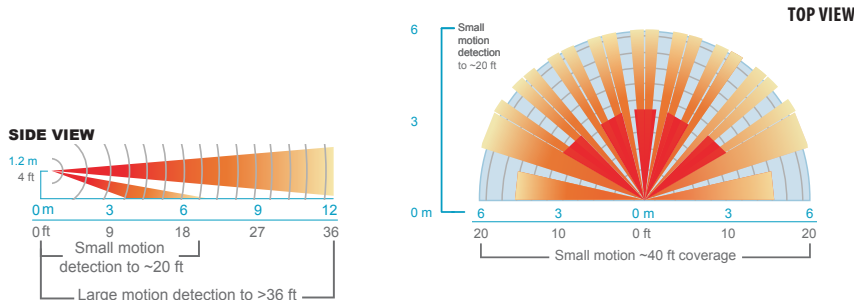


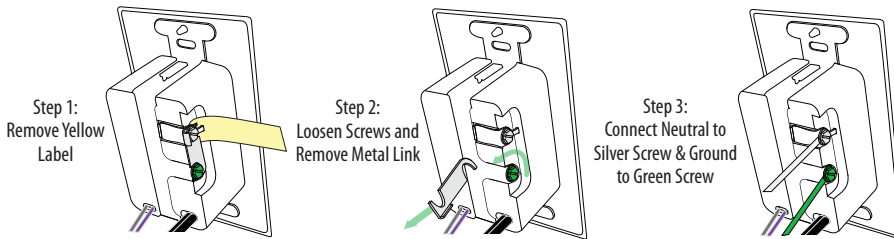
**COVERAGE PATTERN**

- Small motion (e.g. hand movements) detection up to 20 ft (6.10 m), ~625 ft<sup>2</sup>
- Large motion (e.g. walking) detection greater than 36 ft (10.97 m), ~2025 ft<sup>2</sup>
- Wall-to-wall PIR coverage
- Units with -PDT (Passive Dual Technology) option (also called Microphonics™) provide overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.

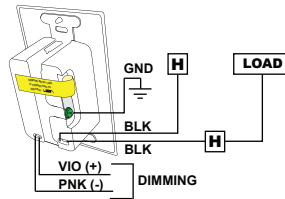


**CONVERSION FROM GROUND ONLY (NO NEUTRAL) TO NEUTRAL WIRING**

This product is pre-configured for wiring without a neutral with a solid ground; however, if connection to neutral is required by code, the unit easily converts in seconds.



**WIRING TO GROUND (NO NEUTRAL)**



**WIRE COLOR KEY**

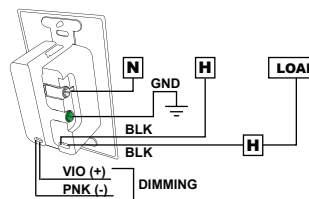
**120/277 VAC WIRING**

BLACK*	- Line Input	} *BLACK wires can be reversed
BLACK*	- Load Output	
VIOLET	-Low Voltage Dim Output (0-10 VDC)	
PINK	-Low Voltage Common	

**347 VAC WIRING (-347 Option)**

Red wires replace Black wires.

**WIRING TO NEUTRAL**



**NOTE**

- 1.) Do not wire device hot.
- 2.) Per NEC requirements, the 0-10V violet and pink wires must be installed as Class One.
- 3.) 0-10V Dimming Common from luminaire may be pink or as otherwise indicated per section 410.69 of the 2020 NEC.
- 4.) The 0-10V control wires must not exceed 250 ft (76 m) in length and must be sized at no less than 20 AWG.
- 5.) If no neutral is present, unit requires a solid ground connection in order to power up.

**TROUBLESHOOTING**

Unit does not appear to power up:

- Confirm device is properly connected to neutral or ground, per the wiring diagram above.
- Confirm all wiring connections and that 120/277VAC is present.

For further troubleshooting guidance, please contact the Controls Technical Support Team  
**1(800)-535-2465**

**/ INSTRUCTION SHEET**

**WSX D**

**Dimming Occupancy Wall Switch**



**SPECIFICATIONS**

**PHYSICAL SPECS**

SIZE: 2.74"H x 1.68"W x 1.63"D  
 (6.96 cm x 4.27 cm x 4.14 cm)  
 (not including ground strap)

WEIGHT: 5 oz

MOUNTING: Single Gang Switch Box

MOUNTING HEIGHT: 30-48 in (76.2-121.9 cm)

