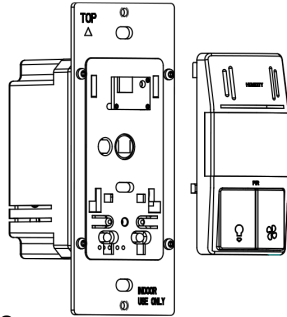


DWHOS

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 |
| Light and Fan Time Delay..... | *minimum light load of 10 Watts |
| Humidity range..... | .45%-80% RH |
| Adjustable ambient light level..... | 0-20 foot candle |
| 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.

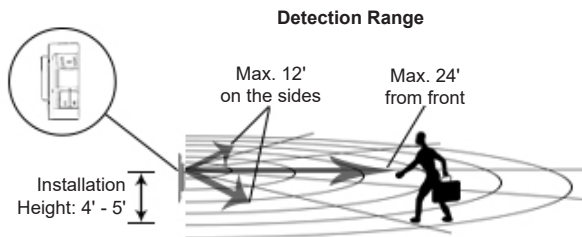


Figure 1

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.

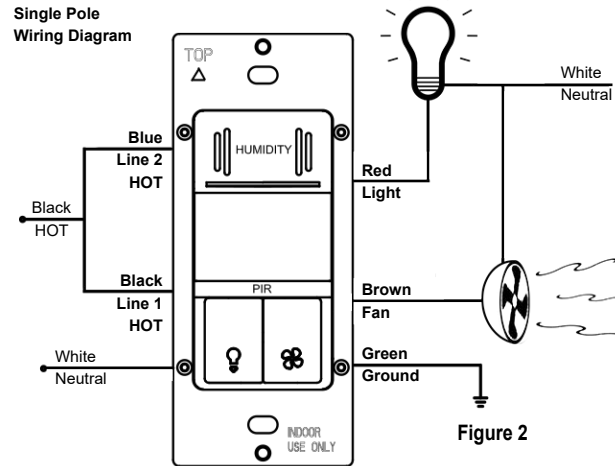
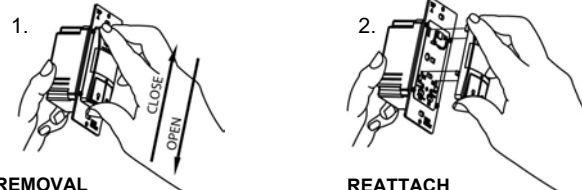


Figure 2

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 three adjustable operation modes for customized control to suit the specific ventilation and lighting needs of the room. These modes are as follows; Automatic Humidity, Automatic ON/OFF PIR, and Manual On/Automatic Off.

The count-down timer can also be adjusted to set the minimum "ON" time for the lights and fan at 15 seconds, 5 minutes, 15 minutes, or 30 minutes. 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 3 minutes after the humidity level is reached.

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

Automatic Humidity: Light (Manual On/Automatic Off), Fan (Automatic On/Automatic Off)

As a requirement, the device is factory pre-set to turn on the light manually and turn on the fan automatically when excess humidity is detected. The sensor keeps the light on when there is occupancy and automatically turns off if no movement is detected and the time delay setting has expired. The Fan will Automatically turn off 3 minutes after the programmed humidity level is reached. If the humidity level of an enclosed space is still over the preset humidity level after the fan has run for 30 minutes, it will turn off and continue to run after a 20 minute break.

Automatic On/Automatic Off with PIR:

The light and fan will turn on automatically with PIR motion detection and turn off automatically based on the occupancy and humidity levels respectively. During the light/fan "ON" state, the light will turn off automatically if no movement is detected and the time delay setting has expired. However the fan will continue to operate if the sensor detects excess humidity and will Automatically turn off 3 minutes after the humidity level is reached.

Manual On/Automatic Off:

The light and the fan will turn on manually and turn off automatically based on occupancy and humidity level respectively. During the light/fan "on" state, the light will turn off automatically if no movement is detected and the time delay setting has expired. However the fan will continue to operate if the sensor detects excess humidity and will Automatically turn off 3 minutes after the humidity level is reached.

Manual On/Manual Off:

At any time the light and the fan can be manually controlled with their push buttons at the front of the switch.

Manually turning Light or Fan OFF: After using the push button to turn the sensor Off, the PIR will reset itself to the programmed mode for Automatic or Manual On/Off after the programmed time delay has expired.

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

FACTORY DEFAULT/ QUICK INSTALLATION SETTINGS

| Functions | Time Delay | Operation Mode | Photocell | Humidity | Fan LED Indicator |
|--------------------|------------|--------------------|-----------|----------|-------------------|
| *Factory Default | 15 Seconds | Automatic Humidity | 5FC | Medium | Flashing |
| Quick Installation | 30 Minutes | Automatic Humidity | Disable | Medium | Solid |

To switch between **Factory Default** and **Quick Installation** setting, press and hold the Light and Fan buttons for 10 seconds and release when the LED indicator turns solid green.

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.

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 4 Programmable Functions:

- **Function 1:** Time Delay
- **Function 2:** Operating Mode
- **Function 3:** Ambient Light Level (The level of light needed in room to keep lights off)
- **Function 4:** 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 5 seconds).
 - 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.

FUNCTIONS/SETTINGS

Factory default settings are indicated with (*)

Function 1: Time Delay for the light and fan

- **Setting 1:** 15 seconds (*)
- **Setting 2:** 5 minutes
- **Setting 3:** 15 minutes
- **Setting 4:** 30 minutes

Function 2: Operating Mode

- **Setting 1: Automatic Humidity (*)**
 - **Light: Manual On, Auto Off.** The Light will Automatically turn off according to Occupancy and Time Delay.
 - **Fan: Auto On, Auto Off.** The Fan will turn on Automatically and Automatically turn off 3 minutes after the humidity level is reached.
- **Setting 2: Automatic On/ Automatic Off with PIR**
 - **Light: Auto On, Auto Off.** The Light will Automatically turn off according to Occupancy and Time Delay.
 - **Fan: Auto On, Auto Off.** The Fan will Automatically turn off 3 minutes after the humidity level is reached.
- **Setting 3: Manual On/Automatic Off**
 - **Light: Manual On, Auto Off.** The Light will Automatically turn off according to Occupancy and Time Delay.
 - **Fan: Manual On, Auto Off.** The Fan will Automatically turn off 3 minutes after the humidity level is reached.

Function 3: Ambient Light Level

- **Setting 1:** Disabled
- **Setting 2:** 5 foot-candle (*)
- **Setting 3:** 10 foot-candle
- **Setting 4:** 20 foot-candle

Function 4: Humidity level (Humidity Range 80% - 45%)

- **Setting 1:** High humidity sensitivity
- **Setting 2:** Medium humidity sensitivity(*)
- **Setting 3:** Low humidity sensitivity

EXAMPLE

Programming Example: Change the time delay of the switch from 15 seconds to 5 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 15 seconds.
4. Press the light button **two times** to choose **Setting 2** (5 minutes).
5. The green LED light now will flashes two times every 2 seconds indicating the new time delay of 5 minutes.
6. **Press and Hold** the light button for eight seconds. The LED light will flash 3 times indicating that the settings are saved.

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 HOT wire.
- **If the load turns on, but the load will not turn off.** Reset the device back to **Factory Default**, then reprogram the device to desired settings.

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.

