

This Service Document supersedes CD-24-90-001, dated July 9, 2024. This new revision, R1, updates the introduction preliminary information and the heat shrink tube figure, and adds a note for the blackout film tape removal. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

Introduction

This document provides third-party MV accessory information for the Cybertruck. It locates the roof accessory jumper harness and provides information to safely splice the off-road lightbar harness into the jumper harness for an off-road lightbar that is currently installed on the vehicle. These instructions should only be performed by trained professionals.

! **IMPORTANT:** Tesla employees are not permitted to connect or assist with the connection of the Cybertruck off road lightbar harness to the roof accessory jumper harness. You are responsible for using these instructions to complete the lightbar harness connection yourself.

! **CAUTION:** Splicing the off-road lightbar harness into the jumper harness incorrectly may damage the lightbar.

! **CAUTION:** Always refer to the Service Manual for the most up-to-date instructions to disconnect and reconnect MV power (refer to Service Manual procedure [17010200](#)). The instructions in this document are generalized and may not be applicable to your vehicle due to build date, configuration changes, and/or market status.

Cybertruck vehicles are equipped with a roof accessory jumper harness (Figure 1), located under the RH roof applique. The purpose of this jumper harness is to provide a permanent power supply (24 - 58V) for Tesla or third party vehicle accessories.



Figure 1 – Roof accessory jumper harness

Tools and Consumables Required

Description
Electrical tape
Flashlight LED
Harness tape
Heat gun
Inflatable air bag
Plastic trim tool
Retractable blade knife
Scissors
Small flat head screwdriver
Solder wire
Soldering iron
Soldering tip
Sponge
Wire stripper

Off Road Lightbar Harness Connect Procedure

1. If required, retrofit the off road lightbar (mount on windshield only) (refer to Service Manual procedure [61010006](#)).
2. Disconnect MV power (refer to Service Manual procedure [17010200](#)).
3. Use a plastic trim tool to release the tabs (x4) that attach the front end of the RH roof applique to the vehicle (Figure 2).



Figure 2 – RH roof applique

- Place the inflatable airbag under the RH roof applique, and then inflate the airbag as required to partially release the applique from the vehicle for access to the roof accessory jumper harness (Figure 3).



Figure 3

- Use a pair of scissors to carefully cut and remove the electrical and harness tape from the roof accessory jumper harness (Figures 4 and 5).

⚠ CAUTION: Do not cut or damage the jumper harness.



Figure 4 – Electrical and harness tape

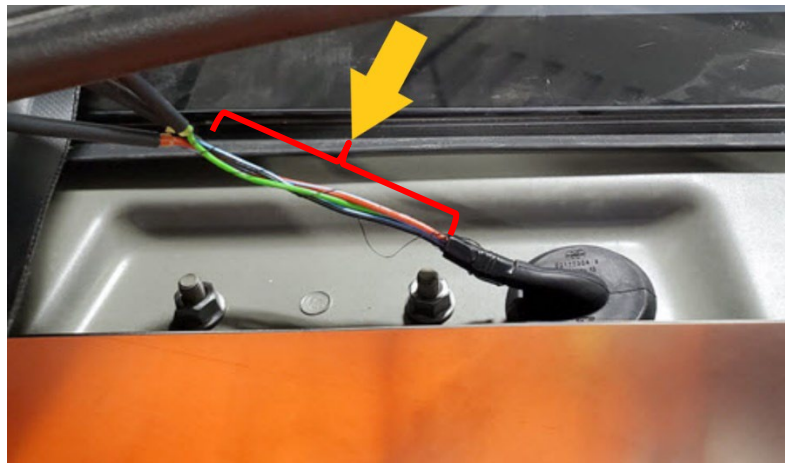


Figure 5 – Roof accessory jumper harness with tape removed

6. Use a small flat head screwdriver to release the grommet that attaches the roof accessory jumper harness to the vehicle (Figure 6).

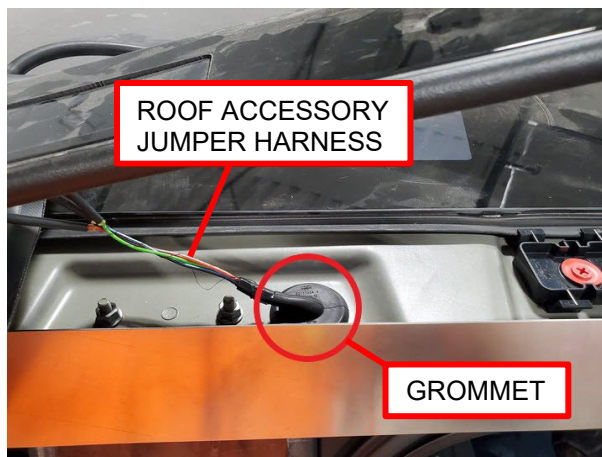


Figure 6

7. Rotate the roof accessory jumper harness clockwise towards the front of the vehicle (Figures 7 and 8).



Figure 7

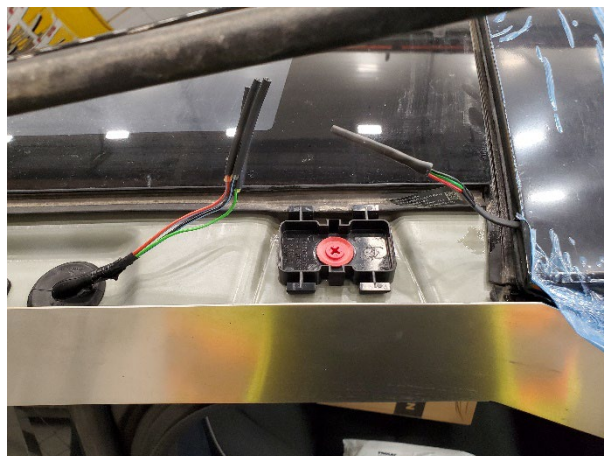



Figure 8

8. Reinstall the grommet that attaches the roof accessory jumper harness to the vehicle (Figure 6).
9. Prepare the soldering and splicing tools and consumables for the following steps as required.

