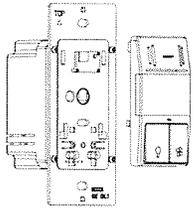


INSTALLATION INSTRUCTIONS



DHOS

Dual Technology Humidity/PIR Motion Sensor

SPECIFICATIONS

Voltage	120VAC, 60Hz
Maximum fan load.....	3 Amps
Motor.....	1/4HP
Minimum light load 10W or two light bulbs	
Fluorescent.....	400 VA
LED.....	150 W
Incandescent.....	500 W
Time delay	
Light & Fan.....	15s, 5 mins, 15 mins, 30 mins
Humidity range.....	45% - 80% RH
Ambient light level.....	0 - 20FC
PIR coverage.....	600sq.ft

DESCRIPTION

The DHOS is a 3Amp, single pole Humidity/PIR occupancy sensing switch. The DHOS help conserve energy and automate the lights in your home. With its humidity sensor and fan control automatically detect excess humidity in a room such as bathrooms and basement and responds by turning on the ventilation fan. The sensor continues to monitor the air and automatically turns the fan off when the humidity level has dropped below its preset level. Combines both technologies can help reduce energy usage by operation the light or the fan only when needed.

COVERAGE

The coverage range of DHOS is illustrated and specified in Figure 1. The diagram shows the motion detection area with small motion detection closer to the sensor. Barriers within the space which blocks the line-of-sight to the sensor detector will decrease the coverage area.

Best: 150 sq.ft.
Regular: 400 sq.ft.
Maximum: 600 sq.ft.

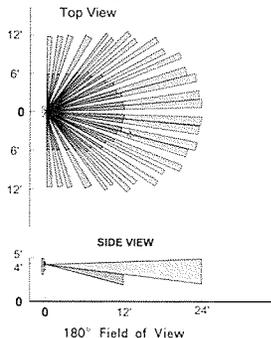


Figure 1

INSTALLATION AND WIRING WARNING

Turn OFF the circuit breaker, or fuse(s) and test that power is OFF before wiring. Wiring the fan switch live can cause serious risk of electrical shock and/or damage the switch, voiding the warranty. **FOR SAFETY, THIS PRODUCT MUST BE INSTALLED IN A GROUNDED ELECTRICAL BOX.** If you are unfamiliar with the methods of installing electrical wiring, contact a qualified licensed electrician. **ONLY USE COPPER WIRE, DO NOT use aluminum wire with this device.**

1. Make sure that the power has been turned OFF at the circuit breaker.
2. Connect lead wires as shown in the WIRING DIAGRAM (Figure 2): Connect Black and Blue lead together to Hot/Line wire, Red lead to (Light) Load wire, Brown lead to (Fan) Load wire, White lead to Neutral and Green lead to Ground.

Wiring Diagram:

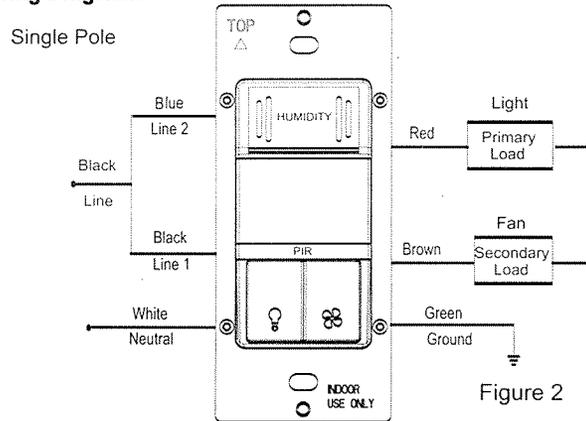


Figure 2

3. Check connections to ensure that they are tight and that no bare conductors are exposed.
4. Insert the DHOS into the wall box carefully.
5. Mount the device into the wall box with screws provided.
6. Attach the wall plate.
7. Restore power at circuit breaker.
8. Press and release the button to turn on/off the load.

How to remove the interchangeable color cover.

The switch comes with the top cover attached. It is very convenient to change the top cover. Please proceed as follows:

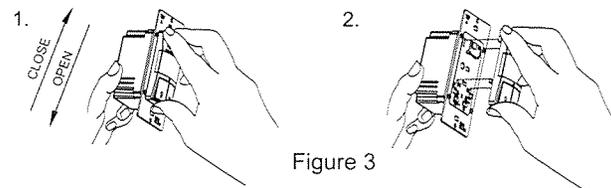


Figure 3

Push down the top cover to release Line up tabs and push up to attach

PUSH BUTTON FUNCTION CHART

The switch has four adjustable functions. Each function is shown below

Factory default setting is indicated with ()

Note: when the PIR sensor is detecting movement the light green LED indicator will start 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.

Function 1: Time delay for the light and the fan

1. 15 seconds (*)
2. 5 minutes
3. 15 minutes
4. 30 minutes

Function 2: Three adjustable modes

1. Automatic Humidity : Light (manual on, auto off), fan (automatically on depends on humidity level) (*)
2. Automatic On/Automatic Off with PIR: When motion is detected, both the light and the fan turn on automatically and turn off based on occupancy for the selected time delay and humidity level.
3. Manual On/Automatic Off: Both the light and the fan turn on manually and turn off automatically based on occupancy for selected time delay and humidity level.

