Lithonia Lighting WSD PDT 2P IV

Lithonia Lighting Sensor Switch WSD PDT 2P IV User Manual

PASSIVE DUAL TECHNOLOGY WALL SWITCH SENSOR

1. Product Overview

The Lithonia Lighting Sensor Switch WSD PDT 2P IV is a wall switch decorator style Passive Dual Technology (PDT) sensor. It is engineered to manage two distinct electrical loads independently. The WSD PDT 2P is pre-configured to activate Load 1 automatically upon initial occupancy detection, while Load 2 remains off until its dedicated push-button is engaged. This sensor integrates both Passive Infrared (PIR) and patented Microphonics detection technologies, enabling it to detect occupants through both movement and sound. This device is designed to enhance energy efficiency by automatically controlling lighting based on room occupancy, suitable for both commercial and residential applications.

2. Key Features

- **Patented Dual Technology:** Combines Passive Infrared (PIR) and Microphonics detection for reliable occupancy sensing.
- **Two Self-Contained Relays:** Eliminates the need for external power packs, simplifying installation.
- **No Minimum Load Requirements:** Compatible with a wide range of lighting types, including LED.
- **Small Motion Detection:** Capable of detecting subtle movements up to 20 feet.
- **Separate Time Delay:** Each load (pole) features an independent adjustable time delay.
- **Replaces Two Switches:** Designed to control two separate lighting circuits from a single wall switch location.
- **Photocell Integration:** Prevents lights from turning on if sufficient natural ambient light is present, further saving energy.
- **NEC Code Compatibility:** Can be wired to either a ground or neutral connection.

3. Installation and Setup

Mounting: The WSD PDT 2P IV sensor is designed to mount through a standard single-gang switch box. For optimal performance and detection effectiveness, it should be installed at a height between 30 to 48 inches from the floor.

Wiring: This device offers flexibility in wiring, allowing connection to either a ground or neutral connection,

ensuring compatibility with various electrical codes and existing installations.

Initial Power-Up: Upon initial power-up, the sensor will enter a calibration period. During this time, avoid movement in the detection area to allow the sensor to properly calibrate to the room environment.

Always consult a qualified electrician for installation to ensure compliance with local electrical codes and safety standards.
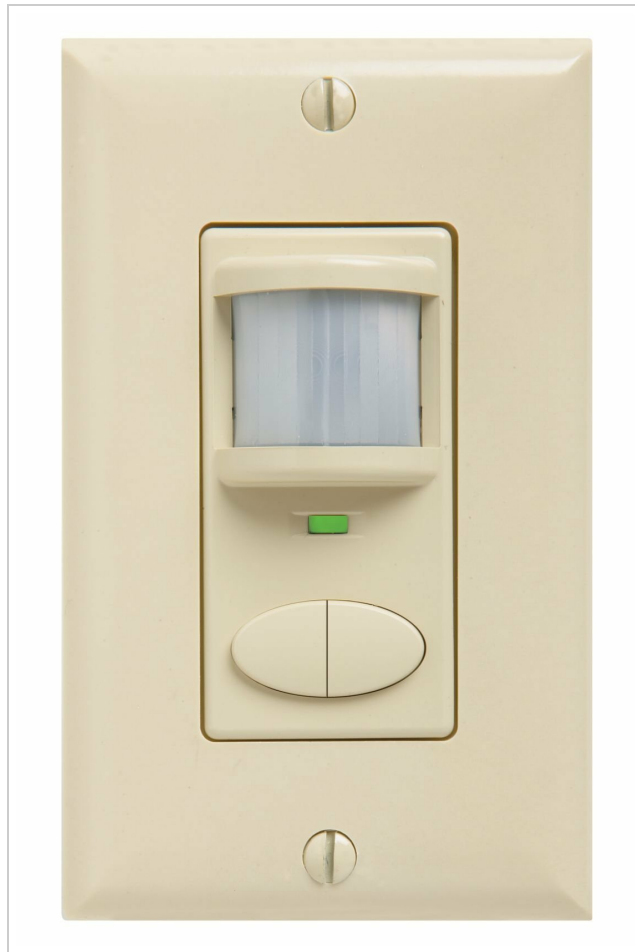

