

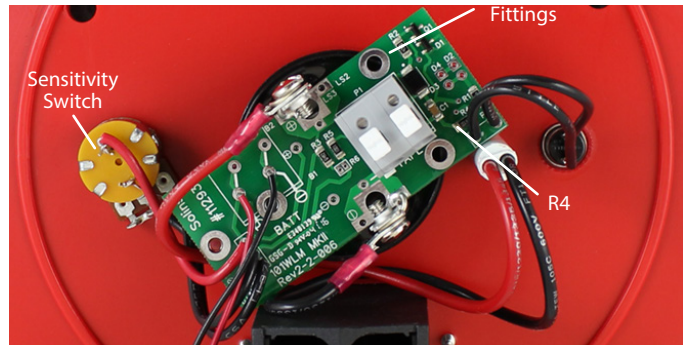
Solinst® Water Level Meter On/Off Sensitivity Switch Replacement

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Model 101/102

Tools and Materials Needed

1. Sensitivity Switch and Knob Assembly (#102976), or Sensitivity Switch (#110119)
2. Phillips Screwdriver
3. Small Flat Screwdriver
4. 10 mm (3/8") Wrench
5. Wire Cutters (if required)
6. Wire Strippers (if required)
7. Solder Wire with Flux
8. Soldering Iron



*Back of Mk2 Water Level Meter Faceplate
(with older style light)*

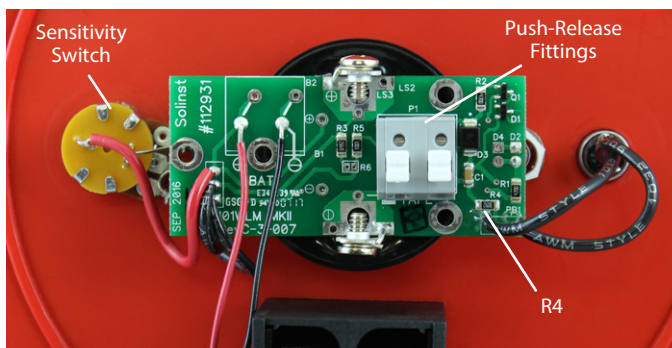
Instructions



For Mk2 Water Level Meters (Push-Release Tape Connection)

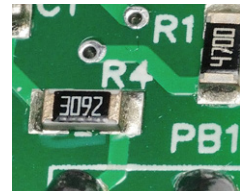
Note: Instructions for Mk1 Water Level Meters (Molex tape connection, soldered connections to battery tray) are on Page 2.

1. Remove the battery.
2. Unscrew the small brass screw on the side of the sensitivity knob. Remove the sensitivity knob.
3. Unscrew and remove the faceplate.
4. Press down on the white terminals of the push-release fittings on the circuit board and pull out to remove the tape leads.
5. Unsolder the wires at the connections to the sensitivity switch; **note the order in which they are connected.**



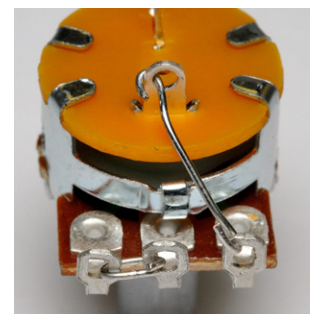
*Back of Mk2 Water Level Meter Faceplate
(with new style light)*

6. Unscrew the nut holding the sensitivity switch. Remove the switch from the faceplate.
7. Look for the resistor labeled "R4" on the circuit board. If this resistor is not marked "3092", unsolder and replace it with the one supplied with the new sensitivity switch. You do not need to replace the resistor if it is already the correct one.



Note: You will need to remove the new resistor from the white plastic before installing it.

