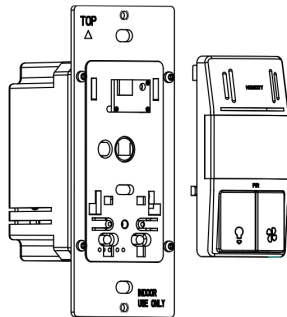


## DWHOS Dual Technology Humidity/PIR Motion Sensor



### SPECIFICATIONS

Power.....	120VAC, 60Hz
Maximum fan load.....	3 Amps
Incandescent maximum.....	500 Watts
Fluorescent maximum.....	400VA
LED maximum.....	150 Watts
.....	*minimum light load of 10 Watts
Light and Fan Time Delay.....	15s, 10 mins, 20 mins, 30 mins
Humidity range.....	45%-80% RH
PIR coverage.....	600sq.ft

### DESCRIPTION

The DWHOS is a 3Amp, single pole Humidity/PIR occupancy sensor switch. This Sensor helps conserve energy and automate the light and fan in which it is connected. When the humidity sensor detects excess humidity in a room it automatically turns on the ventilation fan. The sensor continues to monitor the air and automatically turns the fan off when the humidity level drops below its preset level. Combines both technologies to reduce energy usage by operating the light or the fan only when needed.

### COVERAGE

As illustrated in Figure 1, The DWHOS has a 180° detection range with a maximum distance of 24' detection in front of the sensor and 12' on the sides. For maximum results, the sensor must be properly installed between the height of 4' to 5' and away from obstructions such as walls, furniture and transparent barriers like Low-E glass.

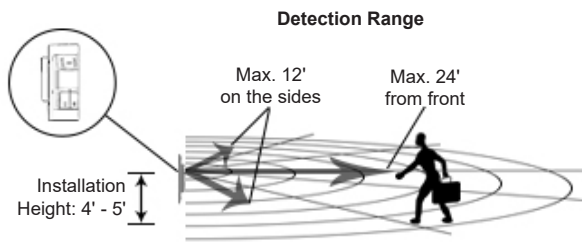


Figure 1

### WARNING

Turn the POWER OFF at the circuit breaker before installing the sensor

Read and understand these instructions before installing. This device is intended for installation in accordance with the National Electric Code and local regulations. It is recommended that a qualified electrician performs this installation. Make sure to turn off the circuit breaker or fuse(s) and make sure power is off before wiring the device.

Use copper wires only. NEUTRAL WIRE IS REQUIRED.

### WIRING DIRECTIONS

1. Connect RED wire from sensor to the LIGHT wire.
2. Connect BROWN wire from sensor to the FAN wire.
3. Connect BLACK **AND** BLUE wire from sensor to the HOT wire.
4. Connect WHITE wire from sensor to the NEUTRAL wire.
5. Connect GREEN wire from sensor to the GROUND wire.

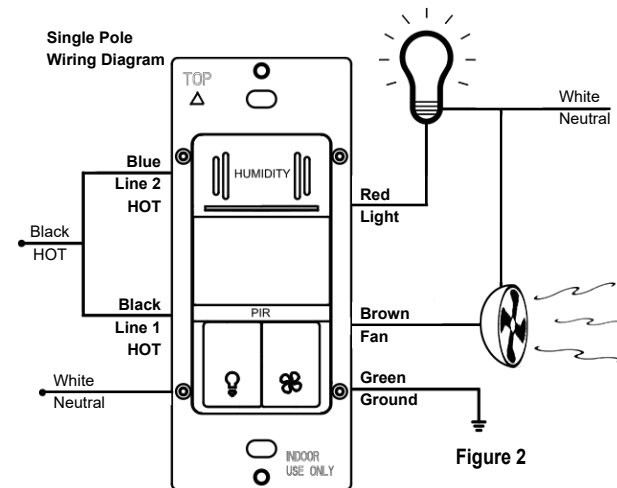
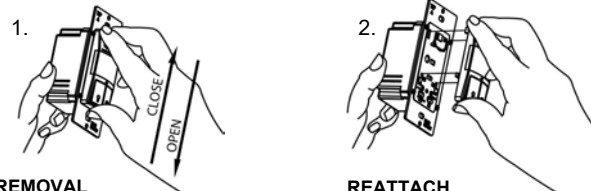


