## TOPGREENER TSOS5-W

# TOPGREENER TSOS5-W In-Wall PIR Motion Sensor Light Switch Instruction Manual

## 1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the TOPGREENER TSOS5-W In-Wall PIR Motion Sensor Light Switch. This device is designed to automatically control lighting, fans, and motors by detecting occupancy and vacancy in a room, offering both convenience and energy efficiency.

Please read this manual thoroughly before installation and use to ensure proper function and safety.

## 2. SAFETY INFORMATION

**WARNING: RISK OF ELECTRIC SHOCK.**

Improper installation can result in serious injury or death. Always turn off power at the circuit breaker before beginning any electrical work. Consult a qualified electrician if you are unsure about any part of the installation process or if your wiring does not match the descriptions provided.

- This device requires a neutral wire for operation. Verify that a neutral wire is present in your electrical box before installation.

- This switch is for single-pole applications only. It is not compatible with 3-way or multi-way circuits.

- Do not exceed the maximum load ratings: 4 Amps, 500W.

- Ensure all wire connections are secure and properly insulated.

- For indoor use only.

## 3. PACKAGE CONTENTS

Verify that all items are present in the package:

- TOPGREENER TSOS5-W Motion Sensor Light Switch

- Wire Nuts

- Instruction Manual

- Wall Plate

This image displays two TOPGREENER TSOS5-W in-wall PIR motion sensor light switches, each with a white wall plate. The switches feature a slider for OFF, AUTO, and ON modes, and a small dial for adjustments.

## 4. SPECIFICATIONS

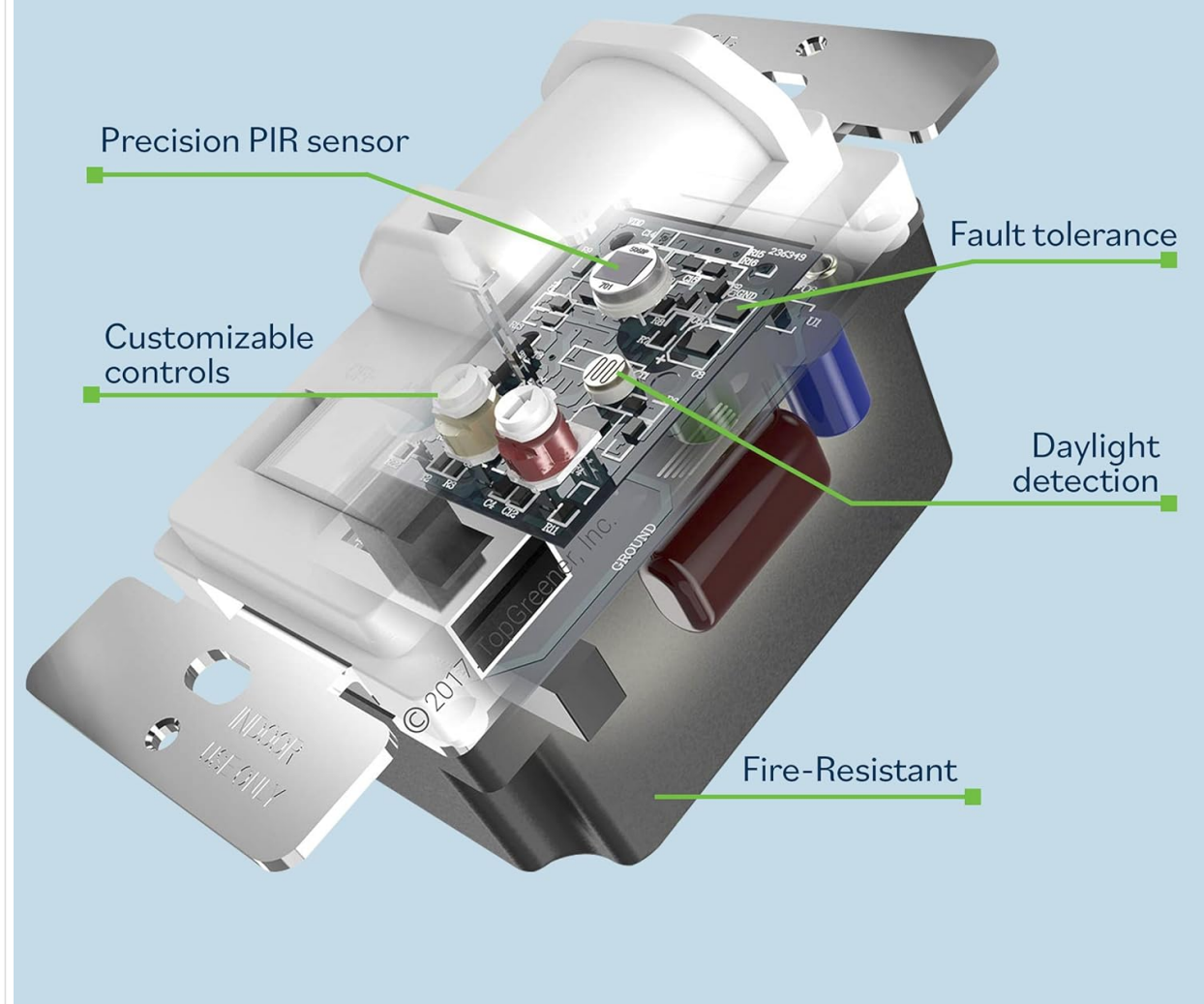| Model Number | TSOS5-W |
|---|---|
| Operation Mode | Automatic, Off |
| Current Rating | 4 Amps |
| Operating Voltage | 120 Volts |
| Contact Type | Normally Open |
| Connector Type | Screw Terminals |
| Terminal | SPST (Single Pole Single Throw) |
| Circuit Type | 1-way |

