

# WS-200

## Automatic PIR Wall Switch

# Installation Instructions



### SPECIFICATIONS

Voltages .....	120 or 277VAC, 60Hz
Load Requirements	
@ 120VAC, 60Hz .....	0-800W ballast & tungsten
@ 277VAC, 60Hz .....	0-1200W ballast
@ 120 or 277 VAC .....	1/6 hp
Time Delay Adjustment .....	.30 seconds-30 minutes
Sensitivity Adjustment .....	Minimum-Maximum
Light Level Adjustment .....	.10 - 150 + FC



**WattStopper**

**legrand®**

US Patent No's: 4,787,722  
4,874,962  
5,124,566

## **UNIT DESCRIPTION AND OPERATION**

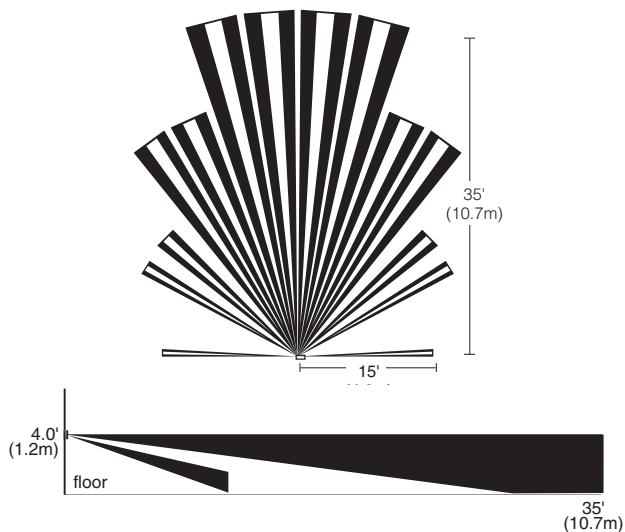
The WS-200 Automatic Wall Switch turns lighting systems on and off based on occupancy and light levels and is designed to replace the standard light switch. The sensor uses passive infrared technology to sense human motion in a space and control the lighting. It must have a clear view of the people in the space in order to detect occupancy. Obstructions, such as furniture blocking the sensor's lens, may prevent occupancy detection.

Pressing the Auto/Off switch from off to auto will turn lights on. Once the space is vacant and the time delay elapses (adjustable from 30 seconds to 30 minutes), lights will turn off. Once lights are off, the sensor will turn the lights on when it detects occupancy. However, if adequate daylight is present, the sensor will hold lights off until natural light levels drop regardless of occupancy. Users can override this function by placing their hand in front of the sensor. The lights will then remain on until the space is unoccupied.

The LED blinks upon initial motion detection and then resets, waiting for a period of inactivity. It will blink again upon a change of infrared energy in the space.

## COVERAGE PATTERNS

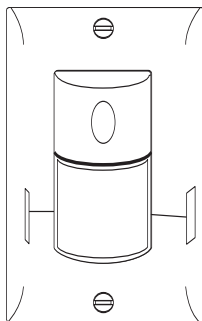
The WS-200 detects motion in areas up to 900 sq. ft. and up to 35 feet from the sensor. Ideally, the sensor is designed for small amounts of motion in spaces up to 300 sq. ft. The Fresnel lens on the sensor is a multiple segment viewing lens with a field of view of 180°.



### Masking the lens

Opaque adhesive tape is supplied so that sections of the sensor's view can be masked. This allows you to eliminate coverage in unwanted areas.

Since masking removes bands of coverage, remember to take this into account when troubleshooting coverage problems.



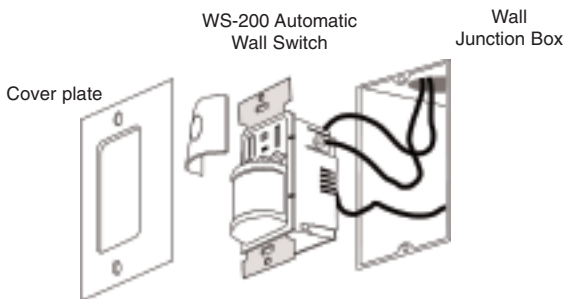
## INSTALLATION



**CAUTION**



**TURN THE POWER OFF AT THE CIRCUIT BREAKER  
BEFORE INSTALLING THE SENSOR.**



1. Remove the button cover to access controls by gently pressing down the security tab on top and prying off with a small screw driver. (See "Sensor Adjustment")
2. Set the AUTO/OFF switch to the OFF position. (OFF=button out; AUTO=button in)
3. Connect the existing wires to the sensor terminals. (See "Wiring Directions" at right).
  - Do not allow bare wire to show below connector.
  - The ground wire must be **tightly grounded** for the unit to operate properly.
4. Attach the sensor to the wall by mounting it in the wall box with the two mounting screws provided.

**Note: Do not install cover plate until control adjustments are made.**
5. Turn power on at the circuit breaker.
6. Press the AUTO/OFF switch to Auto (in).
7. Replace cover plate.

**IMPORTANT: There is an initial warm-up period.**

It may take up to a minute before the lights turn on due to a sensor warm-up period required during initial power-up (this occurs during installation only).

