

SAFETY RECALL

Mack Trucks Inc.

Greensboro, NC USA



Release Date	Number	Release	Page
06.2023	SC0444	01	1(3)

LRBE Electric Heater Relay Torque

RECALL INFORMATION

Mack Trucks has determined that certain 2019-2023 model year LRBE vehicles have the risk of the Energy Storage System (ESS), Electric Heater Relays power cables having insufficient torque. Insufficient torque on the power cables to relays may result in a relay failure which could continue to power the cabin heater. Relay failure and overheating could result in a vehicle fire.

Mack Trucks has not received any complaints or reports of vehicle crashes because of this safety issue; therefore, Mack considers this as a proactive measure to protect the public and Mack's customers from the potential risk associated with this defect.

To ensure that these vehicles meet Mack's stringent quality requirements, follow the instructions outlined below to check and confirm that the ESS electric heater relays power cables torque is to specification.

VEHICLES AFFECTED

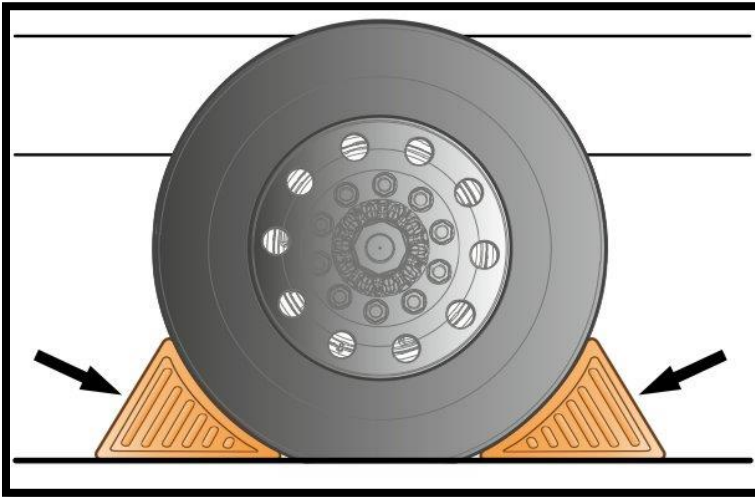
Certain Mack LR Battery Electric Vehicles manufactured between September 17, 2018, and December 14, 2022.

VEHICLE QUANTITY

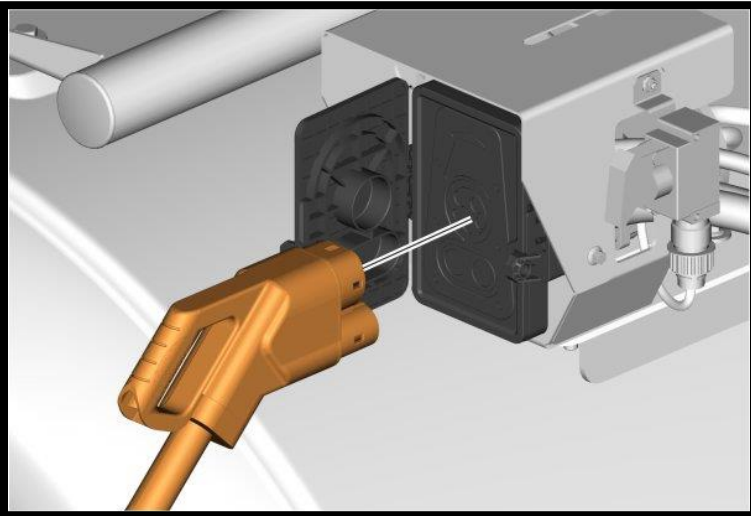
There are 52 vehicles affected by this recall. (47 US, 5 Canada)