Figure 2

#### How to change the color cover/ push button.

The switch comes with the top cover attached. Remove the wall plate if necessary, then the cover may be changed as follow:



**REMOVAL**  
Push down on the cover/ push button to release, then pull away from main body.

**REATTACH**  
Align the latch pins to the unit, push the cover/ button against the main body, then slide up until its locked into place

Figure 3

### OPERATING INSTRUCTIONS

The DWHOS features two adjustable operation modes for customized control to suit the specific ventilation and lighting needs of the room. These modes are as follows; Occupancy with Automatic Humidity and Vacancy with Automatic Humidity.

The count-down timer can also be adjusted to set the minimum "ON" time for the lights at 10 minutes, 20 minutes, or 30 minutes. The fan will automatically turn on depend on the preset humidity. Once the Timer has been set, the switch will automatically turn the lights off when the selected time has expired. However the fan will continue to operate if the sensor detects excess humidity. The Fan will Automatically turn off after the humidity level is reached.

The sensor switch is equipped with adjustable humidity levels. The humidity sensor can be adjusted to low, medium, or high level.

When the PIR sensor detects movement the light button's green LED indicator will be flashing. The fan's LED will turn red when the sensor detects excess humidity in a room; otherwise, it will always stay lit in white.

Press and hold both light and fan buttons for 10 seconds, the green LED indicator will come on solid. This setting allows users to switch back and forth between Occupancy and Vacancy Mode.

- **Occupancy Mode\*** - Auto On/Automatic Off Lights. Auto On/ Automatic Off Fan base on preset humidity level.

- **Light: Auto On, Auto Off.** The Light will automatically turn ON by PIR sensor. Auto OFF by Time Delay. When manual button is used to turn ON, lights turn ON and then turn OFF by preset time delay. When manual button is used to turn OFF before the preset timer expired, lights turn off completely. After 3 minutes, PIR preset timer will resets and lights turn ON if motion is detected.
- **Fan: Auto On, Auto Off.** The Fan will turn ON automatically when preset humidity level is reached and automatically turn OFF when the humidity level drops below the preset. If the humidity level is higher than preset then the fan will continue to run after a 5 minutes break. When the manual button is used to turn ON, the fan will turn ON for 20 minutes and automatically turn OFF. When the manual button is used to turn OFF before the 20 minutes, the fan will turn OFF immediately and the humidity sensor will stop detecting. Only when the manual button is used to turn ON again, after 20 minutes the humidity sensor will be operational again.

- **Vacancy Mode** - Manual On/Automatic Off Lights. Auto On/ Automatic Off Fan base on preset humidity level

- **Light: Manual On, Auto Off.** Manual button is used to turn the Lights ON and Lights turn OFF automatically after preset time delay. If motion is detected (within 30 seconds) of the lights turning off, the Lights will remain ON

## OPERATING INSTRUCTIONS Cont.

- Fan: Auto On, Auto Off. The Fan will turn ON automatically when preset humidity level is reached and automatically turn OFF when the humidity level drops below the preset.

If the humidity level is higher than preset then the fan will continue to run after a 5 minutes break.

When the manual button is used to turn ON, the fan will turn ON for 20 minutes and automatically turn OFF.

When the manual button is used to turn OFF before the 20 minutes, the fan will turn OFF immediately and the humidity sensor will stop detecting. Only when the manual button is used to turn ON again, after 20 minutes the humidity sensor will be operational again.

## PROGRAMMING

During programming, ONLY the *Light Button* will be used. Pay close attention to the Green LED lights as it will flash to indicate successful programming steps. The LED will also flash each time the button is pressed while making the selections. Once the program is saved, the load will turn OFF.

