

Passive Infrared Wall Switch Occupancy Sensor

Single Pole (One Location) or Multi-Location

Catalog Number: SP17OS (occupancy sensor) / SP17VS (vacancy sensor)

LED/CFL 300W, Incandescent 600W, 1/2 HP, 120~277VAC, 60HZ

INSTALLATION INSTRUCTIONS

WARNINGS AND CAUTIONS:

- CAUTION:** To avoid overheating and possible damage to this device and other equipment, **DO NOT** install to control a receptacle.
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.
- Use this device with copper or copper clad wire only.
- Do not use this product to control loads in excess of specified ratings, or it may cause death, injury or property damage.
- The green ground wires are required to connect to ground. If no ground is available, consult an electrician. Device will not function if it is not grounded.
- The sensing switch requires an unobstructed view of room occupants to detect motion.
- Hot objects or moving air currents can affect the performance of the sensing switch.
- For indoor use only. Operate between 32 °F and 104 °F (0 °C and 40 °C).
- Clean dimmer with a soft damp cloth only. Do not use any chemical cleaners.

TOOLS NEEDED TO INSTALL YOUR DEVICE:

Slotted / Phillips Screwdriver Electrical Tape Pliers
Pencil Cutters Ruler

UNIT DESCRIPTION AND OPERATION:

- The Wall Switch Occupancy Sensors turn lighting or fan loads on and off based on occupancy and ambient light level. They are designed to replace a standard light switch. The switch operates with 120 or 277VAC line voltage.
- The sensor uses passive infrared technology to sense human motion, and defines it as occupancy. A red LED on the sensor blinks upon occupancy and then resets. It will blink again when it detects motion after the 2-second reset.
- The sensor turns on the load automatically when it detects occupancy. Once the space is vacant and the time delay elapses, it turns off the load automatically.
- Occupancy sensors can be converted to Vacancy sensors.
- If adequate ambient lights is already present in the area, the sensor will hold off the load it controls. When the light drops below a field selectable level and the sensor detects occupancy, the sensor turns on the load.
- Once turned on, the load remains on until the space is vacant or the light level rises above the setpoint and the time delay expires.

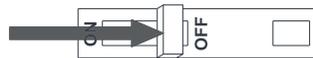
LOCATION / MOUNTING:

The device responds to temperature changes and care should be taken when mounting the device. Do not mount directly above a heat source, in a location where hot or cold drafts will blow directly on the sensor, or where unintended motion (e.g., hallway traffic) will be within sensor's field-of-view.

INSTALLING YOUR DEVICE:

1. Turning OFF power:

Turn power OFF at circuit breaker (or remove fuse).

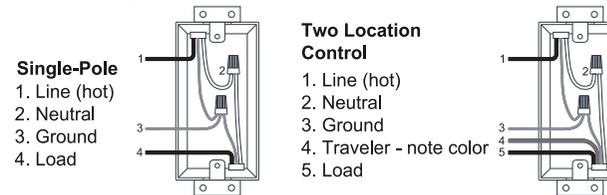


2. Removing wallplate and switch:

Remove wallplate and switch mounting screws. Carefully remove switch from wall (do not remove wires)

3. Identifying the type of circuit:

If the wiring in the wall box does not resemble any of these configurations, consult an electrician.



4. Wiring the Device:

Make sure that the ends of wires from the wall box are straight (cut if necessary). Remove 5/8" (1.6 cm) of insulation from each wire in the wall box.

