

**Versatile wall switch
sensors maximize
payback and simplify
code compliance**



COMMERCIAL WALL SWITCH OCCUPANCY SENSORS
MANUAL-ON • MULTI-WAY • NIGHTLIGHT

■ PUTTING A STOP TO ENERGY WASTE®

WattStopper®





Achieve the best energy savings for every wall switch application

You see a light switch. WattStopper sees an opportunity for a more sustainable future. Building on its tradition of green innovation, WattStopper has refined its sleek line of commercial wall switch sensors to deliver the best out-of-the-box energy savings, once again redefining expectations.

Refined performance,
unprecedented
reliability, appealing
aesthetics and the
most options

Wall switch sensors easily replace standard toggle switches, and help put a stop to energy waste for applications including bi-level switching, three-way control and more.

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Occupancy sensors provide maximum energy savings and more

Because occupancy sensors ensure that lighting is only on when people are present, sensors provide greater energy savings than other control solutions.

To maximize ROI, WattStopper, the pioneer of energy-efficient lighting controls, is embracing manual-on operation as its new standard.

Exceed established code requirements with WattStopper wall switch sensors



Energy code compliance

Manual- or automatic-on occupancy sensors meet the automatic-off requirement of currently adopted energy codes, including ASHRAE 90.1 (2007 and earlier), IECC and California's Title 24. Wall switch sensors comply with these codes, and the **new manual-on requirement of ASHRAE 90.1-2010**.

Sustainable design

Sensors that exceed current code requirements can contribute to optimizing a building's energy performance, and may help design teams earn points for LEED certification.

Lighting tax deduction

Using occupancy sensors can help building owners earn a Commercial Building Tax Deduction (CBTD) under the Energy Policy Act of 2005 (EPAct). To qualify for a partial deduction of up to \$0.60/ft², a building must exceed the energy performance required by reference codes. In 2009, the EPAct program was extended until 2013.

Typical Energy Savings in Common Applications

Private Office	Conference Room	Restroom
31%	42%	50%

Source: IESNA paper #43 - EPA, Lighting Research Center Energy Savings based on a 15-minute time delay.

Lighting control best practices

As occupancy sensor use has become mainstream, engineers, code developers and researchers have learned a great deal about how to increase energy savings while also improving occupant comfort.

Working with the latest data, WattStopper has preconfigured the operating mode of most wall

switch sensors to save the most energy. Most single relay sensors are now factory set for manual-on operation to provide customers with increased energy savings out of the box. Dual relay sensor default operation is auto-on for relay one and manual on for relay two, or “auto-on to 50%.” Additionally, time delay options have been updated to ensure consistent, predictable timeouts.

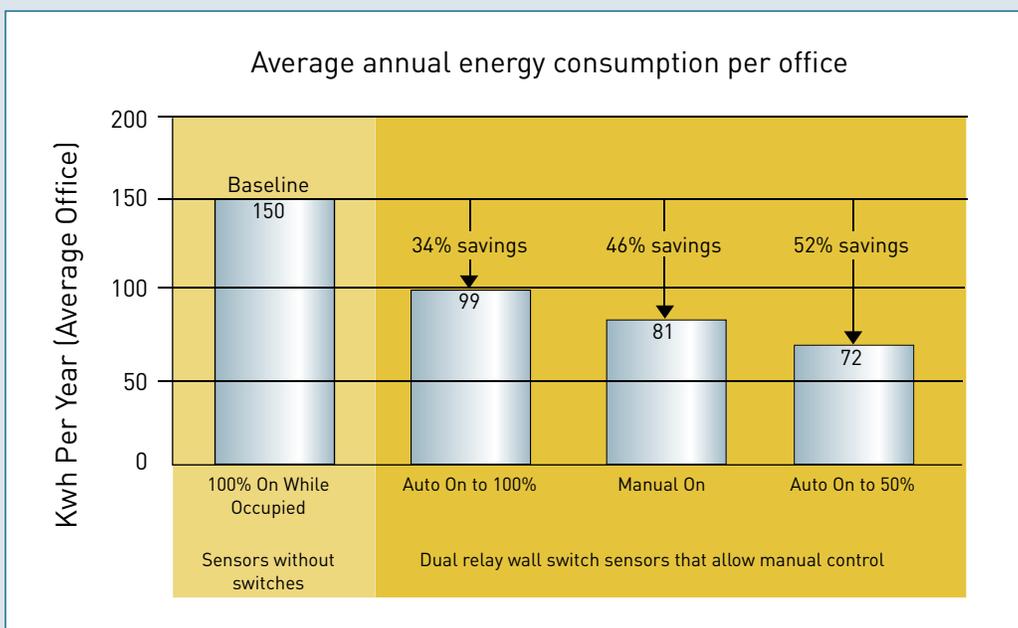
Energy savings from manual control, and “Auto-On to 50%”

Bi-level switching has the potential to save energy by enabling occupants to use just as much lighting as needed, and is required by EPCAct and California’s Title 24.

Bi-level automatic-on control delivers the greatest savings. This is when one zone is turned on automatically and the other zone must be turned on manually. This strategy has been

shown to use 52% less energy than automatic-on occupancy sensors without manual control.

When lighting comes on automatically, occupants seldom adjust switches to dim or brighten the space. Most are comfortable working in lower lighting levels, so auto-on to 50% is a win-win for workers and energy managers.



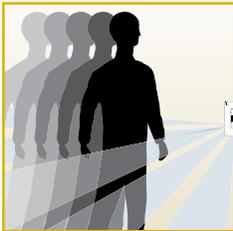
Source: “Bi-Level Switch Study,” California Lighting Technology Center.

Choice of technologies and features ensure optimal performance

By expanding its already extensive line of commercial sensors, WattStopper gives engineers and facility managers more control options than ever before, offering sensors that are the best fit for any application.

Sensors featuring **PIR, ultrasonic or dual technology** are ideally suited to different applications.

Passive infrared (PIR) technology detects occupancy by sensing the difference between heat emitted from



a human body in motion and the background space. Relying on a clear line of sight, PIR sensors feature precise cut-off of coverage.

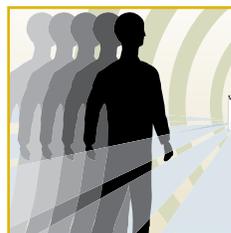
WattStopper ultrasonic technology works by transmitting ultrasonic waves and measuring changes in the resulting standing wave pattern in



order to detect motion. This sensing technique can detect movement in all directions and around partitions.



WattStopper invented and patented dual technology, which combines PIR and ultrasonic detection, for



challenging applications. Dual technology sensors ensure maximum sensitivity and coverage for optimal reliability and energy savings.

A choice of **single** or **dual relay** sensors allows control of one or two zones of lighting from a single-gang box, potentially reducing wall clutter and simplifying retrofits.



Default **manual-on** operation for most single relay sensors, and **automatic-on to 50%** for dual relay sensors, maximizes savings.

Line and low voltage models are available to accommodate the special wiring needs of different applications.

Multi-way sensors enable true three- and four-way lighting control in rooms with more than one entrance, or any area with multiple switch locations.

Selectable **fixed time delays** help installers maximize savings while eliminating the callbacks associated with an automatically adjusted delay option.

Integral **nightlighting** with field-selectable color and intensity serves to gently illuminate enclosed spaces or provide a sense of security and preserve night vision in hotel guest bathrooms.

Smaller, **environmentally friendly packaging**, without a wall plate, reduces waste and contributes to sustainable construction.

Color options



White



Ivory



Light Almond



Grey



Black

WattStopper occupancy sensors also feature:

- Zero crossing circuitry
- Test mode, walk-through and service modes
- Audible and/or visual shutoff warnings
- Light level sensor
- Selectable trigger mode (dual technology)
- Color matched lens

Ensure occupant satisfaction by matching the sensor to the application



Offices

- Use a PIR sensor for most small offices. Where bi-level switching is required, select a dual relay sensor. **(PW-100, PW-200)**
- For larger offices, and spaces where the sensor's view of the occupant is partially obstructed, use a dual technology sensor. **(DW-100, DW-200)**



Restrooms

- A PIR sensor can often cover an individual restroom. Use a dual relay sensor to switch lighting and an exhaust fan. **(PW-100, PW-200)**
- Use a sensor with a nightlight for hotel guest bathrooms. **(PW-103N)**
- For two-stall restrooms, or private restrooms with a partition, use an ultrasonic sensor. **(UW-100, UW-200)**
- Select Auto-ON operation for most restrooms.



Selecting Sensing Technology

Passive Infrared (PIR)		Ultrasonic		Dual Technology	
Use in small rooms with a clear line of sight from the switch box to the occupant, and where the occupant is facing the sensor.	Small offices and conference rooms.	Use in enclosed areas with partitions or partial obstructions.	Restrooms, utility and storage rooms.	Use in larger rooms, in rooms where the occupant does not face the sensor, and in areas where the occupant makes only very small movements.	Large offices and conference rooms.

Conference Rooms

- Conference rooms often have two lighting loads and are well served by dual relay PIR or dual technology sensors, depending on the size and shape of the space. **(PW-200, DW-200)**
- If a room has multiple entrances, use a multi-way sensor near each doorway. Each sensor enhances coverage of the space. **(PW-103N, PW-203, DW-103, DW-203)**



Utility/Storage Rooms

- Ultrasonic sensors are a good choice for spaces with obstructions including shelving, cabinets or racks of computer equipment. **(UW-100)**
- Use a dual relay sensor to control two lighting loads. **(UW-200)**

Lunch Rooms

- PIR and dual technology sensors are appropriate for break rooms. **(PW-100, DW-100)**
- Use multi-way sensors for spaces with two or more entrances, or for unusually shaped spaces. **(PW-103N, DW-103)**



Use low voltage sensors for applications without line voltage wiring to the switch location (see page 10 for additional information). **(PW-100-24, UW-100-24, DW-100-24)**

Designing with low voltage wall switch occupancy sensors

Using low voltage wall switch occupancy sensors can offer advantages over line voltage sensors such as:

- Greater flexibility
 - Connect multiple low voltage sensors on a single circuit.
 - Switch loads that exceed the rating of a standard line voltage switch.
 - Use as alternative to line voltage switches in jurisdictions that prohibit the use of 277 volt wall switches, or in locations where line voltage wiring is not possible.
 - Integrate seamlessly with VAV or building systems for additional energy savings.

- Lower installation costs

Since low voltage sensors use low voltage wiring, installation typically does not require the use of conduit. Labor costs are generally lower, and it is easier and faster to relocate controls should rewiring be necessary.



Selecting the right power pack

When choosing a power pack to accompany a low voltage wall switch application, keep these factors in mind:

- Input voltage
- Low voltage current output
- Type of load to be switched
- Relay type and ratings
- Mounting options
- Signaling from multiple devices

For more information on selecting power packs, as well as complete power pack product information, refer to WattStopper's Product Selection Guide.

