Watt Stopper PW-100-I

Wattstopper PW-100-I Passive Infrared Wall Switch Sensor Instruction Manual

Model: PW-100-I | Brand: Watt Stopper

1. Introduction

This manual provides comprehensive instructions for the installation, setup, operation, and maintenance of the Wattstopper PW-100-I Passive Infrared (PIR) Wall Switch Sensor. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. Important Safety Information

WARNING: Risk of Electric Shock. Improper installation can lead to serious injury or death.

- Turn off power at the circuit breaker or fuse box before installing or servicing the sensor.
- Installation should be performed by a qualified electrician in accordance with all national and local electrical codes.
- Do not use this device with loads exceeding its specified ratings.
- Ensure all wire connections are secure and properly insulated.

3. Product Overview

The Wattstopper PW-100-I is a passive infrared wall switch sensor designed to detect occupancy and vacancy in a room, automatically controlling lighting. It features advanced detection signature processing to minimize false triggers and offers immunity to Radio Frequency Interference (RFI) and Electromagnetic Interference (EMI).

Key Features:

- Multi-way occupancy sensor functionality.

- Passive Infrared (PIR) sensor type.
- Coverage area of up to 1050 sq. ft.
- 180-degree viewing angle.
- Zero-crossing switching for extended relay life.
- Optional light level sensing for enhanced energy savings.

Components:

Figure 1: Front view of the Wattstopper PW-100-I sensor. This image displays the ivory-colored sensor unit, showing the PIR lens and manual override switch, designed for installation within a standard wall box.

Figure 2: Product packaging for the Wattstopper PW-100-I. The box label indicates the model number, PIR Wall Switch Sensor, voltage ratings (120/277VAC), wattage (800W @ 120V, 1200W @ 277V), and UL certification. The UPC is 0754182919284.

4. Technical Specifications

Specification	Detail
Manufacturer	WATTSTOPPER
Part Number	PW-100-I
Item Weight	6.4 ounces
Product Dimensions	1.76 x 2.73 x 1.83 inches
Color	Ivory
Material	PW 100 I
Voltage	120/277 Volts (as per packaging)
Watts @ 120V	800W
Watts @ 277V	1200W
Switch Type	3-way
Mounting Type	Wall Mount
Sensor Type	Passive Infrared (PIR)
Coverage Area	1050 sq. ft.
Viewing Angle	180 degrees
Certification	UL, CUL

5. Installation Instructions

Follow these steps carefully to install your Wattstopper PW-100-I sensor. Ensure power is OFF before beginning.

1. **Turn Off Power:** Locate the circuit breaker or fuse that supplies power to the switch box where you intend to install the sensor. Turn it OFF. Verify power is off using a voltage tester.
2. **Remove Existing Switch:** Carefully remove the wall plate and unscrew the existing switch from the wall box. Disconnect the wires from the old switch, noting their connections (e.g., line, load, ground).
3. **Wire the Sensor:** Connect the wires from the wall box to the corresponding terminals on the PW-100-I sensor. Refer to the wiring diagram provided with the product packaging for specific connections. Typically, this involves Line (hot), Load (to light fixture), Neutral (if required, though many PIR sensors are 2-wire), and Ground.
4. **Mount the Sensor:** Gently fold the wires into the wall box and secure the sensor to the wall box using the provided screws. Attach the new wall plate.
5. **Restore Power:** Turn the power back ON at the circuit breaker.

6. Setup and Configuration

The PW-100-I sensor offers adjustable settings to optimize its performance for your specific environment.

Timer Range Adjustment:

The sensor's time delay determines how long the lights remain on after the last detected motion. The available timer ranges are:

- 5 minutes
- 10 minutes
- 15 minutes
- 20 minutes
- 25 minutes
- 30 minutes

Refer to the detailed instructions included with your sensor for how to access and adjust these settings, which typically involve small dip switches or a push-button sequence.

Light Level Sensing (Optional):

The sensor may include an optional light level sensing feature. When enabled, the sensor will prevent lights from turning on if there is sufficient natural light in the room, further enhancing energy efficiency. Consult your product's specific documentation for activation and adjustment of this feature.

7. Operating Instructions

Once installed and configured, the Wattstopper PW-100-I operates automatically based on detected occupancy.

- **Occupancy Mode:** When motion is detected in the coverage area, the sensor will automatically turn on the connected lights. The lights will remain on as long as occupancy is detected and for the duration of the set time delay after the last detection.
- **Vacancy Mode:** If configured for vacancy mode, the lights must be manually turned on. The sensor will then automatically turn off the lights after the set time delay once the room becomes vacant.
- **Manual Override:** Most wall switch sensors include a manual override button. Pressing this button typically allows you to manually turn the lights on or off, overriding the sensor's automatic function until the next occupancy event or manual intervention.

8. Maintenance

The Wattstopper PW-100-I sensor requires minimal maintenance to ensure optimal performance.

- **Cleaning:** Periodically wipe the sensor lens and housing with a soft, dry cloth. Do not use abrasive cleaners, solvents, or excessive moisture, as these can damage the device.
- **Obstructions:** Ensure that the sensor's detection lens is not obstructed by furniture, decorations, or other objects that could block its view of the room.

9. Troubleshooting

If you experience issues with your Wattstopper PW-100-I sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution

Lights do not turn on with motion.	No power to the sensor; incorrect wiring; sensor lens obstructed; light level sensing active.	Check circuit breaker; verify wiring connections; clear obstructions from sensor view; adjust light level setting or disable it.
Lights remain on too long or turn off too quickly.	Incorrect time delay setting; insufficient motion detection.	Adjust the time delay setting; ensure sensor has a clear view of the area.
Lights turn on randomly (false triggers).	Sensor detecting heat sources (HVAC vents, sunlight); RFI/EMI interference.	Relocate sensor away from heat sources; ensure proper grounding and shielding.
Sensor does not respond to manual override.	Sensor malfunction; wiring issue.	Check wiring; if problem persists, contact customer support.

If troubleshooting steps do not resolve the issue, contact Watt Stopper customer support for further assistance.

10. Warranty and Customer Support

Watt Stopper products are designed for reliability and performance. For information regarding the warranty period and terms for your PW-100-I sensor, please refer to the warranty card included with your product or visit the official Watt Stopper website.
For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Watt Stopper customer support directly. Contact information can typically be found on the product packaging or the manufacturer's website.