sensor switch WSXA MWO Wall Switch Sensor Instruction Manual

sensorswitch®

WSXA MWO
INSTALLATION INSTRUCTIONS

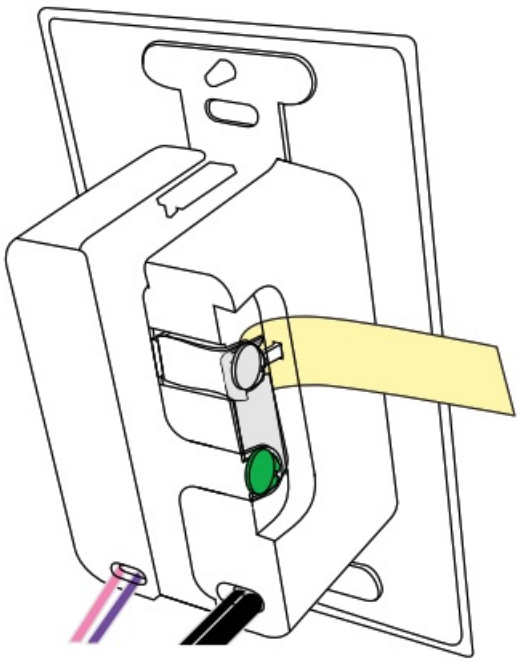
c UL US LISTED

Contents [hide

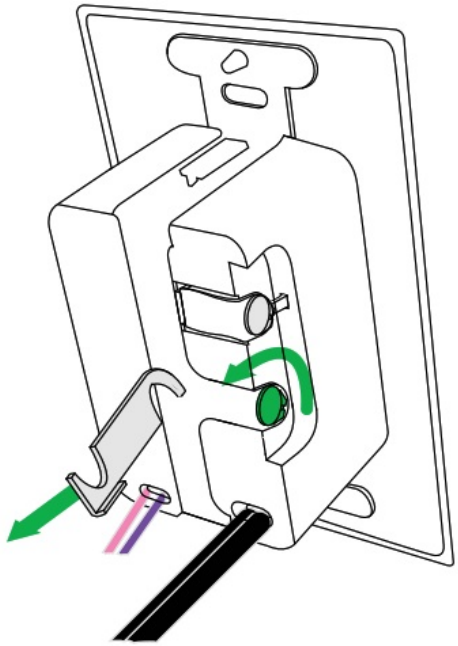
WSXA MWO Wall Switch Sensor

WIRING
CONVERSION FROM GROUND ONLY (NO NEUTRAL) TO NEUTRAL WIRING
This product is pre-configured for wiring without a neutral; however, if the connection to neutral is required by code, the unit easily converts in seconds.

