TECHNICAL BULLETIN NO. 20231114 November 14, 2023

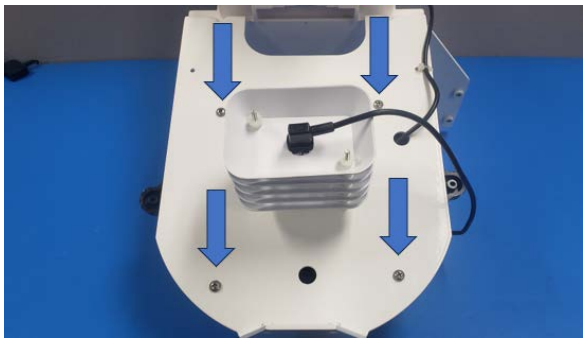
SUBJECT Reed Switch Replacement Instructions

PRODUCT FAMILY Rain Collectors

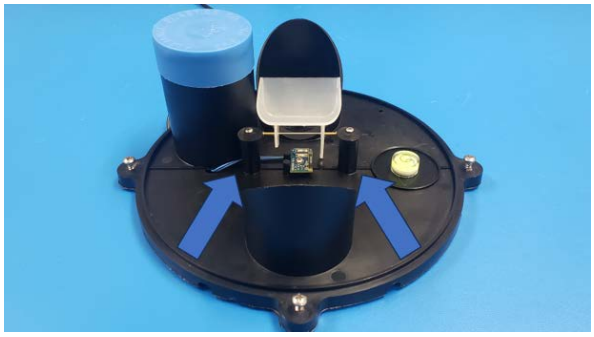
1. Begin by loosening the four Phillips head screws located at the base of the collection bucket.

2. Twist the collection bucket in a counter-clockwise direction to detach it from the base.

3. If your Rain Collector is attached to a bracket, detach it by removing the four Phillips head screws located at the bottom of the bracket.



4. Take note of the tipper assembly and carefully observe the placement of the two axle supports securing it in position.



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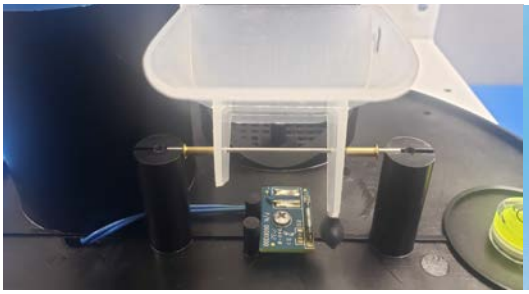
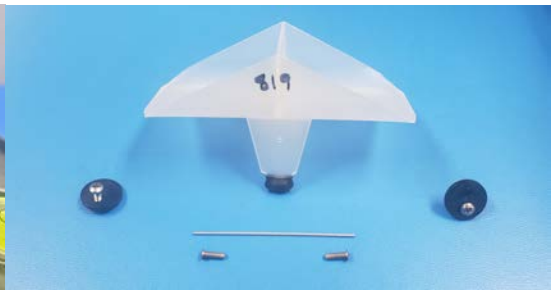
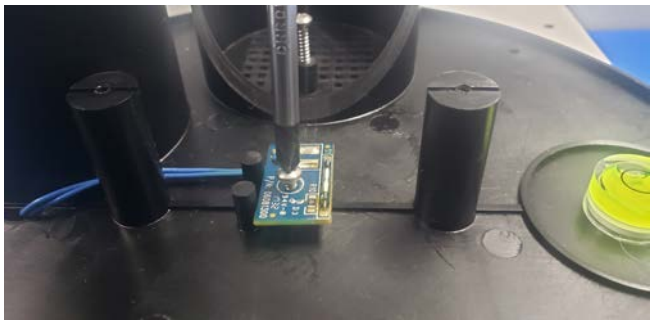
5. Above each axle support, identify an eccentric washer held in place by a screw. Gently loosen and remove the washer from each support.

6. Carefully remove the tipper assembly (consisting of the tipper, axle, and brass eyelets), ensuring the eyelets are not misplaced.