| | |
|---|---|
| **Actuator Type** | Push Button / Slider |
| **Product Dimensions (L x W x H)** | 1.72 x 1.46 x 2.73 inches |
| **Max Sensor Coverage Area** | 980 sq ft, 180° Field of View |
| **Adjustable Range/Sensitivity** | 30% to 100% |
| **Variable Time Delay** | 15 sec (test mode), 10 min, 20 min, 30 min |
| **Certifications** | UL Listed |

## 5. INSTALLATION

**Before you begin:** Turn OFF power at the circuit breaker or fuse box. Ensure the power is completely off before proceeding.

1. **Turn Off Power:** Locate the circuit breaker controlling the switch you are replacing and turn it off. Verify power is off using a voltage tester.

2. **Remove Old Switch:** Unscrew and carefully pull the old switch from the wall box. Disconnect the wires from the old switch.

3. **Identify Wires:** You should have the following wires in your electrical box:
   - **Line Wire (Hot):** Usually black, coming from the circuit breaker.
   - **Load Wire:** Usually black, going to the light fixture or appliance.
   - **Neutral Wire:** Usually white. **This switch requires a neutral wire.**
   - **Ground Wire:** Usually bare copper or green.

4. **Connect New Switch:** Use the provided wire nuts to connect the wires from the wall box to the corresponding wires on the TOPGREENER TSOS5-W switch. Refer to the wiring diagram below.
   - Connect the **Line** wire from the wall box to the **Line** wire on the switch.
   - Connect the **Load** wire from the wall box to the **Load** wire on the switch.
   - Connect the **Neutral** wire from the wall box to the **Neutral** wire on the switch.
   - Connect the **Ground** wire from the wall box to the **Ground** wire on the switch.

5. **Mount Switch:** Carefully push the wired switch back into the wall box. Secure it with the mounting screws. Attach the wall plate.

6. **Restore Power:** Turn the power back ON at the circuit breaker.

# Energy Saving Sensor

**Precision PIR sensor**

**Fault tolerance**

**Customizable controls**

**Daylight detection**

**Fire-Resistant**

An internal diagram of the TOPGREENER motion sensor switch, highlighting its key components and features such as the precision PIR sensor, customizable controls, daylight detection, fault tolerance, and fire-resistant construction. This image also implies the wiring connections.

## 6. OPERATION

The TOPGREENER TSOS5-W switch features a slider control with three main modes: OFF, AUTO, and ON.

- **OFF Mode:** When the slider is in the OFF position, the connected lights or appliance will remain off, regardless of motion detection. This acts as a manual override to keep the load off.

- **AUTO Mode (Occupancy Sensor):** When the slider is in the AUTO position, the switch functions as an occupancy sensor. It will automatically turn the lights/appliance ON when motion is detected and turn them OFF after a set time delay when no motion is detected.

- **ON Mode:** When the slider is in the ON position, the connected lights or appliance will remain on continuously, regardless of motion detection. This acts as a manual override to keep the load on.

