

Motion Sensor Light Switch

Occupancy & Vacancy, Single Pole, Neutral Wire Required

120V 300W LED, 800W/VA @120V fluorescent lamp Rapid Start, 1200W/VA @277V fluorescent lamp Rapid Start

Model Number: USP-OS02

USER MANUAL

WARNINGS AND CAUTIONS

- 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.
- Use this device with copper or copper clad wire only.
- The neutral wire is required. If no neutral is available, consult an electrician
- The sensor 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° to 131°F (0° to 55°C).
- Clean the sensor with a soft damp cloth only. DO NOT use any chemical cleaners.
- If you are unsure about any part of these instructions, consult an electrician.
- Wiring Diagram or equivalent giving the electrical rating and illustrating how connections to the supply circuit are to be made.
- The device is to be used in conjunction with a UL Listed Cover Plate.
- Intended for use with electronic ballast, Type ICN-4S54-90C-2LS-G, manufactured by Philips Lighting Electronics N A.
- For supply connections use 18AWG or larger wires suitable for at least 75°C

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SPECIFICATIONS

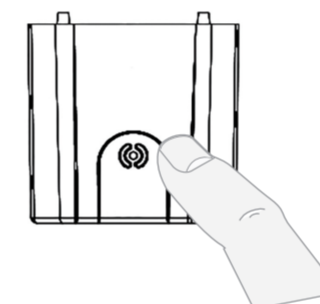
Voltage 120V/277VAC, 60Hz
 Load capacity 120V 300W LED
 800W/VA@120V fluorescent lamp Rapid Start
 1200W/VA@277V fluorescent lamp Rapid Start
 HP Rating 1/6HP
 Time Delay Adjustment 15 secs to 30 mins
 Operating Temperature 32° to 131°F (0° to 55°C)
 Operation humidity range.....95%RH, non-condensing
 Coverage range 180 Degrees

DESCRIPTION

- The sensor switch turns lights or fans ON and OFF based on occupancy/vacancy and ambient light level.
- The sensor uses passive infrared technology to sense human motion and defines it as occupancy. A green LED indicator on the control panel blinks upon occupancy and then resets.
- The sensor turns on automatically when it detects occupancy. Once the space is vacant and the time delay elapses, it turns off automatically.
- Occupancy sensor can be converted to vacancy sensor.
- If adequate ambient light is already present in the area, the sensor will remain OFF. When the light drops below a set level and the sensor detects occupancy, the sensor turns on. The light sensor can be bypassed by setting the light sensitivity dial.
- Once turned on, the switch remains ON until the space is vacant, or the ambient light rises above the setpoint and the time delay expires.

OPERATION

For sensor to operate, the ON/OFF switch **MUST** be manually pushed one time after installation or a power outage.



OCC	When the button is released	Auto ON, Auto OFF with Auto set mode *
VAC	When the button is pressed	Manual ON, Auto OFF



