

# **Instruction for changing the Trailtech (13W) On-Off Switch to Water-Proof in-line Light Switch (push-button)**



**AA Portable Power Corp**

<http://www.batteryspace.com>

2700 Rydin Road unit C. Richmond, CA, 94804 USA.

Tel: 510-525-2328

Fax:510-439-2808



Below is the instruction on how to change the Trailtech 13W on-off switch to water proof in line light switch (push-button) provided by <http://www.batteryspace.com>

**Tool need:**

1. a solder iron
2. a pair of scissor
3. a wire stripper or Exacto knife
4. a spool of solder
5. a heat gun (if available)
6. on/off water proof in-line switch (part#BK-SWITCH )

1. Cut out the Trailtech in-line switch. Leave about 2.0" of wire still on the Trailtech male connector. (photo1)



Photo1

2. Strip about 1.0" off the outer shield wrapping of the light wire and the Trailtech male connector exposing the 2 wires inside. One is a positive (Red) and the other is a negative (Black) wires. (photo 2)



Photo2

3. Use a wire stripper to strip about ¼” off the plastic shielding of both negative and positive wire exposing the copper wire inside (photo 3 & 4)



Photo3

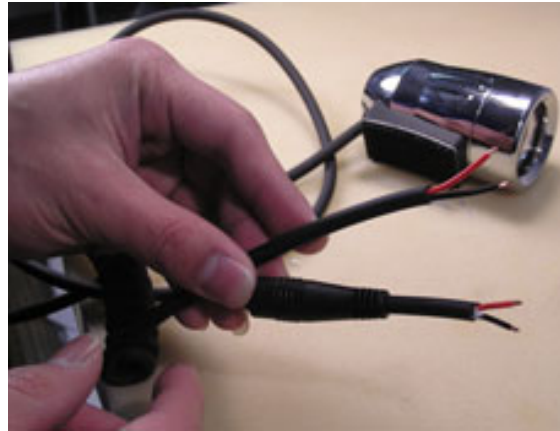


Photo4

4. Solder (tin) the tip of the copper wires with the soldering iron (photo 5). Photo 6 shows both the Trailtech male connector wires and the light wires after tinning.



Photo5

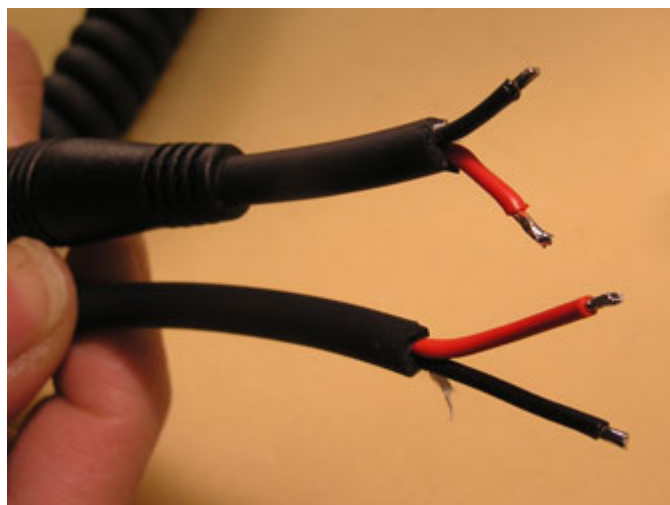


Photo6

5. Batteryspace.com will provide 3 pcs of 2.5mm (0.10") heat shrink and 3pcs of 8.0 mm (0.32") heat shrink rubber tube. (photo 7)



Photo7

5. Insert the 8.0 mm heat shrink rubber tube into the light wire (photo 8)



Photo8

6. Insert 2.5 mm heat shrink rubber tube (0.05" length) into the negative (Black) polarity of the light wire. (photo 9)



Photo 9

7. Solder the negative (black) polarity of the Trailtech male connector to negative (black) polarity of the light wire. (photo 10)



Photo 10

8. Apply hot air or use your solder iron to the junction of soldering point for shrinking the rubber tube. (photo 11 & 12)