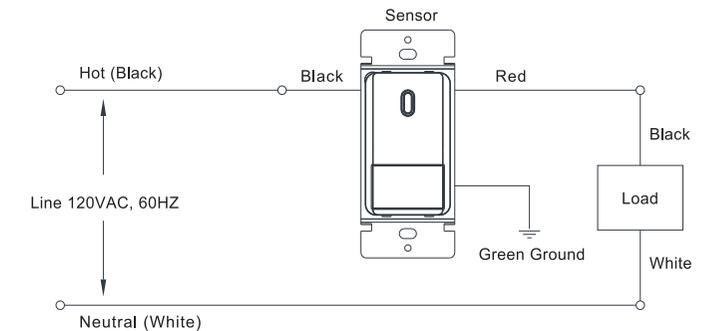
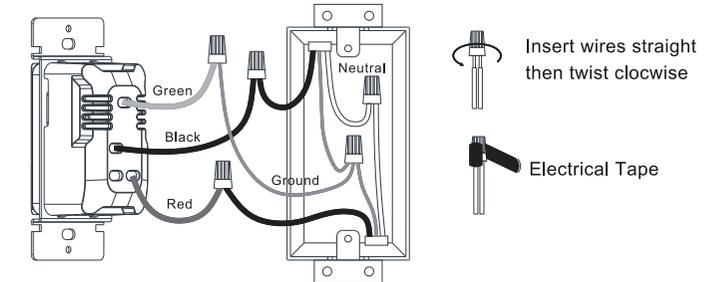
For Single-pole Application, go to Step 4a.

For Two Location Control Application, go to Step 4b.

For non-standard wiring applications, refer to Wire Nut and Connector Size Chart

WIRE CONNECTOR / # OF COND. COMBINATION CHART	
1 - #12 w/ 1 to 3 #14, #16 or #18	1 - #14 w/ 1 to 4 #16 or #18
2 - #12 w/ 1 or 2 #16 or #18	2 - #14 w/ 1 to 3 #16 or #18

4a. Single control Application:

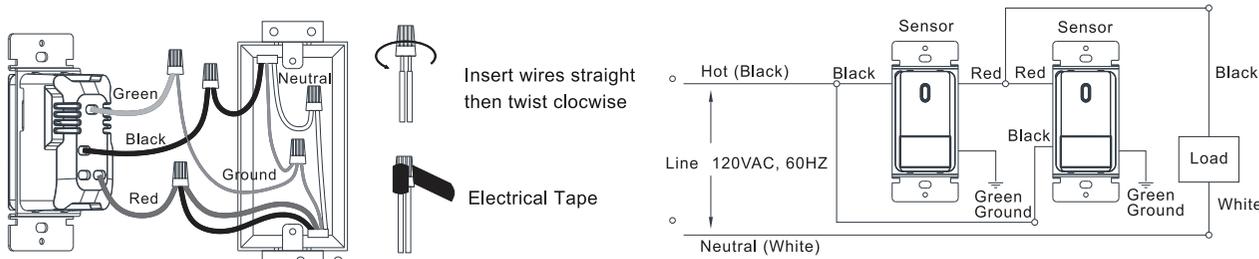


Connect wires per wiring diagram as follows:

Screw wire nuts on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape. A ground connection is required to operate. Use the ground wire in the electrical box for ground connection. If there is no ground wire, make sure the electrical box is grounded and attach the ground wire to the box with a screw.

- Green or bare copper wire in wall box to Green wire.
- Line Hot wall box wire to black wire.
- Load wall box wire to red wire.

4b. Two Location Control Application:



NOTE: Either Sensor can turn the lights ON. Either Sensor must time-out to OFF, or both manual buttons must be pressed for the lights to turn OFF.

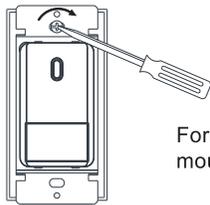
Connect wires per wiring diagram as follows:

Screw wire nuts on clockwise making sure no bare conductors show below the wire connectors. Secure each connector with electrical tape. A ground connection is required to operate. Use the ground wire in the electrical box for ground connection. If there is no ground wire, make sure the electrical box is grounded and attach the ground wire to the box with a screw.

1. Green or bare copper wire in wall box to Green wire.
2. Line Hot wall box wire to black wire.
3. Load wall box wire to red wire.

5. Mounting dimmer to wallbox:

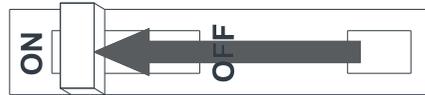
Turn off power at circuit breaker or fuse.



Form wires carefully into the wallbox, mount and align dimmer. Install wallplate.

6. Turning ON power:

Turn power ON at circuit breaker (or remove fuse).



