



legrand RW600B Vacancy Sensor Switch Instruction Manual

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legrand RW600B Vacancy Sensor Switch



Product Information

Specifications

- **Voltage:** 120VAC, 60Hz Load (Single Pole Circuit)
- **Coverage Range:** 180 degrees
- **Coverage Area:** 600 square feet (56 square meters)

Description and Operation

- The RW600B Vacancy Sensor is designed to replace a standard light or fan switch. It uses passive infrared technology to sense human motion in a space and automatically turns off the light when the room is vacant. The sensor is ideal for applications in a home where there is a direct line of sight from the sensor to the room, including bedrooms and family/living rooms.
- Like a standard switch, pressing the ON/OFF button will turn the light or fan (controlled load) on and off. However, unlike a standard switch, the RW600B automatically turns off the controlled load after a period of time known as the Time Delay when no motion is detected in the coverage area. If motion is detected within 30 seconds after it automatically turns off, the RW600B will turn the load back on.

Indicator Light

The Status LED located on the ON/OFF button blinks upon initial detection and will blink again when it detects a change of infrared energy in the space. The LED can be disabled. Refer to the Status LED section for more information.

Coverage Area

The RW600B has a maximum coverage range of 180 degrees and a coverage area of 600 square feet (56 square meters). It is important to ensure that the sensor has a clear and unobstructed view of the coverage area. Objects blocking the sensor's lens may prevent motion detection, causing the light to turn off even if someone is in the area. Windows, glass doors, and other transparent barriers will obstruct the sensor's view and prevent detection.

Installation & Wiring

WARNING: Disconnect power to the wall switch box by turning off the circuit breaker or removing the fuse for the

circuit before installing the RW600B, replacing lamps, or doing any electrical work.

1. Prepare the switch box:

- Turn off the power at the circuit breaker box.
- Remove the existing wall plate and mounting screws.
- Pull out the old switch from the wall box.

2. Identify the type of circuit:

- In a Single Pole Circuit, two single wires connect to two screws on the existing switch. A ground wire may also be present and connected to a ground terminal on the old switch.
- **CAUTION:** Connecting a proper ground to the sensor provides protection against electrical shock in the event of certain fault conditions. If a proper ground is not available, consult with a qualified electrician before continuing installation.

3. Prepare the wires:

- Tag the wires currently connected to the existing switch for identification later.
- Disconnect the wires.
- Strip off the insulation from the wires to expose their copper cores to the length indicated by the Strip Gage (approximately 1/2 inch).

FAQ

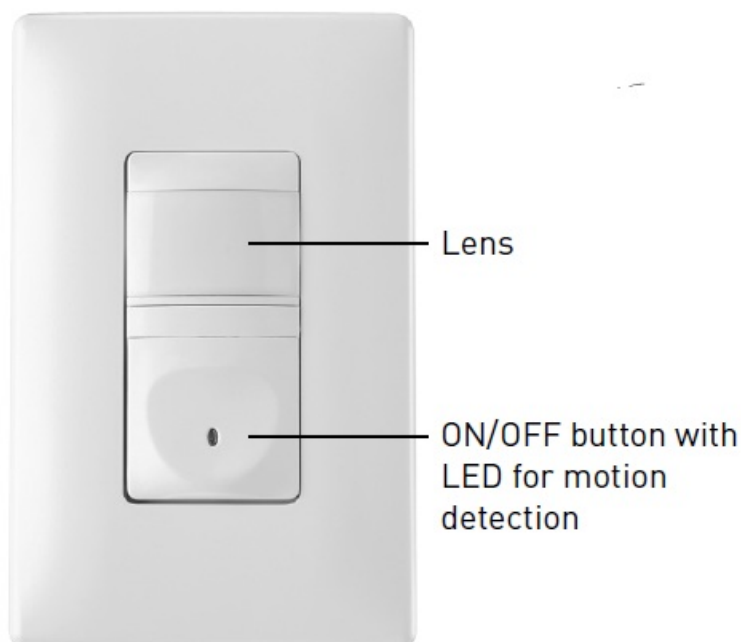
Q: Can I use the RW600B with a 3-way switching system?

A: No, the RW600B is only suitable for Single Pole Circuits. If your existing wiring does not match the description for a Single Pole Circuit, it is recommended to consult with a qualified electrician.

