballast, minimum load 140 watts

RSENSWT-277: 277 VAC, 1000 watt maximum, ballast only, minimum load 220 watts

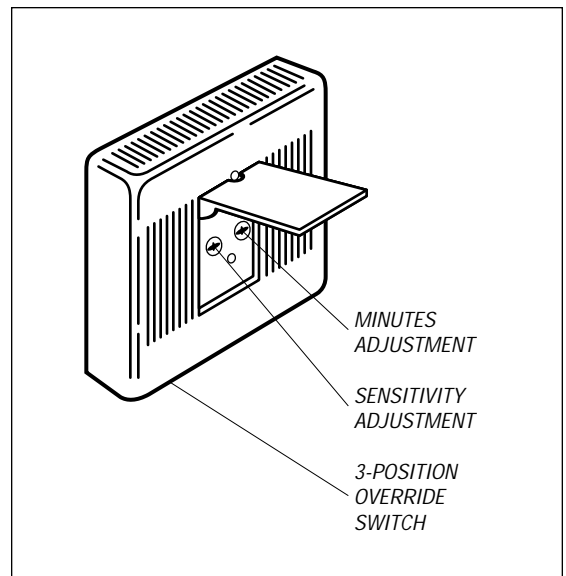
Wire the wall switch sensor to the existing switchleg wires with the twist-on wire connectors supplied.

Note: When the RSENSWT-xxx is installed to operate incandescent lights, the branch breaker must be marked "SWD."

Checkout and Adjustment

Once installed, the RSENSWT-xxx must be adjusted for suitable sensitivity and time delay. These adjustments can only be made after the unit has been connected and power applied. Use a small screwdriver to turn the adjustment knobs.

1. Set the MINUTES adjustment control to the minimum. Set the SENSITIVITY adjustment control to its midpoint. (The adjustment controls are accessed by lifting the pushpad from the bottom.)
2. Check the operation of the ON/OFF override button. Leave it in the AUTO position.
3. Stand completely still or leave the area. The lights should go out in approximately 90 seconds.
4. Walking towards the sensor within 10 seconds after the lights have turned OFF, will cause the lights to come ON. By watching the red LED on the sensor, you can test the area of coverage. The LED comes on only when the sensor is detecting motion. Adjust the SENSITIVITY adjustment to the lowest position that provides adequate detection of a person entering the room. Do not set it higher than necessary. Remember that in normal operation, the pushpad must be pressed to turn the lights ON.
5. If the red LED blinks or stays on when there is no motion being made in the room, it is possible that the sensor is being activated by air flow from the HVAC system. Reduce the sensitivity setting until the LED goes off and stays off when there is no motion.
6. In very small rooms, the wall switch sensor may continue to be activated by motion outside the doorway. Adjust sensitivity downward to remedy this.
7. Set the MINUTES adjustment to the interval desired for lights to remain ON after leaving the room. The minimum time is approximately 90 seconds, and the maximum about 30 minutes. If the lights go OFF while the room is occupied, increase the time slightly until an optimum interval is obtained. Suggested time for a one person office or conference room is 6 minutes.



TROUBLESHOOTING

Emergency Manual On

The RSENSWT-xxx features a 3-position override switch which may be used to bypass the sensor circuit for maintenance purposes, or in the event of unit failure. This switch, located on the bottom of the unit, should be set to AUTO at all times except under one of the following conditions:

- *When changing lamps, or when working on the circuit switchleg wiring, the override switch should be set to OFF. This removes all power from the switchleg.*
- *If the wall switch sensor fails and cannot be immediately replaced, the override switch may be positioned to ON to operate the lights. To place the switch in the ON position, the plastic tab that prevents accidental setting of the switch in the ON position must be flexed out of the way. Until the unit is replaced, remember that the override must be set to the OFF position when the lights are not needed.*

LED Will Not Come On

- *Check that the override switch is in the AUTO position.*
- *Press the pushpad.*
- *Verify power to the switch leads.*
- *Increase the sensitivity control setting.*
- *The thermal cutoff may be tripped. Remove the overload and wait for the unit to cool.*
- *If the LED still will not come ON, the RSENSWT-xxx must be replaced.*

Lights Do Not Come ON

- *Press the pushpad on the face of the RSENSWT-xxx.*
- *Check that the override switch is in the AUTO position.*
- *Verify power on the lighting circuit.*
- *The thermal cutoff may be tripped. Remove the overload and wait for the unit to cool.*
- *If the lights still will not come ON, the RSENSWT-xxx must be replaced.*

Lights Do Not Go OFF After Persons Leave Room

- *If the lights will not go OFF after the time period set on the sensor and the LED has not gone on during this time, check that the override switch is in the AUTO position.*
- *If the LED blinks or remains on when the room is unoccupied, check to be sure no air flow from the ventilating system is blowing on the unit.*