

# PASSIVE INFRARED WALL SWITCH OCCUPANCY SENSOR

PW-301

High sensitivity and dense coverage for exceptional performance

Defaults to Manual-ON operation for maximum energy savings

Color-matched lens and low profile for appealing design



Optional neutral connection with break off tab to expose neutral terminals

120/240/277 VAC and 347 VAC models

Allows multi-way control from one of up to four control locations

## DESCRIPTION

The PW-301 passive infrared (PIR) wall switch sensor can turn lights OFF and ON based on occupancy. It is characterized by high sensitivity to small and large movements, appealing aesthetics, and a variety of features.

## OPERATION

The PW-301 replaces existing wall switches and installs in a single gang junction box with or without either neutral wiring. Factory default operation is for Manual-ON, so that users turn lights on only when needed. It uses advanced PIR technology to detect occupancy and keep lighting ON when it is needed. Once the space is vacated and the time delay elapses, lights automatically turn OFF. DIP switch settings allow for a variety of control options such as Auto-ON operation, walk-through and test modes. Multiple sensors may be used for control of one or more loads from up to four locations.

## COMPATIBLE WITH 2 WIRE OR 3 WIRE CONNECTIONS

Any PW-301 sensor can be used for a two-wire or three wire application, either to work with existing wiring, or to meet local or national code requirements. The PW-301 120/240/277V model uses a blue and white signal wire to connect to neutral or, in cases of retrofit or replacement when no neutral is present, can be connected to ground. The PW-301-347 model has a plastic tab that covers neutral screw terminals; once the sensor is connected to neutral it complies with all codes that restrict current leakage to ground.

## APPLICATIONS

The PW-301 sensor is great for retrofit projects and well suited for small, enclosed spaces with clear line of sight of the occupant. Common applications include small offices, small conference rooms and lunch/break rooms.

## FEATURES

- Complies with 2017 NEC requirements
- Zero-crossing for long relay life
- Vandal resistant lens combines precise coverage with durability
- Selectable walk-through mode turns lights off three minutes after the room is initially occupied if no motion is detected after the first 30 seconds
- Test mode allows quick and easy adjustments
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- Selectable audible and/or visual alerts for impending shutoff
- LED indicates occupancy detection
- Optional light level sensing with simple setup
- Service mode allows sensor to operate as a service switch in the unlikely event of a failure
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Compatible with decorator wall plates
- BAA/TAA-compliant models available

PROJECT

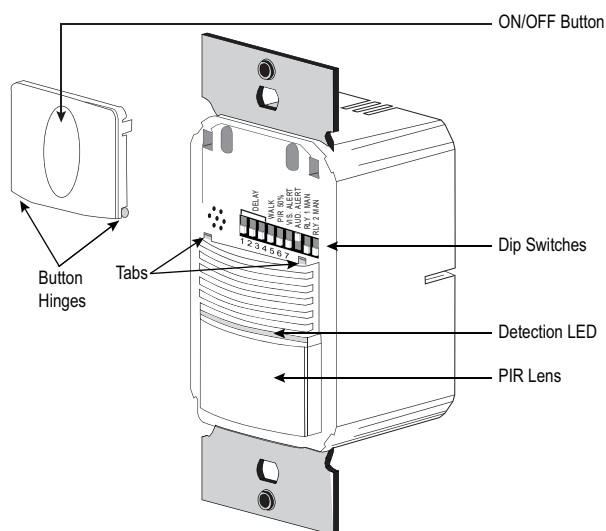
LOCATION/  
TYPE

## SPECIFICATIONS

- PW-301: 120/240/277VAC; 50/60Hz, 1/4 hp
  - @ 120VAC, 0-1000W ballast, LED, and tungsten
  - @ 240/277VAC, 0-1200W ballast and LED
- PW-301-347: 347VAC; 50/60Hz, 1/4 hp; 0-1500W ballast and LED
- Time delays: 5, 10, 15, 20, 25 or 30 minutes, walk-through, test-mode
- Coverage: Major motion 35' x 30', Minor motion 20' x 15'
- Sensitivity adjustment: PIR (high/low)
- Dimensions (L x W x D): 2.73" x 1.75" x 1.81" (69mm x 44mm x 46mm)
- UL and cUL listed
- Five year warranty

## CONTROLS & SETTINGS

### Product Controls

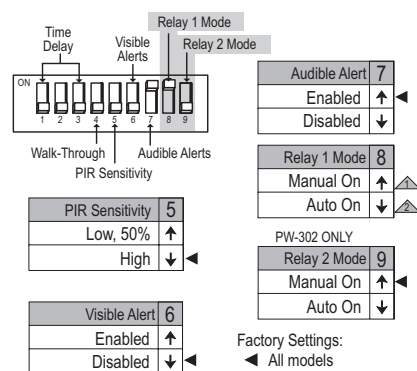


### DIP Switch Settings

| Time Delay  | 1 | 2 | 3 |
|-------------|---|---|---|
| Test/20 min | ↓ | ↓ | ↓ |
| 5 minutes   | ↓ | ↓ | ↑ |
| 10 minutes  | ↑ | ↑ | ↓ |
| 15 minutes  | ↓ | ↑ | ↑ |
| 20 minutes  | ↑ | ↓ | ↓ |
| 25 minutes  | ↑ | ↑ | ↑ |
| 30 minutes  | ↑ | ↑ | ↓ |
| Service     | ↑ | ↑ | ↑ |

