DUAL TECHNOLOGY WALL SWITCH OCCUPANCY SENSOR | DW-100

High sensitivity and dense coverage for exceptional performance

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 dual technology wall switch sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies, and 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 DW-100 fits in a single gang junction box. 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.

Manual-on Control

Factory default operation is for Manual-ON, so that users turn lights on only when needed. This control strategy is proven to save more energy than Auto-ON, and is required in ASHRAE 90.1-2010. If desired, the DW-100 may be reconfigured to turn lights on automatically.

Applications

Wattstopper's dual technology has the flexibility to work in a variety of applications where one technology alone may not be sufficient. Common applications include small and executive offices, small and medium conference rooms and lunch/break rooms. In addition, dual technology sensors are the perfect choice for ADA-compliant buildings due to lower mounting height requirements.
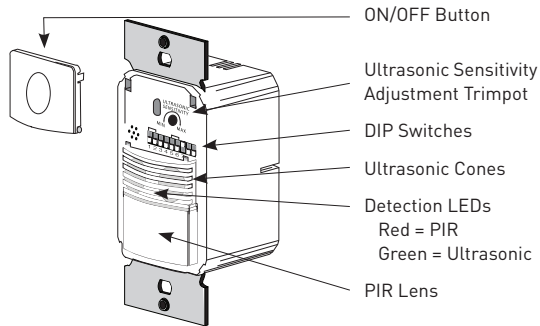
Features

- Complies with 2011 NEC requirements
- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- 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

- 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

- DW-100: 120/277 VAC; 50/60 Hz
  @ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp
  @ 277 VAC, 0-1200 W ballast
- 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'
- Ultrasonic Fequency: 40kHz

- Sensitivity adjustment: PIR (high/low), Ultrasonic (fully variable)
- Dimensions: 2.73" x 1.76" x 1.83"
  (69.3mm x 44.7mm x 46.5mm) L x W x D
- UL and cUL listed
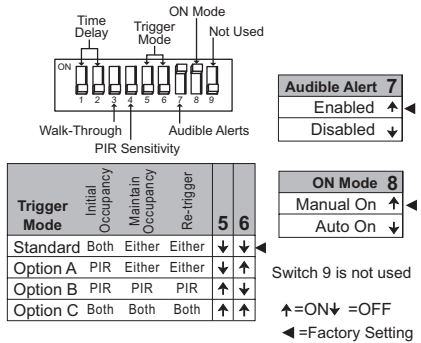- Five year warranty

Controls & Settings

Product Controls

- ON/OFF Button
- Ultrasonic Sensitivity Adjustment Trimpot
- DIP Switches
- Ultrasonic Cones
- Detection LEDs
  Red = PIR
  Green = Ultrasonic
- PIR Lens

DIP Switch Settings

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

Walk-Through	3
Enabled	↑
Disabled	↓ ◄

PIR Sensitvty	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
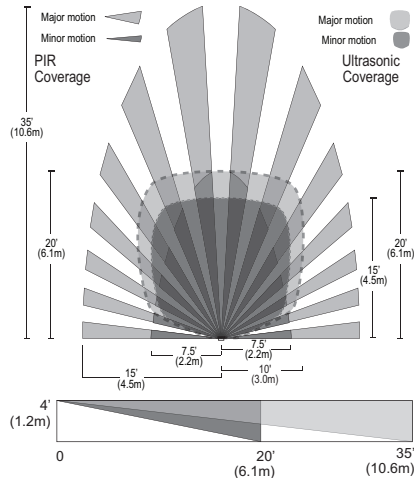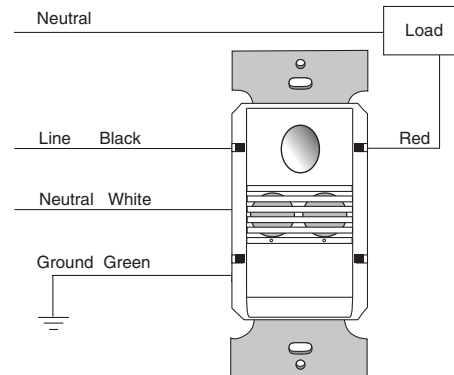◄ =Factory Setting

Coverage & Wiring

Coverage Pattern

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

Wiring Diagram

Ordering Information

Catalog #	Color	Voltage	Load Rating
☐ DW-100-W ☐ DW-100-W-U	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten,1/6 hp @ 277 VAC, 0-1200 W ballast
☐ DW-100-LA	Lt. Almond		
☐ DW-100-I ☐ DW-100-I-U	Ivory		
☐ DW-100-G	Grey		
☐ DW-100-B	Black		

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