10. Prepare the off road lightbar jumper and heat shrink tubes (x6) for installation (Figure 9).

 **NOTE:** The off road lightbar jumper may come with a green or blue Local Interconnect Network (LIN) wire. Make note of this for the jumper connection steps later in this procedure.

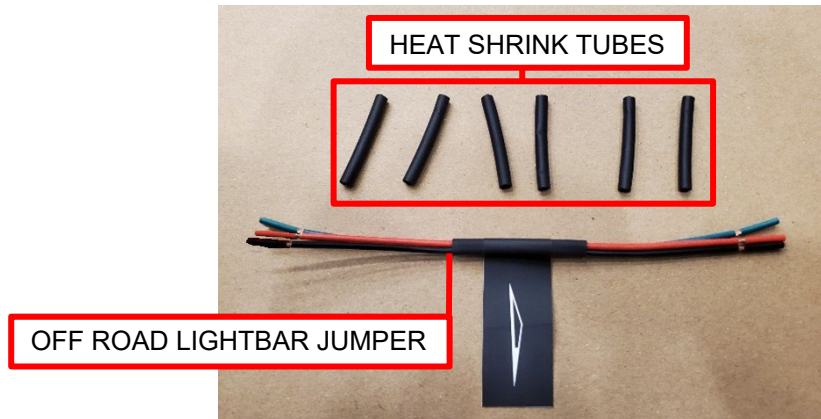



Figure 9

a. Remove and discard the pre-cut insulation from the off road lightbar jumper wire ends (x6) (Figure 10).

 **NOTE:** The off road lightbar jumper sleeve is shown removed from the jumper for the remainder of this procedure for clarity purposes. Do not remove the jumper sleeve from the jumper at any point.

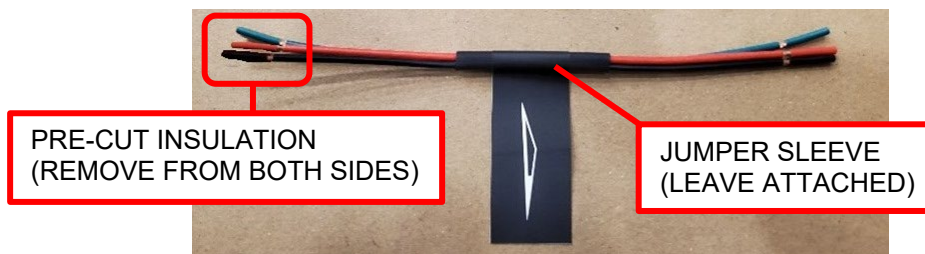


Figure 10

11. Remove and discard the protective caps (x6) from the roof accessory jumper harness wire ends (x3) and the off road lightbar harness wire ends (x3) (Figure 11).

⚠ CAUTION: Failure to properly disconnect MV power prior to splicing into the MV power circuit can result in damage to the vehicle or the MV battery. Tesla is not responsible for any damage to the vehicle or MV battery.

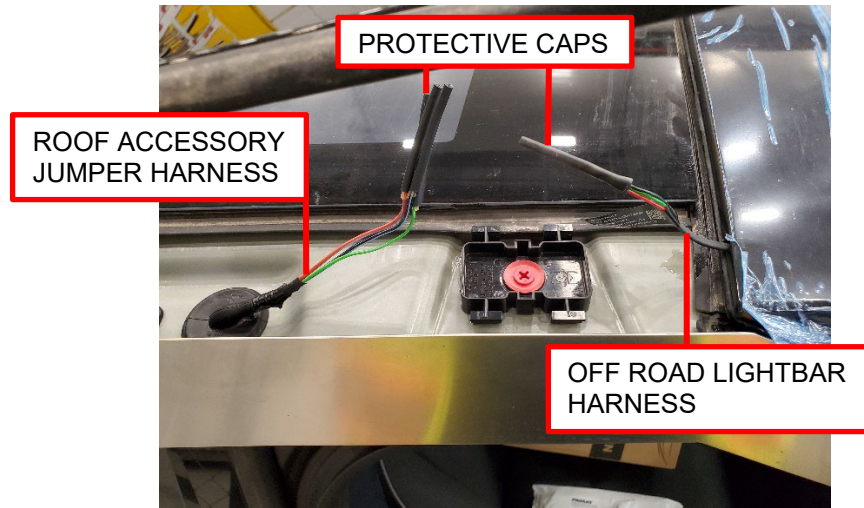


Figure 11

12. Use a wire stripper to strip approximately ½ inch of insulation from the roof accessory jumper harness wire ends (x3) and the off road lightbar harness ends (x3) (Figure 12).

⚠ WARNING: Wear appropriate Personal Protective Equipment (PPE) including cut-resistant gloves and safety glasses when performing this step.

⚠ CAUTION: Do not cut or damage the harness wires while removing the insulation.