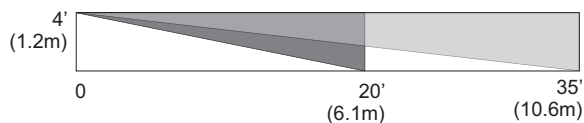
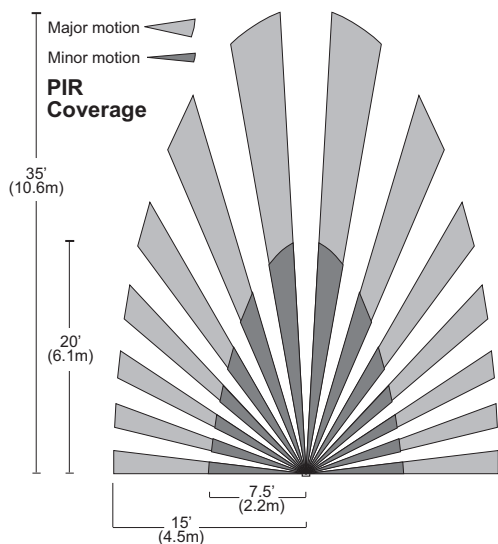
| Walk-Through | 4 |
|--------------|---|
| Enabled      | ↑ |
| Disabled     | ↓ |

Service bypasses occupancy & light level functions. Control the load manually using **ON/OFF** button.



↑ = ON ↓ = OFF

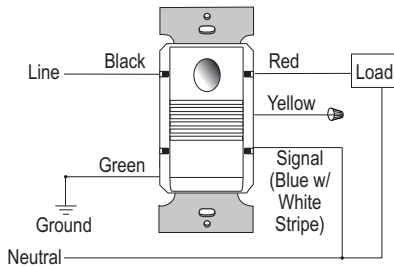
## COVERAGE



For best performance, Wattstopper recommends using this sensor in spaces no larger than 15' x 12'.

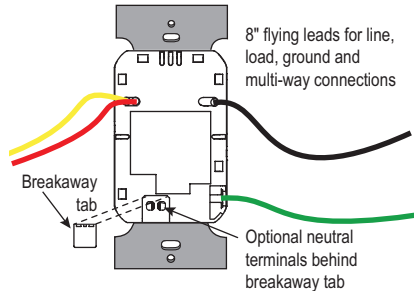
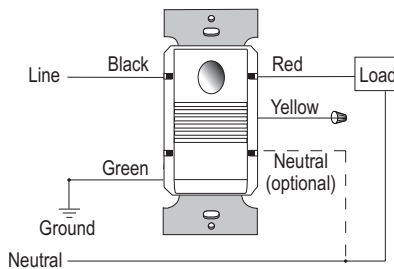
## WIRING

## PW-301

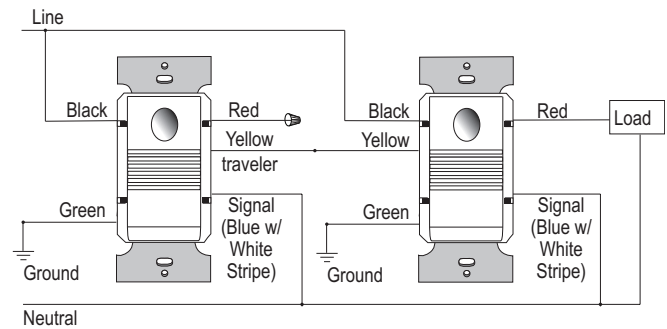


Signal wire connects to neutral. Signal wire can connect to ground in replacement or retrofit application

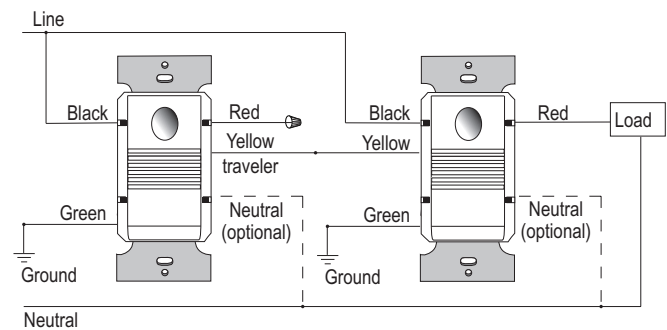
## PW-301-347



Simple optional neutral connection allows installation in any 2-wire or 3-wire application. When used in a multi-way application, all devices in that space must be wired using the same method of either with neutral or without neutral.



**Multi-way wiring**  
(up to 4 sensors)



**Multi-way Wiring**  
(up to 4 sensors)

Note: For multi-way, all units should be on the same phase

## ORDERING INFORMATION

| Catalog #                             | Color        | Voltage                                      | Load Rating   |
|---------------------------------------|--------------|--|---|
| <input type="checkbox"/> PW-301-W     | White        | 120VAC; 50/60Hz<br>or<br>240/277VAC; 50/60Hz | @ 120VAC, 0-1000W ballast, LED, tungsten, 1/4 hp<br>or<br>@ 240/277VAC 0-1200W ballast, LED, 1/4 hp |
| <input type="checkbox"/> PW-301-W-U   | White        |  |   |
| <input type="checkbox"/> PW-301-LA    | Light Almond |  |   |
| <input type="checkbox"/> PW-301-I     | Ivory        |  |   |
| <input type="checkbox"/> PW-301-I-U   | Ivory        |  |   |
| <input type="checkbox"/> PW-301-G     | Gray         |  |   |
| <input type="checkbox"/> PW-301-B     | Black        |  |   |
| <input type="checkbox"/> PW-301-R     | Red          |  |   |
| <input type="checkbox"/> PW-301-347-W | White        | 347VAC; 50/60H                               | 0-1500W ballast & LED, 1/4 hp   |

Order wall plate separately.

-U = BAA/TAA compliant; product is compliant with Buy American Act and Trade Agreement Act.

26812r3 Rev 05/2024