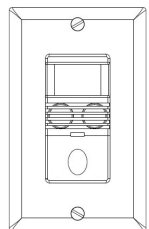


# INSTALLATION INSTRUCTIONS



SC-SWSDU-W

## SC-SWSDU-W

Multi-Technology PIR/Ultrasonic  
Single Relay Pole Wall Sensor Switch  
Occupancy/Vacancy  
(2-IN-1)  
NEUTRAL REQUIRED

### SPECIFICATIONS

Voltage ..... 120/277VAC,50/60Hz  
Load Requirements:  
Incandescent ..... 800W-120VAC,50/60Hz  
Fluorescent ..... 800VA-120VAC,1600VA-277VAC,50/60Hz  
Motor ..... 1/4HP-120VAC,50/60Hz  
Adjustment Time Delay ..... 15Sec to 30Mins  
Walk-Through Mode ..... 3 minutes if no activity after 30 sec.  
Test Mode ..... 15 sec. at initial power up or DIP switch reset  
PIR Adjustment ..... High or Low (DIP switch)  
Ultrasonic Adjustment ..... Minimum to Maximum (trimpot)  
Light Level Adjustment ..... 100 Lux --daylight(trimpot)  
Operation Temperature ..... 32° F--131°F

### DESCRIPTION

The SC Series wall switch sensor provides a simple and cost-effective standalone solution which utilizes dual technology PIR (Passive Infrared) and Ultrasonic to turn lights ON and OFF based on occupancy/vacancy. The vandal resistant lens provides major and minor movement detection coverage with a 180° field-of-view sensor. The sensor wall switch can be used to meet many of the Title 20/24, ASHRAE 90.1, and IECC code requirements.

### COVERAGE PATTERN

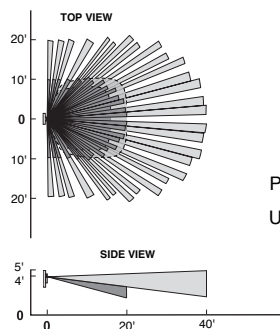


Figure 1

**WARNING:** Turn off the circuit breaker before installation.



Indoor use only.  
Do not exceed electrical ratings.

### INSTALLATION

1. Make sure that the power has been turned OFF at the circuit breaker.
2. Connect lead wires according to wiring diagram (see **Figure 2**.)  
Black lead to Line(Hot), Red lead to Load wire, White lead to Neutral wire, Green lead to Ground.

#### Wiring Diagram:

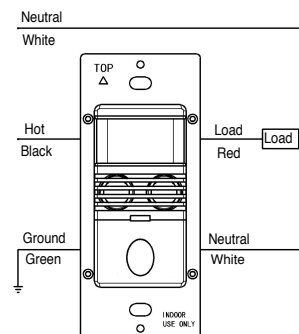


Figure 2

3. Mount device "TOP" up.
4. Gently position wires in wall box, attach sensor switch to the box.
5. Restore power at circuit breaker or fuse, wait one minute.
6. Remove the small cover plate. (see **Figure 3**.)
7. Locate the adjustment trimpots on the control panel to perform test and adjustment. (see **Figure 3 and 4**.)
8. Replace the small cover plate after testing and adjustment.

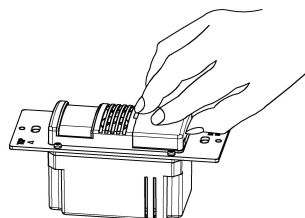


Figure 3

### ADJUSTMENT

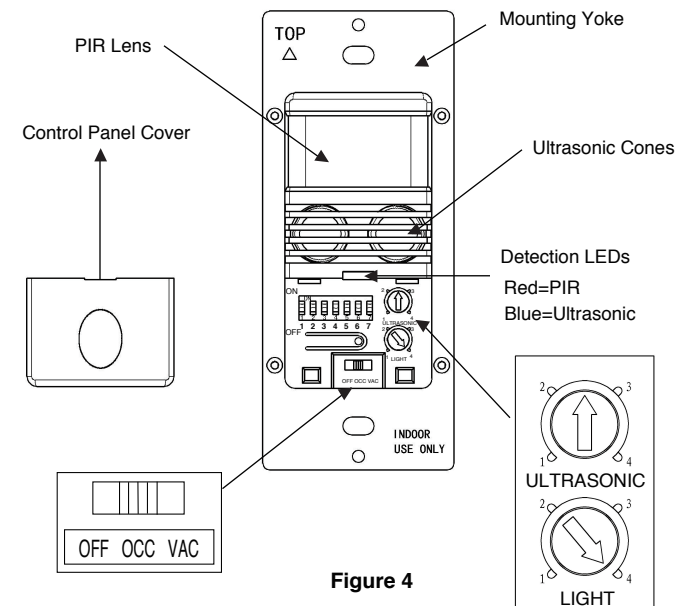


Figure 4

#### Switch Position:

Position	Mode	Description
Left	(OFF) Off Mode	<b>Circuit is permanently open. Switch disabled.</b> Load will not react to the push button.
Center	(OCC) Occupancy	<b>Occupancy Mode:</b> Automatic ON/OFF, time delay programmed with Time Delay dipswitch setting (15 seconds - 30 minutes). See Time Delay table setting below
Right	(VAC) Vacancy	<b>Vacancy Mode:</b> Manual ON/ Automatic OFF, time delay programmed with Time Delay dipswitch setting (15 seconds - 30 minutes). See Time Delay table setting below

#### Ultrasonic Sensitivity Adjustment Trimpot

Default position: Center at 65%

Adjustable: 30% (Position 1) to 100% (Position 4)

**Note:** Turn toward right for greater room space.

Turn toward left to avoid false alert in smaller room and near the door way or heat source.