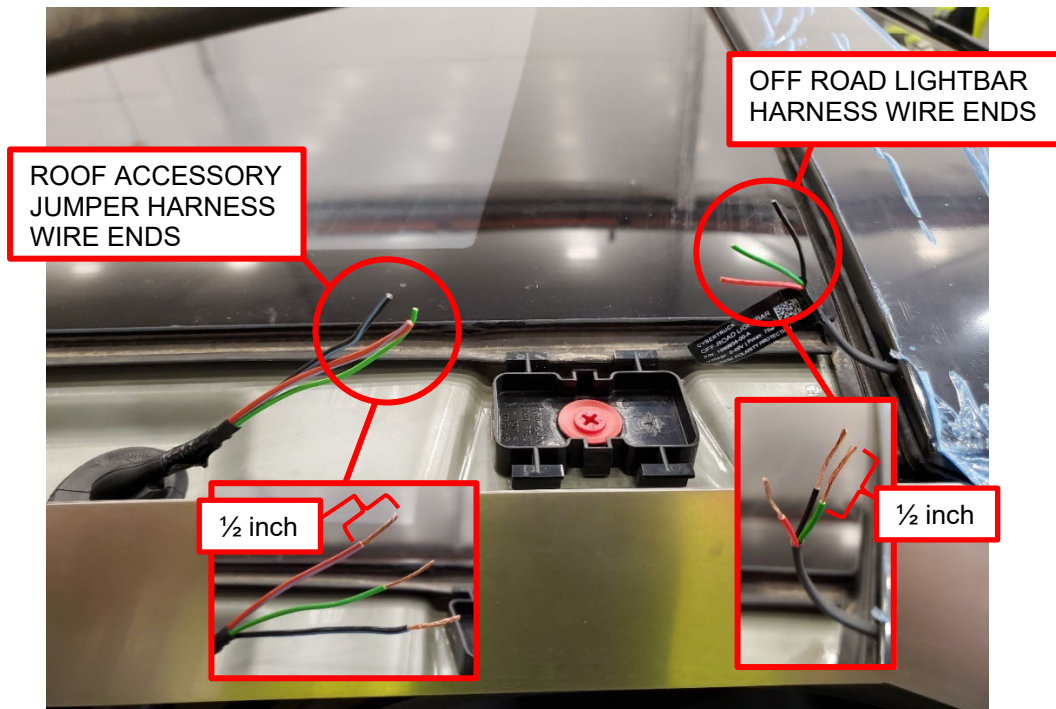


Figure 12

13. Prepare to install the off road lightbar jumper wires (x3) to the roof accessory jumper harness according to the wiring configuration diagram (Figure 13).

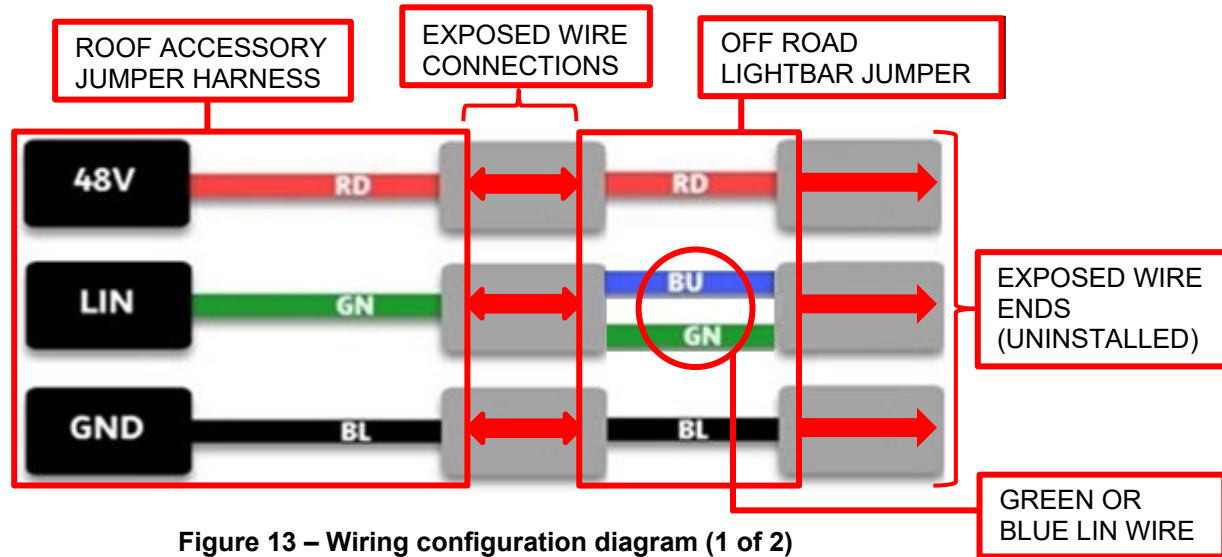


Figure 13 – Wiring configuration diagram (1 of 2)

14. Carefully wrap the roof accessory jumper harness wire ends (x3) around the off road lightbar jumper wire ends (x3) (Figure 14).

⚠ CAUTION: Splicing the off-road lightbar harness into the jumper harness incorrectly may damage the lightbar.

📄 NOTE: Make sure that the wire ends are properly secured and wrapped evenly.

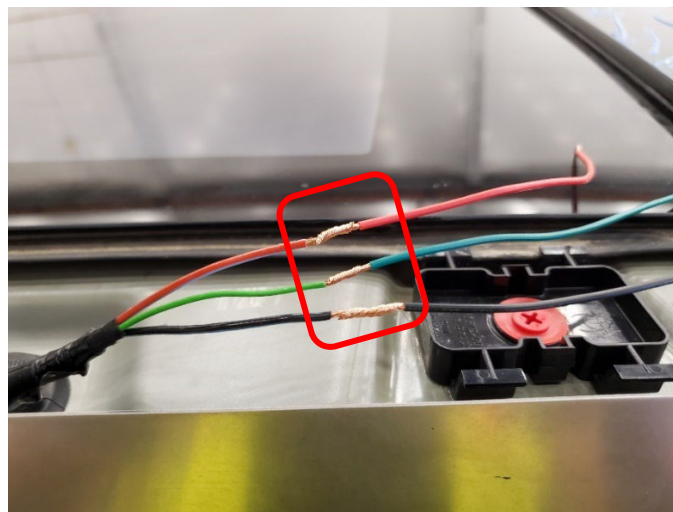



Figure 14

15. Put on cut-resistant mechanic's gloves or other heat-resistant gloves.
16. Protect all surfaces that can be damaged by heat from the soldering iron.

⚠ WARNING: Always read and understand the soldering iron operator's manual before using it to solder or shrink heat shrink tubing.

⚠ CAUTION: Do not use the soldering iron in an area where surrounding surfaces, materials, or components could be damaged by hot air.

17. Use the wire harness repair kit to solder the roof accessory jumper harness and the off road lightbar jumper connections (x3) (Figure 14).
 - a. Make sure that the wires are free of dirt and grease.
 - b. Install the soldering tip on the soldering iron.
 - c. Turn on the soldering iron and allow it to fully warm up.
 - d. Clean the tip of the soldering iron with a damp sponge.

 **NOTE:** Replace the tip if it does not have a shiny appearance, or if solder does not melt on the tip when it is fully warmed up.

- e. Apply a small amount of solder to the tip of the soldering iron.
- f. Use the soldering iron to apply solder onto the wires (x3) (Figure 15).