Repair Instructions

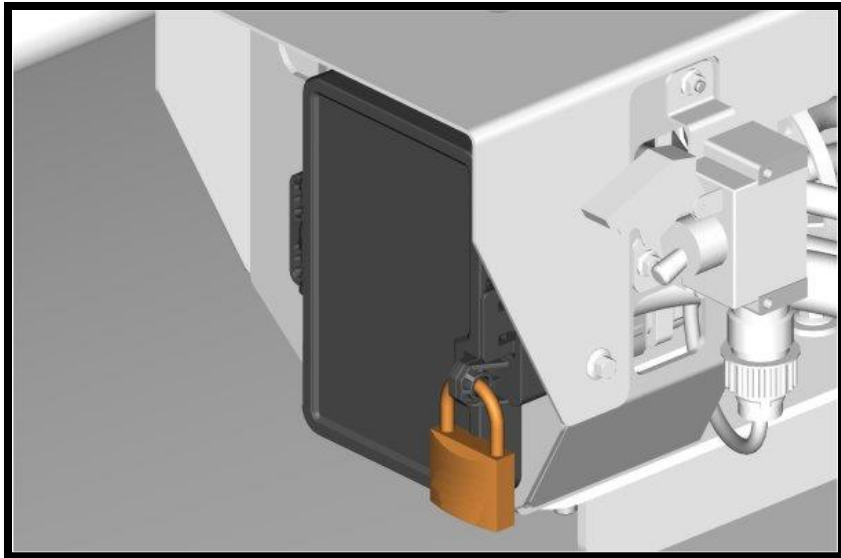
1. Apply the parking brake.
2. Place the gear selector in neutral.
3. Remove the power key.
4. Safeguard the key.
5. Install the wheel chocks.



6. Disconnect all external power supply or charging devices.



- 7. Lock the access to the CCS (Combined Charging System).

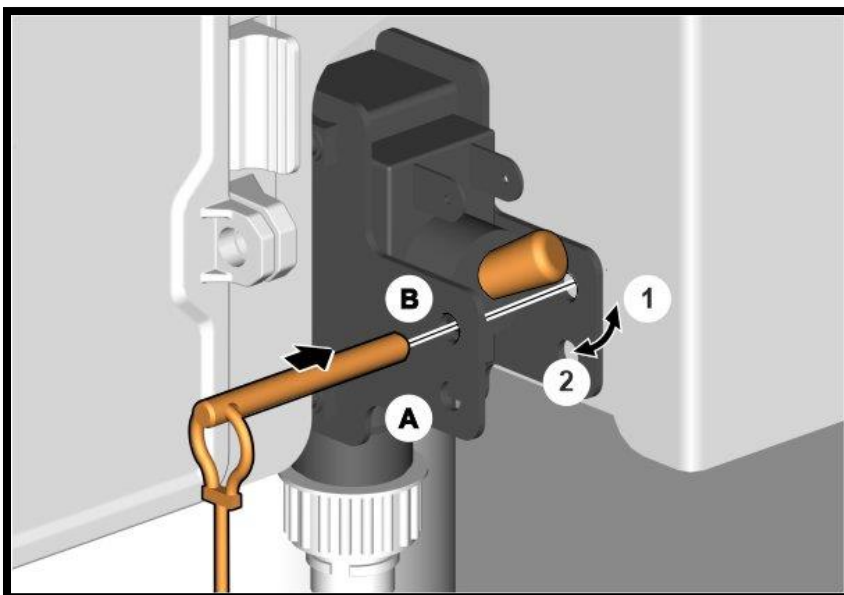


- 8. Set the chassis switch to position (1).

Switch, position

Position	Status
1	OFF
2	ON

- 9. Remove the safety pin from the slot (A) and install in the slot (B).



 **DANGER**

Risk of serious injury or death.

A cab that is not tilted to the end position constitutes a safety risk.

- ▶ It is forbidden to work in, under or in front of a cab that is not fully tilted.
- ▶ No persons are to remain in, under or in front of the cab while tilting is in progress.
- ▶ Always tilt the cab to the end position.