Please read all instructions before installing

RW600B

Vacancy Sensor Switch



SPECIFICATIONS

- **Voltage**120VAC, 60Hz
- **Load (Single Pole Circuit)**
 - Incandescent or fluorescent light 0-600 Watt
 - Fan motor 1/6 hp
- **Time Delay** 30 seconds to 30 minutes
- **Environment**Residential Indoor use only
 - **Operating Temperature** 32° to 131°F (0° to 55°C)
 - **Humidity**95% RH, non-condensing
- **Tools Needed**
 - Insulated Screwdriver
 - Wire Strippers

DESCRIPTION AND OPERATION

- The RW600B Vacancy Sensor is designed to replace a standard light or fan switch. The sensor uses passive infrared technology to sense human motion in a space and turn the light OFF when the room is vacant. It is ideal for applications in a home where there is a direct line of sight from the sensor to the room including bedrooms and family/living rooms.
- Like a standard switch, pressing the ON/OFF button will turn the light or fan (controlled load) ON and OFF. Unlike a standard switch, the RW600B automatically turns OFF the controlled load after the coverage area has been vacant for a period of time known as the Time Delay. If motion is detected within 30 seconds after it automatically turns OFF, the RW600B automatically turns the load back ON.

Indicator Light

- The Status LED located on the ON/OFF button blinks upon initial detection. It will blink again when it detects a change of infrared energy in the space.
- The LED can be disabled. See Status LED.

Coverage Area

- The RW600B has a maximum coverage range of 180 degrees and a coverage area of 600 square feet (56 square meters). The sensor must have a clear and unobstructed view of the coverage area. Objects blocking the sensor's lens may prevent detection thereby causing the light to turn off even though someone is in the area.
- Windows, glass doors, and other transparent barriers will obstruct the sensor's view and prevent detection.

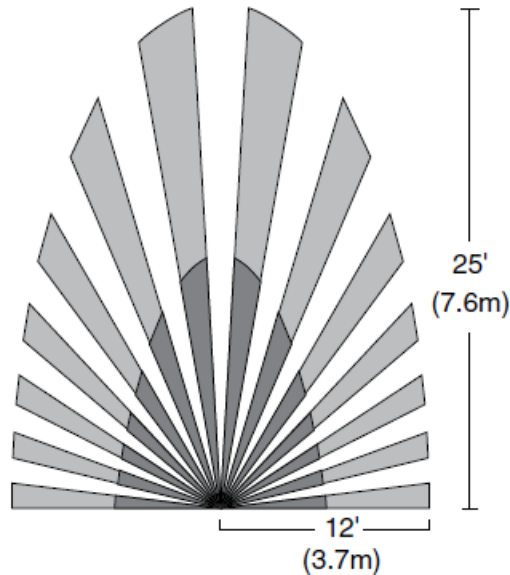


Fig 1: Sensor Coverage Area

INSTALLATION & WIRING

WARNING

Disconnect power to the wall switch box by turning OFF the circuit breaker or removing the fuse for the circuit before installing the RW600B, replacing lamps, or doing any electrical work.

1. Prepare the switch box.

After the power is turned off at the circuit breaker box, remove the existing wall plate and mounting screws. Pull the old switch out from the wall box.

2. Identify the type of circuit.

In a Single Pole Circuit (see Fig. 2), two single wires connect to two screws on the existing switch. A ground wire may also be present and connected to a ground terminal on the old switch.

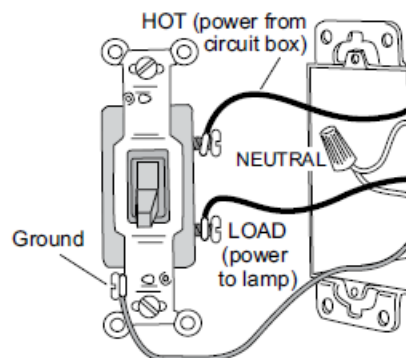


Fig 2: Typical Single Pole Switch Wiring

1. CAUTION

For your safety: Connecting a proper ground to the sensor provides protection against electrical shock in the event of certain fault conditions. If a proper ground is not available, consult with a qualified electrician before continuing installation.

2. Only connect the RW600B to a Single Pole Circuit. The

RW600B is not suitable for 3-way switching. If the existing wiring does not match the description for a Single Pole Circuit, you should consult with a qualified electrician.

3. Prepare the Wires.

Tag the wires currently connected to the existing switch, so that they can be identified later. Disconnect the wires. Make sure the insulation is stripped off the wires to expose their copper cores to the length indicated by the “Strip Gage,” in Fig. 3 (approximately 1/2 inch).

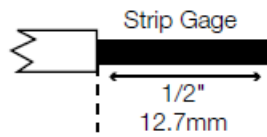


Fig 3: Wire Stripping

4. Wire the sensor.

1. Twist the existing wires together with the wire leads on the RW600B sensor as indicated below. Cap them securely using the wire nuts provided. See Fig 4.
2. Connect the power wire (HOT) from the circuit to the black wire on the RW600B.
3. Connect the green or non-insulated (copper) GROUND wire from the circuit to the green ground wire on the RW600B. Make sure there is a solid ground connection.
4. If neutral is available in the box, connect to the Blue and White striped (signal) wire on the RW600B. In cases of retrofit or replacement where no neutral is present, connect the signal wire to ground.
5. Connect the power wire to the lamp or fan (LOAD) to the red wire on the RW600B.