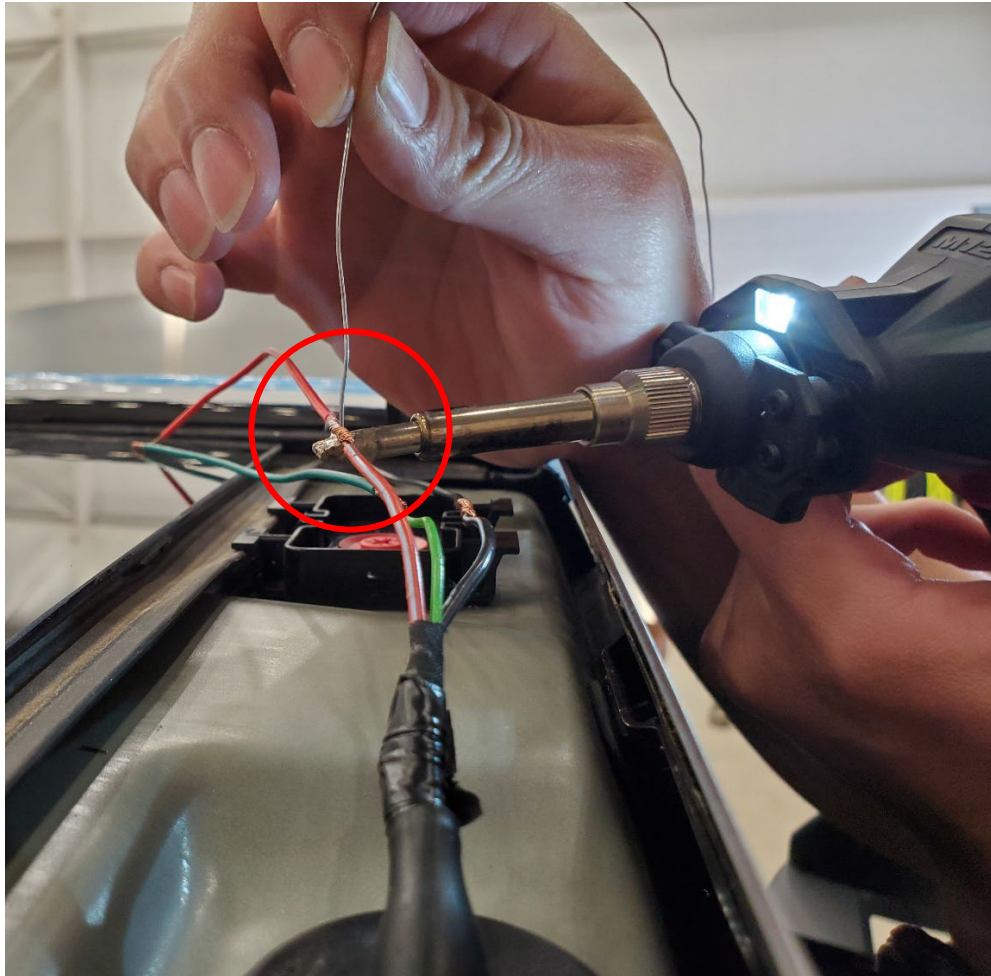


Figure 15 – Solder application

- g. Stop applying solder when it evenly covers the outer surfaces of the wires (Figure 16).

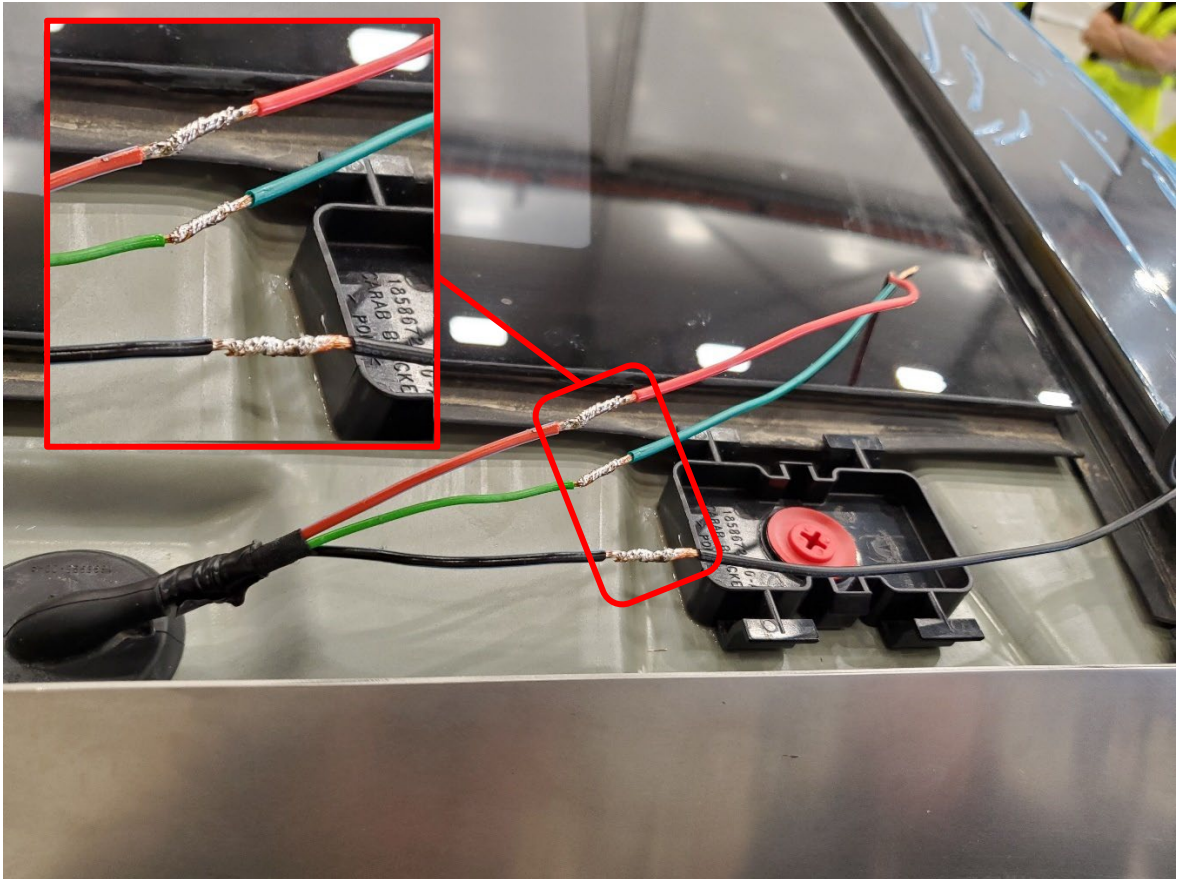


Figure 16 – Correct solder application

- h. Remove the soldering iron from the wires before the solder wicks into the wire insulation or the soldering iron overheats the insulation.
- i. Hold the solder connections still while returning the soldering iron to a safe location.
- j. Turn off the soldering iron and allow it to cool down.