Photo11

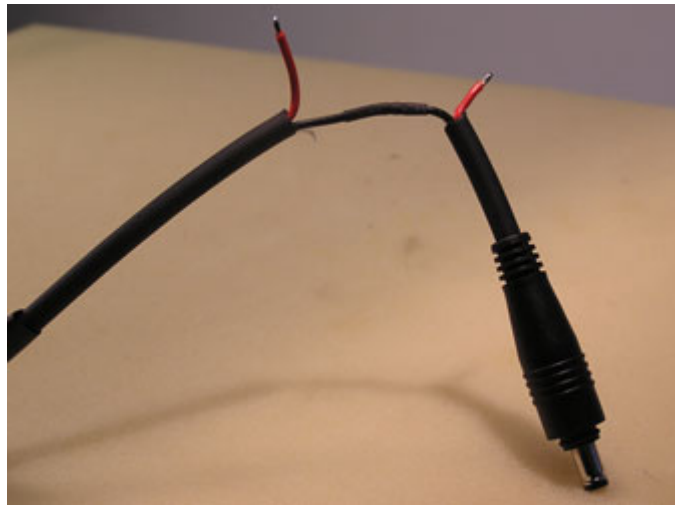


Photo12

9. Insert 2.5 mm heat shrink rubber tube (0.05" length) into the **B+ / + indicator** wire of the water proof in-line push button switch. (photo 13)



Photo13

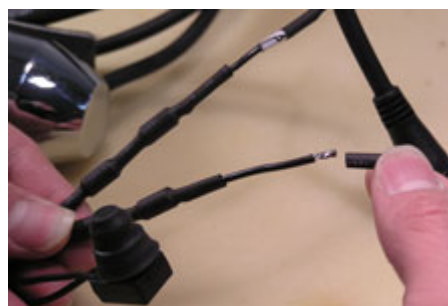
10. Solder the B+/**+** **indicator** wire of the water proof in-line push button switch to the **positive polarity (Red) of the Trailtech male connector.** – This is an important step, you must solder the switch according to what we stated otherwise it will **NOT** work correctly. (photo 14)



9. Apply hot air or solder iron to the junction of soldering point for shrinking the rubber tube. (photo 15)



10. Insert 2.5 mm heat shrink rubber tube into the “No B+/**+** indicator” wire of the water proof in-line push button switch. (photo 16)



11. Solder the “No B+ / No+ indicator” wire of the water proof in-line push button switch to the positive polarity (red) of light wire (photo 17)

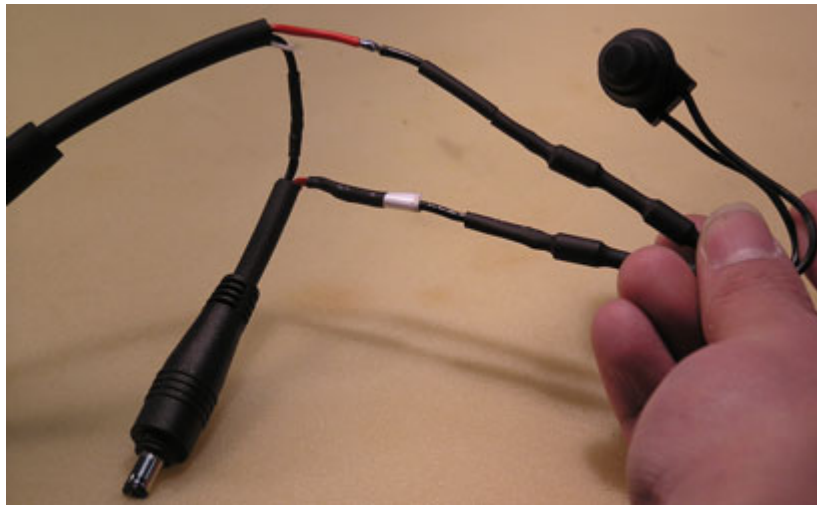


Photo 17

13. Apply hot air to the junction of soldering point for shrinking the rubber tube. (photo 18)



Photo18

14. Photo 19 showing all solder points completed



Photo19



15. Push the 8.0 mm heat shrink rubber tube to cover all soldering points. (photo 20)



Photo20

16. Apply hot air to the junction of soldering point for shrinking the rubber tube. (photo 21)



Photo21

17. Photo 22 shown a completed 13w Trailtech light with push button in line on off switch.



Photo22