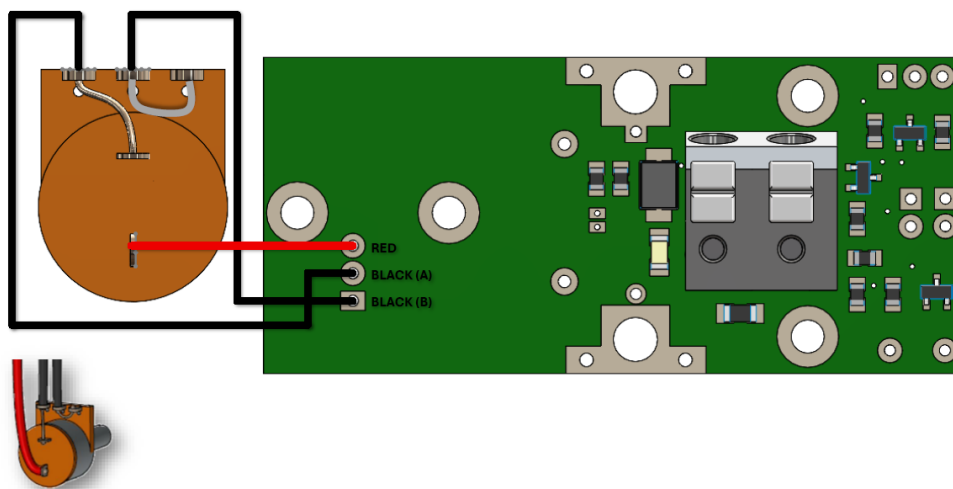
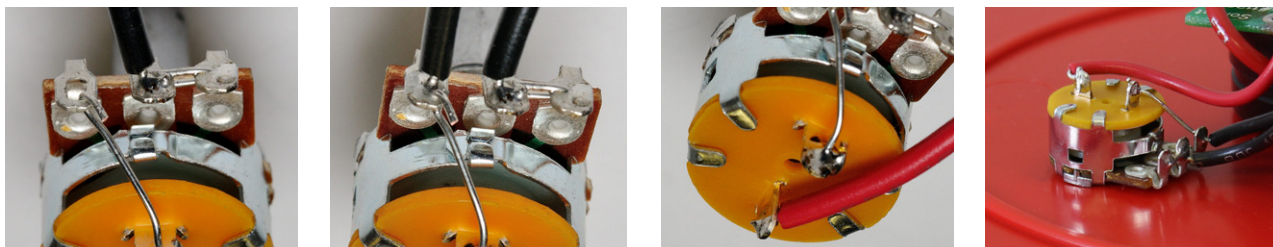
8. Use the resistor supplied with the sensitivity switch to create jumper wires between the connections on the new sensitivity switch (you do not need the blue resistor, just the wires). Solder in place. See photos below.



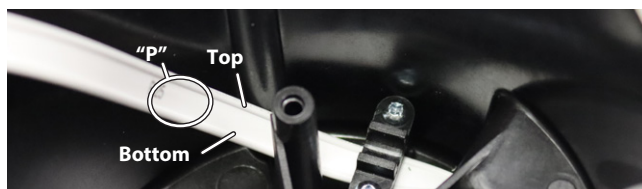
9. Install the new sensitivity switch through the faceplate. Position the three connection prongs towards the battery drawer, slightly towards the centre of the reel. Secure using the nut.

10. Strip the ends of the wires removed from the sensitivity switch by 3 - 4 mm, if required. Attach the wires to the correct positions by soldering:

The black wire on the bottom left corner of the circuit board is connected to the centre prong on the sensitivity switch. The other black wire is connected to the prong on the right of the sensitivity switch. The red wire connects to the upper terminal on the top of the switch. See illustration and photos below (some shown separate from circuit board for clarity).



Note: There is a "P" etched on the tape to help denote the proper orientation of the tape – top and bottom leads.