⚠ CAUTION: Heating the soldering iron unnecessarily degrades the surface of the soldering tip.

18. Inspect the solder connections. If the solder is in a spherical shape, or did not evenly flow across the wires, the soldering iron was not hot enough, repeat step 17.

19. Slide the heat shrink tubes (x3) over the roof accessory jumper harness and the off road lightbar jumper connections (x3), aligning the center of the tubes with the center of the connections (Figure 17).

⚠ CAUTION: Do not skip this step. The procedure will have to be repeated if the wires are spliced without installing the heat shrink tubes on the wires.

⚠ CAUTION: Make sure the soldered wires have cooled down before sliding the heat shrink tubes over the jumper connections.

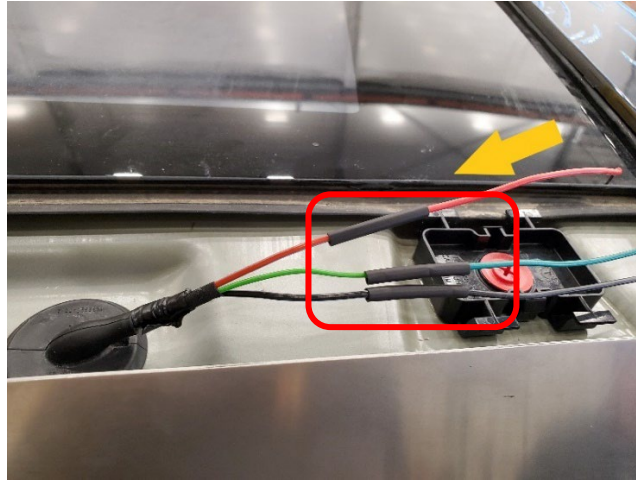


Figure 17 – Heat shrink tube position (1 of 2)

20. Once the soldering tip has cooled, remove it from the soldering iron and install the flame tip and deflector tip.

⚠ WARNING: Make sure that the soldering tip has cooled completely before removing it.

21. While continuously moving the soldering iron or heat gun in a left-to-right motion, apply heat over the length and diameter of the heat shrink tubes (x3) to affix the tubes to the wires connections (x3) (Figure 18).

⚠ CAUTION: Avoid overheating any specific section of the heat shrink tubes or wiring. Any discoloration of the wiring insulation indicates overheating.



Figure 18 – Correct heat application
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22. Turn off the soldering iron and return it to a safe location.
23. Allow the heat shrink tubes (x3) and wires to cool.
24. Inspect the heat shrink tubes (x3) to make sure that the tubes are fully sealed and bonded to the wire insulation (Figure 19).

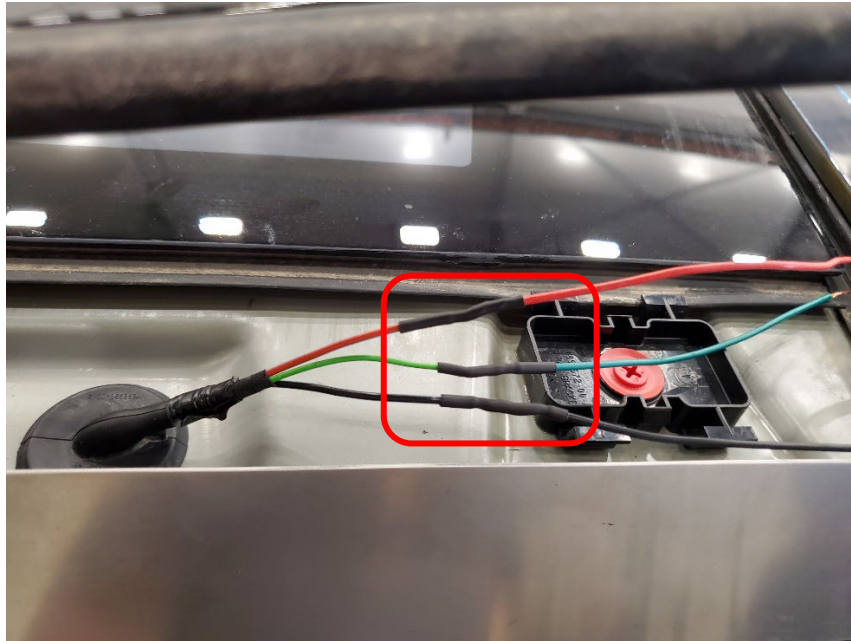


Figure 19 – Heat shrink tubes correctly installed

25. Prepare to install the off road lightbar jumper wires (x3) to the off road lightbar harness according to the wiring configuration diagram (Figure 20).