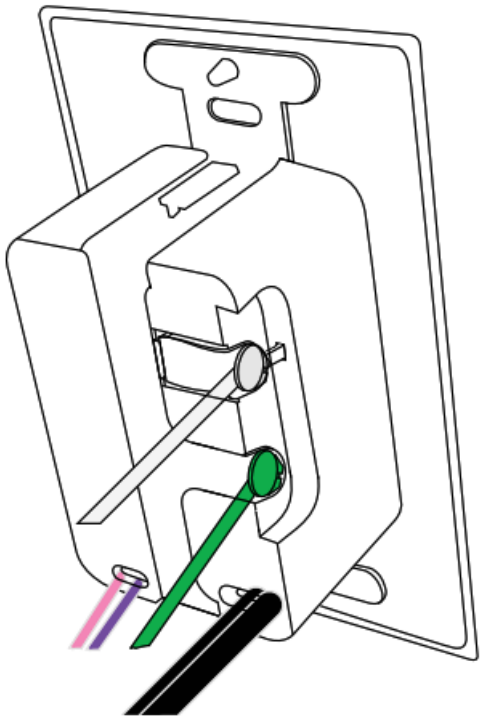
Step 1:
Remove Yellow Label



Step 2:
Loosen the Screws and Remove Metal Link

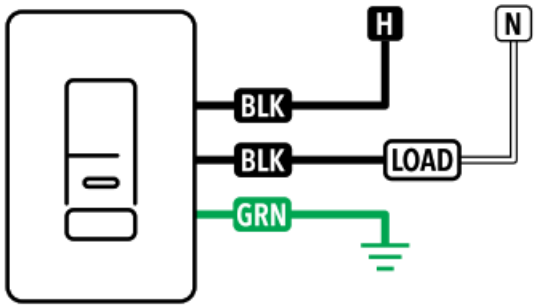


Step 3:
Connect Neutral to Silver Screw and Ground to Green Screw

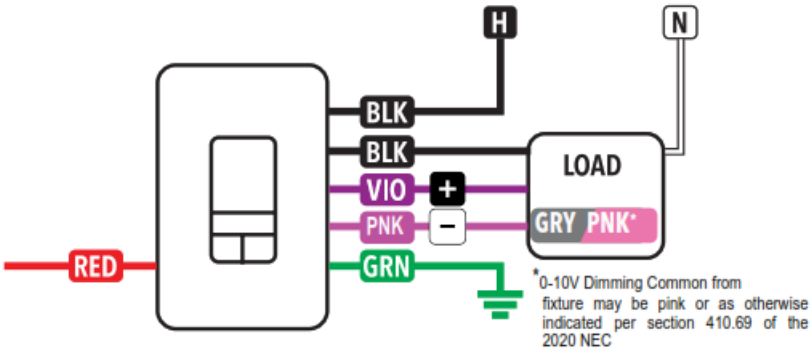


WARRANTY
5-year limited warranty. Complete warranty terms located at
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

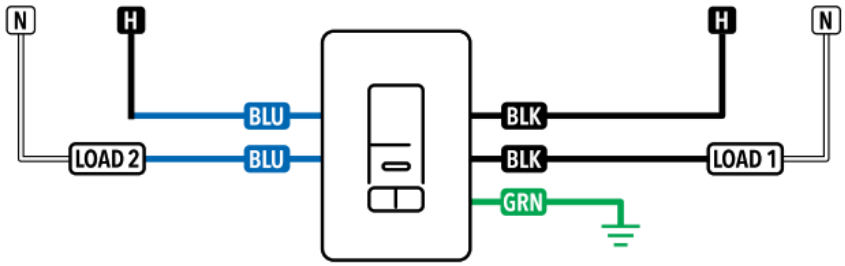
SINGLE RELAY, 120/277 VAC



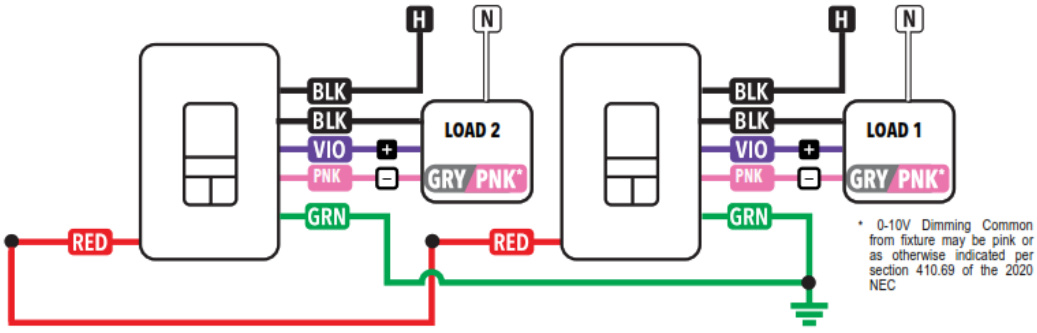
SINGLE RELAY, 120-277 VAC



DUAL RELAY, 120/277 VAC



SINGLE RELAY, MULTI-WAY CONFIGURATION, 120-277 VAC



OPERATIONAL SETTINGS

WIRE COLOR KEY
120-277 VAC WIRING
BLK – Line Input
BLK – Line Output
BLU – Line Input (Pole2)
BLU – Line Output (Pole2)

VIO – Low Voltage Dim Output (0-10 VDC)
PNK1- Low Voltage Common (0-10VDC)
RED – Low Voltage Communication Wire
347 VAC WIRING (-347 Option)
Orange (ORN) wires replace black (BLK) wires

Notes:

1. Some Pink wires may come as Gray
   Black wires can be used interchangeably
   • Violet and pink wires are not present on devices without the D option
   • Cap off the violet and pink wires if dimming functionality is not being used
   • Red Wire is not present on devices without the MWO option
   • Cap off the red wire if Multi-Way functionality is not being used
   • For ground Multi-Way Configurations ground must come from the same source
   • For neutral conversion Multi-Way Configurations power must come from the same panel
   • Per NEC requirements, the 0-10V violet, and pink wires must be installed as Class One.
   • SPODMRA MWO paired with WSXAMWO will act accordingly with WSXA occupancy settings
   • The 0-10V control wires must not exceed 250 ft (76 m) in length and must be sized at no less than 20 AWG
   • The Low Voltage Communication BUS must not exceed 250 ft (76 m) in length and must be sized at no less than 20 AWG
2. **= Occupancy Time Delay**
   The length of time an occupancy sensor will keep the lights on after it last detects occupancy

1- 30 sec	5 – 10.0 min*	9 – 20.0 min
2 – 2.5 min	6 – 12.5 min	10 – 22.5 min
3 – 5.0 min	7 – 15.0 min	11 – 25.0 min
4 – 7.5 min		

2 = Occupancy Time Delay (MWO & D Devices)
The length of time an occupancy sensor will keep the lights from dimming to low trim (S-Code 16) 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	1
4 – 5.0 min	8 – 15.0 min	12 – 25.0 min	1
4 – 5.0 min			

eg
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**

   WSXA 2P models default Pole 1 Auto On, Pole 2 Manual On.

   Automatic On

   The sensor automatically turns the lights on when it detects occupancy.

   Manual On

   The sensor requires pressing the button to turn the lights on.

   Reduced Turn-On

   The 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 the lights are on, the sensor returns to maximum sensitivity.

   1 – Automatic On*

   3 – Reduced Turn-On

   2 – Manual On***

   *Default Setting

   ** Default Setting for -EZ option

   ***Default Setting for -SA option

4. **= Switch Modes**

   Switch Enable (Override Off)

   The 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

   The 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*

(Press and hold on to initiate programming “LED flashes”, then input desired settings.)

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	

6 = Daylight Set-Point
The ambient light level at which the sensor sets the lights to the Low Trim set.

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	

eg
Set Now will automatically select the Daylight Set-Point based on the current conditions in the room. Lights will go to full dim and the sensor will rapidly flash for 15 seconds allowing the occupant to move out of direct view of the 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 the 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 number of times lights are held at Low Trim (Function 16) before turning off.

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

9 = Restore Defaults
Returns all functions to original settings.
1 – Maintain Current*
2 – Restore Defaults

11 = LED Operation
Indicates the behavior of the device's LED.
1 – Occupancy Indication*
2 – Disabled

12 = Dual Technology (Microphonics™)
The secondary method of occupancy detection allows the sensor to hear occupants.

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

13 = Microphone Grace Period
The time period after lights is automatically turned off so that they can be voice reactivated.

1 – 0 sec	3 – 20 sec	5 – 40 sec
2 – 10 sec*	4 – 30 sec	6 – 50 sec

14 = Manual On Grace Period
The time period after lights automatically turns off so that they can be reactivated by motion. Applicable only when the 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**	

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	

17 = Predictive Exit Time
The time period after manually switching lights off for occupants to leave the space. Applicable only when the sensor is in Predictive Off mode.

1 – 5 sec	3 – 7 sec	5 – 9 sec	9 – 30 sec
2 – 6 sec	4 – 8 sec	6 – 10 sec*	

18 = Predictive Grace Time

The time period after Predictive Exit Time that the sensor rescans the room for remaining occupants. Applicable only when the sensor is in Predictive Off mode.

1 – 0 sec	4 – 20 sec
2 – 5 sec	5 – 30 sec*
3 – 10 sec	6 – 40 sec

19 = Fade On Rate
Time required for light to reach preset level.