Figure 1: Lithonia Lighting Sensor Switch WSD PDT 2P IV, Ivory

Installation Overview Video

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Video 1: An overview of Sensor Switch WSD series wall switch sensors, demonstrating their features and installation considerations. This video highlights how these sensors detect occupancy using PIR and Microphonics technology to save energy by automatically turning lights on when a space is occupied and off when vacant. It also covers mounting height, wiring options, and adjustable time delays.

4. Operating Instructions

The WSD PDT 2P IV sensor automatically controls lighting based on occupancy. When motion or sound is detected, the sensor activates the connected lights. If no occupancy is detected for a set period, the lights will turn off.

Time Delay Adjustment: By default, the internal timer keeps the lights on for 10 minutes after the last detected occupancy. This time delay can be adjusted to suit specific needs, ranging from 30 seconds to 30 minutes. Each time occupancy is detected, the timer resets, ensuring lights remain on as long as the space is occupied.

Photocell Functionality: For rooms with natural ambient light, the integrated photocell prevents the lights from initially turning on if there is already sufficient light present. This feature optimizes energy savings by utilizing natural light whenever possible.

Dual Load Control: The WSD PDT 2P IV is designed to control two independent loads. Load 1 typically turns on automatically with occupancy, while Load 2 requires a manual push-button press to activate, offering flexible control over different lighting zones or fixtures.

Color Options: The sensor is available in various colors including black, white, ivory, gray, and light almond to complement different interior decors.

5. Specifications

Specification	Detail
Brand	Lithonia Lighting
Model Number	WSD PDT 2P IV
Color	Ivory
Power Source	Corded Electric
Maximum Range	20 Feet (Small Motion Detection)
Mounting Type	Wall Mount
Manufacturer	Acuity Brands Lighting Inc.
Item Weight	4 ounces
Product Dimensions	1.6 x 1.6 x 2.75 inches
Size	PIR and Microphonics
Style	Passive Infrared & Microphonics
Material	Plastic
Voltage	120 Volts
Wattage	800 watts
Type of Bulb	LED (Compatible)
Switch Style	Push Button Switch

6. Maintenance

The Sensor Switch WSD PDT 2P IV is designed for minimal maintenance. Periodically, gently wipe the sensor lens and housing with a soft, dry cloth to remove dust or debris that may obstruct detection. Avoid using abrasive cleaners or solvents, as these can damage the unit.

Ensure the area around the sensor remains clear of obstructions that could block its field of view, such as tall furniture or hanging decorations, to maintain optimal performance.

7. Troubleshooting

- **Lights not turning on with occupancy:** Verify that the sensor lens is clean and unobstructed. Check the time delay settings to ensure they are appropriate for the space. Confirm proper wiring connections.

- **Lights turning off too quickly or too slowly:** Adjust the time delay setting according to your preference (between 30 seconds and 30 minutes).

- **Lights staying on continuously:** Ensure there are no constant heat sources or air currents (e.g., HVAC vents) directly in the sensor's field of view that could be falsely triggering the PIR. Check for continuous sound in the environment if Microphonics is active.
- **Lights not turning on when there is sufficient natural light:**This is normal operation due to the photocell feature. If you require lights to turn on regardless of ambient light, consult the full product manual for potential photocell override options or adjustments.

If issues persist after basic troubleshooting, contact Lithonia Lighting customer support or a qualified electrician.

8. Warranty and Support

The Lithonia Lighting Sensor Switch WSD PDT 2P IV comes with a**5-year warranty**. For warranty claims, technical support, or further assistance, please refer to the contact information provided with your product packaging or visit the official Lithonia Lighting website.