* Auto Set Mode

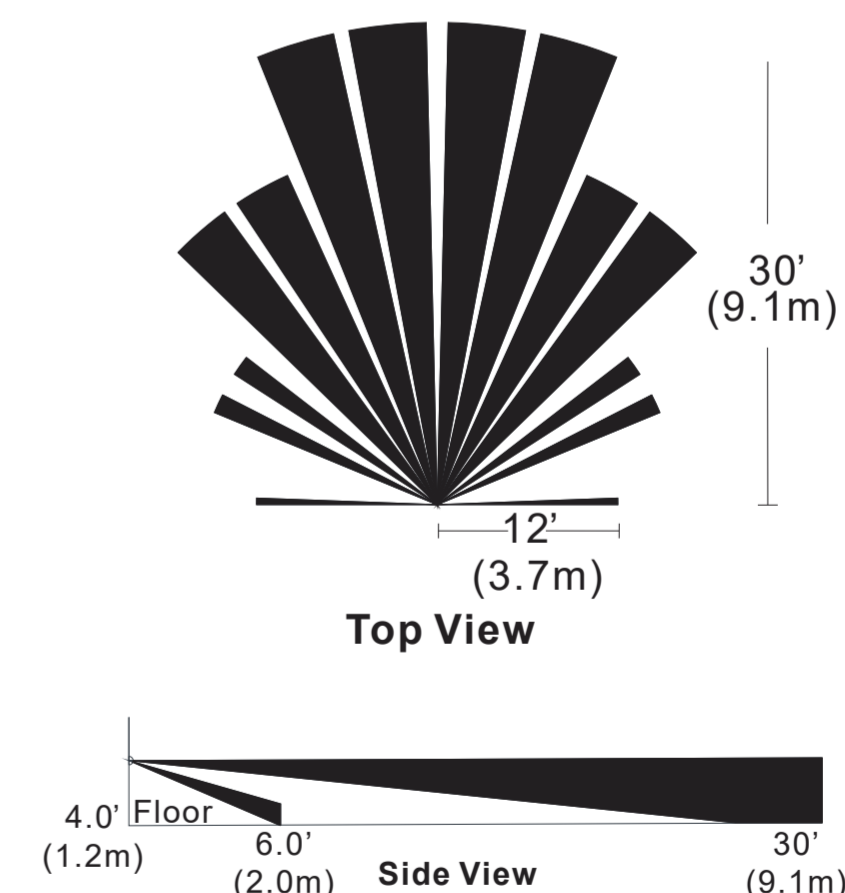
If the switch is turned OFF manually, automatic-ON is re-enabled when no motion is detected for 1 minute. This prevents the switch from turning ON after it was deliberately turned OFF.

LOCATION / MOUNTING

The sensor responds to temperature changes so DO NOT mount it directly above a heat source in a location where hot or cold drafts will blow directly on it, or where an unintended motion (e.g., hallway traffic) is within the sensor's field-of-view.

COVERAGE AREA

COVERAGE PATTERNS: The sensor detects motions in areas up to 720 sq. ft. and up to 30 feet from the sensor. 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.



Windows, glass doors, and other transparent barriers will obstruct the sensor's view and prevent detection.

Note: The coverage area data is measured under the best temperature condition (20-25°C), and a higher temperature may not lead to an ideal coverage area.

INSTALLATION

The sensor is only compatible with a single pole circuit.

STEP 1 Turn OFF Power at Breaker or Fuse

STEP 2 Remove Wallplate and Switch

STEP 3 Prepare Wires:

- Pull off the pre-cut insulation from the sensor wires.
- Make sure that the ends of the wires from the wall box are **straight (cut and strip if necessary)**.

STEP 4 Wire the Sensor:

Wire in accordance with the appropriate wiring diagram below.