Function 3: Ambient light level

(to keep the light off if the ambient light is sufficient)

1. Disabled
2. 5 Foot-candle (*)
3. 10 Foot-candle
4. 20 Foot-candle

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

1. High Humidity
2. Medium Humidity (*)
3. Low Humidity

Factory Default and Quick Installation Setting

Setting	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 simply press and hold the light and the fan buttons for 10 seconds, released when the light LED indicator turns solid green.

FUNCTION SETTING

To change a program feature:

PREP: review the switch adjustable four functions and its individual settings before proceeding with the programming. (During the programming, only the light button will be used and the green LED light will flash)

1. START: programming mode

Press and hold the light button for five seconds, (its LED will stay on). Now the sensor is in the Programming Mode.

- a. The LED light will stay on for 20 seconds, waiting for the next step.
- b. If the button has not been pressed within 20 seconds, the LED light flash three times and the sensor will exit the programming mode.

2. CHOOSE: functions from one through four

Press the button "X" number of times to enter a function to change, (the LED light will flash with each press).

Note: When the button stops, the sensor will then flash back the current setting for that function, (the sensor will do this ten times at two-seconds interval, and then go back to last status mode).

3. CHANGE: the operation mode under each function

Press the button "X" number of times for the new setting, (the LED light will flash every time it is pressed).

Note: When the button stops, the sensor will then flash back to the setting for that function, (the sensor will do this ten times at two-seconds interval, and then go back to its last status mode).

4. SAVE: setting

Press and hold the light button for five seconds until its LED light flash three times then the program is saved.

Note: for demonstration purposes, the switch is set at quick installation setting for the following examples.

Example 1: to change the current time delay for the light and the fan operation mode of the switch from 30 minutes to 5 minutes as follow.

1. Press and hold the light button for five seconds, (the green LED light should be solid).
2. Press the light button one time for function 1: time delay for the light and the fan.
3. The green LED light now flash four times indicating the current time delay which is at 30 minutes.
4. Press the light button two times to choose the operation mode of 5 minutes time delay.
5. The green LED light now flash two times confirming the new setting.
6. Press and hold the light button for five seconds until its LED light flash three times then the time delay setting is saved.

Example 2: to change the current operation mode of the light and the fan from automatic humidity to automatic on/automatic off with PIR of the switch as follow.

1. Press and hold the light button for five seconds, (the green LED light should be solid).
2. Press the light button two times for function 2: operation mode for the light and the fan.
3. The green LED light now flash one time indicating the current operation mode which is automatic humidity.
4. Press the light button two times to choose automatic on /automatic off with PIR.
5. The green LED light now flash two times confirming the new setting.
6. Press and hold the light button for five seconds until its LED light flash three times then the new operation mode setting is saved.

◆ OPERATION

The DHOS features three user-friendly adjustable modes for customized control to suit the specific ventilation/light needs of the room. These modes are follow; Automatic humidity, Automatic ON/OFF PIR, and Manual On/Automatic Off. Beside these three modes, the time control can be adjusted to set the minimum on time of the lights and fan for 15 seconds, 5 minutes, 15 minutes, and 30 minutes. In order to save energy this switch will automatically turns the lights off when its preset on time is expired. However the fan will continue to operate if sensor detect excess humidity and automatically turns the fan off when the humidity level has dropped. The sensor switch is also equipped with adjustable ambient light level and humidity level. The humidity sensitivity adjustment can be adjusted from high, medium or low.

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

The device is pre-set at the factory and required to turn on the light manually and turn on the fan automatically when the excess humidity is detected. The sensor keeps the light on when there is occupancy and automatically turn off if no movement is detected and the time delay setting has expired. While the fan will turn off after the humidity level dropped under the humidity set level. If the humidity level of an enclosed space is still over the preset humidity level after 30 minutes running, the fan will continue to run after 20 minutes 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 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 sensor detect excess humidity and automatically turns the fan off after 3 minutes when the humidity level has dropped.

Manual On/Automatic Off:

The light and the fan will turns 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 sensor detect excess humidity and automatically turns the fan off after 3 minutes when the humidity level has dropped.

Manual On/Manual Off:

At any time the light and the fan can be manually controlled with the push buttons on the switch.

◆ TROUBLESHOOTING

The switch buttons are not functional

Check if the device is installed and wired properly. The device requires a neutral wire for operation.

Press the light or fan button

If the load does not work and the indicator light does not flash

Turn OFF power to the circuit then check wire connections. Confirm the neutral wire is connected, Black and Blue lead connect to Hot/Line wire.

If the load operates normally, but the load will not turn off.

Change sensor's mode of operation to desired setting and set to higher humidity level.

Note: Do not use the switch to control a fan/light combination where this is the only means of illumination or light installed. The device will not eliminate condensation solely and must be used with a properly sized ventilation fan in an enclosed space.

◆ Warranty Information

Our company warranties this product to be free of defects in materials and workmanship for a period of two years. There are no obligations or liabilities on the part of our company for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

June, 2016
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