**ELECTRICAL SPECS**

MAXIMUM LOAD (Relay)  
 800 W @ 120 VAC / 1200 W @ 277 VAC / 1500 W @ 347 VAC

MINIMUM LOAD: None

MOTOR LOAD: 1/4 HP

MAX SINK CURRENT: 50 mA

0-10V DIM MIN OUTPUT: <0.3 V

FREQUENCY: 50/60 Hz (timers are 1.2x for 50 Hz)

**ENVIRONMENTAL SPECS**

OPERATING TEMP: 14° to 122° F (-10° to 50° C)

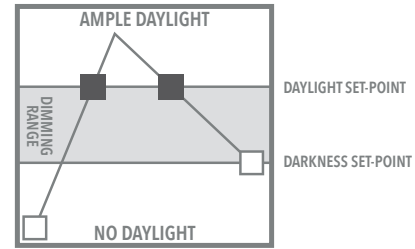
RELATIVE HUMIDITY: 20 to 75% non-condensing

ROHS COMPLIANT



**ADAPTIVE DAYLIGHT HARVESTING (ADH)**

With Sensor Switch's Adaptive Daylight Harvesting (ADH), automatic dimming has never been more reliable - even in a wall switch. It works by establishing two state change set-points; daylight and darkness. The light level in the space will then be automatically maintained by **intelligently controlling** the dim level of the electric light source. Set-points can be established using the "Set Now" option or programmed using desired light levels as measured in foot candles (fc).

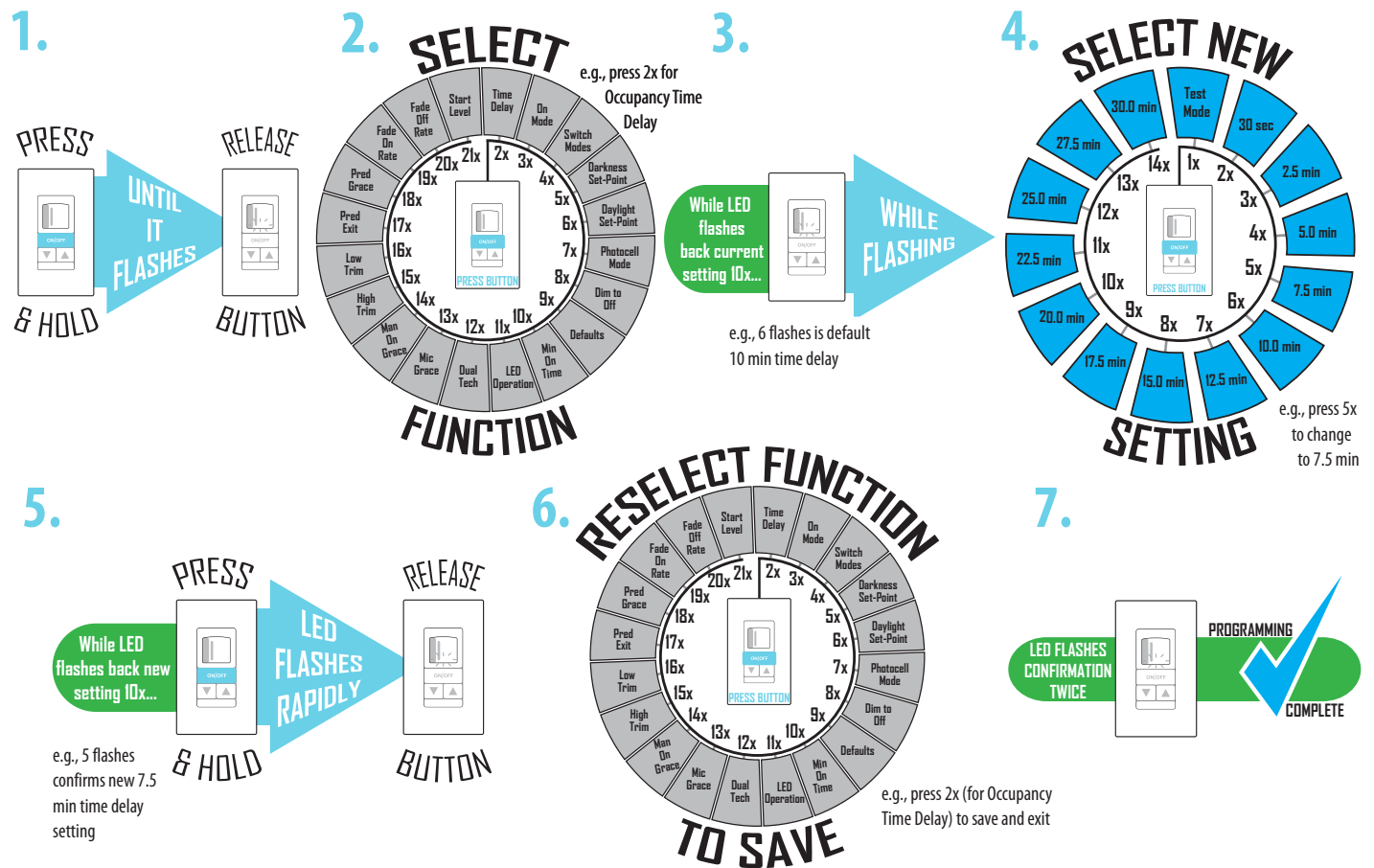


Learn how to program me.  
Aprende a programarme.