 **CAUTION**

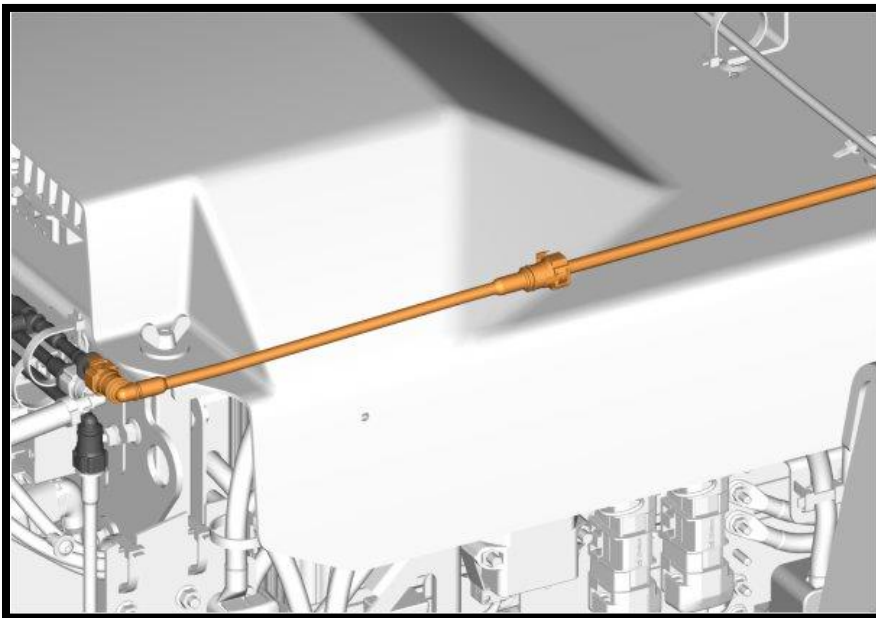
Risk of material damage.

Failure to secure loose material in the cab, to close all the doors and to have adequate space in front of the vehicle before tilting the cab may result in material damage.

- ▶ Secure all loose material within the cab before tilting.
- ▶ Ensure that all the doors are closed.
- ▶ Make sure that there is adequate space in front of the vehicle before tilting the cab.

10. Tilt the cab forward.

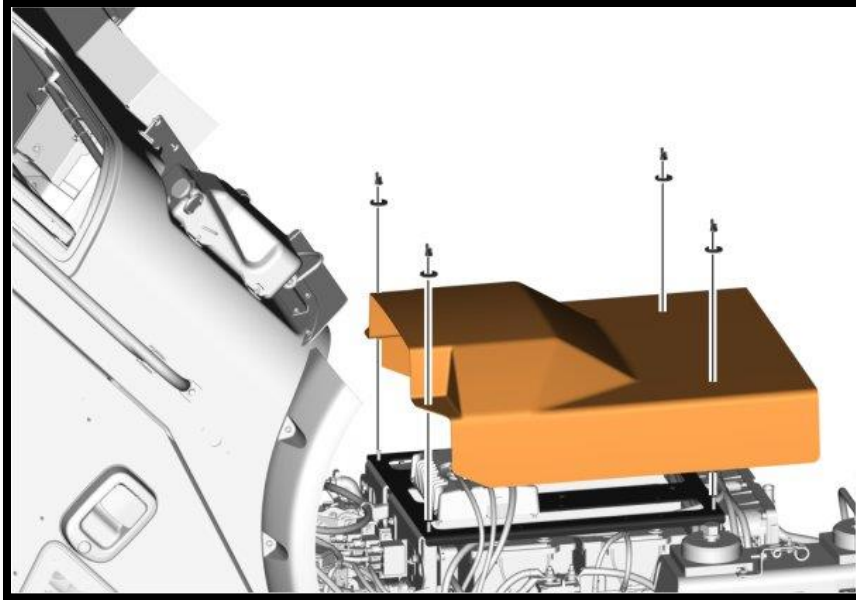
11. Move aside the hose.