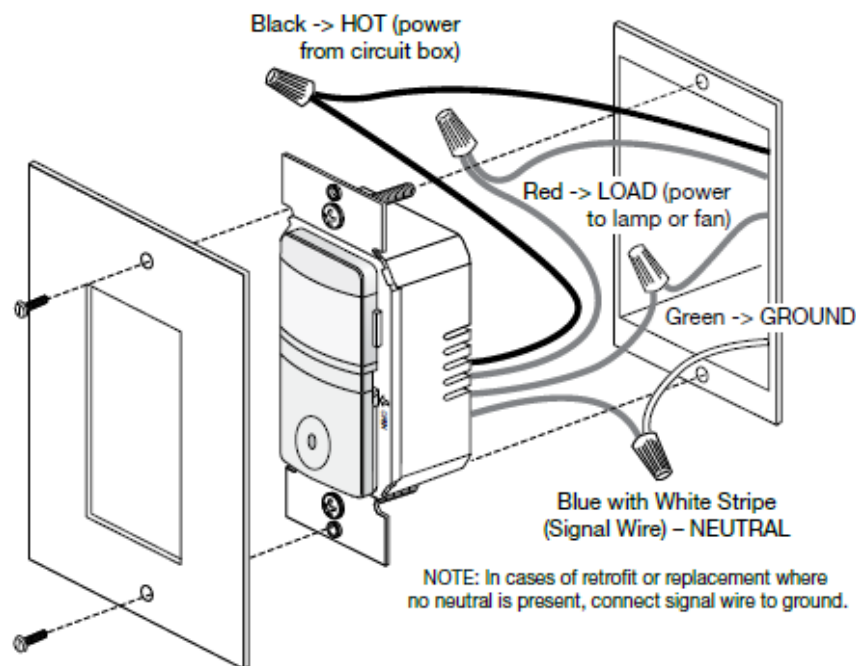


Fig 4: Sensor orientation, wire connections and wall box assembly

5. Put the RW600B in the wall box.

Position the lens above the ON/OFF button (lens at top, button at bottom). Secure it to the wall box with the screws provided.

6. Make any necessary adjustments. See the SENSOR ADJUSTMENT section for information.
7. Attach the new cover plate.
8. Restore power to the circuit. Turn on the breaker or replace the fuse.

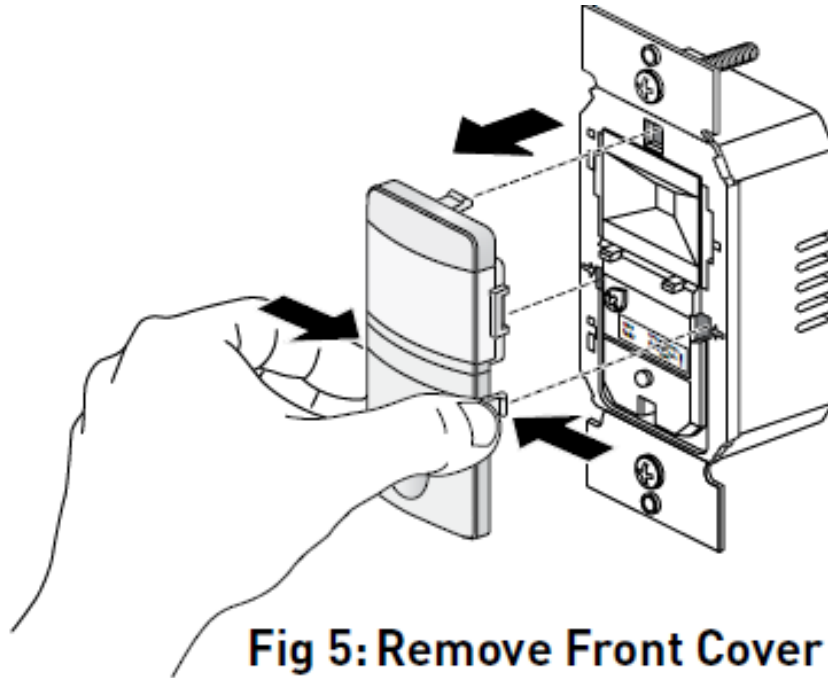
INITIAL POWER UP DELAY

There is an initial warm-up and calibration period the first time power is applied to the unit after a power failure lasting more than 5 minutes, and after the load is replaced.

SENSOR ADJUSTMENT & PROGRAMMING

To adjust the RW600B, use controls located under the front cover (lens and ON/OFF button). The wall switch wallplate must be removed to gain access to the adjustment dial under the ON/OFF button.