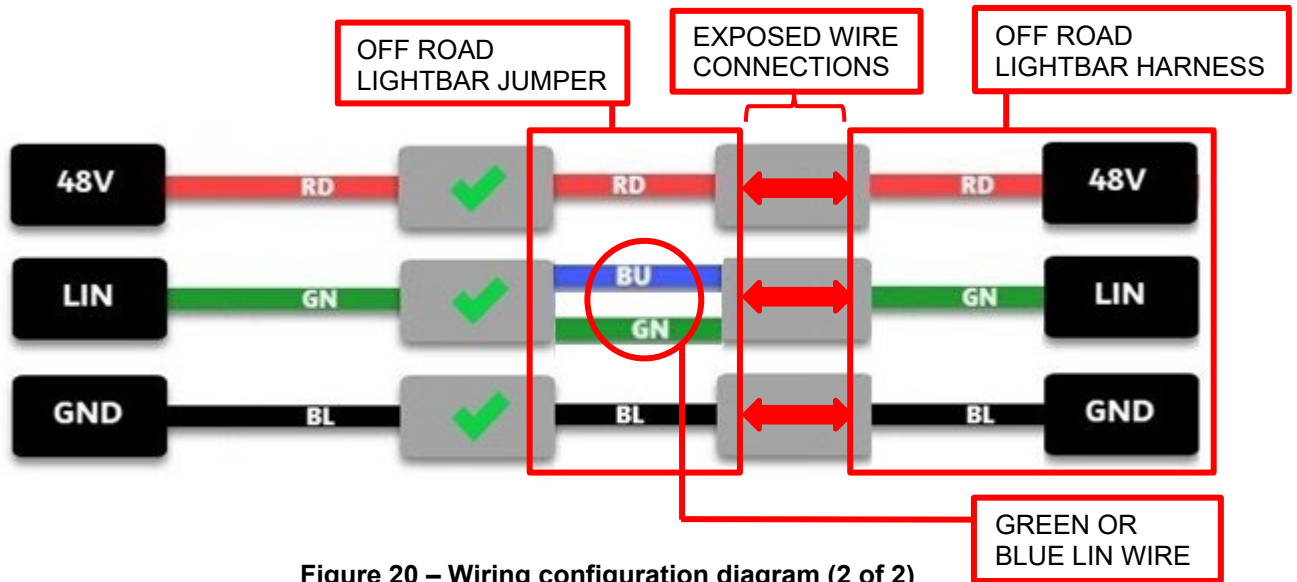


Figure 20 – Wiring configuration diagram (2 of 2)

26. Slide the remaining heat shrink tubes (x3) over the off road lightbar jumper wires (x3) and move them aside (Figure 21).

⚠ CAUTION: Do not skip this step. The procedure will have to be repeated if the wires are spliced without installing the heat shrink tubes on the wires.

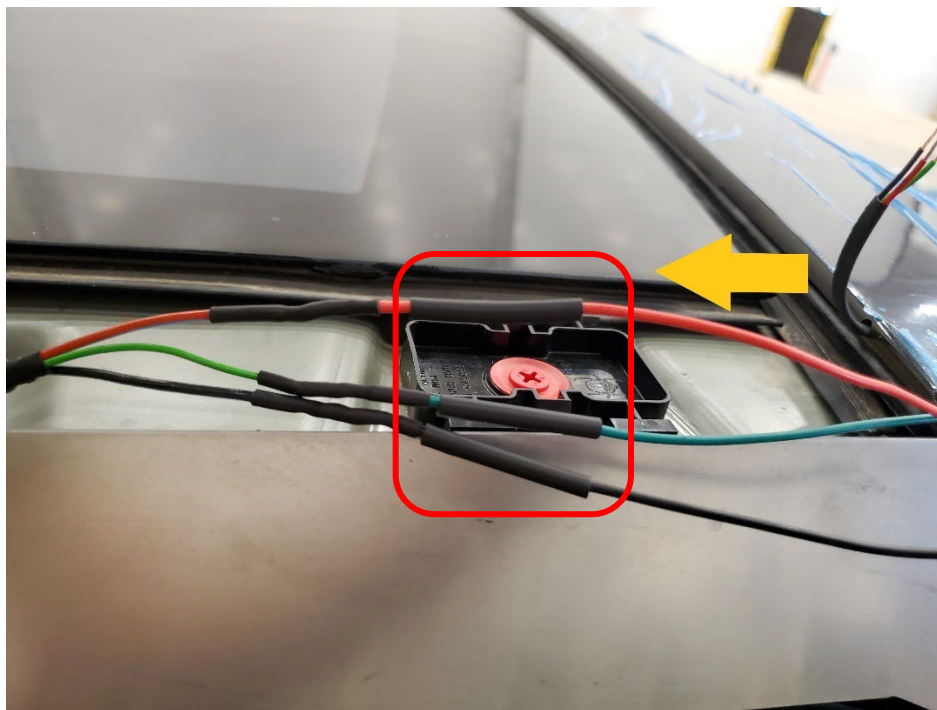


Figure 21 – Heat shrink tube position (2 of 2)

27. Repeat steps 14 through 24 for the remaining off road lightbar jumper wire ends (x3) and the off road lightbar harness wire ends (x3) as required (Figures 22 through 26).

