

# **TOPGREENER TDHOS5 Humidity Sensor Switch Instruction Manual**

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**TOPGREENER TDHOS5 Humidity Sensor Switch** 



Model: TDHOS5
Dual Technology
Humidity/PIR Motion Sensor with Interchangeable Face Cover

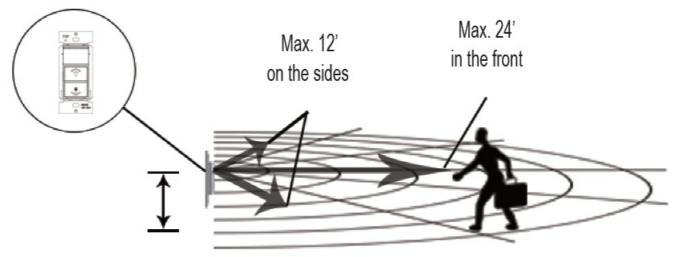
# **SPECIFICATIONS**

Power	120VAC, 60Hz
Resistive	360 Watts
Tungsten	500 Watts
Electronic Ballast/ LED	400VA/ 400 Watts
Light and Fan Time Delay	15s, 10 mins, 20 mins, 30 mins
• Motor	1/4 HP
Humidity range	45%-80% RH
PIR coverage	600sq.ft

# **COVERAGE**

As illustrated in the figure below, the TDHOS5 has a  $180^{\circ}$  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.



#### **WARNING**

# Turn the power off at the circuit breaker before installing the Sensor.

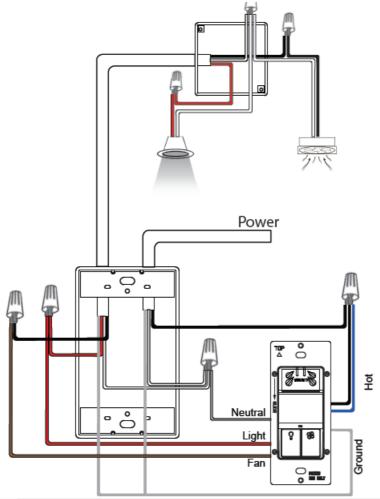
Read and understand these instructions before installing. This device is intended for installation in accordance with the National Electric Code and local regulations. It is recommended that a qualified electrician performs this installation. Make sure to turn off the circuit breaker or fuse(s) and make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

Use copper wire only.

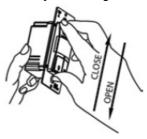
## WIRING DIRECTIONS

- 1. Remove the wall plate.
- 2. Remove existing switch from wall box and prior to disconnecting wires, identify the wires and label as needed.
- 3. Remove wires from existing switch.
- 4. Follow the diagram below to reconnect the TDHOS5 humidity sensor.

**WARNING:** The white wire you see in the wall box is not always the neutral wire. Verify whether the power enters the wall or ceiling box first.



How to change the color cover/ push button. Start by removing the wallplate if attached.



## **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

## **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 and each time the button is pressed while making selections.
- Once the program is saved, the load (lights on your ceiling/ wall) 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 for the light and fan

- Setting 1 (Default): 15 seconds/ 10 minutes. When selected, the time delay will be 15 secs. After 5 minutes, the time delay defaults to 10 minutes
- Setting 2: 20 minutes
- Setting 3: 30 minutes

## Function 2: Humidity level (Humidity Range 45% – 80%)

- Setting 1: Low humidity sensitivity 45% (requires little humidity to trigger)
- Setting 2 (Default): Medium humidity sensitivity 65%
- · Setting 3: High humidity sensitivity 80% (requires high humidity to trigger

To progam the humidity sensor, you must first enter programming mode, then choose function 1 or function 2, then select 1 of 3 settings within each function

## **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).

## **STEP 2: Choose the Function**

 Press the light button the same number of times as the Function Number you would like to program (1x for Function 1 and 2x for Function 2)

After you select the function, the LED indicator will indicate the current setting by blinking 1x for Setting 1, 2x for Setting 2, and 3x for Setting 3 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 twosecond 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 then the load will turn OFF.

#### **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 2 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.
- 4. Press and Hold the light button for eight seconds. The LED light will flash 3 times indicating that the settings are saved then the load will turn OFF.

