Nordstrom Contracting
Consulting Corp
36 Theills Mt Ivy Rd
Pomona, NY 10970

LETTER OF TRANSMITTAL

Project# 620-13-117
ADA Bathroom Renovations

4/5/2016

To: Mark Cooperman
General Engineer
Montrose Campus
2094 Albany Post Rd
Montrose, NY 10548
914-737-4400 ex 2615

Submittal # 4

We are sending you [ ] Herewith [ ] Delivered by Hand [ ] Under Separate Cover [X] Via **ELECTRONIC**

[ ] Plans [ ] Prints [ ] Shop Dwgs [ ] Samples [ ] Specifications [X] Other

Copies	Item	# Pages	Description
			Division 26- Electrical
			Section 260519- Low Voltage Electrical Conductors and Cables
1	**1**	3	Nurse Call- Edwards- Call For Assistance Kit- 6538-G5
			** Kit consists of Edwards 6536-GF Horn/Strobe- 592 Transformer & 6537 Pullcord
			** This is same make & model installed in all other bathroom renovations we've completed at Montrose & Castle Point
			Section 260526- Grounding & Bonding for Electrical Systems
			N/A
			Section 260533- Raceway and Boxes for Electrical Systems
	2	6	Power-Strut - Kindorf- Various sizes and types- TBD in field per code and condition
	3	3	Thomas & Betts- Steel City- Metallic boxes & covers- Various sizes and types- TBD in field- Per code & condition
	4	2	Allied- E-Z Pull EMT- Size TBD in field per code & condition
	5	2	ETP- EMT Steel Compression Connectors & Couplings. Sizes TBD in field per code & condition
	6	2	Minerallac- Condiut Hangers. Sizes TBD in field per code and condition
	7	2	Threaded Rod & threaded rod accessories- fender washers, washers, nuts and couplings. Sizes TBD in field per code & condition
	8	1	Ideal- Twister Wire Connectors- Sizes/colors TBD in field per code & condition
			Section 260923- Lighting Controls
	9	2	WattStopper- DW-100 Dual Technology Wall Occupancy Sensor- White
	10	2	WattStopper- DW-300 Low voltage dual technology ceiling sensor- White

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			Section 262726- Wiring
	11	2	Southwire- Individual Conductors- Size/Color TBD determined in field- Per code & condition
	12	2	Southwire- Lite-Whip pre-assembled 6' 14AWG - LWL-143
			Section 262921- Enclosed switches & circuit breakers
			N/A
			Section 265100- Lighting
	13	6	Lithonia- 2x2 troffers- submitting a few options in case availability problems. Different suppliers stock different model troffers.

The Above Listed Items are transmitted as indicted below:

Return By Date: SEE BAR CHART

☐ Approval ☐ As Requested ☐ For Your Use ☐ For Construction

☐ ☐ Approved As Noted ☐ Submit _____ Copies for Record Distribution

Remarks: _____

DW-100 Dual Technology Wall Switch Occupancy Sensor

High sensitivity and dense coverage for exceptional performance

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

Defaults to Manual-ON operation for maximum energy savings

Color-matched lens and low profile for appealing design

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 is required in ASHRAE 90.1-2010. If desired, the DW-100 may be reconfigured to turn lights on automatically.

Applications

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

Features

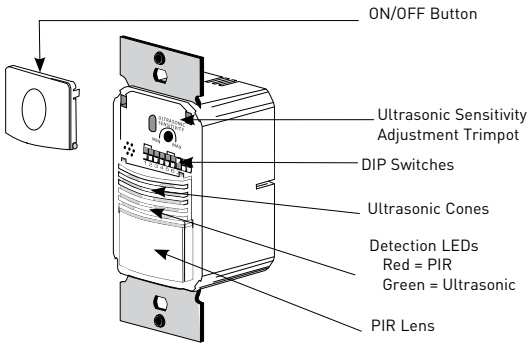
- Complies with 2011 NEC requirements
- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation
- Selectable walk-through mode turns lights off three minutes after the room is initially occupied if no motion is detected after the first 30 seconds
- Test mode allows quick and easy adjustments
- Selectable audible alert for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- Four occupancy logic options give users the ability to customize control to meet application needs
- Optional light level sensing with simple setup
- Service mode allows sensor to operate as a service switch in the unlikely event of a failure
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Compatible with decorator wall plates
- Qualifies for ARRA-funded public works projects