**PROGRAMMING INSTRUCTIONS**

Operational settings can be changed via the push-button sequence outlined below (note the example used is for changing occupancy time delay).



OPERATIONAL SETTINGS

**2 = Occupancy Time Delay**

The length of time an occupancy sensor will keep the lights on after it last detects occupancy.

1 - Test Mode**	5 - 7.5 min	9 - 17.5 min	13 - 27.5 min
2 - 30 sec	6 - 10.0 min*	10 - 20.0 min	14 - 30.0 min
3 - 2.5 min	7 - 12.5 min	11 - 22.5 min	
4 - 5.0 min	8 - 15.0 min	12 - 25.0 min	

\*\*Test mode sets Occupancy Time Delay to 30 seconds, and increases photocell transition rate in addition to disabling the microphone on units with Dual Technology.

**3 = On Mode**

Not applicable with Vacancy (VA) Option

**Automatic On**

Sensor automatically turns the lights on when it detects occupancy.

**Manual On**

Sensor requires pressing the button to turn the lights on.

**Reduced Turn-On**

Sensor is set to initially only detect large motions, effectively ignoring any reflected Passive Infrared (PIR) signals. Occupants will still be detected immediately when they enter the room as their PIR signal is large. Once lights are on, the sensor returns to maximum sensitivity.

- 1 - Automatic On\*
- 2 - Manual On
- 3 - Reduced Turn-On

**4 = Switch Modes**

Not applicable with Vacancy (VA) Option

**Switch Enable (Override Off)**

Button will turn lights off and keep them off until pressed again. The lights will remain off until the button is pressed again, restoring the sensor to Automatic On mode.

**Switch Disable**

User is prevented from turning off the lights via the push-button.

**Predictive Mode**

Pressing the push-button switch overrides the lights off and temporarily disables the occupancy detection. After 10 seconds, the occupancy detection reactivates and monitors for an additional 30 seconds. If no occupancy is detected during this period, the sensor will revert to Automatic On operation. If occupancy is detected, the sensor will remain in Override Off mode and requires the switch to be pressed again in order to restore the sensor to Automatic On.

**Predictive Mode with Expiration**

Pressing the push-button switch overrides the lights off and temporarily disables the occupancy detection. After 10 seconds, the occupancy detection reactivates and monitors for an additional 30 seconds. If no occupancy is detected during this period, the sensor will revert to Automatic On operation.

- 1 - Switch Enable
- 2 - Switch Disable
- 3 - Predictive Mode
- 4 - Predictive Mode with Expiration\*

**5 = Darkness Set-Point / Inhibit Set-Point**

The ambient light level at which the sensor sets the lights to the High Trim setting.

1 - Set Now**	5 - 8 fc	9 - 48 fc	13 - 128 fc
2 - 0.1 fc	6 - 16 fc	10 - 64 fc	14 - 192 fc
3 - 1 fc	7 - 24 fc*	11 - 80 fc	15 - 256 fc
4 - 4 fc	8 - 32 fc	12 - 96 fc	

\*\*Set Now will automatically select the Darkness Set-Point based on the current conditions in the room. Lights will go to full bright and sensor will rapid flash for 15 seconds allowing occupant to move out of direct view of sensor. Once the set-point selection is completed, the sensor will double-blink in confirmation.

**6 = Daylight Set-Point**

The ambient light level at which the sensor sets the lights to the Low Trim setting.

1 - Set Now**	5 - 8 fc	9 - 48 fc	13 - 128 fc
2 - 0.1 fc	6 - 16 fc	10 - 64 fc*	14 - 192 fc
3 - 1 fc	7 - 24 fc	11 - 80 fc	15 - 256 fc
4 - 4 fc	8 - 32 fc	12 - 96 fc	

\*\*Set Now will automatically select the Daylight Set-Point based on the current conditions in the room. Lights will go to full dim and sensor will rapid flash for 15 seconds allowing occupant to move out of direct view of sensor. Once the set-point selection is completed, the sensor will double-blink in confirmation.