Product Matrix

Wall Switch Occupancy Sensors				
	Model #	Voltage	Description	Typical Applications
Passive Infrared	 WS-250	120/277 VAC, 60 Hz 347 VAC, 60 Hz	PIR Wall Switch Sensor	Small offices, small and medium conference rooms, utility/storage rooms
	 PW-100 PW-100-347 PW-100-24	120/277 VAC, 50/60 Hz 347 VAC, 50/60 Hz 24 VDC	PIR Wall Switch Sensor	Small offices, small conference rooms, individual restrooms, lunch/break rooms
	 PW-103N	120/277 VAC, 50/60 Hz	PIR Multi-way Wall Switch Sensor with Nightlight	Small offices, small conference rooms, individual restrooms, lunch/break rooms, hotel guest bathrooms
	 PW-200 PW-200-347	120/277 VAC, 50/60 Hz 347 VAC, 50/60 Hz	PIR Dual Relay Wall Switch Sensor	Small offices, small conference rooms, individual restrooms, lunch/break rooms
	 PW-203	120/277 VAC, 50/60 Hz	PIR Multi-way Dual Relay Wall Switch Sensor	Small offices, small conference rooms, individual restrooms, lunch/break rooms
	 WD Series	120 or 277 VAC, 60 Hz	PIR Dimmable Wall Switch Sensor	Small offices and small conference rooms
Ultrasonic	 UW-100 UW-100-347 UW-100-24	120/277 VAC, 50/60 Hz 347 VAC, 50/60 Hz 24 VDC	Ultrasonic Wall Switch Sensor	Individual restrooms, two-stall restrooms, utility/storage rooms
	 UW-200	120/277 VAC, 50/60 Hz	Ultrasonic Dual Relay Wall Switch Sensor	Individual restrooms, two-stall restrooms, utility/storage rooms
Dual Technology	 DW-100 DW-100-347 DW-100-24	120/277 VAC, 50/60 Hz 347 VAC, 50/60 Hz 24 VDC	Dual Technology Wall Switch Sensor	Small and executive offices, small and medium conference rooms, lunch/break rooms
	 DW-103	120/277 VAC, 50/60 Hz	Dual Technology Multi-way Wall Switch Sensor	Small and executive offices, small and medium conference rooms, lunch/break rooms
	 DW-200	120/277 VAC, 50/60 Hz	Dual Technology Dual Relay Wall Switch Sensor	Small and executive offices, small and medium conference rooms, lunch/break rooms
	 DW-203	120/277 VAC, 50/60 Hz	Dual Technology Multi-way Dual Relay Wall Switch Sensor	Small and executive offices, small and medium conference rooms, lunch/break rooms

WS-250 Passive Infrared Wall Switch Sensor

180° coverage,
maximum of 900 ft²

Shallow (1") back housing and
flying leads for easy installation

Built-in light level sensor



Button provides positive
tactile feedback

Dual voltage model,
120/277 VAC

Compatible with all
electronic ballasts

PROJECT

LOCATION/TYPE

Product Overview

Description

The WS-250 Passive Infrared (PIR) Wall Switch Sensor turns lighting on and off based on occupancy and ambient light level. It replaces existing wall switches and fits behind a standard decorator wall plate. The WS-250 improves on the WS-200, featuring a shallower housing, flying leads and new control button.

Operation

The WS-250 utilizes advanced PIR technology to detect occupancy. Detection occurs when the WS-250 senses the difference between infrared energy from a human body in motion and the background space. Lighting automatically turns on when occupancy is detected. After a user-specified length of time when no occupancy is detected, lighting automatically switches off. The sensor can also be used with line voltage switches for multi-level lighting.

Light Level Sensor

The WS-250 features a built-in light level sensor. This feature holds lighting systems off when natural light levels are above the preset level. Once lights are switched on, the sensor will not switch them off even if daylight levels increase. Using the light level feature is optional and the setting is adjustable by the user.

Applications

The WS-250 has the flexibility to work in a variety of applications including offices, conference rooms, break rooms and utility rooms. Energy savings for these areas can be as high as 60% since lighting will no longer remain on once the room is vacant. With a competitive price, low installation cost, and high energy savings, paybacks are usually well under two years.

Features

- ASIC technology reduces components and enhances reliability; includes proprietary chip designed by WattStopper
- Pulse Count Processing eliminates false offs without reducing sensitivity
- Detection Signature Processing eliminates false triggers; provides immunity to RFI and EMI
- Zero crossing circuitry reduces stress on the relay and results in increased sensor life
- Time delay adjustment from 30 seconds up to 30 minutes
- Adjustable unit sensitivity from 20% to 100%
- Light level sensor holds lights off when ambient lighting is above the preset level
- Custom two-tier Fresnel lens enhances detection at the desktop level
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Patented voltage drop protection
- For safety, there is no leakage to load in the off mode and sensor is safety grounded
- LED indicates occupancy detection
- Compatible with decorator wall plates
- Qualifies for ARRA-funded public works projects

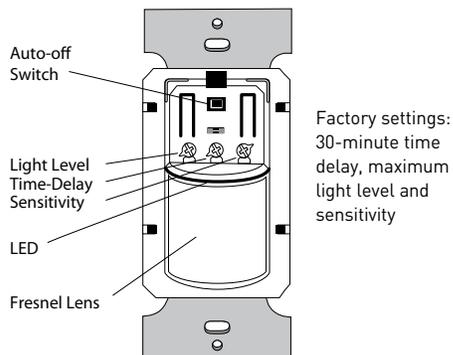


Specifications

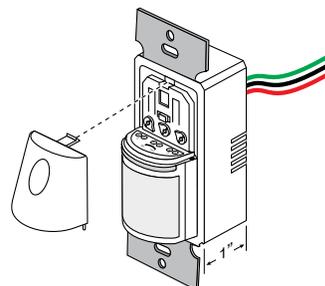
- 120/277 VAC, 60 Hz, or 347 VAC, 60 Hz
- Time delay adjustable from 30 seconds up to 30 minutes
- Adjustable unit sensitivity from 20% to 100%
- Adjustable light level setting of 2 to 200 foot-candles (21.5 to 2,153 lux)
- Compatible with all electronic ballasts and PL lamp ballasts
- Coverage: Major motion 35' x 30'
Minor motion 20' x 15'
- Dimensions: 2.6" x 1.7" x 1.55" (66.0mm x 43.1mm x 39.4mm) L x W x D
- UL and cUL listed
- Five year warranty

Controls & Installation

Product Controls



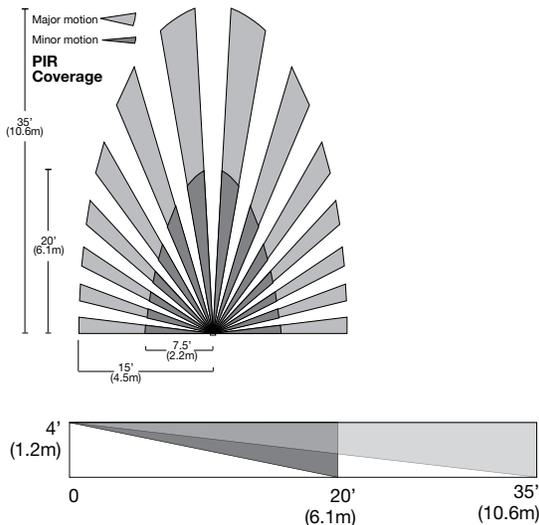
Installation



Extremely shallow (1") back housing and 6" flying leads facilitate quick installation in standard wall box

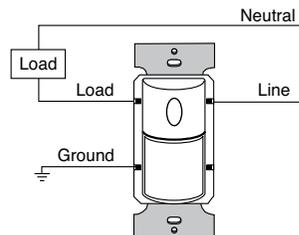
Coverage & Wiring

Coverage Pattern

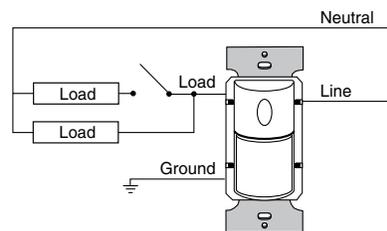


For best performance, WattStopper recommends using this sensor in spaces no larger than 15' x 12'.

Single Level Lighting



Manual Bi-level Lighting



Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> WS-250-W	White	120 VAC; 60 Hz or 277 VAC; 60 Hz	@ 120 VAC, 0-800 W ballast or tungsten or 1/6 hp @ 277 VAC 0-1200 W ballast
<input type="checkbox"/> WS-250-W-U			
<input type="checkbox"/> WS-250-W-FTA			
<input type="checkbox"/> WS-250-LA	Light Almond		
<input type="checkbox"/> WS-250-I	Ivory		
<input type="checkbox"/> WS-250-I-U			
<input type="checkbox"/> WS-250-I-FTA			
<input type="checkbox"/> WS-250-G	Gray		
<input type="checkbox"/> WS-250-B	Black		
<input type="checkbox"/> WS-250-347-W	White	347 VAC; 60 Hz	0-1200 W ballast
<input type="checkbox"/> WS-250-347-I	Ivory		
<input type="checkbox"/> WS-250-347-G	Gray		
<input type="checkbox"/> WS-250-347-B	Black		

Order wall plate separately.

PW-100 Passive Infrared Wall Switch Sensor

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

PROJECT

LOCATION/TYPE

Product Overview

Description

The PW-100 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-100 replaces existing wall switches and fits in a single gang junction box. 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.

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 will be required where the ASHRAE 90.1-2010 energy code is adopted. If desired, the PW-100 may be reconfigured to turn lights on automatically.

Applications

The PW-100 sensor is well suited for small, enclosed spaces with clear line of sight of the occupant. Common applications include small office, small conference room and lunch/break rooms.

Features

- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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
- 2-wire and 3-wire models available for applications with or without neutral wire
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Compatible with decorator wall plates
- Qualifies for ARRA-funded public works projects

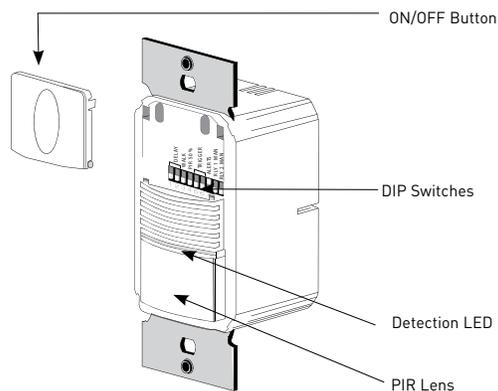


Specifications

- PW-100, PW-101: 120/277 VAC; 50/60 Hz @ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
- PW-100-347: 347 VAC; 50/60Hz; 0-1500 W ballast
- 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: 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



DIP Switch Settings

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

Walk-Through	4
Disabled	↓
Enabled	↑

PIR Sensitivity	5
High	↓
Low, 50%	↑

Visible Alert	6
Disabled	↓
Enabled	↑

Audible Alert	7
Disabled	↓
Enabled	↑

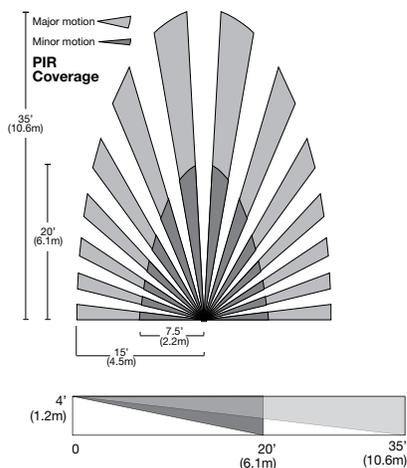
ON Mode	8
Auto On	↓
Manual On	↑

Switch 9 is not used
↑=ON ↓=OFF
◀=Factory Setting

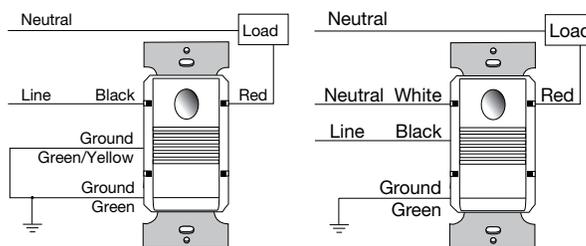
⊙ Service bypasses occupancy & light level functions. Control the load manually using ON/OFF button.

Coverage & Wiring

Coverage Pattern



Wiring Diagrams



Wiring for PW-100 with no neutral wire run to the switch box.

Wiring for PW-101 with a neutral connection in the switch box.