Specifications

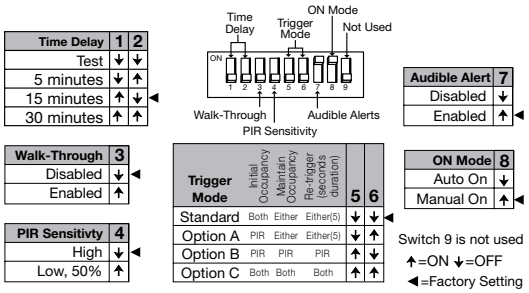
- DW-100: 120/277 VAC; 50/60 Hz
  @ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp
  @ 277 VAC, 0-1200 W ballast
- DW-100-347: 347 VAC; 50/60Hz, 0-1500 W ballast
- Time delays: 5, 15 or 30 minutes, walk-through, test-mode
- Coverage:
  Major motion, PIR 35' x 30', Ultrasonic 20' x 20'
  Minor motion, PIR 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

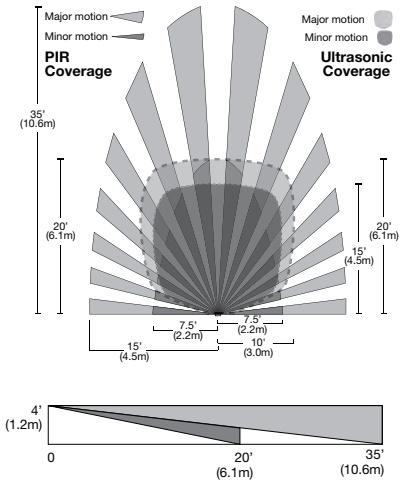


DIP Switch Settings

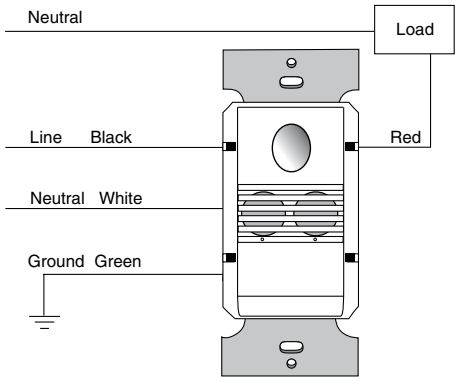


Coverage & Wiring

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
☐ DW-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
☐ DW-100-W-U			
☐ DW-100-LA	Lt. Almond		
☐ DW-100-I ☐ DW-100-I-U	Ivory		
☐ DW-100-G	Grey		
☐ DW-100-B	Black		
☐ DW-100-347-W	White	347 VAC; 50/60 Hz	0-1500 W ballast
☐ DW-100-347-LA	Lt. Almond		
☐ DW-100-347-I	Ivory		
☐ DW-100-347-G	Grey		
☐ DW-100-347-B	Black		

Order wall plate separately.
-U = ARRA compliant. Product produced in the U.S.

Pub. No. 22306 rev. 5/2013

DT-300 Series Low Voltage Dual Technology Ceiling Sensors

PROJECT

LOCATION/TYPE

Product Overview

Description

The DT-300 Series Dual Technology Ceiling Sensors combine the benefits of passive infrared (PIR) and ultrasonic technologies to detect occupancy. Sensors have a flat, unobtrusive appearance and provide 360 degrees of coverage.

