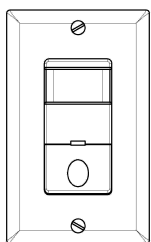


# INSTALLATION INSTRUCTIONS



DWOS-3R

**DWOS-3R**  
**OCCUPANCY / VACANCY**  
 (2-IN-1)

**3-WAY SENSOR SWITCH**

◆ **SPECIFICATIONS**

Voltage .....	120VAC,60Hz
Incandescent .....	800W
Fluorescent.....	800VA
Motor .....	1/4Hp
Time Delay.....	15Sec to 30Mins
Light Level.....	30 Lux--Daylight
Operation Temperature.....	32° F--131° F

◆ **DESCRIPTION**

The passive infrared sensors work by detecting the difference between heat emitted from the human body in motion and the background space. The sensor switch can turn a load on and hold it as long as the sensor detects occupancy. After no motion is detected for the set time delay, the load turned off automatically. The sensor switch has one relay (equal to single pole switch), also includes Ambient Light Level Sensor.

**Coverage Area**

The coverage range of the sensor switch is specified and illustrated in Figure 1. Large objects and some transparent barriers like glass windows will obstruct the sensors' view and prevent detection, causing the light to turn off even though someone is still in the detection area.

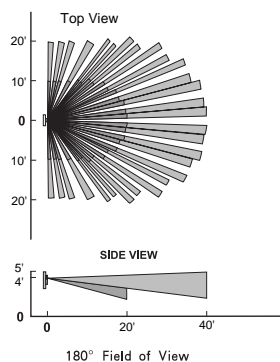


Figure 1

Best: 320 sq.ft.  
 Regular: 800 sq.ft.  
 Maximum: 1200 sq.ft.

**WARNING:** Turn off the circuit breaker before installation;  
 In door use only;  
 Do not exceed electrical ratings.



◆ **INSTALLATION**

The Sensor Switch is used by itself for 2-way control(one switch & one load),with one 3-way switch for 3-way control(two switches & one load). Like you find at the top and bottom of a stairway.

When wiring a 3-way switch circuit, What were doing is simply controlling the power (Switching off/on) to the load (a light, lamp, outlet, ceiling fan etc..) from 2 different locations.

1. Connect lead wires as WIRING DIAGRAM (see Figure 2)

Wiring Diagram:

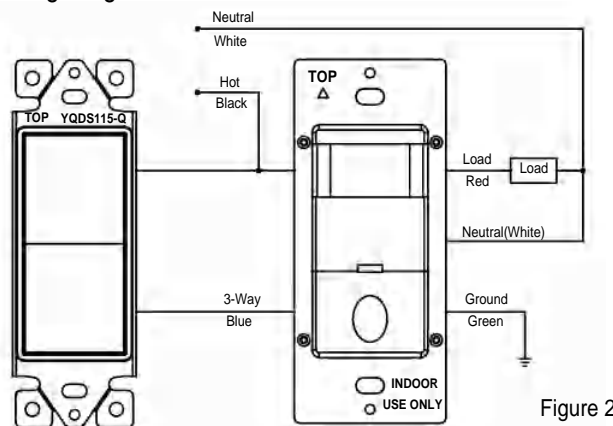


Figure 2

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

8. Attach the wallplate.

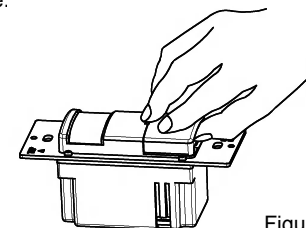


Figure 3

◆ **ADJUSTMENT**

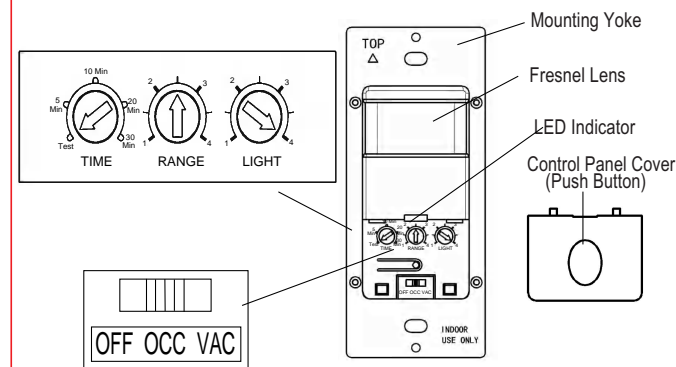


Figure 4

**Band switch prescription.**

Mode	Position	Description	Function of the Push Button
OFF	Left	Circuit is permanently opened. (switched off)	None
OCC	Center	Occupancy Mode: Automatic On, Automatic Off after set time delay.	Manually push On/Off the load.
VAC	Right	Vacancy Mode: Manual On only, Automatic Off after set time delay.	Manually push On/Off the load.

**Time Delay knob**

Default position: 15 Seconds (Test mode)  
 Adjustable: from 15 Seconds to 30 Minutes (clockwise)

# INSTALLATION INSTRUCTIONS

## Sensor Sensitivity Range Knob

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 Knob

Default position: Daylight (100% at position 4)

Adjustable: Daylight to 30Lux (Counter clockwise)

Note: to avoid wasting energy by turn-on the light under daylight.

## ◆ OPERATION

The Sensor Switch is programmed independently for either Occupancy Mode or Vacancy Mode as refer to the Band Switch position under the control panel cover. Some might call the Vacancy mode as “Manual On Occupancy Mode”.

### Manual On/Off Button

By Pressing the Push Button, 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 automatically turn On when occupancy is 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 1st 30 seconds.

### 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, the sensor switch returns to normal until set-time finished.

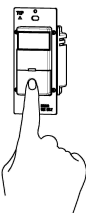


Figure 5

## ◆ TROUBLESHOOTING

For proper operation, the Sensor Switch has to consume power from hot and **Neutral**. Therefore, a **Secured Neutral Wiring is required**.

### Initial run

The Sensor Switch needs **initial run within one minute**. During the initial run, the load might be turned On and Off several times.

The Time Delay knob 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 enable 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 detected. To verify proper operation, turn the Time Delay Knob to 15s (Test Mode), make sure there is no motion (no LED flashing), the Load should turn Off in 15 seconds.
2. Check if there is any significant heat source mounted within six feet (two meters) that may cause false detection such as high wattage light bulb, portable heater and HAVC device.
3. 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. Mask the Sensor Switch's lens to eliminate unwanted coverage area.
3. Turn the Sensitivity Level knob toward left to avoid false alert in smaller room and near the door way.

## ◆ WARRANTY INFORMATION

If within five(5) years from the date of purchase, this product fails due to a defect in material or workmanship, we will repair or exchange it, at its sole option free of charge. This warranty does not apply to: (a) damage to units caused by accident, dropping or abuse in handling, acts of God or any negligent use; (b) units which have been subject to un-authorized repair, opened, taken apart or otherwise modified; (c) unit not used in accordance with instruction; (d) damages exceeding the cost of the product; (e) finish on any portion of the product, such as surface and weathering, as this is considered normal wear and tear; (g) transit damage, initial installation costs, removal costs, or rein-installation costs.

This warranty service is available by returning the product with proof of purchase, purchase date and a description of the problem to the dealer from whom the unit was purchased.

Nov.2014  
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