12. Remove the wing nuts.

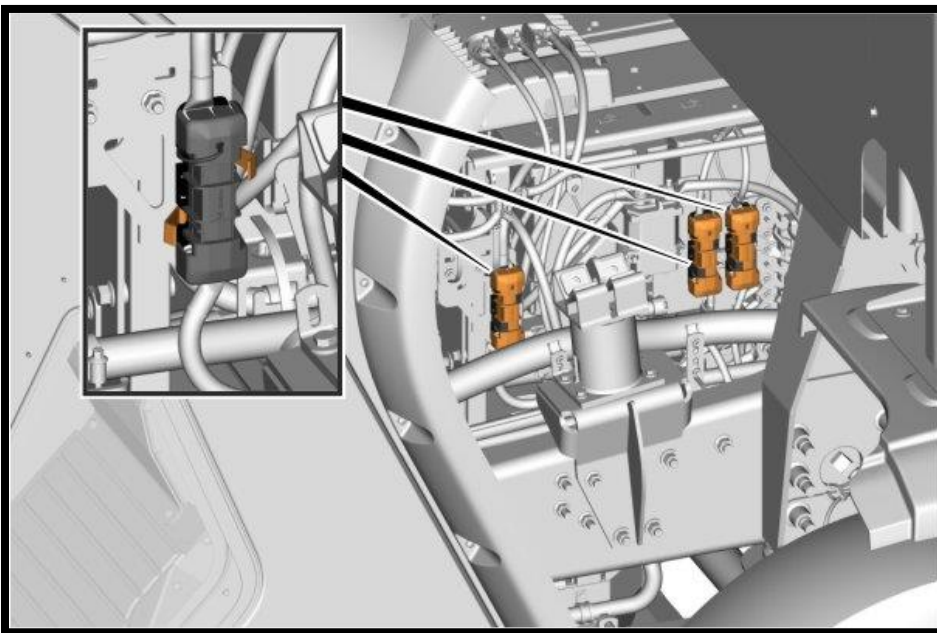
13. Remove the washers.

14. Remove the cover.



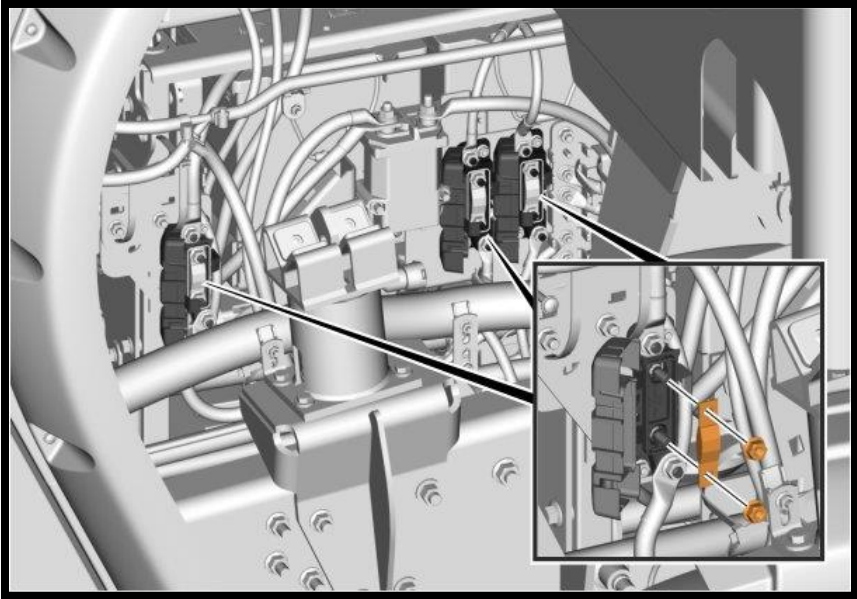
15. Release the clips.