Operation

Low voltage DT-300 Series sensors utilize a WattStopper power pack to turn lights on when both PIR and ultrasonic technologies detect occupancy. They can also work with a low voltage switch for manual-on operation. PIR technology senses motion via a change in infrared energy within the controlled area, whereas ultrasonic uses 40KHz high frequency ultrasound. Once lights are on, detection by either technology holds them on. When no occupancy is detected for the length of the time delay, lights turns off. DT-300 Series Sensors can also be set to trigger lights on when either technology or both detect occupancy, or to require both technologies to hold lighting on.

Time Delay Options

The DT-300 is factory set for a 20 minute time delay, ideal for both energy savings and user satisfaction in most applications. Installers can quickly select other fixed time delays (5, 10, 15 or 30 minutes) via DIP switches. Fixed time delays eliminate the occupant dissatisfaction associated with an automatically adjusted time delay option, and reduce callbacks. Walk-through mode may be enabled for added energy savings in spaces with frequent transient traffic.

Application

DT-300 Series Dual Technology Sensors have the flexibility to work in a variety of applications, where one technology alone could cause false triggers. Ideal applications include classrooms, open office spaces, large offices and computer rooms. The DT-300 Series mounting system makes them easy to install in ceiling tiles or to junction boxes, providing the flexibility to be used in a wide range of spaces.

Features

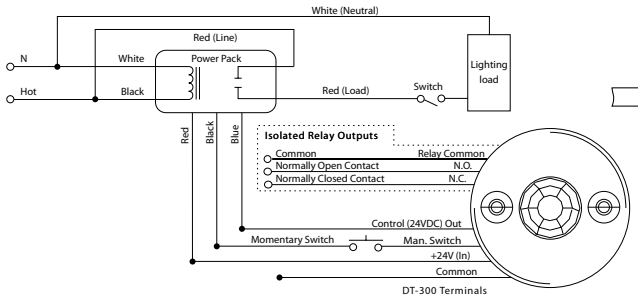
- Advanced control logic based on RISC microcontroller provides:
  - Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
  - Walk-through mode turns lights off three minutes after the area is initially occupied – ideal for brief visits such as mail delivery
  - Available with built-in light level sensor featuring simple, one-step setup
- Sensors work with low-voltage momentary switches to provide manual control
- Patented ultrasonic diffusion technology spreads coverage to a wider area
- LEDs indicate occupancy detection
- Uses plug terminal wiring system for quick and easy installation
- Eight occupancy logic options provide the ability to customize control to meet application needs
- Available with isolated relay for integration with BAS or HVAC
- Qualifies for ARRA-funded public works projects
- Sensor coverage tested to NEMA Guide Publication WD 7-2000

Specifications

- 24 VDC/VAC
- Ultrasonic frequency: 40kHz
- Time delays: 5, 10, 15, 20, or 30 minutes, Walk-through/Test Modes
- Sensitivity adjustment: High/low (PIR); variable with trim pot (ultrasonic)
- Built-in light level sensor: 10 to 300 footcandles (107.6 to 3,229.2 lux)
- Low-voltage, momentary switch input for manual on or off operation
- DT-300 contains an isolated relay with N/O and N/C outputs; rated for 1 Amp @ 30 VDC/VAC
- Multi-level Fresnel lens provides 360° coverage
- Mounting options: ceiling tile; 4" octagonal J-box, 1.5" deep
- Max DT-300s per power pack: B=2 , BZ=3
  Max DT-305s per power pack: B=3, BZ=4
- Dimensions: 4.50" diameter x 1.02" deep (114.3mm x 25.9mm)
- UL and cUL listed
- Five year warranty