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

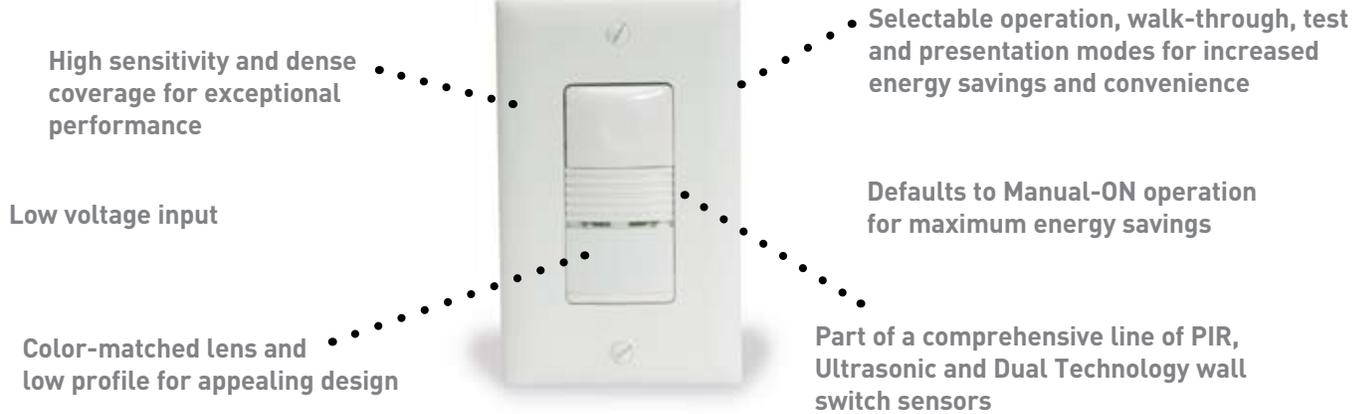
Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> PW-100-W	White	120/277 VAC; 50/60 Hz 2-wire sensor; no neutral connection	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-100-W-U			
<input type="checkbox"/> PW-100-W-FTA			
<input type="checkbox"/> PW-100-LA	Lt. Almond	120/277 VAC; 50/60 Hz 3-wire sensor; requires neutral connection	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-100-I			
<input type="checkbox"/> PW-100-I-U			
<input type="checkbox"/> PW-100-I-FTA	Ivory	347 VAC; 50/60 Hz	0-1500 W ballast
<input type="checkbox"/> PW-100-G			
<input type="checkbox"/> PW-100-B			
<input type="checkbox"/> PW-101-W	White	120/277 VAC; 50/60 Hz 3-wire sensor; requires neutral connection	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-101-LA			
<input type="checkbox"/> PW-101-I			
<input type="checkbox"/> PW-101-G	Grey	347 VAC; 50/60 Hz	0-1500 W ballast
<input type="checkbox"/> PW-101-B			
<input type="checkbox"/> PW-100-347-W			
<input type="checkbox"/> PW-100-347-LA	Lt. Almond	347 VAC; 50/60 Hz	0-1500 W ballast
<input type="checkbox"/> PW-100-347-I			
<input type="checkbox"/> PW-100-347-G			
<input type="checkbox"/> PW-100-347-B	Black	347 VAC; 50/60 Hz	0-1500 W ballast

Order wall plate separately.



PW-100-24 Passive Infrared Low Voltage Wall Switch Sensor



PROJECT
LOCATION/TYPE

Product Overview

Description

The PW-100-24 passive infrared (PIR) low voltage 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

Factory default operation is for Manual-ON, so that users turn lights on only when needed. The PW-100-24 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.

Low Voltage

Low voltage wall switch sensors can offer advantages over line voltage models. Using an isolated form-C relay output, the PW-100-24 sensor integrates seamlessly with VAV or other building systems for greater energy savings. Multiple PW-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

The PW-100-24 is the perfect choice for locations where line voltage wiring is not possible or for jurisdictions prohibiting the use of 277V switches. It is 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

- 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
- LED indicates occupancy detection
- Selectable audible and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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

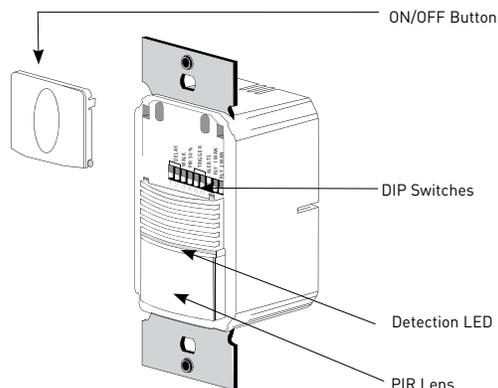


Specifications

- 18-24 VDC, 24 VAC and halfwave rectified AC
- Current consumption: 20 mA
- PW-100-24 contains single-pole, double-throw isolated relay rated for 1 A @ 30 VDC
- 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: 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



DIP Switch Settings

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

Walk-Through	4
Disabled	↓
Enabled	↑

PIR Sensitivity	5
High	↓
Low, 50%	↑

Visible Alert	6
Disabled	↓
Enabled	↑

Audible Alert	7
Disabled	↓
Enabled	↑

ON Mode	8
Auto On	↓
Manual On	↑

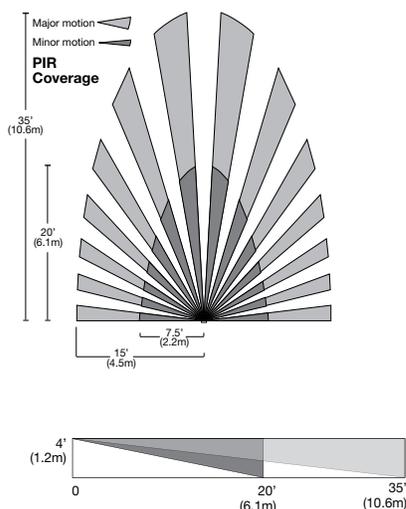
Switch 9 is not used

↑ = ON ↓ = OFF
◀ = Factory Setting

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

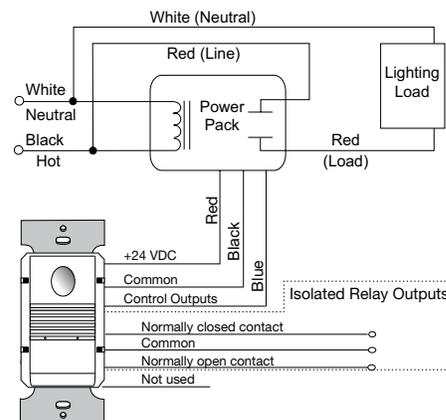
Coverage & Wiring

Coverage Pattern



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

PW-100-24 Low Voltage Wiring



Ordering Information

Catalog No.	Color	Voltage
<input type="checkbox"/> PW-100-24-W	White	18-24 VDC, 24 VAC and halfwave rectified AC
<input type="checkbox"/> PW-100-24-LA	Lt. Almond	
<input type="checkbox"/> PW-100-24-I	Ivory	
<input type="checkbox"/> PW-100-24-G	Grey	
<input type="checkbox"/> PW-100-24-B	Black	

Order wall plate separately.



PW-103N Passive Infrared Multi-way Wall Switch Sensor with Nightlight



High sensitivity and dense coverage for exceptional performance

Optional nightlight with choice of three colors and two light levels

Color-matched lens and low profile for appealing design

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

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

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

PROJECT
LOCATION/TYPE

Product Overview

Description

The PW-103N passive infrared (PIR) multi-way wall switch sensor can turn lights OFF and ON based on occupancy. It provides high sensitivity to small and large movements, appealing aesthetics, a field selectable nightlight and a variety of features.

Operation

The PW-103N replaces existing wall switches and fits in a single gang junction box. 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 control options including Auto-ON operation, walk-through and test modes. The PW-103N has an LED nightlight that can be set to high or low intensity and to amber, white or blue, or to off. Multiple PW-103N sensors may be used for control of one or more loads from up to four locations.

Features

- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- LED indicates occupancy detection
- Field selectable high or low intensity amber, white or blue nightlight
- 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

Multi-way Control

The PW-103N offers true multi-way functionality. When connected sensors are in Manual-ON mode (default), an occupant must press the ON/OFF button of one of the sensors to turn the load ON. When sensors are in Auto-ON mode, the load will automatically turn ON when occupancy is detected by one of the sensors. Lights will remain ON as long as occupancy is detected. The last sensor to detect occupancy will turn the load OFF after the time delay has elapsed. In either operating mode, an occupant may turn the load OFF manually.

Applications

The PW-103N sensor is well suited for spaces with multiple doorways or switch locations, or spaces that would benefit from nightlighting. Common applications include private offices, small conference rooms, lunch/break rooms, individual restrooms and hotel guest bathrooms.

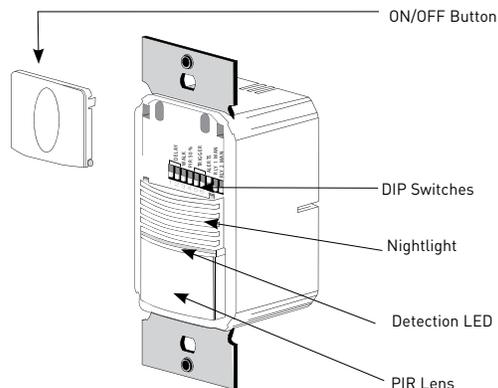


Specifications

- PW-103N: 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, 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: 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



DIP Switch Settings

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

Walk-Through	4
Disabled	↓
Enabled	↑

PIR Sensitivity	5
High	↓
Low, 50%	↑

Visible Alert	6
Disabled	↓
Enabled	↑

Audible Alert	7
Disabled	↓
Enabled	↑

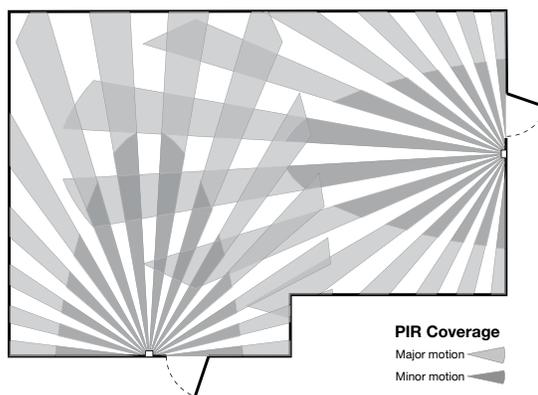
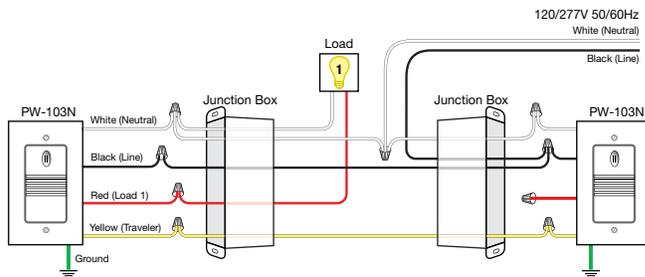
On Mode	8
Auto On	↓
Manual On	↑

Nightlight	9
Disabled	↓
Enabled	↑

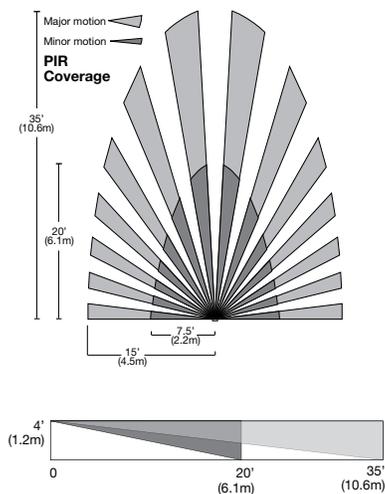
Service bypasses occupancy & light level functions. Control the load manually using ON/OFF button. ↑=ON ↓=OFF ◀=Factory Setting

Coverage & Wiring

Multi-way Wiring Diagram



Coverage Pattern



For best performance in single location applications, WattStopper recommends using this sensor in spaces no larger than 15' x 12'. In multi-way applications, each connected sensor expands the coverage area.

Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> PW-103N-W	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-103N-LA	Lt. Almond		
<input type="checkbox"/> PW-103N-I	Ivory		
<input type="checkbox"/> PW-103N-G	Grey		
<input type="checkbox"/> PW-103N-B	Black		

Order wall plate separately.

PW-200 Passive Infrared Dual Relay Wall Switch Sensor

High sensitivity and dense coverage for exceptional performance

Two relays for control of two separate lighting loads or circuits

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 Auto-ON to 50% operation for maximum energy savings

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

PROJECT
LOCATION/TYPE

Product Overview

Description

The PW-200 passive infrared (PIR) wall switch sensor turns lights ON and OFF based on occupancy. It contains two relays for controlling two independent lighting loads or circuits, and a variety of features.

Operation

The PW-200 replaces existing wall switches and fits in a single gang junction box. Each of the PW-200's relays can control a separate lighting load. It uses advanced PIR technology to detect occupancy and turn the first relay ON. Once the space is vacated and the time delay elapses, lights automatically turn OFF. Dual ON/OFF buttons allow the user to manually turn on and off each of the loads. DIP switch settings allow for a variety of control options such as Manual-ON or Auto-ON for each relay, walk-through and test modes.

Bi-Level Control

The PW-200 features a built-in light level sensor that controls the second (secondary) relay. If adequate daylight is present, the sensor will hold secondary lights off until daylight levels drop, providing increased energy savings. The PW-200 satisfies energy codes requiring bi-level or daylight control switching. The two relays in the sensor give it the ability to control two lighting loads independently. This provides A/B switching where the user can achieve half-lighting (or another desired portion) from a single switch.

Applications

The PW-200 sensor is well suited for small, enclosed spaces with a clear line of sight of the occupant. In addition, its dual relays allow bi-level switching or control of a secondary load. Common applications include small office, small conference room and lunch/break rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing on both relays for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation, selectable for each relay
- 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
- LED indicates occupancy detection
- Selectable audible and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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
- Qualifies for ARRA-funded public works projects

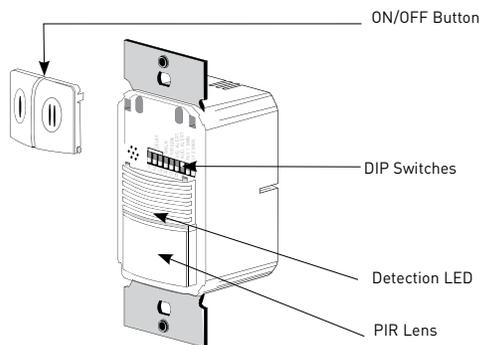


Specifications

- PW-200: 120/277 VAC; 50/60 Hz
@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp
@ 277 VAC, 0-1200 W ballast
- PW-200-347: 347 VAC; 50/60 Hz; 0-1500 W ballast
- 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: 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



DIP Switch Settings

Time Delay	1	2	3
Auto/Test	↓	↓	↓
5 minutes	↓	↑	↑
10 minutes	↓	↑	↑
15 minutes	↓	↑	↑
20 minutes	↑	↓	↓
25 minutes	↑	↓	↓
30 minutes	↑	↓	↓
override	↑	↓	↓

Walk-Through	4
Disabled	↓
Enabled	↑

Bypass occupancy & light level functions. Loads are manually controlled with PW-200 buttons.

Audible Alert	7
Disabled	↓
Enabled	↑

Relay 1 Mode	8
Auto On	↓
Manual On	↑

PW-200 ONLY

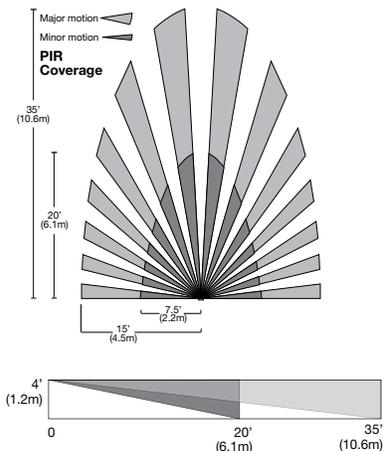
Relay 2 Mode	9
Auto On	↓
Manual On	↑

Factory Settings:
 ↓ All models
 ▲ PW-100 series
 ▲ PW-200 series

↑=ON ↓=OFF

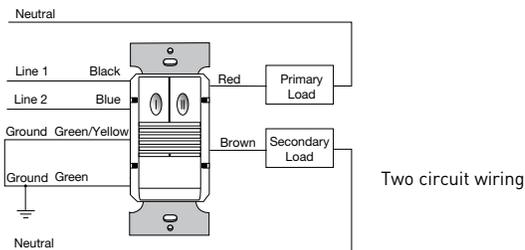
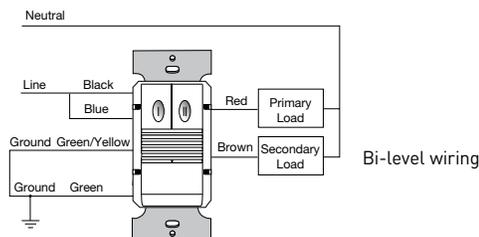
Coverage & Wiring

Coverage Pattern



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

Wiring Diagrams



Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> PW-200-W <input type="checkbox"/> PW-200-W-U <input type="checkbox"/> PW-200-W-FTA	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-200-LA	Lt. Almond		
<input type="checkbox"/> PW-200-I <input type="checkbox"/> PW-200-I-U <input type="checkbox"/> PW-200-I-FTA	Ivory		
<input type="checkbox"/> PW-200-G	Grey		
<input type="checkbox"/> PW-200-B	Black		
<input type="checkbox"/> PW-200-347-W <input type="checkbox"/> PW-200-347-LA <input type="checkbox"/> PW-200-347-I <input type="checkbox"/> PW-200-347-G <input type="checkbox"/> PW-200-347-B	White Lt. Almond Ivory Grey Black	347 VAC; 50/60 Hz	0-1500 W ballast

Order wall plate separately.



PW-203 Passive Infrared Multi-way Dual Relay Wall Switch Sensor



- High sensitivity and dense coverage for exceptional performance
- Two relays for control of two separate lighting loads
- Color-matched lens and low profile for appealing design
- Allows multi-way control from one of up to four control locations
- Selectable operation, walk-through, test and presentation modes for increased energy savings and convenience
- Part of a comprehensive line of PIR, Ultrasonic and Dual Technology wall switch sensors

PROJECT
LOCATION/TYPE

Product Overview

Description

The PW-203 passive infrared (PIR) multi-way wall switch sensor turns lights ON and OFF based on occupancy. It contains two relays for controlling two independent lighting loads and a variety of features.

Operation

The PW-203 replaces existing wall switches and fits in a single gang box. Each of the PW-203's relays can control a separate lighting load. It uses advanced PIR technology to detect occupancy and turn the first relay ON. Once the space is vacated and the time delay elapses, lights automatically turn OFF. Dual ON/OFF buttons allow the user to manually switch each of the loads, and each relay can be set for Manual-ON or Auto-ON. The PW-203 features a built-in light level sensor that controls the second relay. If adequate daylight is present, the sensor will hold the second relay off until daylight levels drop for increased energy savings.

Multi-way Control

Multiple PW-203 sensors may be connected for control from up to four locations, and provide true multi-way functionality. When Manual-ON mode is active, an occupant must press an ON/OFF button on one of the sensors to turn a load ON. When Auto-ON mode is active, the load will automatically turn ON when occupancy is detected by one of the sensors. Lights will remain ON as long as occupancy is detected. The last sensor to detect occupancy will turn the loads OFF after the time delay has elapsed. In either operating mode, an occupant may turn the load OFF manually.

Applications

The PW-203 sensor is well suited for spaces requiring bi-level lighting control, or control of two independent loads, that have multiple doorways or switch locations. Common applications include small offices, small conference rooms and lunch/break rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing on both relays for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation, selectable for each relay
- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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

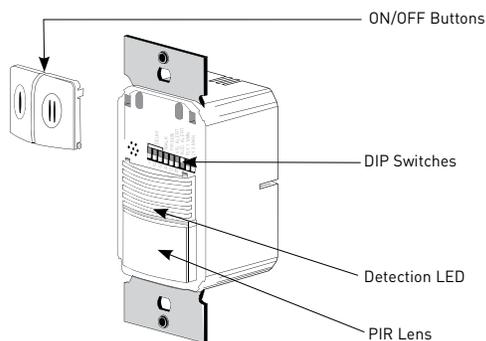


Specifications

- 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, 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: 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



DIP Switch Settings

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

Walk-Through	4
Disabled	↓
Enabled	↑

Time Delay	Visible Alerts	Relay 1 Mode	Relay 2 Mode
1	2	3	4
5	6	7	8
9	10	11	12

Audible Alert	7
Disabled	↓
Enabled	↑

PIR Sensitivity	5
High	↓
Low, 50%	↑

Relay 1 Mode	8
Auto On	↓
Manual On	↑

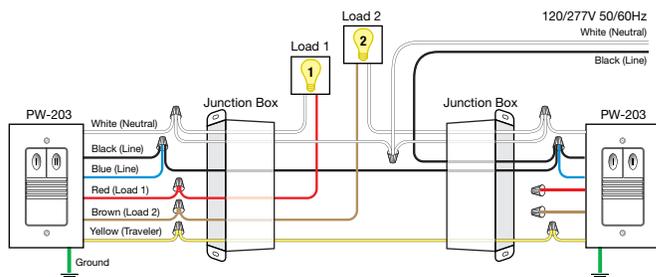
Visible Alert	6
Disabled	↓
Enabled	↑

Relay 2 Mode	9
Auto On	↓
Manual On	↑

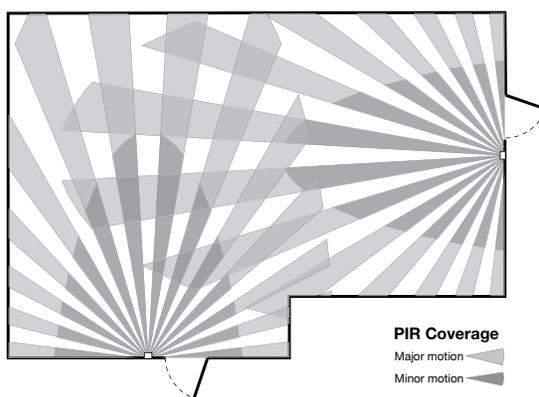
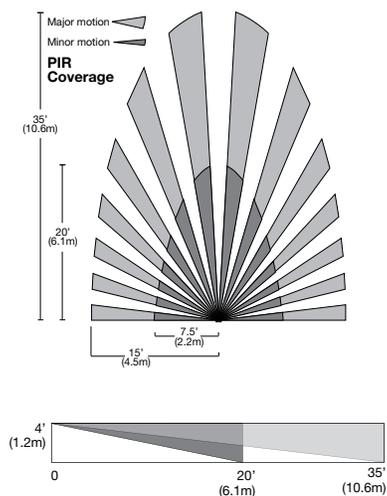
Service bypasses occupancy & light level functions. Control the load manually using ON/OFF button. ↑=ON ↓=OFF ◀=Factory Setting

Coverage & Wiring

Multi-way Bi-level Wiring Diagram



Coverage Patterns



For best performance in single location applications, WattStopper recommends using this sensor in spaces no larger than 15' x 12'. In multi-way applications, each connected sensor expands the coverage area.

Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> PW-203-W	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> PW-203-LA	Lt. Almond		
<input type="checkbox"/> PW-203-I	Ivory		
<input type="checkbox"/> PW-203-G	Grey		
<input type="checkbox"/> PW-203-B	Black		

Order wall plate separately.

WD Passive Infrared Dimmable Wall Switch Sensor

Occupancy sensing
dimmable wall switch

Slide dimmer adjusts
light level

Low profile, flat
decorator design



Works with dimming
ballasts* or incandescent lamps

Vandal resistant,
hard lens

ASIC enhances
reliability and helps to
eliminate false triggers

PROJECT

LOCATION/TYPE

Product Overview

Description

The WD sensors are decorator style, dimmable automatic wall switches. They replace standard wall switches and work with fluorescent fixtures using ballasts with line voltage phase control input or Advance® Mark X™ electronic dimmable ballasts as well as incandescent fixtures.

Operation

The WD sensors use passive infrared (PIR) technology to turn lights on when the controlled space is occupied. The WD-170 and WD-180 automatically turn off once the space is vacated and the user-adjustable time delay elapses. The WD-270 and WD-280 have a dim-before-disconnect feature where once the space is vacated and the fixed 15 minute time delay elapses, lights dim to the minimum level. Then, lights turn completely off after a secondary, adjustable time delay. For all models, lights can be turned off manually by pressing the auto/off button.

Dimming Feature

The WD's slide dimmer adjusts the lighting from a minimum of 10% to a maximum of 100%. The position of the slide dimmer determines the light level that turns on upon occupancy. The combination of dimming and occupancy sensing provides a high degree of energy savings, as well as enhanced user control over the lighting environment.

Applications

The WD can be used in many spaces including private offices, small conference rooms, and copy rooms. Offices in public spaces can also use the WD because of the vandal resistant hard lens. The product's flat, low-profile appearance adds to the aesthetics in any location.

Features

- ASIC technology reduces components and enhances reliability
- Pulse Count Processing eliminates false offs without reducing sensitivity
- Detection Signature Analysis eliminates false triggers; provides immunity to RFI and EMI
- Hard lens makes the unit resistant to vandalism
- Zero Voltage Turn ON/OFF increases life of sensor
- Line voltage dimmable; does not require extra control wiring to the ballast for the dimming function
- Patented voltage drop protection
- For safety, there is no leakage to load in the off mode and sensor is safety grounded
- LED indicates occupancy detection
- Compatible with decorator wall plates

*Compatible with electronic dimming ballasts with line voltage phase control input as well as with incandescent fixtures

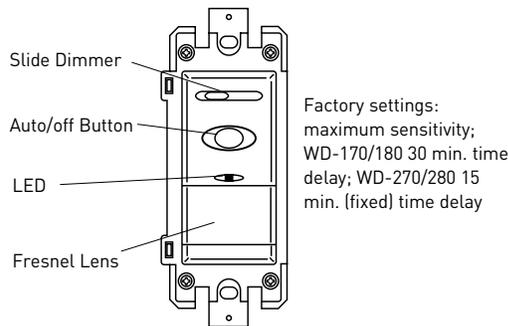


Specifications

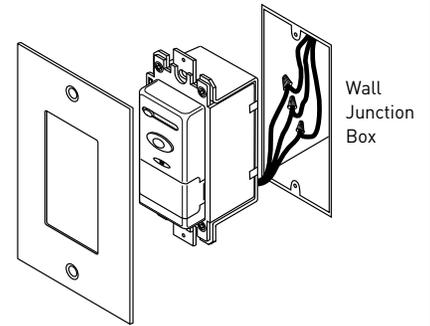
- WD-170, WD-270 operate at 120 VAC; WD-180, WD-280 operate at 277 VAC
- Maximum 300 ft² (27.8 m²); 150 ft² (13.9 m²) for desktop activity
- 1.0 mm hard poly IR 2 lens
- WD-170, WD-180: time delay adjustable during installation from 30 seconds up to 30 minutes
- WD-270, WD-280: fixed initial 15 min time delay after which lights will dim to minimum level; secondary adjustable time delay from 5 min to 30 min after which lights turn off
- Dimensions: 2.7" x 1.8" x 2.2" (68.6mm x 45.7mm x 55.9mm) L x W x D
- UL and cUL listed
- Five year warranty

Controls & Installation

Product Controls

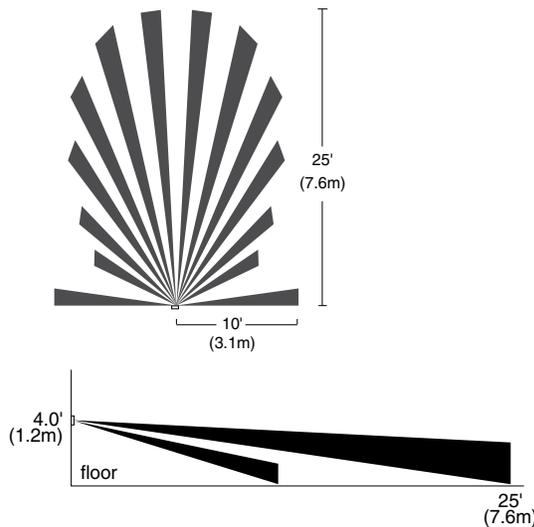


Installation



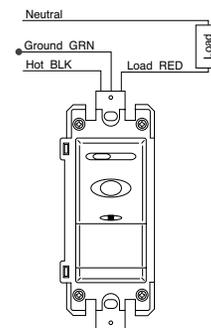
Coverage & Wiring

Coverage Pattern

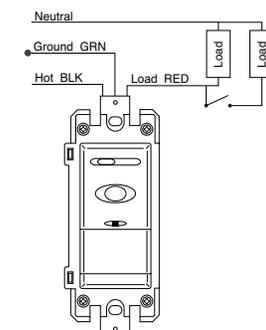


The 2-level lens provides superior coverage at a desk-top level by allowing the sensor to detect vertical as well as horizontal motion.

Single Level Lighting



Manual Bi-level Lighting

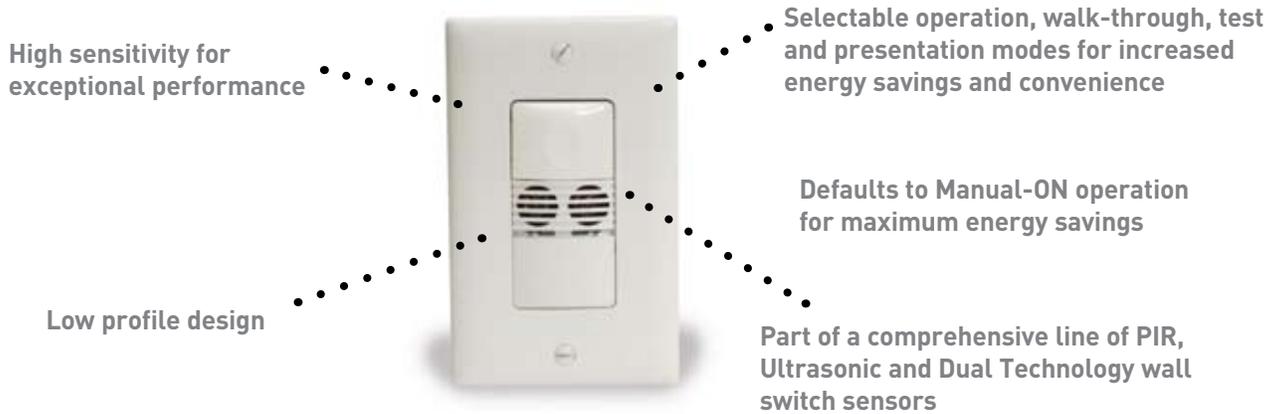


Ordering Information

Catalog No.	Color	Voltage	Load Rating	Coverage	OFF Mode
<input type="checkbox"/> WD-170-W	White	120 VAC; 60 Hz	10-500 W Ballast 0-500W Tungsten	180°, 300 ft ² [27.9 m ²]	Automatic-OFF
<input type="checkbox"/> WD-170-A	Almond				
<input type="checkbox"/> WD-170-I	Ivory				
<input type="checkbox"/> WD-180-W	White	277 VAC; 60 HZ	10-500 Watt Ballast	180°, 300 ft ² [27.9 m ²]	Automatic-OFF
<input type="checkbox"/> WD-180-A	Almond				
<input type="checkbox"/> WD-180-I	Ivory				
<input type="checkbox"/> WD-270-W	White	120 VAC; 60 Hz	10-500 W Ballast, 0-500W Tungsten	180°, 300 ft ² [27.9 m ²]	Dim-bef-disconnect
<input type="checkbox"/> WD-270-A	Almond				
<input type="checkbox"/> WD-270-I	Ivory				
<input type="checkbox"/> WD-280-W	White	277 VAC; 60 HZ	10-500 Watt Ballast	180°, 300 ft ² [27.9 m ²]	Dim-bef-disconnect
<input type="checkbox"/> WD-280-A	Almond				
<input type="checkbox"/> WD-280-I	Ivory				

Order wall plate separately.

UW-100 Ultrasonic Wall Switch Sensor



PROJECT
LOCATION/TYPE

Product Overview

Description

The UW-100 ultrasonic 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 UW-100 fits in a single junction box. It uses high frequency (40kHz) ultrasound 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.

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 will be required where the ASHRAE 90.1-2010 energy code is adopted. If desired, the UW-100 may be reconfigured to turn lights on automatically.

Applications

The UW-100 sensor is ideal for applications where the sensor may have a partially obstructed line of sight of the occupant. Common applications include individual restrooms, restrooms with two stalls and utility/storage rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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

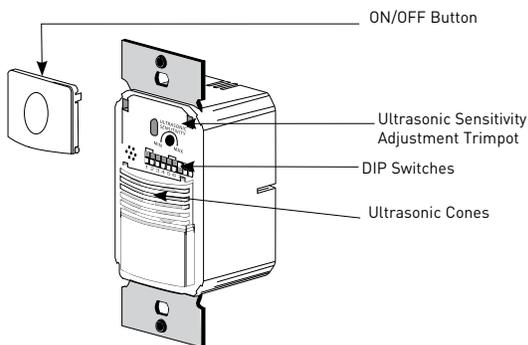


Specifications

- UW-100: 120/277 VAC; 50/60 Hz
@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp
@ 277 VAC, 0-1200 W ballast
- UW-100-347: 347 VAC; 50/60Hz, 0-1500 W ballast
- Time delays: 5, 10, 15, 20, 25 or 30 minutes, walk-through, test-mode
- Coverage: Major motion 20' x 20'
Minor motion 15' x 15'
- Sensitivity adjustment: 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



DIP Switch Settings

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

Audible Alert	6
Disabled	↓
Enabled	↑

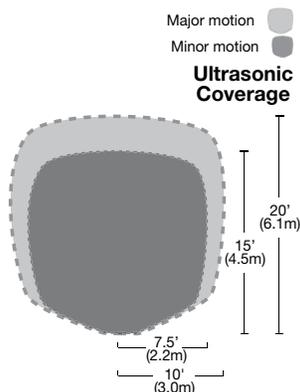
ON Mode	7
Auto On	↓
Manual On	↑

Switches 8 & 9 are not used.
↑=ON ↓=OFF
◀=Factory Setting

Ⓢ Service bypasses occupancy & light level functions. Disables ultrasonic transmissions. Manual load control with ON/OFF button.