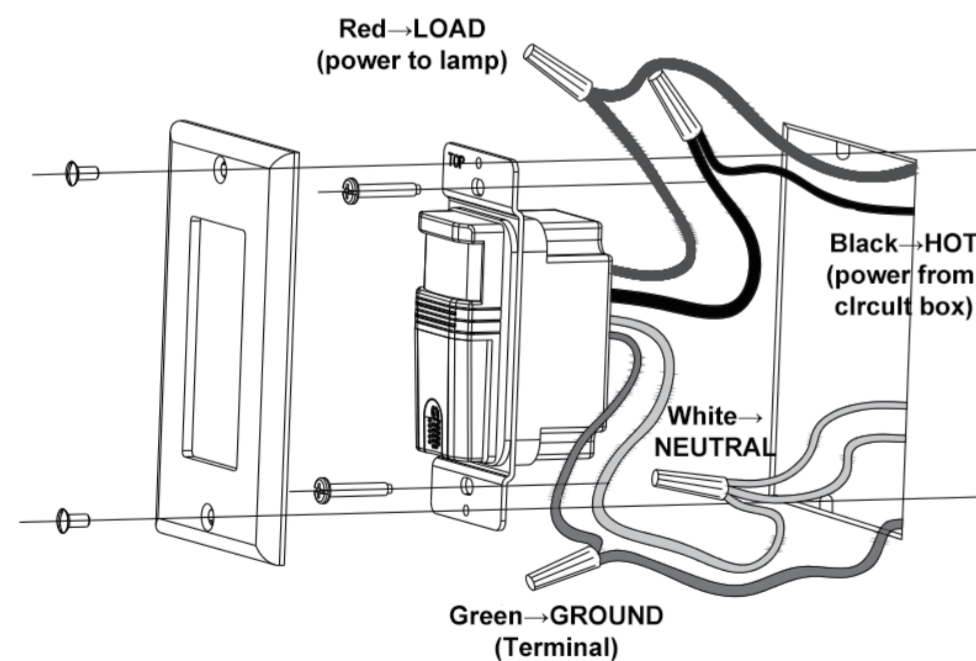
Before installation, please confirm that there is a Neutral Wire available in the wall box you intend to install this switch. It can be identified by 2 or more white wires connected together in the wall box without being connected to a standard switch.

HOT: identify the Hot Wire in the wall box which has power from the breaker panel. This is usually a black wire. Connect it to the black wire on this switch.

LOAD: this is usually the other black wire which delivers power to the light and does not have power. Connect it to the red load wire on this switch.

NEUTRAL: connect the white wire on this switch to the existing Neutral wire.

GROUND: connect the green wire on this switch to the existing Green or bare copper wire in the wall box.



STEP 5 Mount the switch into the electrical box and install the wallplate.

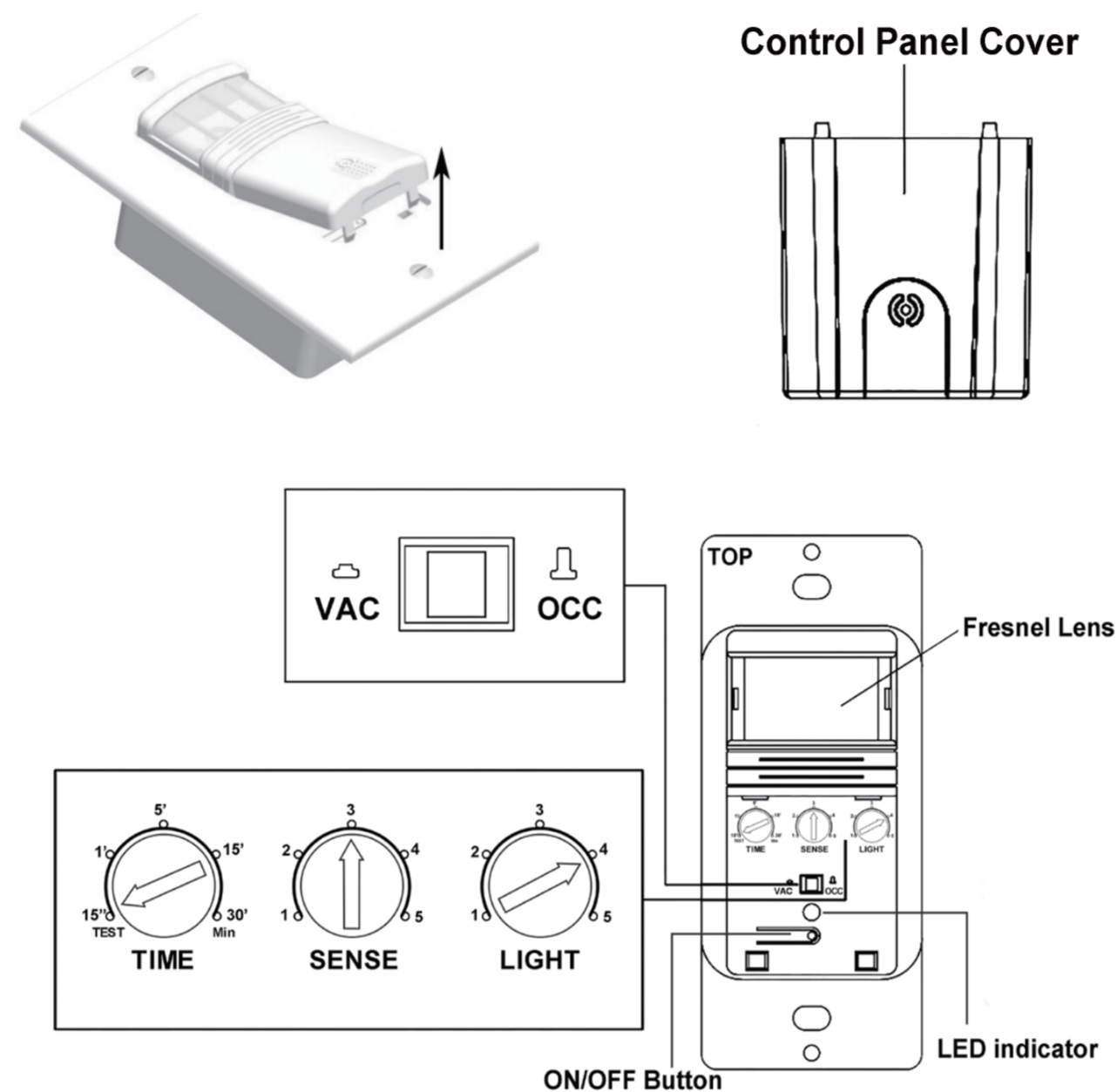
STEP 6 Restore power and test the switch

