

No Rainfall Data is Collected

There are a number of issues that can cause the system to not collect rainfall data, from clogged collectors to hardware failure or improper part replacement.

The most common issue is that the rain gauge is clogged.

1. Rain Gauge is clogged.

When the drain for the collector has clogged, it prevents water from traveling to the tipping bucket sensor. Usually when this happens the bucket will be filled with water. You will need to remove the collector from the base of the rain gauge.

- Loosen the four screws around the perimeter of the base.



- Once these screws are loose, turn the collector counter-clockwise and lift it off the base.

Now that the collector is removed, remove the screen and clean out the drain:

- Remove the cotter pin holding the screen in place



- Remove the cotter pin by bending the legs at the bottom back straight and pushing it back towards the top of the collector. Once the cotter pin is removed you can pop out the screen. You may need a small tool such as a knife to help pop the screen out. Once the screen is removed you will be able to see the drain hole.



Use anything you have available to clear out the hole. Example: Screw Driver, Stick, Q-tip etc.... Once the drain is cleared, re-insert the screen and cotter pin.

***MAKE SURE** you bend the legs of the cotter pin back tight up against the collector. If you do not, the cotter pin will **BLOCK** the tipping bucket from tipping. The cotter pin **MUST** be bent back upwards.

Several other reasons why the rain gauge does not collect data are:

2. Cotter pin has become loose and is obstructing the tipping bucket.

It is not common that the cotter pin loosens by itself, but it can happen. It can also happen when people attempt to clean the rain gauge improperly.

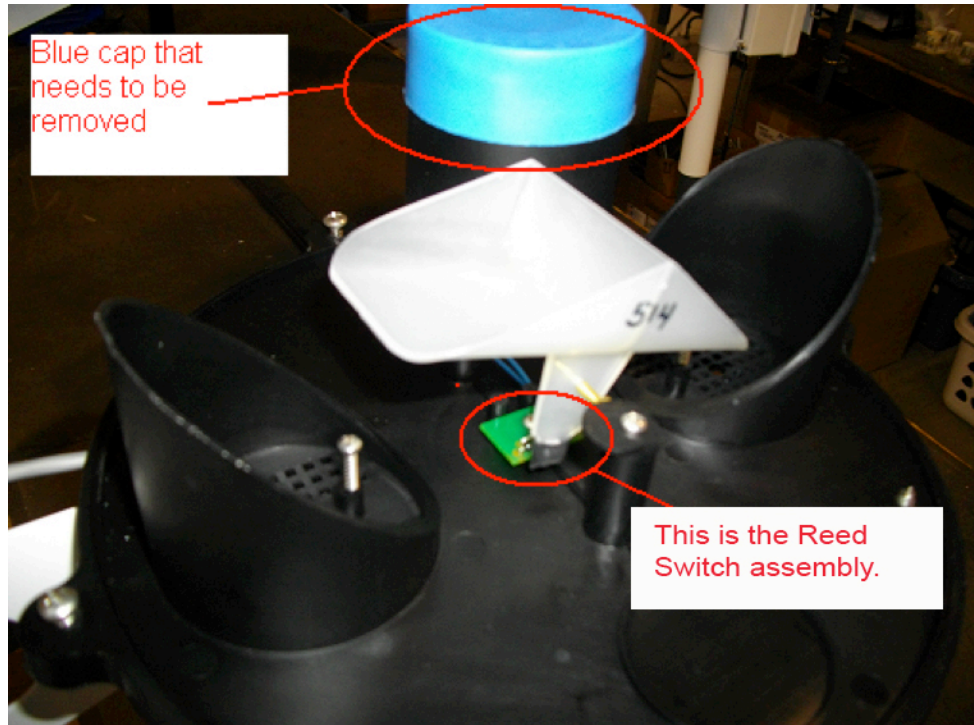
- Use the steps above to ensure the cotter pin is installed correctly.

3. A Faulty Reed Switch Assembly

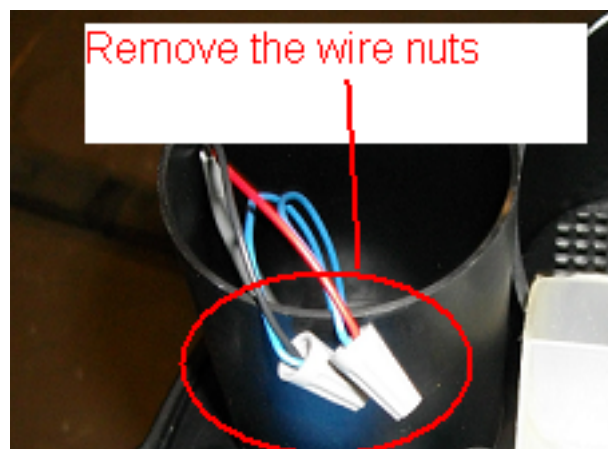
The reed switch assembly is the small circuit board below the tipping bucket.

- Remove the collector from the base of the rain gauge by following steps in Part 1. Once the collector is removed, pay attention to the base of the rain gauge.

- Remove the Blue Cap by lifting upwards



- Once the blue cap has been removed, look at the wire connection that attaches the reed switch assembly to the wire that goes to the motherboard of the system.
- Remove the wire nuts from the connections.



- Once the wire nuts have been removed, touch the wires together multiple times (these will not arc). After touching the wires together, you should see rainfall data within a few minutes. This procedure has bypassed the reed switch. **If rainfall counts do come through after this test, the reed switch assembly will need to be replaced. Should this not result in rainfall counts, continue on.**

4. Test the Motherboard

In this step you will completely bypass the rain gauge and simply test the motherboard.

- **You will need to remove the solar panel cover from the sensor assembly by removing the four screws located in the corners of the solar panel cover.** Once the solar panel and cover are free from the housing, disconnect the solar panel connection and **TAKE NOTE** of the way the connectors clip together. We are now going to work with the motherboard inside the unit.
- Remove the rain gauge connection



- Once the wire has been removed, you will see two gold legs. Use a screwdriver to short out these two pins. Make sure the screwdriver is touching both pins at the same time, multiple times. If this results in rainfall counts, there is an issue with the wire going to the rain gauge, the connection from that wire to the reed switch is not well connected, or the reed switch is faulty. **Should this not result in rainfall data, there is an issue with the motherboard.**