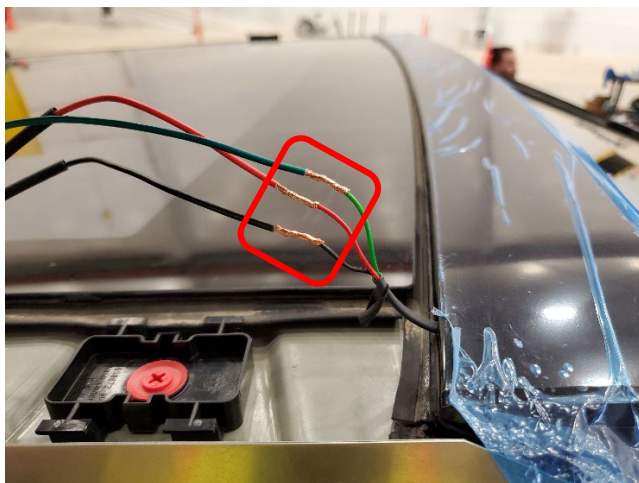


Figure 22

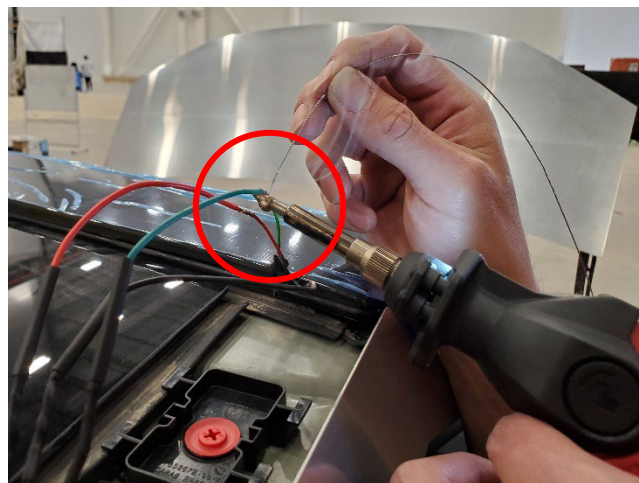


Figure 23

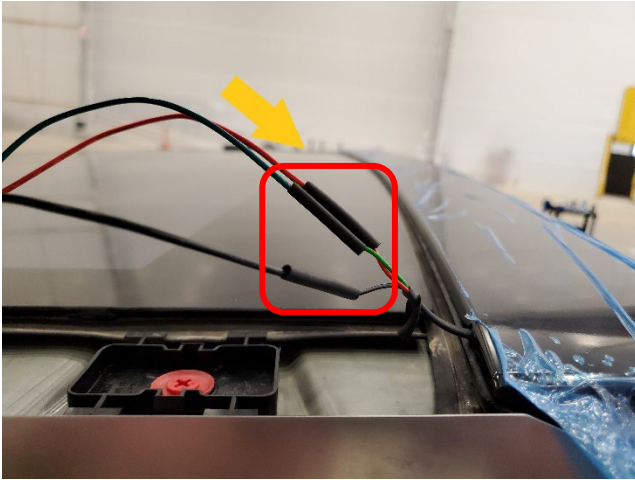


Figure 24

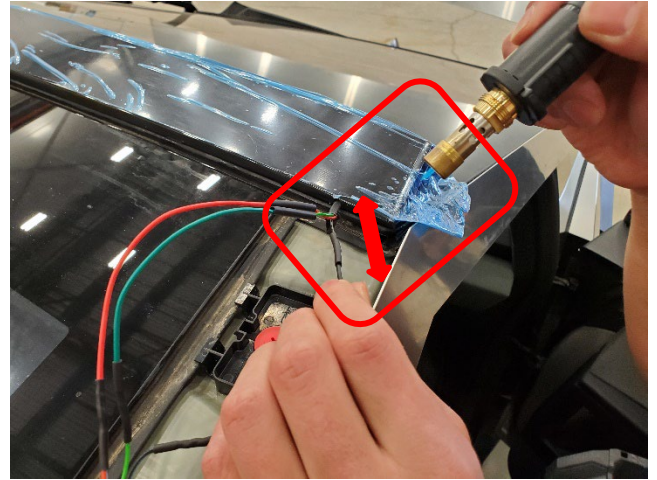


Figure 25

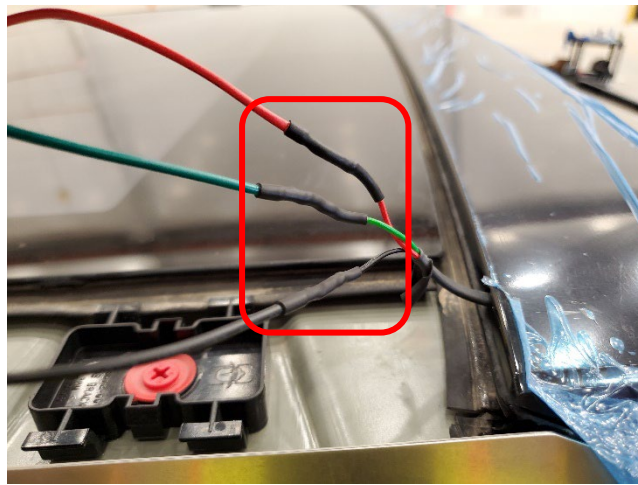


Figure 26

28. Wrap the entire off road lightbar harness and splice areas with electrical tape (Figures 27 and 28).

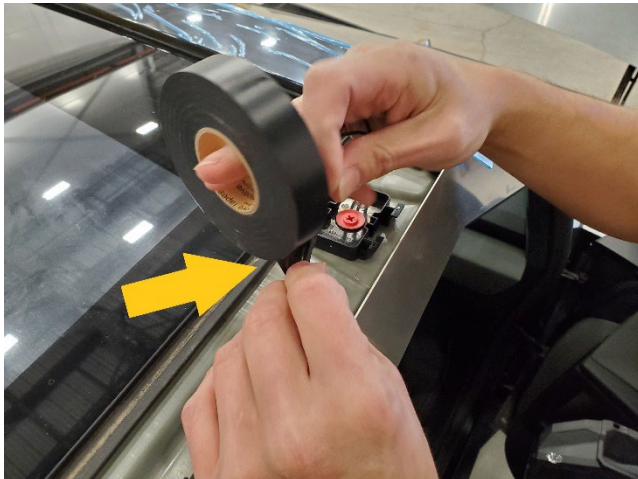


Figure 27

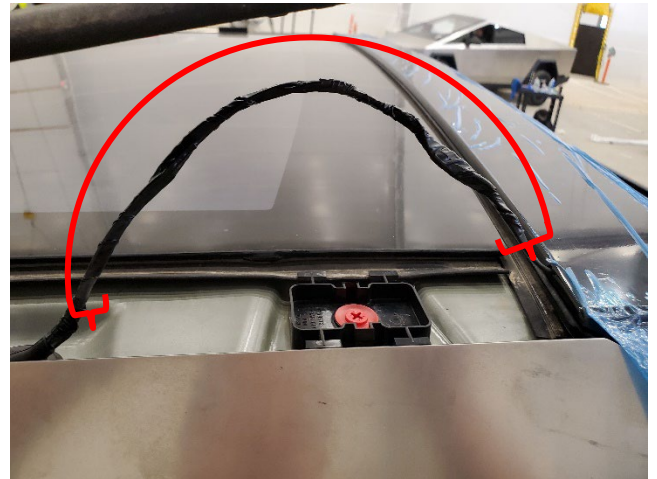


Figure 28

29. Wrap the entire off road lightbar harness and splice areas with new harness tape (Figures 29 and 30).

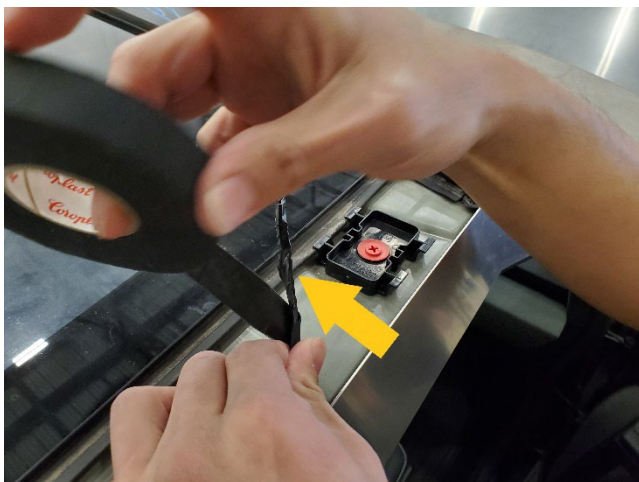


Figure 29

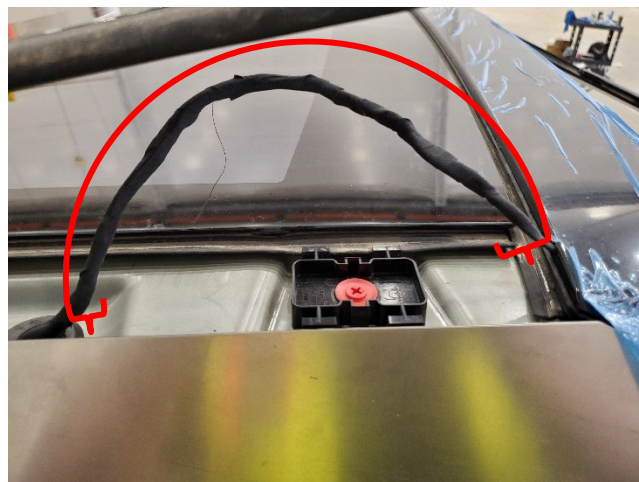


Figure 30

30. Route the off road lightbar harness as required to prevent pinching or rubbing when the RH roof applique is reinstalled, and then use harness tape to secure the harness to the vehicle (Figure 31).

! CAUTION: Make sure that the harness is adequately supported or restrained to prevent future damage.



Figure 31 – Correct harness routing

31. Deflate and remove the inflatable airbag from the RH roof applique (Figure 3).

32. Install the tabs (x4) that attach the front end of the RH roof applique to the vehicle (Figure 2).

33. Remove the blackout film tape from the off road lightbar (Figure 32).