16. Remove the covers.

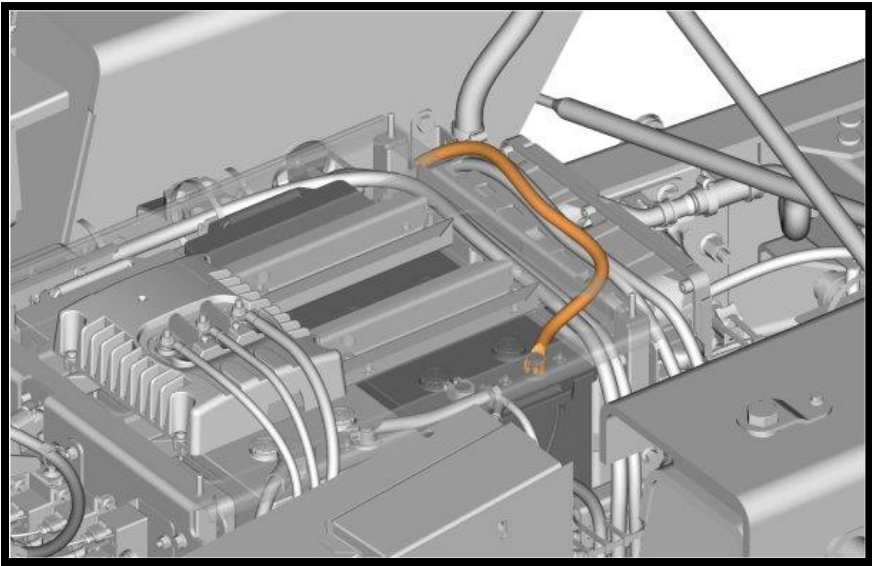


17. Remove the nuts.

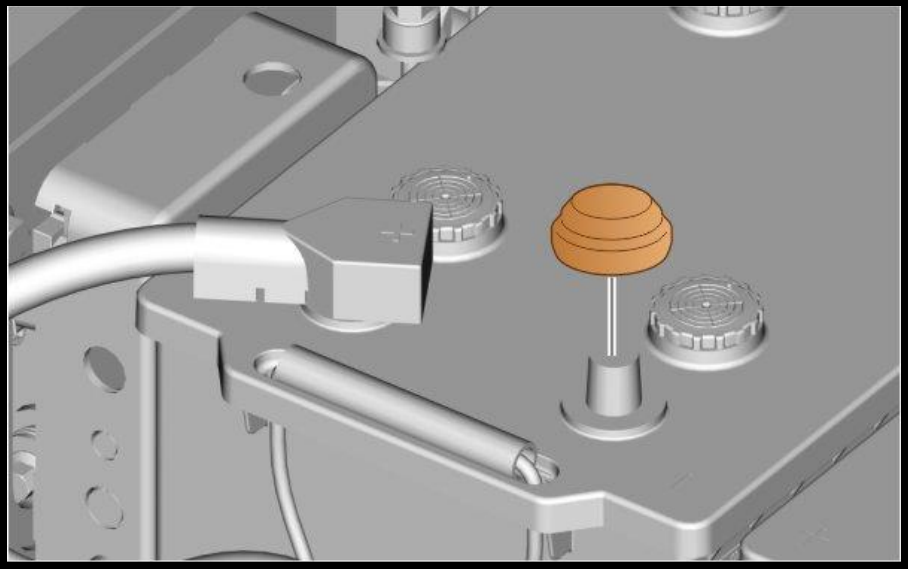
18. Remove the fuses.



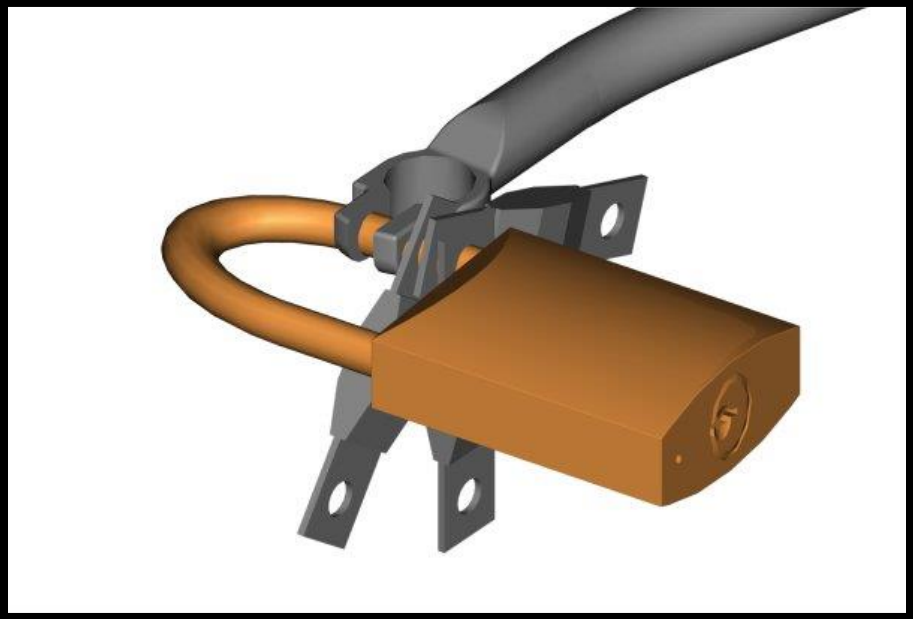
19. Disconnect the cable from the negative terminal.



