

## Installation Guide

### Mounting

#### Select a location

Install the sensor on an inside wall where it can sense the average room temperature. Avoid locations with direct sunlight, heat sources, windows, air vents, and air circulation or obstructions such as curtains, furniture, etc.

- ◆ Mount the sensor in an area with a minimum illumination of 200 lux for three to four hours everyday. The light source can be either artificial or daylight. The health and safety at work act requires a minimum illumination of 500 lux for office workplaces.
- ◆ The long term illumination should not exceed 1000 lux.
- ◆ Avoid recessed areas that are not sufficiently illuminated throughout the day.
- ◆ When using collimated artificial light the angle of incidence on the solar cell should be not too steep.
- ◆ The sensors can be mounted with the solar cell toward a window but not in direct sunlight. Even occasional direct sunlight can lead to false temperature values.
- ◆ Consider the future use of the room and avoid locations that may be used for filing cabinets, shelf units, or other large obstructions.
- ◆ In closed spaces with several walls, the maximum range may be less than 33 ft (10 m). In open areas, place the sensor no farther away than 98 ft. (30 m) from the receiver or gateway. See the publication *Planning Guide For Wireless Sensor Networks* for details.



STW-6010 and THW-1102



STW-6014

#### Remove the sensor body from the back panel

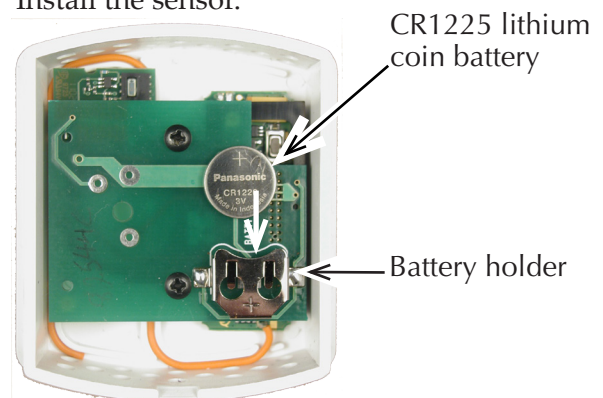
The sensor body is held to the black, back panel by three, small, round pegs that fit in the holes of the sensor body. The bottom peg is a spring tab and snaps into the center bottom hole.

1. With a small Phillips screwdriver or hex wrench, press in and hold the tab button that snaps into the center hole on the bottom cover.
2. Carefully pull or pry the back panel from the sensor body.

#### Install the optional battery

A single CR1225 lithium coin battery may be installed for locations that do not have enough sustained light to maintain sensor operation.

3. Remove the sensor body from the back panel.
4. Position the CR1225 battery with the plus (+) symbol visible.
5. Slide the battery into the battery holder.
6. Install the sensor.



## Installation

1. Remove the sensor body from the back panel.
2. (Optional) Install the battery.
3. Locate the sensor identification number on a label that is inside of the sensor body.
4. Record the location of the sensor and identification number on the system plans.
5. Using the back panel as a template, drill two holes for mounting screws 1-13/32 inches, or 35.6 mm apart.
  - For the supplied screws, drill 7/64 inch (3mm) holes.
  - For plaster or concrete mounting surfaces, plastic anchors are recommended. If anchors are used, adjust the size of the holes for the anchor.
6. Attach the back panel to the wall using two #6 self-threading screws.
7. Snap the sensor body onto the back panel.

## Operation

The sensor will begin operation as soon as the solar cell has charged the internal energy storage device. However, if the sensor has been in storage for a prolonged period, it may take three or four days for the circuit to become fully charged.

## Maintenance

Careful installation will also ensure long-term reliability and performance. Remove dust as necessary from holes in top and bottom. Clean with a soft, damp cloth and mild soap.

Replace the optional lithium battery every two years or as needed by actual use.

## Accessories

BAC-5301	Gateway, 315 MHz
BAC-5301D	Gateway, 868 MHz

## Sensor models

### For use in North America

STW-6010W	Digital Sensor (Wireless, Temperature, 315 MHz, White)
STW-6014W	Digital Sensor (Wireless, Temperature, Setpoint, 315 MHz, White)
THW-1102W	Digital Sensor (Wireless, Temperature, Humidity, 315 MHz, White)

### For use outside of North America

STW-6010DW	Digital Sensor (Wireless, Temperature, 868 MHz, White)
STW-6014DW	Digital Sensor (Wireless, Temperature, Setpoint, 868 MHz, White)
THW-1102DW	Digital Sensor (Wireless, Temperature, Humidity, 868 MHz, White)

Contains FCC ID: SZV-STM310C

These 315 MHz devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (i.) these devices may not cause harmful interference and (ii.) these devices must accept any interference received, including interference that may cause undesired operation.

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