#### Ambient Light Level Adjustment Trimpot

Default position: Daylight (100% at position 4)

Adjustable: Daylight to 100Lux (Counter clockwise)

# INSTALLATION INSTRUCTIONS

## ◆ DIP SWITCH SETTING

The SC-SWSDU-W has 7 DIP switches under the cover. They are used to set sensitivity, time delay, trigger mode, walk through mode feature settings.

Trigger Mode	Initial Trigger	Maintain Load Output	Re-trigger	2	3
Option 1	Both	Either	Either	↓	↓
Option 2	PIR	PIR	PIR	↓	↑
Option 3	US	US	US	↑	↓
Option 4	Both	Both	Both	↑	↑

PIR Sensitivity	1
50%	↓
100%	↑

Walk Through	7
Disabled	↓
Enabled	↑

Time Delay	4	5	6
15 Sec/Test	↓	↓	↓
1 Minute	↓	↓	↑
5 Minutes	↓	↑	↑
10 Minutes	↓	↑	↑
15 Minutes	↑	↑	↑
20 Minutes	↑	↑	↑
25 Minutes	↑	↑	↑
30 Minutes	↑	↑	↑

↓=OFF ↑=ON ◀=Factory Setting

### PIR Sensitivity setting: Switch 1

50%: SC-SWSDU-W coverage reduced to half the widest range. Maximum PIR coverage range is 1200 square feet. (Refer to Figure 1 "coverage pattern").

### Trigger Mode: Switches 2, 3

The sensor has 4 trigger options, set with DIP switches 2 and 3. In the trigger mode DIP switch setting table:

- **Both** require motion detection by the PIR and the Ultrasonic.
- **Either** require motion detection by only one technology.
- **PIR** require motion detection by the PIR.
- **US** require motion detection by the Ultrasonic.

### Time Delay: Switches 4, 5, 6

The sensor will hold the lights on as long as occupancy is detected. The time delay countdown starts when no motion is detected. After no motion is detected for the length of the time delay, the sensor will turn the lights off.

### Walk-through mode: Switch 7

Turns the lights off three minutes after the area is initially occupied, if no motion is detected after the first 30 seconds. If motion continues beyond the first 30 seconds, the selected time delay applies.

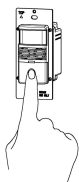


Figure 5

## ◆ OPERATION

The SC-SWSDU-W is programmed independently for either Occupancy Mode or Vacancy Mode as refer to the Band Switch position under the control panel cover.

### Manual On/Off Button:

By Pushing the Control Panel Cover, the Load can be turned On/Off under either OCC or VAC mode. (illustrated as Figure 5)

### Turning On the Load under Occupancy Mode:

Load to be Automatic On once occupancy detected.

### Turning On the Load under Vacancy Mode:

Manual On/Off Button has to be pushed to turn On the Load.

### Automatic Turning Off the Load:

Under either mode, the Sensor keeps the Load On until no motion is detected plus the set time delay, load(s) to be Off automatically. Under VAC Mode, the Load can turn On automatically if motion detected within the first 3 minutes.

### Manual Turning Off the Load:

By Manual On/Off Button, the Load can be turned Off under either OCC or VAC mode.

Under OCC Mode, if you press manual On/Off button first, when set-time is more than 3 minutes, the sensor switch returns to normal after 3 minutes. However, when set-time is less than 3 minutes, the sensor switch returns to normal until set-time finished.

**Note: Only when there is no motion is detected during the set-time period, the sensor switch returns to normal.**

## ◆ TROUBLESHOOTING

For proper operation, the SC-SWSDU-W has to consume power from a hot and neutral. (Secured neutral wiring is required.)

### Initial run:

The SC-SWSDU-W needs initial run within one minute. During the initial run, the load might be turned On and Off several times.

The Time Delay Switch is default set on 15 seconds, do not adjust it until initial run is finished and proper operation function confirmed.

### The Load is out of control (frequently flashing):

1. It can take up to one minute for initial run.
2. Check the wiring connections, especially the Neutral Wiring.

### The Load does not turn On without LED flashing or LED flashing regardless of motion:

1. Push Manual On/Off Button, if the load turns On, verify that Sensitive Range is on high. If the Load does not turn On, go to Step 2.
2. Check the wiring connections, especially Hot line and Neutral wiring.

### The Load does not turn On while LED flashing with motion detected:

1. Check to see if Ambient Light Level is enabled by covering the lens by hand.
2. Push Manual On/Off Button, if the load turns On, verify that Sensitivity Range is on high. If the Load does not turn On, go to Step 3
3. Check the wiring connections, especially Hot Line and Neutral wiring.

### The Load does not turn Off:

1. There can be up to a 30 minutes time delay after the last motion was detected. To verify proper operation, turn the Time Delay Switch to 15s (Test Mode), make sure there is no motion (no LED flashing), the Load should turn Off in 15 seconds.
2. Check the wiring connections, especially the Neutral wiring to the sensor switch.

### The Load turns On while no desired:

1. Switch from OCC to VAC mode.
2. Reduce the Sensitivity Level to avoid false alert in smaller room and near the door way.

## ◆ WARRANTY INFORMATION

MaxLite offers a 5 year warranty on this product, please see: <http://www.maxlite.com/resources/warranties> for more information.