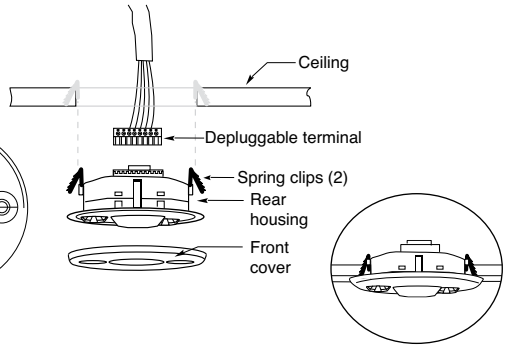
Wiring & Mounting

Wiring Diagram



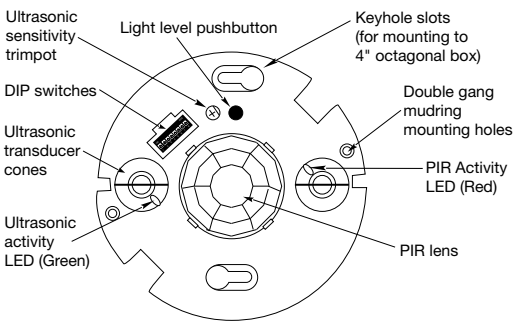
*Momentary switch connection is optional.
Connect only when momentary switch is installed.

Ceiling Mounting



Controls & Settings

Product Controls



DIP Switch Settings

Feature	Switch# 1	2	3
Time Delay			
Test Mode/20 min	↓	↓	↓
30 seconds	↓	↓	↑
5 minutes	↓	↑	↓
10 minutes	↓	↑	↑
15 minutes	↑	↓	↓
20 minutes ◀	↑	↓	↑
25 minutes	↑	↑	↓
30 minutes	↑	↑	↑

	Switch# 4
Walk-Through	
Enabled	↑
Disabled ◀	↓

	Switch# 5
PIR Sensitivity	
Minimum	↑
Maximum ◀	↓

Occupancy Logic	Settings 6	7	8
	Standard ◀	↓	↓	↓
	Option 1	↑	↓	↓
	Option 2	↓	↑	↓
	Option 3	↑	↑	↓
	Option 4	↓	↓	↑
	Option 5	↑	↓	↑
	Option 6	↓	↑	↑
	Option 7	↑	↑	↑

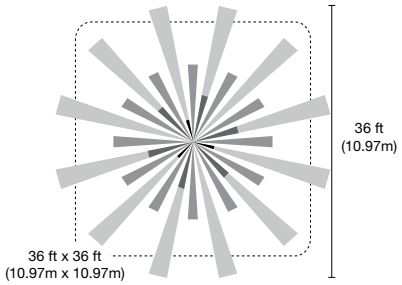
Occupancy Logic	Trigger	Initial Occupancy	Maintain Occupancy	Re-trigger (seconds duration)
	Standard ◀	Both	Either	Either(5)
	Option 1	Either	Either	Either(5)
	Option 2	PIR	Either	Either(5)
	Option 3	Both	PIR	Both(5)
	Option 4	PIR	PIR	PIR(5)
	Option 5	Either	PIR	Either(5)
	Option 6	Man.	Either	Either(30)
	Option 7	Man.	PIR	Both(30)

◀ = Factory Setting
↑ = ON
↓ = OFF

The control technology (occupancy logic) is selectable. The default setting requires both technologies to trigger on, either to hold on, and is recommended for most applications.

Coverage

Coverage Pattern



Coverage shown is maximum and represents half-step walking motion. Under ideal conditions, coverage for half-step walking motion can reach up to 1000 ft².

Ordering Information

Catalog No.	Voltage	Current	Coverage	Features
☐ DT-300 ☐ DT-300-U	24 VDC/VAC	43 mA	up to 1000 ft² (92.9 m²)	Isolated relay, light level
☐ DT-305 ☐ DT-305-U	24 VDC/VAC	35 mA	up to 1000 ft² (92.9 m²)	

Sensors are white and use WattStopper power packs. Current consumption can be slightly higher when only one sensor per power pack is used.
-U = ARRA compliant. Product produced in the U.S.

Pub. No. 14909 rev. 5/2013