

**SOLDERING INSTRUCTIONS**

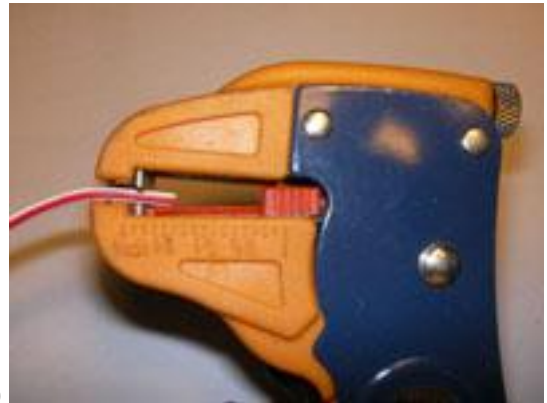
Soldering power cable to Micro Switch 12/24V and Proximity Switch 12/24V.

Wire Preparation.

1. In order to solder wire to the Micro/ Proximity Switch board, remove the wire insulation from the Red/Black Zip Cord.
2. Use wire stripper to precisely remove 3-4mm of insulation from the two cables simultaneously (Fig. 1, 2)



(Fig. 1)

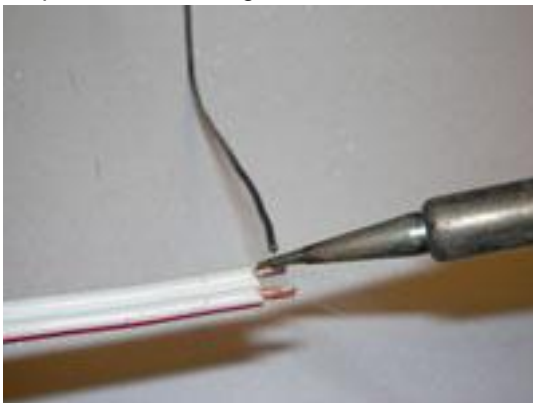


(Fig. 2)

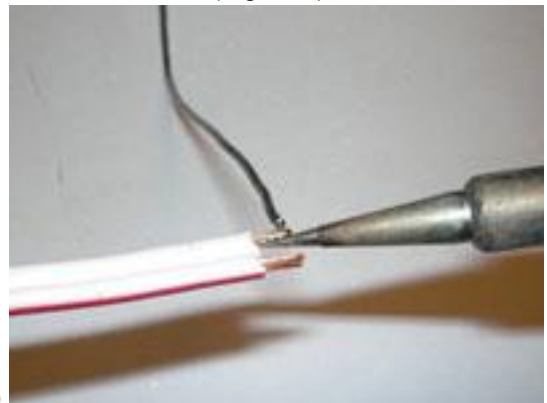
3. You can also pull the two cables apart and remove the insulation from each of them individually.
4. If the copper strand pulls apart during the insulation removal, spin them back together and coat with tin.

Tinning the insulated cable:

5. Apply soldering flux on the insulated cable
6. Heat the insulated cable with the tip of soldering iron for a few seconds
7. Continue heating while applying solder
8. Move the tip of the iron along the insulated cable so that it is covered in solder (Fig. 3, 4)



(Fig. 3)



(Fig. 4)

9. Remove excess amount of molten solder
10. The insulated cables should have a metallic sheen finish. Lack of sheen indicates that the tin was overheated. To fix, add the solder and remove the excessive amount.
11. Make sure the insulated cables are totally covered with tin. (Fig. 5, 6)
12. The length of tinned cables should be 3-4mm (Fig. 7)



(Fig. 5)



(Fig. 6)

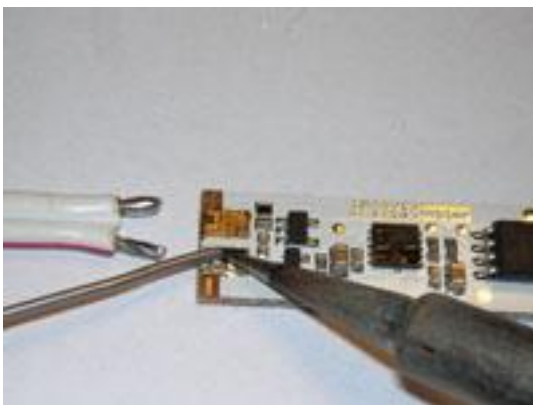


(Fig. 7)

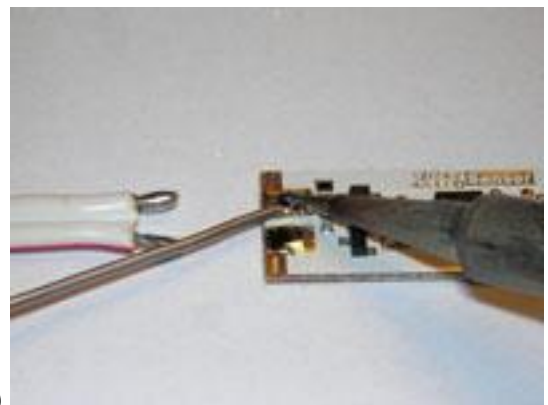
Soldering power cable to the switch board:

13. On the PCB board locate “+” positive and “-“ negative soldering spots
14. Apply a small amount of soldering flux on the joints
15. Heat the joints “+” and “-“with the tip of the iron for a few seconds while applying a short length of solder to the joint. (Fig. 8,9)

It is important to apply an appropriate amount of solder. Too much solder may cause short circuits with adjacent joints. Too little may not fully form a working connection joint. Sufficient amount of solder should create a small convex layer.



(Fig. 8)

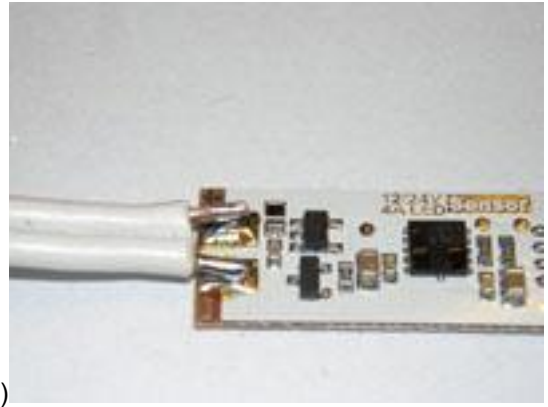


(Fig. 9)

16. Place the soldered tips of Red/Black Zip Cord on the “+” and “-” joints accordingly (red above the “+” and black above the “-“). (Fig. 10, 11)

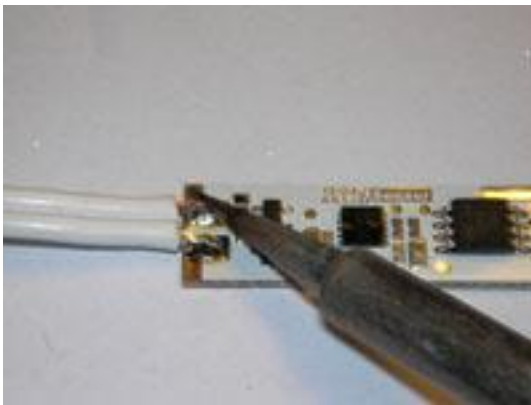


(Fig.10)

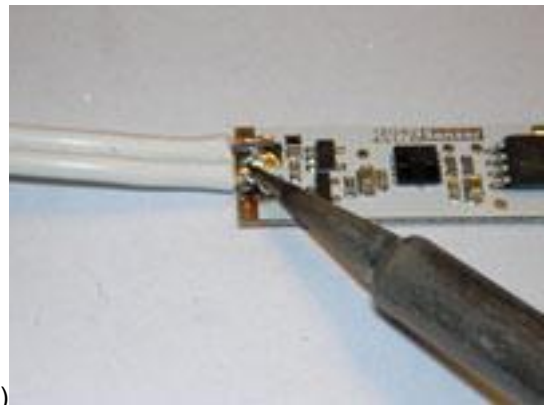


(Fig.11)

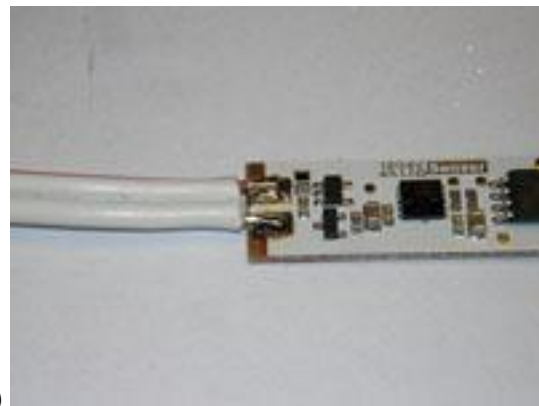
17. Press the tip of the iron against the soldered cords. The heat melts the tin applied on the joints soldering the cables to the switch board. Remove the iron and allow the joints to cool. (Fig. 12, 13 and 14)



(Fig.12)



(Fig. 13)



(Fig. 14)

It is important not to move the cable during the cooling time. Misplacing the cable may sufficiently weaken the soldering process causing the cable to disattach from the switch board.

During a long soldering process the tin on the joints may become matte and hard to solder. To fix, apply a small amount of soldering flux.

#### NOTES:

- Do NOT APPLY too much solder. It may cause short circuits with adjacent joints.
- Wires NEED TO be soldered to the designated soldering spots.
- Wires CANNOT be covered with an excessive amount of tin or touch nearby electrical elements and other soldering spots.