NOTE: If the blackout tape is not removed, the light will be blocked.



Figure 32 – Blackout film tape removal

34. Connect MV power (refer to Service Manual procedure [17010200](#)).

35. On the vehicle touchscreen, touch **Controls** (vehicle icon) > **Software**, and then scroll down to display the vehicle software version.

- If the vehicle is operating with a software version earlier than 2024.14.3, update the software to version 2024.14.3 or later (refer to Service Manual procedure [00020003](#)), and then continue to step 36.
- If the vehicle is operating with software version 2024.14.3 or later, continue to step 36.

36. Press and hold the brake pedal, and then shift the vehicle into Drive.

CAUTION: Make sure that the brake pedal remains pressed until instructed to shift the vehicle into Park.

37. On the vehicle touchscreen, select **Controls** (vehicle icon) > **Outlets & Mods** > **Power Feed (Roof)** to enable the roof power feed (Figure 33).

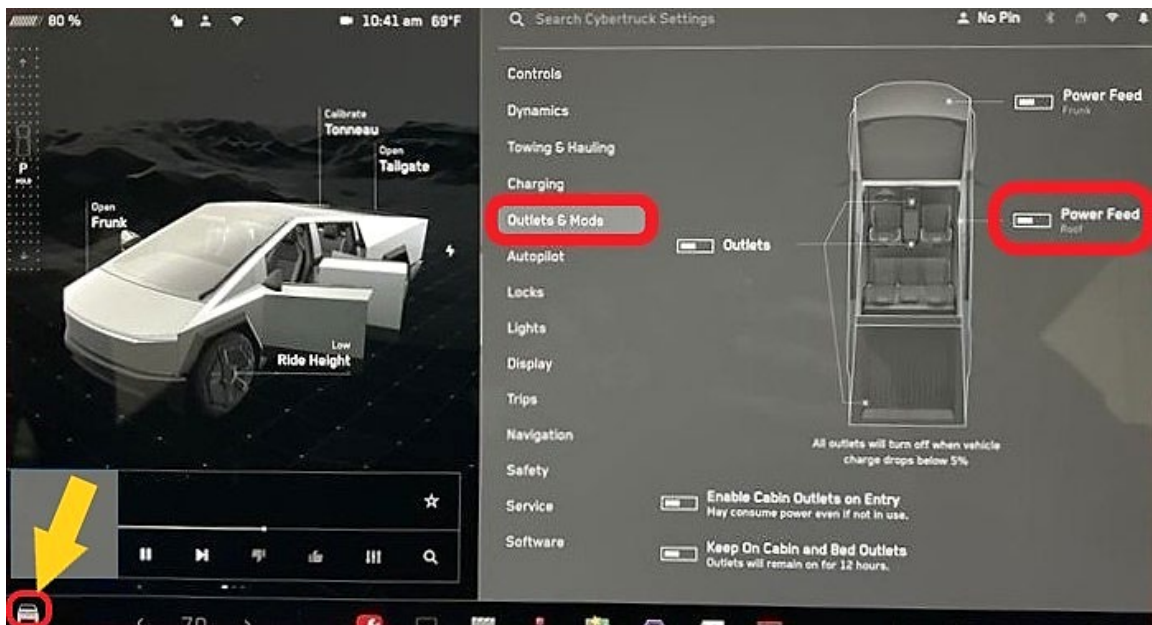


Figure 33

38. Shift the vehicle into Park, and then release the brake pedal.
39. Exit the vehicle and allow the lightbar configuration update to complete. Verify the “Light Bar Installation Complete” window appears on the vehicle touchscreen once the routine is complete (Figure 34).



Figure 34