## Manual ON/OFF
### Neutral wire required

OFF   AUTO   ON

TOP
△

OFF   AUTO   ON

INDOOR
USE ONLY

Only compatible with
**DIMMABLE** LED light bulbs

This image demonstrates the manual ON/OFF override feature of the TOPGREENER motion sensor switch, allowing users to switch between OFF, AUTO (sensor-controlled), and ON modes as needed.

The TOPGREENER motion sensor switch is shown in the 'OFF' position, indicating that the lights will remain off regardless of motion, suitable for situations where manual control is preferred.

## 7. SETTINGS AND ADJUSTMENTS

The sensor switch includes three adjustable dials located behind the wall plate (or sometimes accessible via a small cover) to customize its behavior:

- **Time Dial (Delay Time):** This dial adjusts how long the lights/appliance remain ON after the last detected motion. Settings include 15 seconds (test mode), 10 minutes, 20 minutes, and 30 minutes. The 15-second test mode is useful for verifying detection and wiring during installation.

- **Range Dial (Detection Sensitivity):** This dial controls the sensor's detection coverage area and sensitivity. It can be adjusted from 30% to 100%. A higher setting provides broader coverage.

- **Light Dial (Ambient Light Sensitivity):** This dial sets the required ambient light level for the sensor to activate. Settings typically range from 1 to 4. Positions 1-2 are for darker locations, meaning the lights will turn on even if there is some ambient light. Positions 3-4 are for brighter locations, meaning the lights will only turn on when the room is quite dark.

## Time Dial

Adjusts the time delay before the sensor resets.
**Default Position: 15s**
Adjustable Range: **15s → 30 mins**

## Range Dial
(Detection Sensitivity)

Controls the sensor's detection coverage area.
**Default Position: Center 65%**

Adjustable Range:
**Position 1    >>>    Position 4:**
   **30%    >>>    100%**
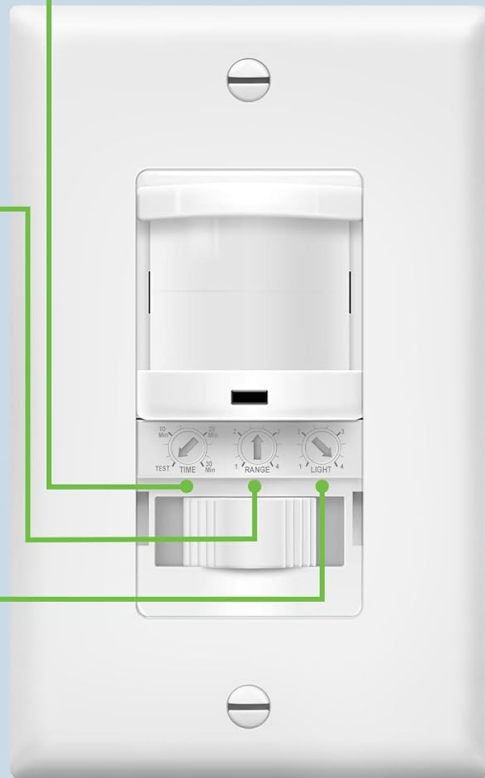
**Note: Use a higher setting for broader coverage.**

## Light Dial
(Ambient Light Sensitivity)

**Default Position: 4**

Sets the required light level for sensor activation

**Postion 1-2: For Dark Locations**
**Postion 3-4: For Bright Loctions**

# Adjustable KNOW Function
Adjust for a customized experience

This image highlights the adjustable dials on the TOPGREENER motion sensor switch: the Time Dial for setting the delay before reset, the Range Dial for detection sensitivity, and the Light Dial for ambient light activation levels.

# Delay Effective Position



**Time**

**15s, &10, 20, 30 Mins**
*KNOB Stop where only the numbers are*

**Range**

**1-4**
*KNOB Stops at any position*

**Light**

**1, 2, 3, 4**
*1-2: For Dark Locations
3-4: For Bright Loctions*

A detailed view of the TOPGREENER motion sensor switch's adjustment knobs, illustrating the specific settings for time delay (15 seconds, 10, 20, 30 minutes), detection range (positions 1-4), and ambient light sensitivity (positions 1-4).

