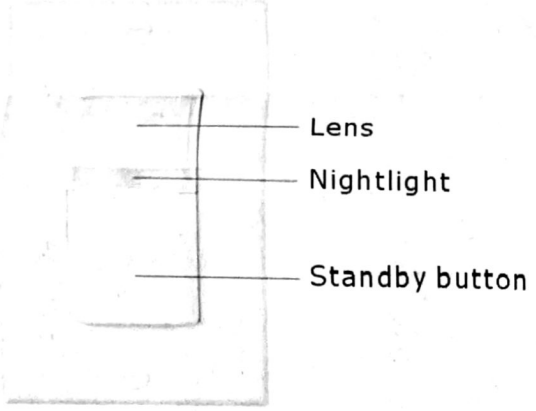
Please read all instructions before installation

QTS-PIR-WM-180-NL-WH
Vacancy Sensor Switch
With Nightlight and Standby



Installation Instructions

SPECIFICATIONS

Voltage ----------120VAC, 60Hz

Load (Single Pole Circuit)

Incandescent or fluorescent light ----------0-600 Watt

Fan motor ---------- 1/6hp

Time Delay ---------- ---------- 1-30 Minutes

Environment ----------Residential Indoor use only

Operating Temperature ---------- 32° to 131°F (0° to 55°C)

Humidity ---------- ---------- 95% RH, non-condensing

Tools Needed ---------- Insulated Screwdriver, Wire Strippers

DESCRIPTION AND OPERATION

The QTS-PIR-WM-180-NL-WH Vacancy Sensor is designed to replace a standard light or fan switch. It is ideal for living and dining rooms, family rooms, bedrooms, bathrooms and any other indoor areas in a residential space.

Like a standard switch, you press the standby button to turn the light or fan (controlled load) ON and OFF. Unlike a switch, the QTS-PIR-WM-180-NL-WH automatically turns OFF the controlled load after the coverage area has been vacant for 15mintes (Factory default -15 minutes). If motion is detected within 30 seconds after it automatically turns OFF, the QTS-PIR-WM-180-NL-WH automatically turns the load back ON.

Nightlight

While the controlled load is OFF and environment around is lightless, the nightlight built into (in) the QTS-PIR-WM-180-NL-WH is ON. When the load is ON, the nightlight is OFF.

Time Delay

The time delay can be selected by the user during set up. It can be adjusted from 1 minute up to 30 minutes. For additional information on how to adjust it, please read the SENSOE ADJUSTMENT & PROGRAMMING section of this installation manual.

COVERAGE AREA

The QTS-PIR-WM-180-NL-WH has a maximum coverage range of 150/180 degrees and a coverage area of 600 square feet (56 square meters). The sensor must have a clear and unobstructed view of the coverage area. Objects blocking the sensor' s lens may prevent detection thereby causing the light to turn off even though someone is in the area.

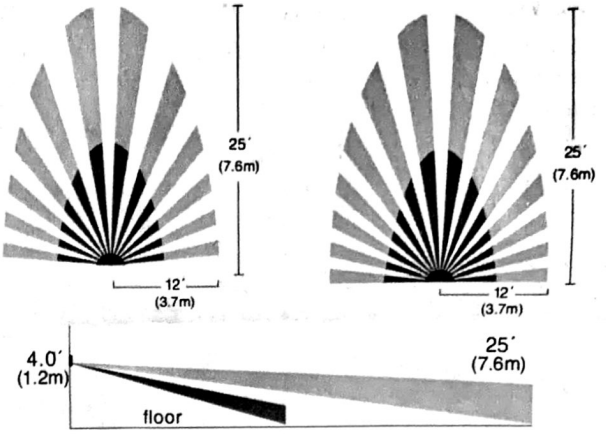


Fig.1: Sensor Coverage Area

Windows, glass doors, and other transparent barriers will obstruct the sensor' s view and prevent detection.

INSTALLATION & WIRING

WARNING

Discon nect power to the wall switch box by turning OFF the circuit breaker or removing the fuse for the circ uit for before installing the sensor, replacing lamps,or doing any electrical work.

1. Prepare the switch box.

After the power is turned off at the circuit breaker box, remove the existing wall plate and mounting screws. Pull the old switch out from the wall box.

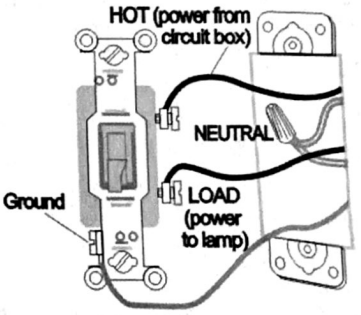


Fig. 2: Typical Single Pole Switch Wiring

2. Identify the type of circuit.

In a Single Pole Circuit (see Fig. 2), two single wires connect to two screws on the existing switch. A ground wire may also be present and connected to a ground terminal on the old switch. A neutral wire should also be present in the wall box.

CAUTION FOR YOUR SAFETY:

Connecting a proper ground to the sensor provides protection against electrical shock in the event of certain fault conditions. If a proper ground is not available, consult with a qualified electrician before continuing installation.

Only connect the QTS-PIR-WM-180-NL-WH to a Single Pole Circuit.