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

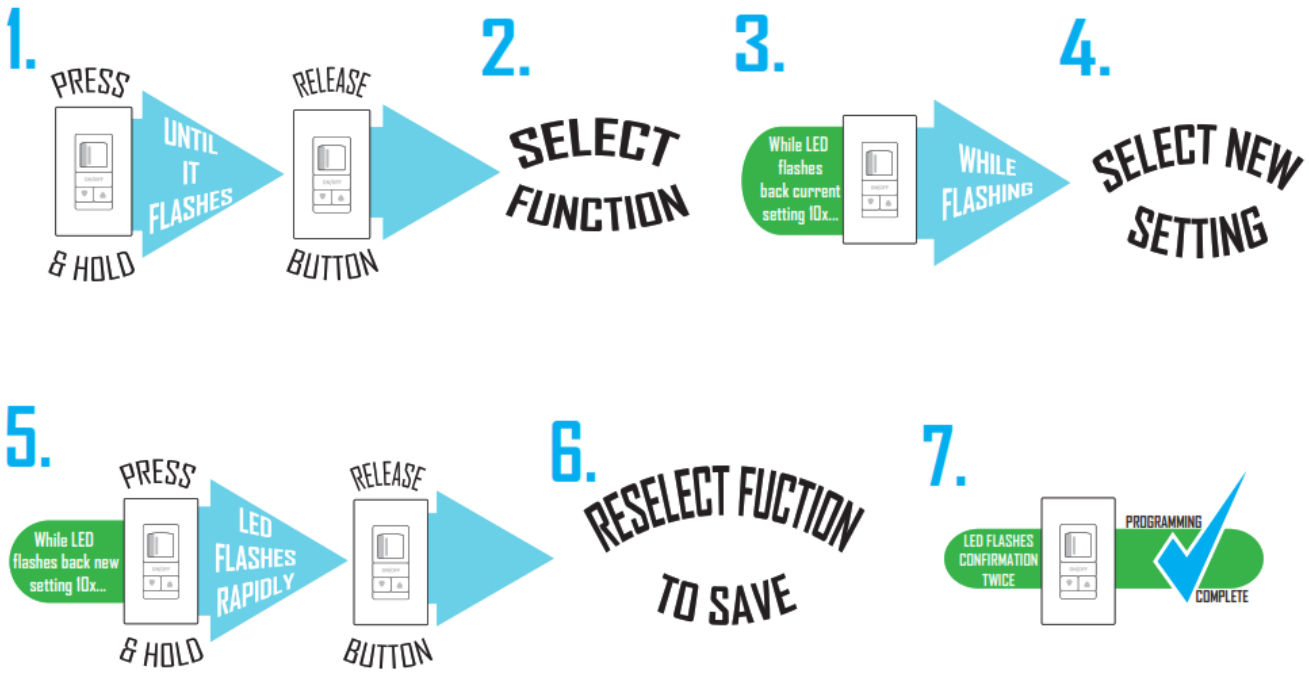
20 = Fade Off Rate
Time required for light to turn Off.

1 – 0.75 sec
2 – 2.5 sec*
3 – 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%
2 – 20%	5 – 50%	8 – 80%
3 – 30%	6 – 60%	9 – 90%

*Default Setting
** Default Setting for -EZ option
***Default Setting for -SA option



OPERATIONAL SETTING INSTRUCTIONS

PLEASE READ ALL 7 STEPS BEFORE PROGRAMMING

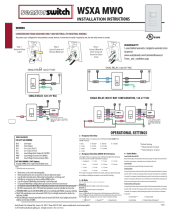
1. Enter programming mode by pressing & holding buttons until LED flashes rapidly. Release button.
2. Enter a specific programming function by pressing the button the number of times as the desired function number from the tables on the following pages (e.g., press twice for function 2, Occupancy Time Delay).
3. The selected function's current setting will then be read out in a sequence of LED flashes (e.g., five flashes for 10 min). To change the setting, proceed to step 4 before the sequence repeats 10 times.
4. While the sensor is flashing back the current setting, interrupt it by pressing a button the number of times for the new desired setting as indicated in the particular function's detailed table (e.g., press seven times for 15 min). The sensor will begin to flash a new setting as confirmation.
5. Next, while the sensor is flashing back a new setting, interrupt it by pressing and holding the button until LED flashes rapidly. Release button.
6. As final confirmation and activation of the new setting, re-enter the programming function number that was changed (e.g., press twice for function 2, Occupancy Time Delay).
7. LED will flash twice indicating acceptance of the new setting. If two flashes are not seen, repeat 7 step process.

   Note: To exit programming mode without saving or to change to a different function, wait for the blink-back sequence to repeat 10 times then return to step 1.

Acuity Brands | One Lithonia Way Conyers, GA 30012 Phone: 800.535.2465
www.acuitybrands.com/sensorswitch

sensorswitch®

Documents / Resources

	sensor switch WSXA MWO Wall Switch Sensor [pdf] Instruction Manual WSXA MWO, Wall Switch Sensor, Switch Sensor, Wall Sensor, Sensor

References

- Page Not Found
- SensorSwitch | Lighting Controls