

# DUAL TECHNOLOGY LOW VOLTAGE WALL SWITCH OCCUPANCY SENSOR

DW-100-24

High sensitivity and dense coverage  
for exceptional performance

Low voltage input

Color-matched lens and low  
profile for appealing design



Selectable operation, walk-through, test  
and presentation modes for increased  
energy savings and convenience

Defaults to Manual-ON operation  
for maximum energy savings

Part of a comprehensive line of PIR, Ultrasonic  
and Dual Technology wall switch sensors

## DESCRIPTION

The DW-100-24 dual technology low voltage wall switch sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies to 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

Factory default operation is for Manual-ON, so that users turn lights on only when needed. Once the lights are ON, detection by either technology holds lights ON until occupancy is no longer detected and the time delay elapses. DIP switch settings allow for a variety of control options including Auto-ON operation, walk-through and test mode. By default, Auto-ON turns lighting on when both PIR and ultrasonic technologies detect occupancy. Additional DIP switch settings allow the user to choose which sensing technologies turn ON and hold ON the lighting.

## LOW VOLTAGE

Low voltage wall switch sensors can offer advantages over line voltage models. Using an isolated form-C relay output, the DW-100-24 sensor integrates seamlessly with VAV or other building systems for greater energy savings. Multiple DW-100-24 sensors can also be connected on a single circuit and can switch loads that exceed the rating of a standard line voltage switch. In addition, low voltage sensor installations do not require the use of conduits reducing installation costs and making relocation easier.

## APPLICATIONS

Wattstopper's dual technology has the flexibility to work in a variety of applications where one technology alone may not be sufficient. The DW-100-24 is the perfect choice for locations where line voltage wiring is not possible or for jurisdictions prohibiting the use of 277V switches. Common applications include small and executive offices, small and medium conference rooms and lunch/break rooms.

## FEATURES

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation
- 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
- Selectable audible alert for impending shutoff
- Includes isolated relay outputs
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- Four occupancy logic options give users the ability to customize control to meet application needs
- 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

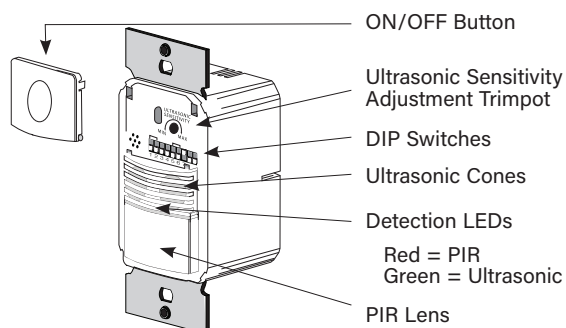
LOCATION/  
TYPE

## SPECIFICATIONS

- 18-24 VDC, 24 VAC and halfwave rectified AC
- Current consumption: 35 mA
- DW-100-24 contains single-pole, double-throw isolated relay rated for 1 A @ 30 VDC
- Time delays: 5, 15 or 30 minutes, walk-through, test mode
- Coverage: Major motion, PIR 35' x 30', Ultrasonic 20' x 20'  
Minor motion, PIR 20' x 15', Ultrasonic 15' x 15'
- Sensitivity adjustment: PIR (high/low), Ultrasonic (fully variable)
- Ultrasonic Frequency: 40kHz
- Dimensions: 2.73" x 1.76" x 1.83"  
(69.3mm x 44.7mm x 46.5mm) L x W x D
- Compatible with Wattstopper PLUS Sensor Interface Module (EN-SIM-AI/SPS-GB2-BK). See sensor installation instructions for performance considerations.
- UL and cUL listed
- Five year warranty

## CONTROLS & SETTINGS

### Product Controls



### DIP Switch Settings

Time Delay	1	2
Test/20 min	↓	↓
5 minutes	↓	↑
15 minutes	↑	↓
30 minutes	↑	↑

Walk-Through	3
Enabled	↑
Disabled	↓

PIR Sensitivity	4
Low, 50%	↑
High	↓

Trigger Mode	Initial Occupancy	Maintain Occupancy	Re-trigger	5	6
Standard	Both	Either	Either	↓	↓
Option A	PIR	Either	Either	↓	↑
Option B	PIR	PIR	PIR	↑	↓
Option C	Both	Both	Both	↑	↑

Audible Alert	7
Enabled	↑
Disabled	↓

ON Mode	8
Manual On	↑
Auto On	↓

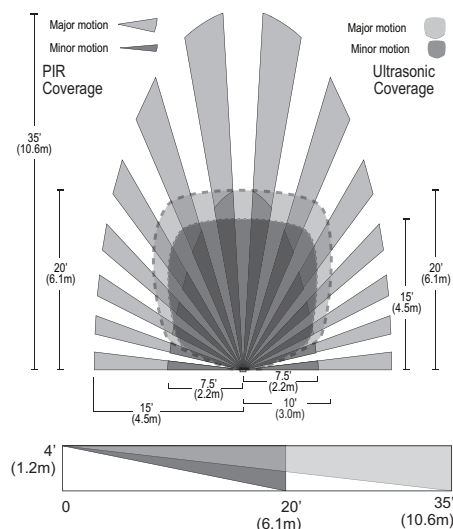
Switch 9 is not used

↑ = ON ↓ = OFF  
◀ = Factory Setting

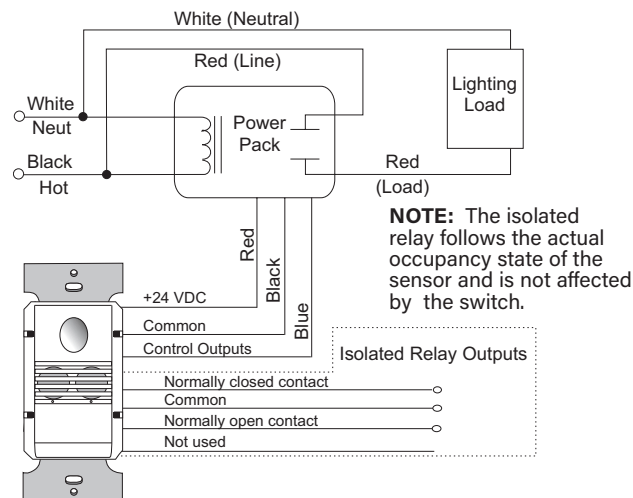
## COVERAGE & WIRING

### Coverage Pattern

For best performance, Wattstopper recommends using this sensor in spaces no larger than 18' x 15'.



### DW-100-24 Low Voltage Wiring



## ORDERING INFORMATION

Catalog #	Color	Voltage
<input type="checkbox"/> DW-100-24-W	White	18-24 VDC, 24 VAC and halfwave rectified AC
<input type="checkbox"/> DW-100-24-LA	Light Almond	
<input type="checkbox"/> DW-100-24-I	Ivory	
<input type="checkbox"/> DW-100-24-G	Gray	
<input type="checkbox"/> DW-100-24-B	Black	

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

27383r3 Rev 03/2025