After each step, there are only 20 seconds to make the next programming selection. If a selection has not been made, time will expire and the LED light will flash 3 times and exit programming mode.

There are 2 Programmable Functions:

- *Function 1: Time Delay*
- *Function 2: Humidity Level*

### STEP 1: Enter Programming Mode

- Press and hold the light button for eight seconds until the solid green LED lights up (the LED will stay on). The sensor is now in programming mode.

### STEP 2: Choose the Function

- Press the light button the same number of times as the Function Number you would like to program.
  - After the last button is pressed the sensor will flash back the current setting for that function 10 times at two-second intervals. If no selection has been made, the device will exit programming mode.

### STEP 3: Choose the Setting

- Press the light button the same number of times as the Setting Number for that function (For example in Function 1: Press the button 2 times to select 20 minutes).
  - After the last button is pressed the sensor will flash back the current setting for that function 10 times at two-second intervals. If no selection has been made, the device will exit programming mode.

### STEP 4: Save the Settings

- Press and Hold the light button for eight seconds. The LED light will flash 3 times indicating that the settings are saved.

## EXAMPLE

**Programming Example:** Change the time delay of the switch from 10 minutes to 20 minutes as follows:

1. **Press and hold** the light button for eight seconds. The green LED light will come on solid.
2. Press the light button once for **Function 1: Time Delay**.
3. The green LED light will now flash once every 2 seconds indicating the current time delay, which is at 10 minutes.  
Press the light button **two times** to choose **Setting 2** (20 minutes). The green LED light now will flashes two times every 2 seconds indicating the new time delay of 20 minutes.  
**Press and Hold** the light button for eight seconds. The LED light will flash 3 times indicating that the settings are saved and the load will turn OFF.

## FUNCTIONS/SETTINGS

Factory default settings are indicated with (\*)

**Function 1:** Time Delay for the light and fan

- **Setting 1:** 15 seconds (\*)  
After 5 minutes, the switch will automatically set to 10 minutes
- **Setting 2:** 20 minutes
- **Setting 3:** 30 minutes

**Function 2:** Humidity level (Humidity Range 45% - 80%)

- **Setting 1:** Low humidity sensitivity (requires little humidity to trigger)
- **Setting 2:** Medium humidity sensitivity(\*)
- **Setting 3:** High humidity sensitivity (requires high humidity to trigger)

## TROUBLESHOOTING

### The switch buttons are not functional

Check if the device is wired properly. This device requires a NEUTRAL wire for operation. Often the WHITE wire is used as a LOAD wire. Be sure to test ALL wires. Also make sure that the HOT and LOAD wires are not reversed.

### Press the Light or the Fan button:

- **If the load does not work and the indicator light does not flash.**  
TURN OFF the power at the circuit breaker then check wire connections. Confirm that the NEUTRAL wire is connected and Black AND Blue leads are connected to the incoming HOT wire.
- **If the humidity sensor does not turn on the fan.**  
Change the humidity level to match the appropriate condition or manually turn ON the fan, after 20 minutes the humidity sensor will be operational.
- **If the light does not turn on but the indicator light is flashing .**  
The switch is in Vacancy Mode.

## WARRANTY INFORMATION

This device is warranted to be free of material and workmanship defects for 2 years from the date of purchase. Original receipt or proof of purchase from an authorized retailer must be presented upon warranty claim. ALL claims must be verified and approved by Enerlites, Inc. Warranties from other Enerlites products may vary. This warranty is nontransferable and does not cover normal wear and tear or any malfunction, failure, or defect resulting from misuse, abuse, neglect, alteration, modification, or improper installation. To the fullest extent permitted by the applicable state law, Enerlites shall not be liable to the purchaser or end user customer of Enerlites products for direct, indirect, incidental, or consequential damages even if Enerlites has been advised of the possibility of such damages. Enerlites' total liability under this or any other warranty, express or implied, is limited to repair, replacement or refund. Repair, replacement or refund are the sole and exclusive remedies for breach of warranty or any other legal theory.



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