1. Remove the wallplate.
2. Firmly grasp the edges of the front cover directly below the lens where it says “open” (see Fig. 5). Push in one side first until it pops out, then the other side. Remove front cover from the unit.



Adjusting the Time Delay

The factory setting for the time delay dial is fully clockwise, providing the maximum delay of 30 minutes. To reduce the amount of time the load remains ON after the last motion detection, turn the dial counterclockwise (minimum = 30 seconds). You can set the following times: 30 minutes, 20 minutes, 10 minutes, 5 minutes, 30 seconds.

CAUTION

Do not overturn the time delay adjustment dial.

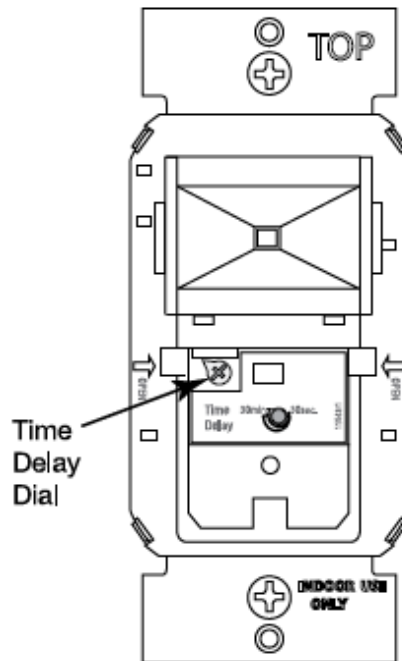


Fig 6: Time Delay Adjustment

Status LED

Push and hold the ON/Off push button twelve seconds to enable and disable the Status LED indicator light on the ON/OFF button. The factory default setting is enabled. When enabled, the Status LED blinks when the sensor detects motion, whether the load is ON or OFF.

Call 800.223.4185 for Technical Support

CHANGING THE COLOR OF THE UNIT

1. Remove the wallplate
2. Firmly grasp the edges of the front cover directly below the lens where it says "open." Push in one side first until it pops out, then the other side. Remove front cover from the unit (see Fig. 5).
3. Take the new color front cover, place the top peg in first then snap in each side one at a time (see Fig. 7).

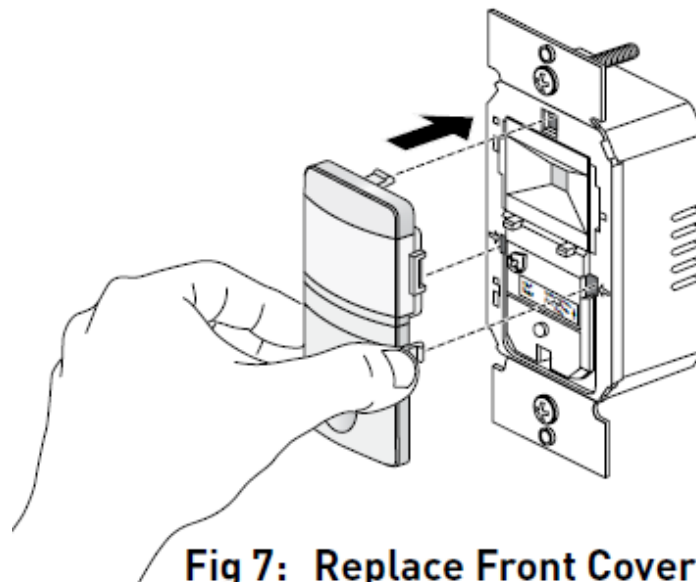


Fig 7: Replace Front Cover

TROUBLESHOOTING

- **Status LED is enabled but not blinking and the load will not turn ON:**

Check the circuit breaker to be sure it is functioning.

- **Load will not turn ON:**

Press ON/OFF button. The load should turn ON. If not:

- Check the light bulb and/or motor switch on the fan mechanism.
- Turn off power to the circuit then check wire connections.

- **Load will not turn OFF:**

Note: The time delay can be set from 30 seconds to 30 minutes. Ensure that the time delay is set to the desired delay and that there is no movement within the sensor's view for that time period.

- To quickly test the unit for proper operation, turn the time delay to minimum and move out of the sensor's view. Lights should turn off after 30 seconds.
- Press the ON/OFF button. If load does not turn off, turn off power to the circuit then check wire connections.
- If load still does not turn off call 800.223.4185 for technical support

WARRANTY INFORMATION

Pass & Seymour/Legrand warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Pass & Seymour/Legrand for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

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Technical Support: 800.223.4185 www.legrand.us

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Documents / Resources



RW600B Vacancy Sensor Switch, RW600B, Vacancy Sensor Switch, Sensor Switch, Switch

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- [!\[\]\(aa4f4c0b58a60054f2a1d99058f2f1db_img.jpg\) Welcome to Legrand - Legrand](#)
- [User Manual](#)

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