## 8. TROUBLESHOOTING

If you encounter issues with your TOPGREENER TSOS5-W motion sensor switch, refer to the following common problems and solutions:

- **Lights do not turn ON:**
  - Ensure power is ON at the circuit breaker.
  - Check all wiring connections for security and proper alignment (Line, Load, Neutral, Ground).
  - Verify the switch is in AUTO or ON mode.
  - Adjust the Range Dial to increase sensitivity.
  - Adjust the Light Dial to a lower setting if the room is dark but the lights are not activating.
  - Test the light bulb or fixture to ensure it is working correctly.

- **Lights stay ON:**
  - Ensure the switch is in AUTO mode, not ON mode.
  - Check for constant motion within the sensor's field of view.

- Adjust the Time Dial to a shorter delay.
- Adjust the Range Dial to decrease sensitivity if the sensor is detecting motion outside the desired area.

- **Lights turn ON/OFF too frequently:**
  - Adjust the Time Dial to a longer delay.
  - Adjust the Range Dial to decrease sensitivity.
  - Ensure the sensor is not obstructed or exposed to drafts that might trigger it.

If the device does not work after installation or troubleshooting, please contact TOPGREENER customer support for assistance.

## 9. MAINTENANCE

The TOPGREENER TSOS5-W motion sensor switch requires minimal maintenance.
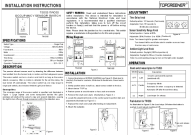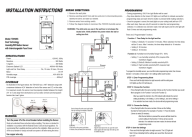
- **Cleaning:** To clean the switch and wall plate, gently wipe with a soft, damp cloth. Do not use abrasive cleaners, solvents, or harsh chemicals, as these can damage the finish or internal components.
- **Inspection:** Periodically inspect the switch for any visible damage or loose connections. If any issues are found, turn off power at the circuit breaker and address them or contact a qualified electrician.
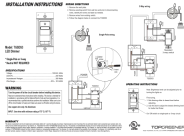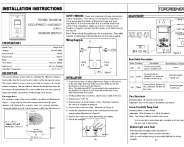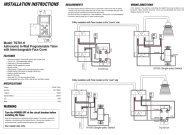
## 10. WARRANTY AND SUPPORT

TOPGREENER products are designed for reliability and performance. While specific warranty details are not provided in this manual, TOPGREENER typically offers a limited warranty on its products. Please refer to the product packaging or the official TOPGREENER website for the most current warranty information.
For technical support, troubleshooting assistance, or warranty claims, please contact TOPGREENER customer service. Contact information can usually be found on the product packaging or the TOPGREENER official website.

**Related Documents - TSOS5-W**

| | |
|---|---|
|  | [TopGreener TSOS5/TWOS5 Occupancy Sensor Switch Installation Instructions](#)<br>Detailed installation instructions for the TopGreener TSOS5 and TWOS5 occupancy sensor switches, including specifications, wiring diagrams, operation, troubleshooting, and warranty information. |
|  | [TOPGREENER TDHOS5 Dual Technology Humidity PIR Motion Sensor Installation Guide](#)<br>Comprehensive installation and programming guide for the TOPGREENER TDHOS5 Dual Technology Humidity and PIR Motion Sensor. Covers wiring, setup, features, troubleshooting, and warranty for optimal bathroom light and fan control. |

[Top Greener TGSDS3 LED Dimmer Installation Instructions](#)

Comprehensive installation guide for the Top Greener TGSDS3 LED Dimmer, detailing single-pole and 3-way wiring, product specifications, operating instructions, and warranty information.



[Topgreener TDOS5/TDOS5-NL Occupancy/Vacancy Sensor Switch Installation Guide](#)

Comprehensive installation guide for the Topgreener TDOS5/TDOS5-NL 2-in-1 Occupancy/Vacancy Sensor Switch. Includes specifications, wiring diagrams, adjustment settings, operation modes, troubleshooting tips, and warranty information.



[TopGreener TGT01-H Astronomic In-Wall Programmable Timer Installation and Operation Guide](#)

Comprehensive guide for installing and operating the TopGreener TGT01-H Astronomic In-Wall Programmable Timer. Learn about features, wiring, programming, and troubleshooting.



[TOPGREENER TDHS5 Humidity Sensor Fan Control Installation Guide](#)

Comprehensive installation instructions and user guide for the TOPGREENER TDHS5 Humidity Sensor Fan Control. Learn how to wire, program, and operate your humidity-sensing fan control for optimal bathroom ventilation.