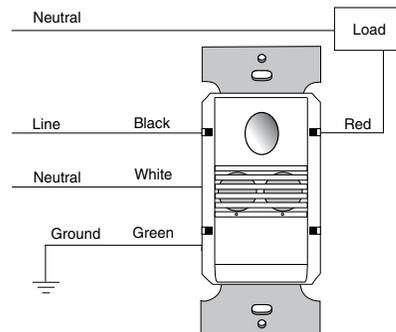
Coverage & Wiring

Coverage Pattern



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

Wiring Diagram



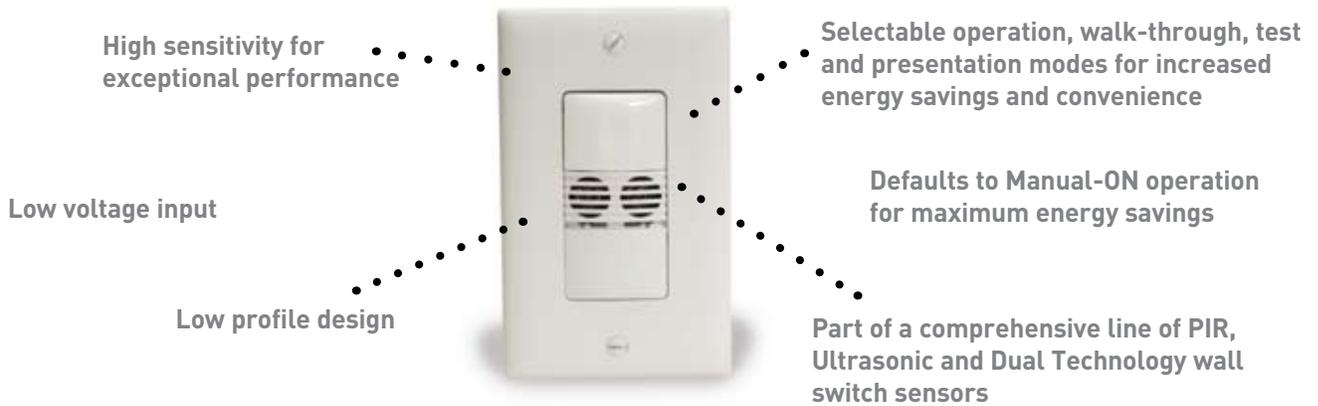
Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> UW-100-W	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> UW-100-LA	Lt. Almond		
<input type="checkbox"/> UW-100-I	Ivory		
<input type="checkbox"/> UW-100-G	Grey		
<input type="checkbox"/> UW-100-B	Black		
<input type="checkbox"/> UW-100-347-W	White	347 VAC; 50/60 Hz	0-1500 W ballast
<input type="checkbox"/> UW-100-347-LA	Lt. Almond		
<input type="checkbox"/> UW-100-347-I	Ivory		
<input type="checkbox"/> UW-100-347-G	Grey		
<input type="checkbox"/> UW-100-347-B	Black		

Order wall plate separately.



UW-100-24 Ultrasonic Low Voltage Wall Switch Sensor



PROJECT
LOCATION/TYPE

Product Overview

Description

The UW-100-24 ultrasonic low voltage 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

Factory default operation is for Manual-ON, so that users turn lights on only when needed. The UW-100-24 uses high frequency (40kHz) ultrasound to detect occupancy and keep lighting ON. 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.

Low Voltage

Low voltage wall switch sensors can offer advantages over line voltage models. Using an isolated form-C relay output, the UW-100-24 sensor integrates seamlessly with VAV or other building systems for greater energy savings. Multiple UW-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

The UW-100-24 is the perfect choice for locations where line voltage wiring is not possible or for jurisdictions prohibiting the use of 277V switches. It is well suited for applications where the sensor may have a partially obstructed line of sight of the occupant such as individual restrooms, restrooms with two stalls and utility/storage rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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

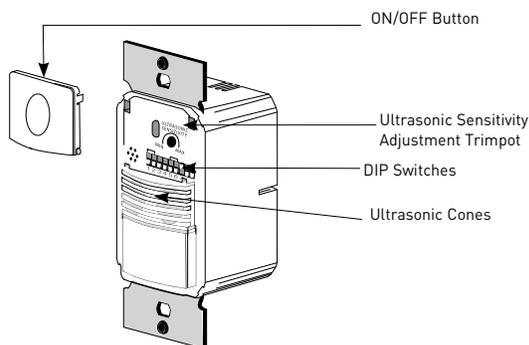


Specifications

- 18-24 VDC, 24 VAC and halfwave rectified AC
- Current consumption: 35 mA
- UW-100-24 contains single-pole, double-throw isolated relay rated for 1 A @ 30 VDC
- Time delays: 5, 10, 15, 20, 25 or 30 minutes, walk-through, test-mode
- Coverage: Major motion 20' x 20'
Minor motion 15' x 15'
- Sensitivity adjustment: 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



DIP Switch Settings

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

Service bypasses occupancy & light level functions. Disables ultrasonic transmissions. Manual load control with ON/OFF button.

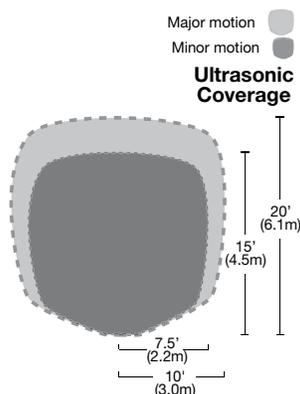
Audible Alert	6
Disabled	↓
Enabled	↑

ON Mode	7
Auto On	↓
Manual On	↑

Switches 8 & 9 are not used.
↑=ON ↓=OFF
←=Factory Setting

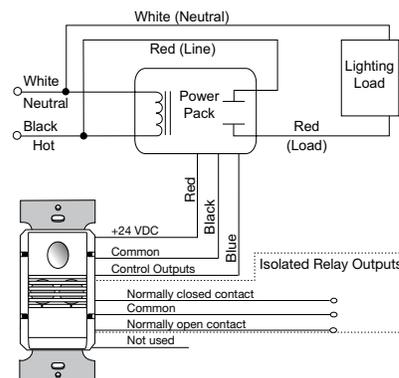
Coverage & Wiring

Coverage Pattern



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

UW-100-24 Low Voltage Wiring

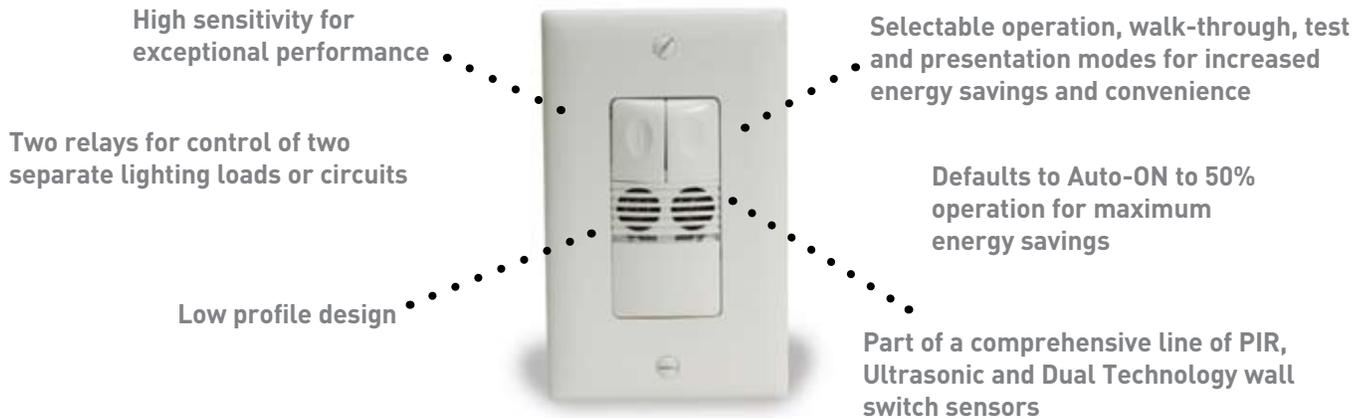


Ordering Information

Catalog No.	Color	Voltage
<input type="checkbox"/> UW-100-24-W	White	18-24 VDC, 24 VAC and halfwave rectified AC
<input type="checkbox"/> UW-100-24-LA	Lt. Almond	
<input type="checkbox"/> UW-100-24-I	Ivory	
<input type="checkbox"/> UW-100-24-G	Grey	
<input type="checkbox"/> UW-100-24-B	Black	

Order wall plate separately.

UW-200 Ultrasonic Dual Relay Wall Switch Sensor



PROJECT
LOCATION/TYPE

Product Overview

Description

The UW-200 ultrasonic wall switch sensor turns lights ON and OFF based on occupancy. It contains two relays for controlling two independent lighting loads or circuits and a variety of features.

Operation

The UW-200 fits in a single gang junction box. Each of the UW-200's relays can control a separate lighting load. It uses high frequency (40kHz) ultrasound to detect occupancy and turn the first relay ON. Once the space is vacated and the time delay elapses, lights automatically turn OFF. Dual ON/OFF buttons allow the user to manually turn on and off each of the loads. DIP switch settings allow for a variety of control options such as Manual-ON or Auto-ON for each relay, walk-through and test modes.

Bi-Level Control

The UW-200 features a built-in light level sensor that controls the second (secondary) relay. If adequate daylight is present, the sensor will hold secondary lights off until daylight levels drop, providing increased energy savings. The UW-200 satisfies energy codes requiring bi-level or daylight control switching. The two relays in the sensor give it the ability to control two lighting loads independently. This provides A/B switching where the user can achieve half-lighting (or another desired portion) from a single switch.

Applications

The UW-200 sensor is ideal for applications where the sensor may have a partially obstructed line of sight of the occupant. In addition, its dual relays allow bi-level switching or control of a secondary load such as an exhaust fan. Common applications include individual restrooms, restrooms with two stalls and utility/storage rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing on both relays for long relay life
- Choice of Manual-ON or Auto-ON operation, selectable for each relay
- 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 and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- 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



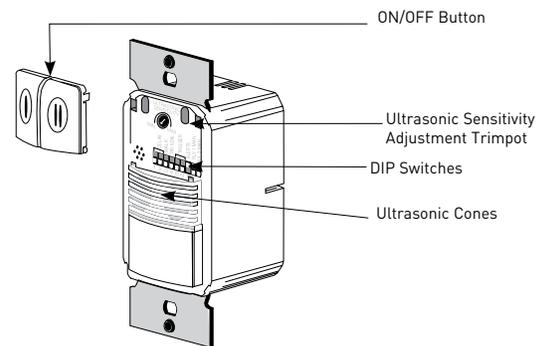
Specifications

- 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, 10, 15, 20, 25 or 30 minutes, walk-through, test-mode

- Coverage: Major motion 20' x 20'
Minor motion 15' x 15'
- Sensitivity adjustment: 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



DIP Switch Settings

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

Walk-Through	4
Disabled	↓
Enabled	↑

Visible Alert	5
Disabled	↓
Enabled	↑

Audible Alert	6
Disabled	↓
Enabled	↑

Relay 1 Mode	7
Auto On	↓
Manual On	↑

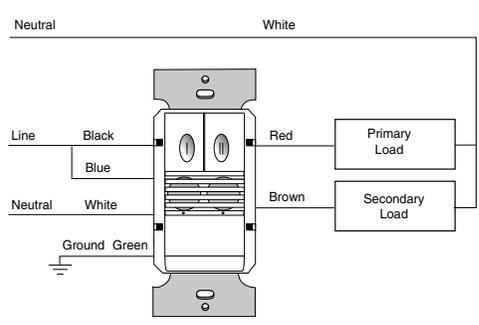
Relay 2 Mode	8
Auto On	↓
Manual On	↑

No Function	9
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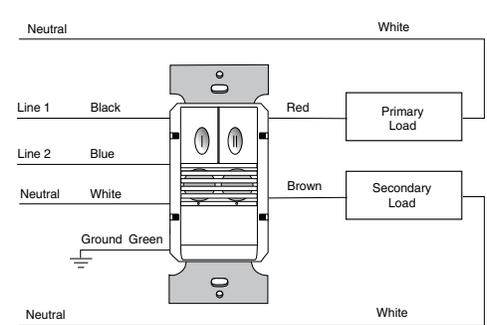
Factory Settings:
 ▲ All models
 ▲ UW-100 series
 ▲ UW-200 series

Wiring

UW-200 Bi-level Wiring

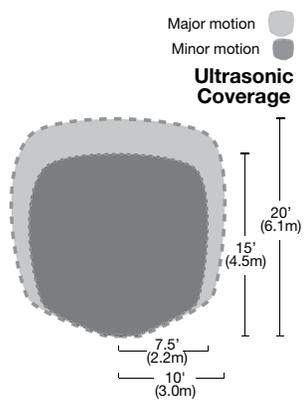


UW-200 Two Circuit Wiring



Coverage

Coverage Pattern



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

Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> UW-200-W	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> UW-200-LA	Lt. Almond		
<input type="checkbox"/> UW-200-I	Ivory		
<input type="checkbox"/> UW-200-G	Grey		
<input type="checkbox"/> UW-200-B	Black		

Order wall plate separately.