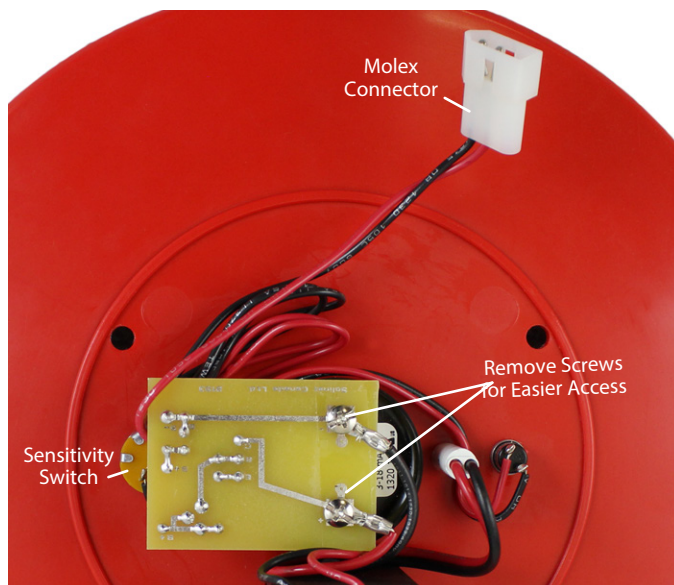


11. Reconnect the tape to the circuit board. Press down on the white terminals on the circuit board and insert the tape leads. Release the terminals and the leads should be secured. The lead on the top of the tape (numbers facing up, or see note) is inserted into the terminal with a white square below it on the circuit board.
12. Replace the battery and test the Water Level Meter to ensure the connections are correct.
13. Fasten the sensitivity knob using the brass screw
14. Replace the faceplate, with three screws.

Instructions

For Mk1 Water Level Meters (Molex Tape Connection)

1. Remove the battery.
2. Unscrew the small brass screw on the side of the sensitivity knob. Remove the sensitivity knob.
3. Unscrew and remove the faceplate.
4. Disconnect the Molex connector that connects the circuit board to the tape.

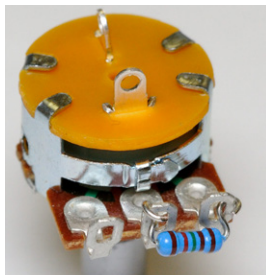
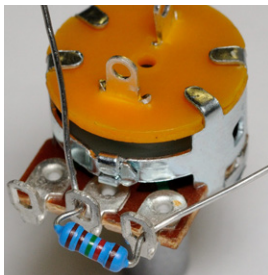


Back of Mk1 Water Level Meter Faceplate

5. Unsolder the wires at the connections to the sensitivity switch; **note the order in which they are connected.**

Note: To gain better access to the sensitivity switch on Mk1 Water Level Meters, you may want to unscrew the two screws holding the circuit board to the Sonalert, in order to move the circuit board out of the way.

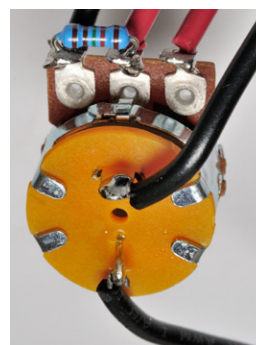
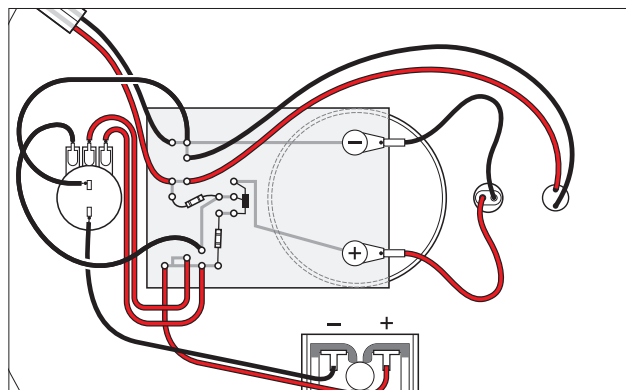
6. Unscrew the nut holding the sensitivity switch. Remove the switch from the faceplate.
7. Use the blue resistor to make a connection between the centre and right prongs on the switch. Solder in place. See photos.



Note: You do not require the resistor marked "3092" when replacing the sensitivity switch for a Mk1 Water Level Meter.

8. Install the new sensitivity switch through the faceplate. Position the three connection prongs opposite the battery tray and slightly towards the centre of the reel. Secure using the nut.
9. Strip the ends of the wires removed from the sensitivity switch by 3 - 4 mm, if required. Attach the wires to the correct positions by soldering:

The two red wires on the bottom of the circuit board are connected to the first two connections on the sensitivity switch. The black wire on the bottom of the circuit board is connected to the third prong on the sensitivity switch. The black wire closest to the top of the circuit board is attached to the prong on the top of the sensitivity switch. The other black wire connected to the top of the sensitivity switch is connected to the negative terminal on the battery tray. Use the diagram and photo below for reference.



10. Reconnect the tape to the circuit board using the Molex connector.
11. Replace the battery and test the Water Level Meter to ensure the connections are correct.
12. Fasten the sensitivity knob using the brass screw
13. Replace the faceplate, with three screws.

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