## **OCCUPANCY/VACANCY MODES**

Users can change between occupancy and vacancy modes by pressing and holding the light and fan buttons simultaneously for about 10 to 15 seconds. When the green LED indicator on the light button comes on, it indicates the mode has been changed from either occupancy to vacancy or vacancy to occupancy mode.

- Occupancy Mode (default) Lights Auto On/Automatic Off
   Light: Auto On, Auto Off. The Lights will automatically turn ON when motion is detected and automatically turn
   OFF by Time Delay.
- When the light button is used to turn ON, lights turn ON. The lights will then turn OFF when the time delay expires.
- When manual button is used to turn OFF the lights before the timer expires, the lights turn off. The sensor will
  not turn the lights on again for another 3 minutes. After 3 minutes, the sensor will reset and will turn ON lights if
  motion is detected.
- Vacancy Mode Lights Manual On/Automatic Off
   Light: Manual On, Auto Off. Manual button is used to turn the Lights ON and automatically turn OFF by Time Delay.
- When manual button is used to turn OFF the lights before the timer expires, the lights turn off. The sensor will not turn the lights on again
- If motion is detected (within 30 seconds) of the lights turning off, the Lights will come back ON

## **FAN MODES**

The fan only has one mode: Auto On, Auto Off. The fan will turn ON automatically when the humidity level reaches the selected (high, medium, or low) level and will automatically turn OFF when the humidity level drops low enough

- After running for 30 minutes, if the humidity level has not dropped low enough, the fan will pause for 5 minutes, then resume for another
  - 30 minutes.
  - This is a feature that prevents the motor on the ventilation fan from overheating
- When the manual button is used to turn ON, the fan will turn ON for 30 minutes and automatically turn OFF.
- Overriding the fan's Auto On function: When the manual button is used to turn OFF the fan, the fan will turn

OFF immediately and the humidity sensor will stop detecting humidity until it is reset by the user.

- This is a great feature if you live in areas with very high humidity and you don't want the fan to come on throughout the night
- To Reset the fan's Auto On function: Use the fan button to turn ON the fan and allow it to turn off on it's own (30 minutes).

# **NOTES**

## What is Time Delay

- For the PIR motion sensor, time delay is the time from the last motion detected until the light is automatically turned OFF
- The fan has only one time setting and that is to run in 30 minute intervals. Anytime the fan comes on whether by use of the button or automatically, the fan will run for only 30 minutes. If humidity in the room is still at a high level after running for 30 minutes, the TDHOS5 will pause for 5 minutes and resume for another 30 minutes.

## High Relative Humidity (RH) locations

• If you live in high humidity areas, consider using the highest humidity setting (Function 2, setting 3). If the fan runs non-stop even with setting 3 selected, you should override the auto-on until the relative humidity (RH) in your area drops below 80% RH.

#### **LED** indicators

- The Light LED indicator will flash green when motion is detected.
- The Fan LED indicator will turn solid red when humidity is detected. If the manual button is used and no humidity is detected, the LED indicator will stay white.

#### **TROUBLESHOOTING**

- If the switch does not seem to turn on (If the load does not work and the indicator light does not flash).

  Check if the device is wired properly. It requires a NEUTRAL wire for operation. Often the WHITE wire is used as a LOAD wire for the light and is indicated by a black electrical tape wrapped around the wire. Be sure that the Black AND Blue leads are connected to the incoming HOT wire. Also make sure that the HOT and LOAD wires are not reversed.
- If the humidity sensor does not turn on the fan, but the fan button works.

  Change the humidity level to a lower setting. Then reset the fan by using the fan button to manually turn ON the fan. Wait 30 minutes for the fan to turn off. The humidity sensor will reset after the 30 minutes.
- If the light does not turn on but the indicator light is flashing.
   The switch may be in Vacancy Mode. Press and hold both light and fan buttons for 10 seconds to switch to Occupancy mode.

#### **WARRANTY**

This device is warranted to be free of material and workmanship defects for 1 year 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 Top Greener, Inc. Warranties from other TOPGREENER 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, Top Greener, Inc. shall not be liable to the purchaser or end user customer of TOPGREENER products for direct, indirect, incidental, or consequential damages even if Top Greener, Inc. has been advised of the possibility of such damages. Top Greener, Inc's 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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## **Documents / Resources**



**TOPGREENER TDHOS5 Humidity Sensor Switch** [pdf] Instruction Manual TDHOS5, Humidity Sensor Switch

Manuals+,