NOTE:

For sensor to operate, the ON/OFF switch **MUST** be manually pushed once after installation or a power outage.

SENSOR ADJUSTMENT & PROGRAMMING

Remove the cover located below the sensor lens by inserting a small screwdriver into the notch located on the bottom of the cover. Gently pry the screwdriver upward to unlatch the cover.



Time Delay Dial

The time delay dial is marked "TIME". The adjustment ranges from 15 secs (or Test) to Max 30 Mins.

Sensor Sensitivity Range Dial

The sensitivity adjustment is marked "SENSE". Adjust the sensitivity setting to avoid unwanted detection such as hallway traffic or adjacent movement. Turning the dial counter clockwise will decrease sensitivity while turning it clockwise will increase it.

Ambient Light Level Dial

This light level dial is marked "LIGHT". Light setting is used to adjust the detected ambient light level. The switch will turn on when the light falls below the set ambient light level. If ambient light level is desired, please turn the adjustment knob counter clockwise, and push the button to make sure the sensor start to work. If the ambient light sensor is not needed, please set it to the maximum setting (Position 5). This will allow the sensor to turn on and off regardless of ambient light conditions.

TROUBLESHOOTING

Load will not turn ON

- Push the 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

- Make sure no motion is occurring in the coverage area until the set time period.
- Hot air currents and heat radiating devices can cause false detection. Make sure the sensor is at least 6 feet (2 meters) away from devices that are a significant heat source (e.g., heater, heater vent, high wattage light bulb).
- Push the ON/OFF button to the OFF. If load does not turn off, turn off power to the circuit then check wire connections.

Lights turn ON unwantedly or too frequently.

- Sensor may be mounted too closely to an air conditioning or heating vent. Move the sensor to another location or close the vent.
- Reduce the sensitivity level.

WARRANTY

BESTTEN warrants to the original customer that this product is free of defects in materials and workmanship for one year from the purchase date. Within this period, simply contact BESTTEN CARE with proof of purchase and reason for claim. We will replace the product for free.

Any product which is subject to misuse or accidental damage is excluded from this warranty.

support@ibestten.com

1-800-358-6160 (Mon-Fri 9AM-5PM PST)

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