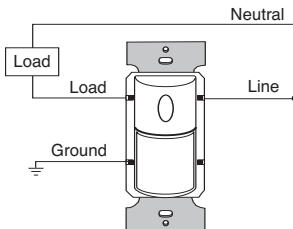
**IMPORTANT: Rapid successive pressing of the AUTO/OFF switch causes a delay in proper function.**

**Call 800.879.8585 for Technical Support**

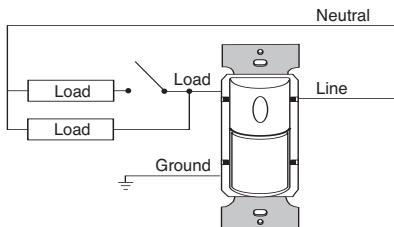
## WIRING DIRECTIONS

For normal installation of the WS-200, connect:

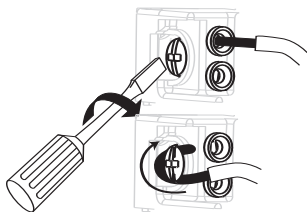
1. LOAD to Load terminal.
2. LINE to Line terminal.
3. GROUND to GROUND terminal.



Single-level wiring



Manual bi-level lighting wiring



Insert or wrap wire as shown and tighten screw in the clockwise direction.

#12 – #14 AWG

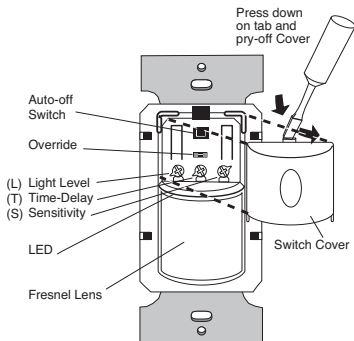
Strip Gauge 

Cu Wire Only

## SENSOR ADJUSTMENT

 **WARNING**   
**DO NOT OVERTURN TRIMPOTS  
WHEN ADJUSTING THE SENSOR!**

1. Remove the switch cover to access controls by gently prying it off from the top with a small screw driver.
2. To test unit operation, press Auto-off switch IN (Auto position) to turn lights on. Turn time delay to minimum (counterclockwise), leave the room and the lights should go off after 30 seconds.



3. To test sensitivity, make no motion for 10 seconds. This 10 second (no movement) time period must be observed in order for the LED to charge. Then move in a sideways motion in front of the sensor at a distance of approximately 12". The LED will blink when movement is detected. Typically, the sensitivity should be at maximum (clockwise).
4. The light level setting must be set when the lights would normally be turned off due to the presence of sufficient natural or external light. [If this feature is not needed, leave the light level adjustment at maximum (clockwise)]. Adjust the light level to minimum and let the sensor time out so lights are off. Enter the space and lights should remain off. Make sure your body does not cast a shadow on the sensor, and adjust the light level trimpot clockwise in small increments. After each adjustment, wait 5-10 seconds to see if the lights turn on. Continue this procedure until the lights turn on. At this setting the lights will not turn on if light levels are above the current natural illumination.
5. Reset the time delay to the desired setting. The time delay can be set from 30 seconds to 30 minutes.

Maximum = clockwise  
Minimum = counter-clockwise

## **TROUBLESHOOTING**

### **Lights will not turn on:**

- LED does not flash:
  - Check the sensitivity for proper configuration.
  - Check all wire connections and verify the ground wire is tightly secured.
- LED does flash:
  - Press the AUTO/OFF button.
  - Check all wire connections and verify the load wire is tightly secured.
- If lights still do not turn on, call (800) 879-8585 for technical support.

### **Lights 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.
- If lights still do not turn off, call (800) 879-8585 for technical support.

### **Sensing motion outside detection areas:**

- An opaque adhesive tape is included with the sensor and can be used to limit the detection areas.
- Adjust sensitivity counter-clockwise to reduce excessive sensitivity.

### **Override function:**

In the event of unit failure or if it is necessary to leave the lights on, remove the "override jumper." This will convert the AUTO/OFF switch into a standard ON/OFF toggle switch.

### **There is an initial warm-up period:**

It may take up to a minute before the lights turn on due to a sensor warm-up period required during initial power-up (this occurs during installation only).

### **Rapid successive pressing of the AUTO/OFF switch will cause a delay in proper function:**

If this is done, it may take several seconds for the switch to turn on the lights.

**Call 800.879.8585 for Technical Support**

## ORDERING INFORMATION

Catalog #	Description
WS-200	Automatic Wall Switch, 120 or 277 VAC, 60Hz
ASP-211	Cover Plate for single-gang box
ASP-422	Blank cover plate for 2-gang box
ASP-432	Cover plate for 2-gang box with switch option

- All units are available in Ivory (-I), White (-W), Gray (-G), Black (-B), and Light Almond (-A).
- Add color designator to end of catalog number when ordering.
- One ASP-211 is included with each unit.

## COVER PLATES

The Watt Stopper automatic wall switch fits behind industry standard decorator style switch plates. The Watt Stopper has available both single and double gang switch plates in most configurations. Consult catalog or your distributor for more information.

## WARRANTY INFORMATION

Watt Stopper/Legrand warranties 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 Watt Stopper/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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