DW-100 Dual Technology Wall Switch Sensor

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

PROJECT

LOCATION/TYPE

Product Overview

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 will be required where the ASHRAE 90.1-2010 energy code is adopted. 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

- 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
- Qualifies for ARRA-funded public works projects

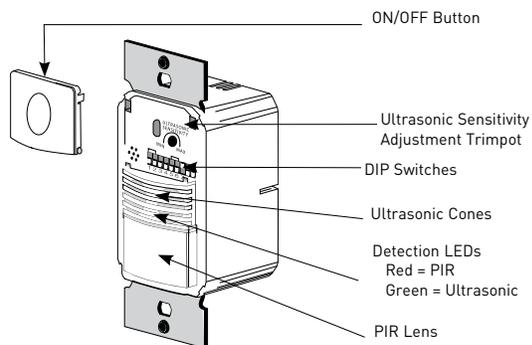


Specifications

- 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
- DW-100-347: 347 VAC; 50/60Hz, 0-1500 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'
- 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



DIP Switch Settings

Time Delay	1	2	
Test	↓	↓	
5 minutes	↓	↑	
15 minutes	↑	↑	
30 minutes	↑	↑	

Walk-Through	3
Disabled	↓
Enabled	↑

PIR Sensitivity	4
High	↓
Low, 50%	↑

Audible Alert	7
Disabled	↓
Enabled	↑

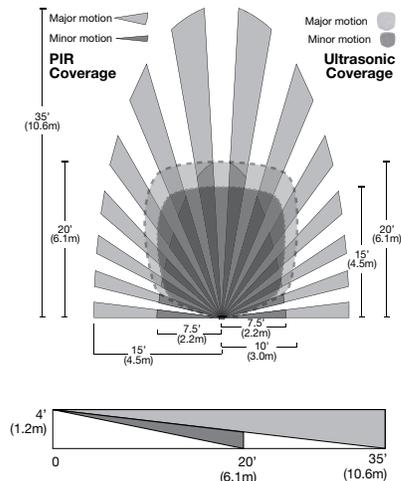
ON Mode	8
Auto On	↓
Manual On	↑

Trigger Mode	5	6
Standard	Both	Either
Option A	PIR	PIR
Option B	PIR	PIR
Option C	Both	Both

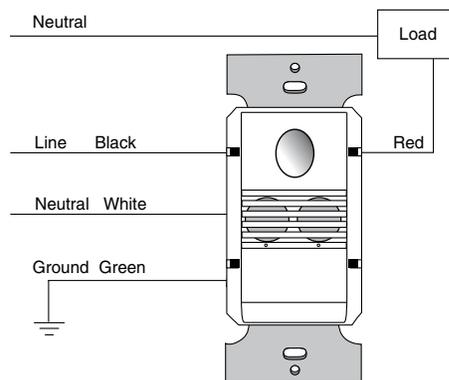
Switch 9 is not used
 ↑=ON ↓=OFF
 ◀=Factory Setting

Coverage & Wiring

Coverage Pattern



Wiring Diagram



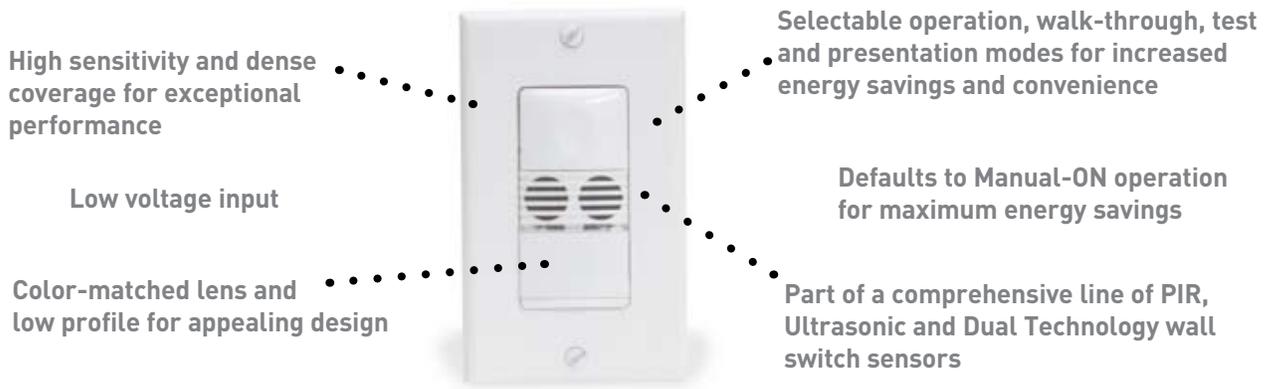
For best performance, WattStopper recommends using this sensor in spaces no larger than 18' x 15'.

Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> DW-100-W <input type="checkbox"/> DW-100-W-U <input type="checkbox"/> DW-100-W-FTA	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> DW-100-LA	Lt. Almond		
<input type="checkbox"/> DW-100-I <input type="checkbox"/> DW-100-I-U <input type="checkbox"/> DW-100-I-FTA	Ivory		
<input type="checkbox"/> DW-100-G	Grey		
<input type="checkbox"/> DW-100-B	Black		
<input type="checkbox"/> DW-100-347-W <input type="checkbox"/> DW-100-347-LA <input type="checkbox"/> DW-100-347-I <input type="checkbox"/> DW-100-347-G <input type="checkbox"/> DW-100-347-B	White Lt. Almond Ivory Grey Black	347 VAC; 50/60 Hz	0-1500 W ballast

Order wall plate separately.

DW-100-24 Dual Technology Low Voltage Wall Switch Sensor



PROJECT
LOCATION/TYPE

Product Overview

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
- 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
- Qualifies for ARRA-funded public works projects

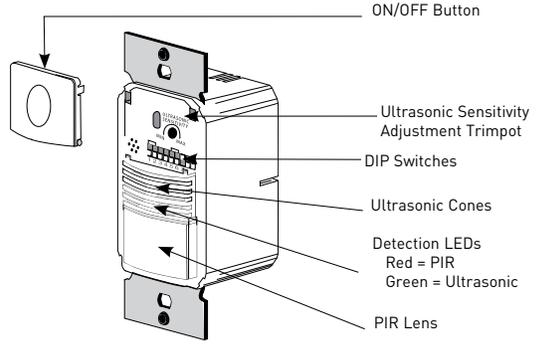


Specifications

- 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)
- 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



DIP Switch Settings

Time Delay	1	2	
Test	↓	↓	
5 minutes	↑	↑	
15 minutes	↑	↑	
30 minutes	↑	↑	

Walk-Through	3
Disabled	↓
Enabled	↑

PIR Sensitivity	4
High	↓
Low, 50%	↑

Trigger Mode	5	6
Standard	Both	Either (5)
Option A	PIR	Either (5)
Option B	PIR	PIR
Option C	Both	Both

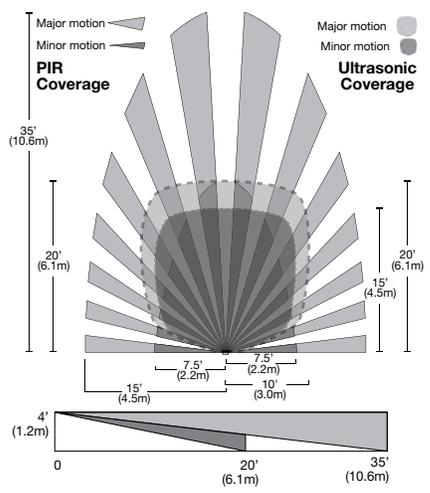
Audible Alert	7
Disabled	↓
Enabled	↑

ON Mode	8
Auto On	↓
Manual On	↑

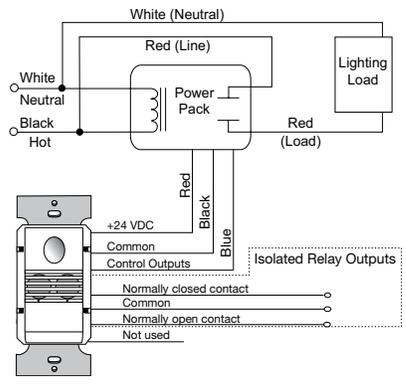
Switch 9 is not used
 ↑=ON ↓=OFF
 ◀=Factory Setting

Coverage & Wiring

Coverage Pattern



DW-100-24 Low Voltage Wiring



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

Ordering Information

Catalog No.	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-W-U		
<input type="checkbox"/> DW-100-24-W-FTA		
<input type="checkbox"/> DW-100-24-LA	Lt. Almond	
<input type="checkbox"/> DW-100-24-I	Ivory	
<input type="checkbox"/> DW-100-24-G	Grey	
<input type="checkbox"/> DW-100-24-B	Black	

Order wall plate separately.

DW-103 Dual Technology Multi-way Wall Switch Sensor

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



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

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

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

PROJECT

LOCATION/TYPE

Product Overview

Description

The DW-103 dual technology multi-way wall switch sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies, and can turn lights OFF and ON based on occupancy. It provides high sensitivity to small and large movements, appealing aesthetics and a variety of features.

Operation

The DW-103 replaces existing wall switches and fits in a single gang junction box. Factory default operation is for Manual-ON, and detection by either technology keeps lights ON until occupancy is no longer detected and a time delay elapses. DIP switch settings allow control options including Auto-ON operation, walk-through and test modes. Additional DIP switches determine which sensing technologies turn-ON and hold-ON the lighting. Multiple DW-103 sensors may be used for control of one or more loads from up to four locations.

Multi-way Control

The DW-103 offers true multi-way functionality. When connected sensors are in Manual-ON mode, an occupant must press the ON/OFF button of one of the sensors to turn the load ON. When sensors are in Auto-ON mode, the load will automatically turn ON when occupancy is detected by one of the sensors. Lights will remain ON as long as occupancy is detected. The last sensor to detect occupancy will turn the load OFF after the time delay has elapsed. In either operating mode, an occupant may turn the load OFF manually.

Applications

WattStopper's dual technology is recommended for spaces where one technology alone may not be sufficient. Common applications include private offices, conference rooms and lunch/break rooms. Additionally, dual technology sensors may be mounted at a height suitable for ADA compliance.

Features

- 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



DW-200 Dual Technology Dual Relay Wall Switch Sensor

High sensitivity and dense coverage for exceptional performance

Two relays for control of two separate lighting loads or circuits

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 Auto-ON to 50% operation for maximum energy savings

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

Product Overview

Description

The DW-200 dual technology wall switch sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies to turn lights ON and OFF based on occupancy. It contains two relays for controlling two independent lighting loads or circuits and a variety of features.