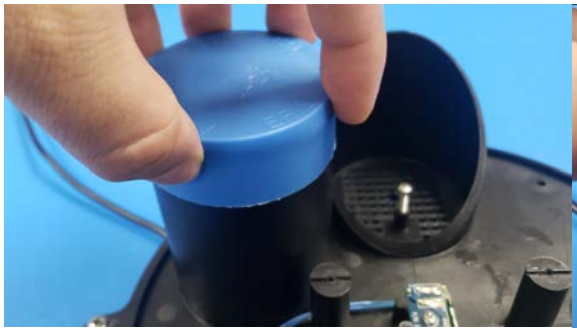
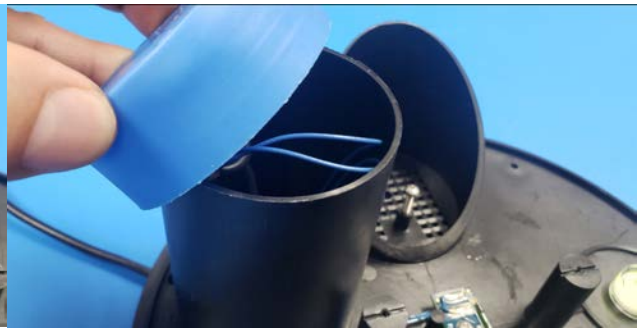



7. Observe the arrangement and wiring of all components for future reference. It is advisable to capture photos at this stage for detailed documentation.

8. Remove the Reed Switch assembly by loosening the Phillips screw.



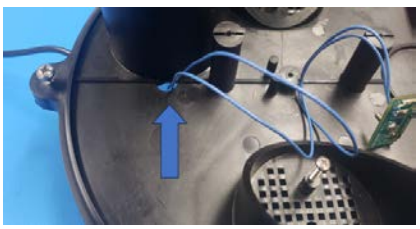
9. Gently slide the blue cap off the cylinder. It should move smoothly. If it feels tight, rotate it side to side while pulling gently. This should help loosen it.

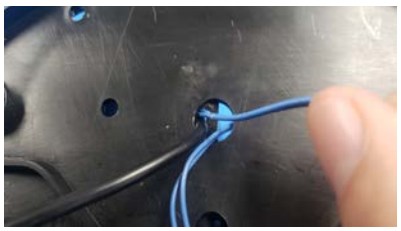



10. Cut the two wires connected to the existing switch assembly near the Crimp-On Connectors.

11. Remove the old Reed Switch, being careful to pull the wires through the hole in the base at the edge of the cylinder.

12. Carefully install the new Reed Switch assembly following the same orientation and positioning as the previous assembly. Ensure that the wires are threaded through the hole in the base at the edge of the cylinder and back through the base into the cylinder.



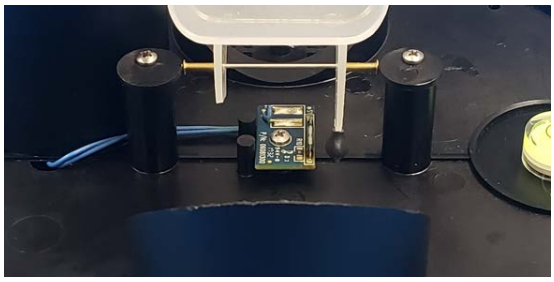


13. Secure the new Reed Switch in place by properly fastening the screw into the base.

14. Re-attach the sensor wires to the wires of the new Reed Switch assembly by using either wire nuts or Crimp-On connectors. If utilizing wire nuts, be sure to strip the wires and securely connect them.

15. Reinstall the tipper assembly and eccentric washers.

16. Adjust the eccentric washers accordingly to position the tipper in relation to the switch. The contact between each washer and eyelet enables precise positioning, aiming for a distance between the magnet and switch within the range of 1/4” to 1/8”. Reference the provided picture for guidance



17. Once the tipper's position is established, securely tighten the eccentric washers. Ensure there is a slight movement of approximately 1/32” for the tipper on the axle.

18. Validate the proper operation of the Reed Switch by carefully tilting the spoon back and forth. Listen for a distinct chirping sound, indicating the Reed Switch fully detected the tipping spoon magnet. Each chirp should correspond to a precise 1/100” increment on the display or current condition in the WatchDog Mobile App.

19. Start sliding the blue cap back onto the cylinder. Apply gentle pressure and ensure it is moving smoothly. If needed, rotate the blue cap slightly back and forth as you slide it on.

20. Align the rain collector with the bracket, ensuring that the mounting holes on the rain collector align with the holes on the bracket. Insert the four Phillips head screws into the corresponding holes and tighten them securely using a screwdriver. Ensure that the rain collector is stable and securely fastened to the bracket.

21. Place the collection bucket securely onto the base, aligning it appropriately, and fasten it by tightening the four Phillips head screws into their respective positions.