**7 = Photocell Mode**

**Inhibit Only**

Prevents lights from automatically coming on when light level is above the Inhibit Set-Point

**Adaptive Daylight Harvesting**

Dims lights from high trim to low trim setting according to Darkness and Daylight set-points.

- 1 - Disabled\*
- 2 - Inhibit Only
- 3 - Adaptive Daylight Harvesting

**8 = Dim to Off Occupancy Time Delay**

After the Occupancy Time Delay (Function 2) has expired, this setting specifies the amount of time lights are held at Low Trim (Function 16) before turning off.

1 - 0 sec*	5 - 7.5 min	9 - 17.5 min
2 - 30 sec	6 - 10 min	10 - 20 min
3 - 2.5 min	7 - 12.5 min	11 - Stays at dim (never off)
4 - 5 min	8 - 15 min	

**9 = Restore Defaults**

Returns all functions to original settings.

- 1 - Maintain Current\*
- 2 - Restore Defaults

**10 = Minimum On Time**

Required initial time for lamps to be on after each switch on, regardless of occupancy status.

Once met, lights resume following occupancy time delay.

1 - 0 min (disabled)*	4 - 45 min
2 - 15 min	5 - 60 min
3 - 30 min	

**11 = LED Operation**

Indicates behavior of device's LED.

- 1 - Occupancy Indication\*
- 2 - Disabled

**12 = Dual Technology (Microphonics™)**

The secondary method of occupancy detection that allows the sensor to hear occupants.

- 1 - Normal\*
- 2 - Off
- 3 - Medium
- 4 - Low
- 5 - Phase Off (15-10-5 min)

**13 = Microphone Grace Period**

Time period after lights are automatically turned off that they can be voice reactivated.

1 - 0 sec	5 - 40 sec
2 - 10 sec*	6 - 50 sec
3 - 20 sec	7 - 60 sec
4 - 30 sec	

**14 = Manual On Grace Period**

Time period after lights automatically turn off that they can be reactivated by motion. Applicable only when sensor is in Manual On (Semi Auto) mode.

- 1 - 0 sec
- 3 - 15 sec\*

**15 = Dimming Range Max (High Trim)**

The maximum output level of the sensor.

1 - 0 VDC	5 - 3 VDC	9 - 7 VDC	13 - 10 VDC*
2 - 1 VDC	6 - 4 VDC	10 - 8 VDC	
3 - 1.5 VDC	7 - 5 VDC	11 - 9 VDC	
4 - 2 VDC	8 - 6 VDC	12 - 9.1 VDC**	**Default for EZ option

**16 = Dimming Range Min (Low Trim)**

The minimum output level of the sensor.

1 - 0 VDC	5 - 3 VDC	9 - 7 VDC	13 - 10 VDC
2 - 1 VDC*	6 - 4 VDC	10 - 8 VDC	
3 - 1.5 VDC**	7 - 5 VDC	11 - 9 VDC	
4 - 2 VDC	8 - 6 VDC	12 - 9.1 VDC	**Default for EZ option

**17 = Predictive Exit Time**

Time period after manually switching lights off for occupant to leave the space. Applicable only when sensor is in Predictive Off mode.

1 - 5 sec	4 - 8 sec	7 - 15 sec
2 - 6 sec	5 - 9 sec	8 - 20 sec
3 - 7 sec	6 - 10 sec*	9 - 30 sec

**18 = Predictive Grace Time**

Time period after Predictive Exit Time that sensor rescans the room for remaining occupants.

Applicable only when sensor is in Predictive Off mode.

1 - 0 sec	4 - 20 sec	7 - 50 sec
2 - 5 sec	5 - 30 sec*	8 - 60 sec
3 - 10 sec	6 - 40 sec	

**19 = Fade On Rate**

Time required for light to reach preset level.

1 - 0.75 sec*	3 - 5 sec
2 - 2.5 sec	4 - 15 sec

**20 = Fade Off Rate**

Time required for light to turn Off.

1 - 0.75 sec	3 - 5 sec
2 - 2.5 sec*	4 - 15 sec

**21 = Start Level**

Level of light output when occupancy is initially detected. Not applicable in Automatic Dimming Control (ADH) mode.

1 - 10%	4 - 40%	7 - 70%	10 - 100%*
2 - 20%	5 - 50%	8 - 80%	
3 - 30%	6 - 60%	9 - 90%	

5-year limited warranty. Full warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)  
 Note: Specifications subject to change without notice.  
 Actual performance may differ as a result of end-user environment and application.

\* DEFAULT SETTING