UNIT DESCRIPTION AND OPERATION:

1. Manual Operation:

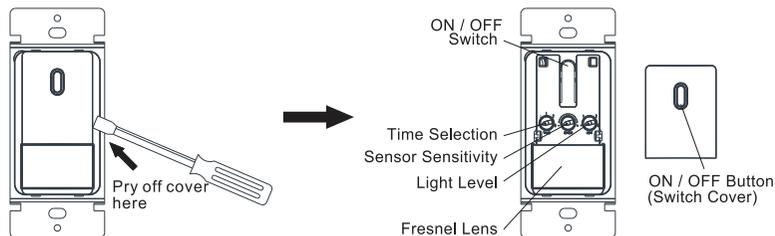
The occupant can press the ON/OFF button to turn the load on and off. When the load is turned off or on manually, it stays off or on as long as the sensor detects motion. After no motion is detected for the length of the time delay, the sensor goes back to automatic operation. If the load was on, it turns off. The next time the sensor detects occupancy and the ambient light is lower than the set level, the sensor automatically turns on the load.

2. Walk-test feature:

When the Time Delay trimpot is in the fully counter-clockwise position, the sensor has a 30 second time delay and the Light Level function is disabled. This allows you to quickly check the sensor coverage area.

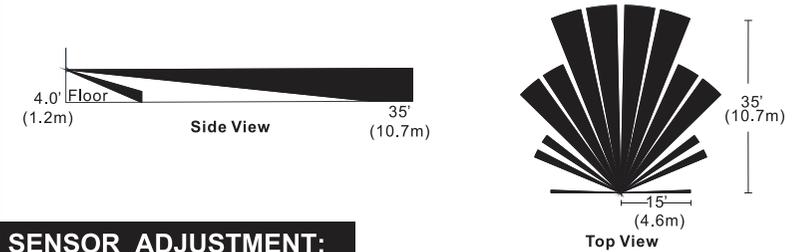
3. Override function:

In the event of unit failure or if it is necessary to leave the load on, remove the Override Jumper plug. This disables all automatic on and off functions and the load can only be operated using the ON/OFF button.



COVERAGE PATTERNS:

The sensor 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 space up to 300 sq. ft. The Fresnel lens on the sensor is a multiple segment viewing lens with a field of view of 180°. The sensor 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.



SENSOR ADJUSTMENT:

1. With power restored and wallplate removed, pry the switch cover of device off to expose setting controls. Use a small screwdriver to adjust the light sensitivity, sensor sensitivity and time settings on the device as follows:

Light Level Adjustment:

Turn the control clockwise, lights will turn ON in lighter conditions. Turn the control counter clockwise, lights will turn ON in less lighting conditions.

Sensor Level Adjustment:

Turn the control clockwise, the sensor sensitivity will be increased. Turn the control counter clockwise, the sensor sensitivity will be decreased.

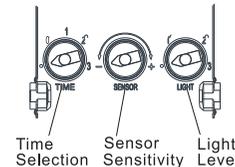
Time Selection:

Adjust the time selector to desired length of time the lights are to remain ON. Lights will remain ON from 30 seconds to 30 minutes after the room is vacated.

Turn the control clockwise, lights will remain ON up to 30 minutes.

Turn the control counter clockwise, lights will remain ON up to 30 seconds.

2. Test that the light level, sensor sensitivity and time selection are as desired. If not, repeat adjustments until satisfied.
3. Mount wallplate. **INSTALLATION IS COMPLETE.**



Time Settings	Time
0	30 Sec
1	5 Min
2	15 Min
3	30 Min

Manual ON mode:

To operate the Occupancy sensor as a Vacancy sensor (Manual ON / AUTO OFF): rotate the light level sensitivity fully counter clock wise.

Manual ON/OFF mode:

To operate the sensor as a manual switch, rotate the Light Level sensitivity fully clock wise and rotate the Time Selection fully counter clock wise.

ONE YEAR LIMITED WARRANTY :

The warranty gives you specific rights and you may also have other rights, which vary in different states and countries. Our company warrants to the original consumer purchaser that this product is free of defects in materials and workmanship for 1 year from the purchase date. **This warranty does not cover labor for removal or reinstallation of the product and is void on any product installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner.** Our company excludes incidental or consequential damages for breach of any warranty on this product. Some jurisdictions may not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusions or limitations may not apply to you.