The QTS-PIR-WM-180-NL-WH is not suitable for 3-way switching. If the existing wiring does not match the description for a Single Pole Circuit, you should consult with a qualified electrician.

3. Prepare the Wires.

Tag the wires currently connected to the existing switch, so that they can be identified later.

Disconnect the wires.

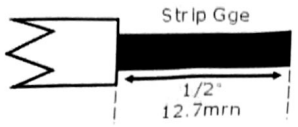


Fig. 3: Wire Stripping

Make sure the insulation is stripped off the wires to expose their copper cores to the length indicated by the " Strip Gage," in Fig. 3 (approx. 1/2 inch).

4. Wire the sensor.

Twist the existing wires together with the wire leads on the QTS-PIR-WM-180-NL-WH sensor as indicated below.

Cap them securely using the wire nuts provided. See Fig. 4.

- Connect the green or non-insulated (copper) GROUND wire from the circuit to the ground terminal on the QTS-PIR-WM-180-NL-WH.
- Connect the NEUTRAL wire from the circuit and from the lamp or fan (LOAD) to the white wire on the QTS-PIR-WM-180-NL-WH .
- Connect the power wire from the circuit box (HOT) to the black wire on the QTS-PIR-WM-180-NL-WH.
- Connect the power wire from the lamp or fan (LOAD) to the red wire on the QTS-PIR-WM-180-NL-WH.

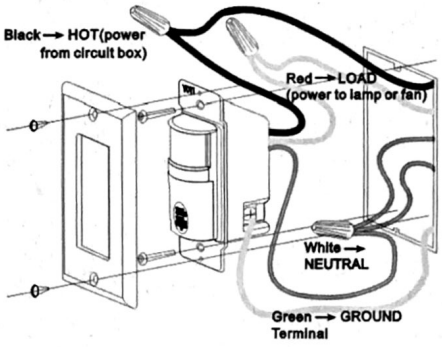


Fig. 4: Sensor Orientation, wire connections and wall box assembly

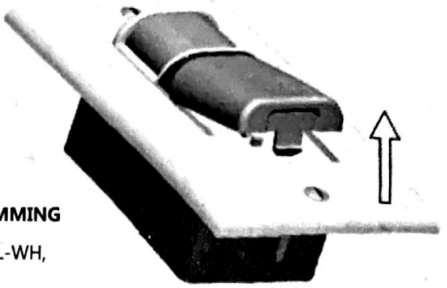
5. Put the QTS-PIR-WM-180-NL-WH in the wall Box with the lens *positioned above the standby button (lens at top, button at bottom).*

Secure it to the wall box with the screws provided.

6. Attach the new cover plate.

7. Restore power to the circuit.

Turn ON the breaker or replace the fuse.



SENSOR ADJUSTMENT & PROGRAMMING

To program the QTS-PIR-WM-180-NL-WH, use controls located under the standby button. The wall switch cover plate must be opened to gain access to the adjustment button under the standby button.

To adjust the time delay:

1). Turn unit upside down.

2). Depress " U" shape tab at bottom of control and at the same time swing open the cover.

3). Adjust the desired delay off time behind the cover.

4). After time was set, snap cover back until it latch shut.

Adjusting the Time Delay

Press the Time Delay button.

When it indicates "1" expresses 1 minute (minimum).

"1" - 1 minute

"5" - 5 minutes

"10" - 10minutes

"15" - 15 minutes (Factory default)

"20" - 20 minutes

"30" - 30 minutes (maximum)

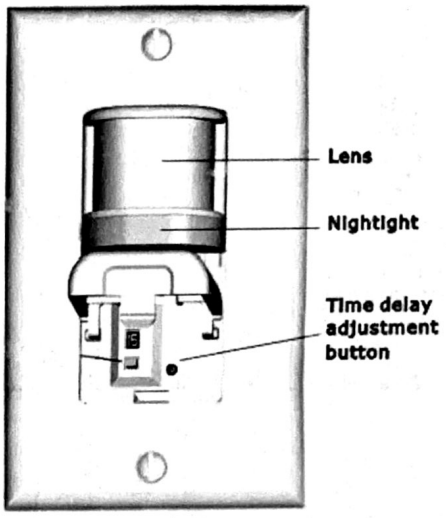


Fig. 5: Sensor Adjustment Controls

TROUBLESHOOTING

Load will not turn ON (nightlight is visible):

Press standby button. The load should turn ON. If not:

- Check the light bulb and/or motor switch on the fan mechanism.
- Turn off power to the circuit then check wire connections.

Load will not turn ON (nightlight is NOT visible):

- Check the light bulb and/or motor switch on the fan mechanism.
- Make certain that the circuit breaker is on and functioning.
- Turn off power to the circuit then check wire connections.

Load will not turn OFF:

- Make sure no motion is occurring in the coverage area until the set time period (factory default is 15 minutes).
- Hot air currents and heat radiating devices can cause false detection. Make sure the sensor is at least 6 feet (2 meters) away from devices that are a significant heat source (e.g., heater, heater vent, high wattage light bulb).
- Push the standby button. If load does not turn off, turn off power to the circuit then check wire connections.