Operation

The DW-200 fits in a single gang junction box. Each of the DW-200's relays can control a separate lighting load. By default, when both PIR and ultrasonic technologies detect occupancy, relay 1 turns ON automatically. Detection by either technology holds lights ON. When occupancy is no longer detected and the time delay elapses, lights automatically turn OFF. Dual ON/OFF buttons allow the user to manually turn on and off each of the loads. DIP switch settings allow for a variety of control options such as Auto-ON or Manual-ON for each relay, walk-through, and test mode.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing on both relays for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation, selectable for each relay
- 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

PROJECT
LOCATION/TYPE

Bi-Level Control

The DW-200 features a built-in light level sensor that controls the second (secondary) relay. If adequate daylight is present, the sensor will hold secondary lights off until daylight levels drop, providing increased energy savings. The DW-200 satisfies energy codes requiring bi-level or daylight control switching. The two relays in the sensor give it the ability to control two lighting loads independently. This provides A/B switching where the user can achieve half-lighting (or another desired portion) from a single switch.

Applications

The DW-200 has the flexibility for applications where one technology alone may not be sufficient. In addition, its dual relays allow bi-level switching or control of two loads. Applications include small and executive offices, small and medium conference rooms and lunch/break rooms. This sensor is also a perfect choice for ADA-compliant buildings due to lower mounting height requirements.

- 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
- Qualifies for ARRA-funded public works projects

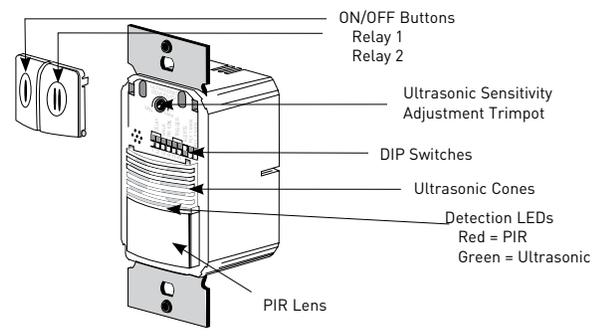


Specifications

- 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'
- 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



DIP Switch Settings

Time Delay 1 2	Test	↓ ↑
5 minutes	↓ ↑	
15 minutes	↓ ↑	
30 minutes	↓ ↑	
Walk-Through 3	Disabled	↓ ↑
Enabled	↓ ↑	
PIR Sensitivity 4	High	↓ ↑
Low, 50%	↓ ↑	

↑ = ON ↓ = OFF

On Mode	Relay 1	Relay 2
Time Delay	Trigger Mode	Audible Alerts
Walk-Through	PIR Sensitivity	

Audible Alert 7	Disabled	↓ ↑
Enabled	↓ ↑	
Relay 1 On Mode 8	Auto On	↓ ↑
Manual On	↓ ↑	

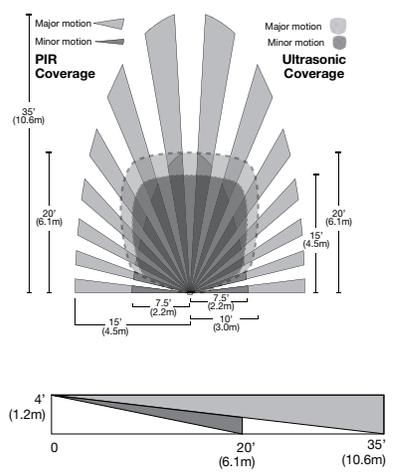
DW-203 only:

Relay 2 On Mode 9	Auto On	↓ ↑
Manual On	↓ ↑	

Factory Settings:
 ◀ All models
 ▲ DW-100 series
 ▲ DW-200 series

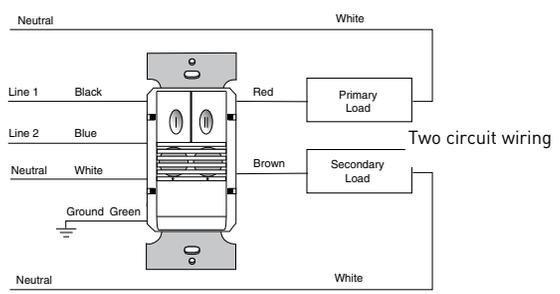
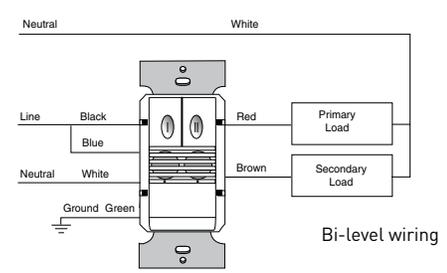
Coverage & Wiring

Coverage Pattern



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

Wiring Diagrams



Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> DW-200-W <input type="checkbox"/> DW-200-W-U <input type="checkbox"/> DW-200-W-FTA	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> DW-200-LA	Lt. Almond		
<input type="checkbox"/> DW-200-I <input type="checkbox"/> DW-200-I-U <input type="checkbox"/> DW-200-I-FTA	Ivory		
<input type="checkbox"/> DW-200-G	Grey		
<input type="checkbox"/> DW-200-B	Black		

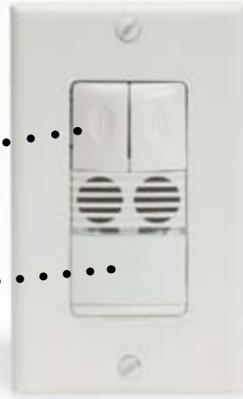
Order wall plate separately.

DW-203 Dual Technology Multi-way Dual Relay Wall Switch Sensor

High sensitivity and dense coverage for exceptional performance

Two relays for control of two separate lighting loads or circuits

Color-matched lens and low profile for appealing design



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

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

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

PROJECT

LOCATION/TYPE

Product Overview

Description

The DW-203 dual technology multi-way wall switch sensor combines the benefits of passive infrared (PIR) and ultrasonic technologies to turn lights ON and OFF based on occupancy. It has two relays for controlling two independent lighting loads or circuits and a variety of features.

Operation

The DW-203 fits in a single gang box. By default, when both PIR and ultrasonic technologies detect occupancy, it turns the first relay ON. Continued detection by either technology keeps lights ON until occupancy is no longer detected and a time delay elapses. Dual ON/OFF buttons allow the user to manually switch each load, and each relay may be set to Manual-ON or Auto-ON. The DW-203 features a light level sensor that controls the second relay when it is in Auto-ON mode. If adequate daylight is present, the sensor will hold the second relay off until daylight levels drop.

Features

- 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 for each relay
- 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

Multi-way Control

Multiple DW-203 sensors may be connected for control from up to four locations, and provide true multi-way functionality. When Manual-ON mode is active, an occupant must press an ON/OFF button on one of the sensors to turn a load ON. When Auto-ON mode is active, the load will automatically turn ON when occupancy is detected by one of the sensors. Lights will remain ON as long as occupancy is detected. The last sensor to detect occupancy will turn the loads OFF after the time delay has elapsed. In either operating mode, an occupant may turn the load OFF manually.

Applications

Dual technology is recommended for spaces where one technology alone may not be sufficient. Applications include private offices, conference rooms and lunch/break rooms with multiple switch locations. Dual technology sensors may be mounted at a height suitable for ADA compliance.

- 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
- 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

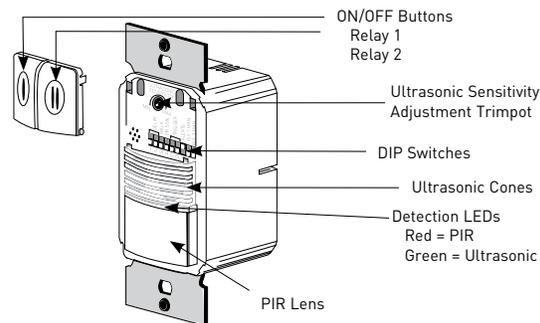


Specifications

- DW-203: 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'
- 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



DIP Switch Settings

Time Delay	1	2
Test	↓	↓
5 minutes	↓	↑
15 minutes	↑	↓
30 minutes	↑	↑

Walk-Through	3
Disabled	↓
Enabled	↑

PIR Sensitivity	4
High	↓
Low, 50%	↑

↑ = ON ↓ = OFF

Audible Alert	7
Disabled	↓
Enabled	↑

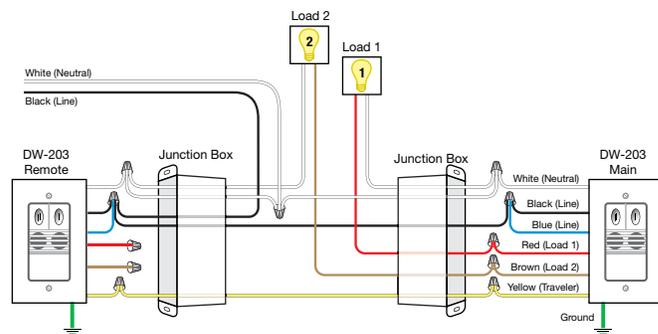
Relay 1 On Mode	8
Auto On	↓
Manual On	↑

Relay 2 On Mode	9
Auto On	↓
Manual On	↑

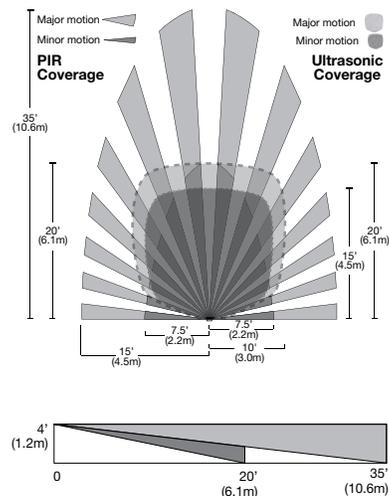
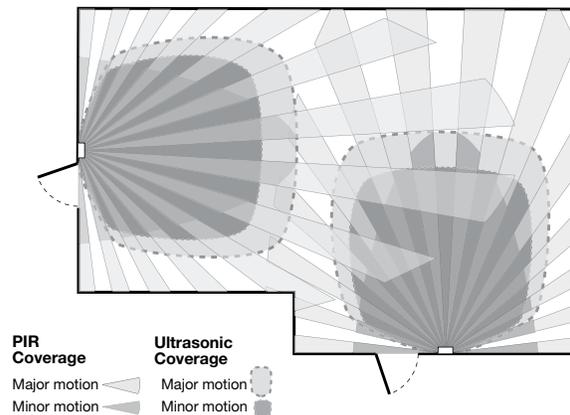
Factory Settings:
 ◀ All models
 ▲ DW-100 series
 ▲ DW-200 series

Wiring & Coverage

Multi-way Bi-level Wiring Diagram



Coverage Patterns



For best performance in single location applications, WattStopper recommends using this sensor in spaces no larger than 18' x 15'. In multi-way applications, each connected sensor expands the coverage area.

Ordering Information

Catalog No.	Color	Voltage	Load Rating
<input type="checkbox"/> DW-203-W	White	120/277 VAC; 50/60 Hz	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
<input type="checkbox"/> DW-203-LA	Lt. Almond		
<input type="checkbox"/> DW-203-I	Ivory		
<input type="checkbox"/> DW-203-G	Grey		
<input type="checkbox"/> DW-203-B	Black		

Order wall plate separately.

WattStopper Resources & Tools



CAD Resource Center

- Over 300 CAD drawings from which to choose
- Wiring diagrams you can place in your own CAD drawings
- Available at www.wattstopper.com



Support & Services

- Layout and design services
- Commission and start-up services
- District managers, trained representatives and experts available to answer all technical questions



Design Tools

- Free online energy calculators for lighting and plug loads
- Best Practice Guides
- Whitepapers and other education tools



Product Selection Guide

- Compilation of product ordering information, cut sheets, design and application assistance

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