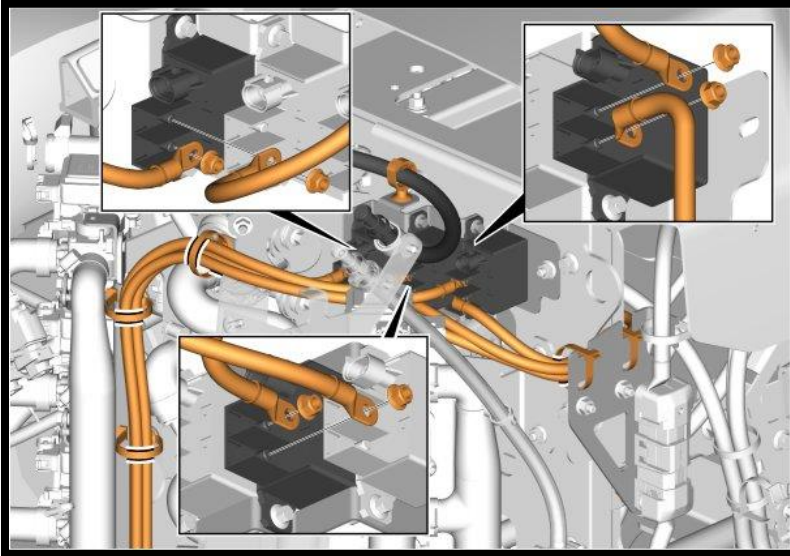
20. Install the plug.



21. Lock the negative terminal along with the fuses.



22. Remove relay nuts and remove power cables.

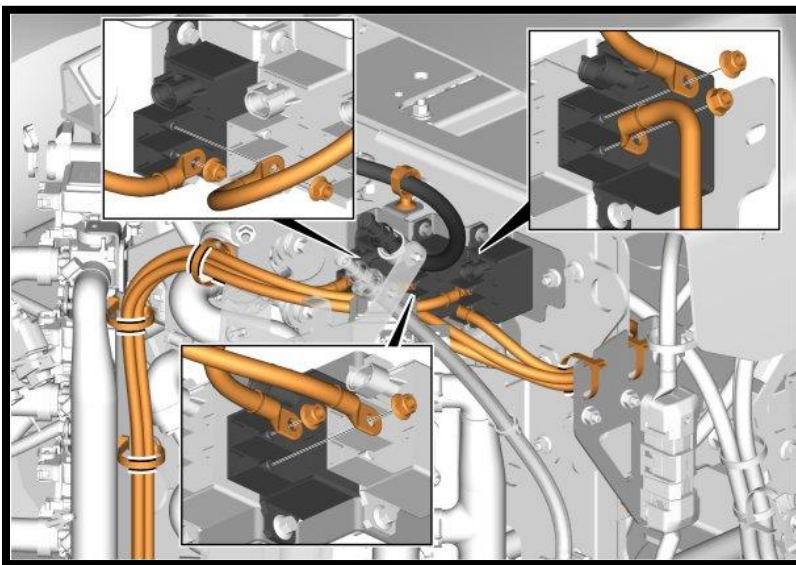


23. Inspect cable and mating surface to ensure and clean connection.

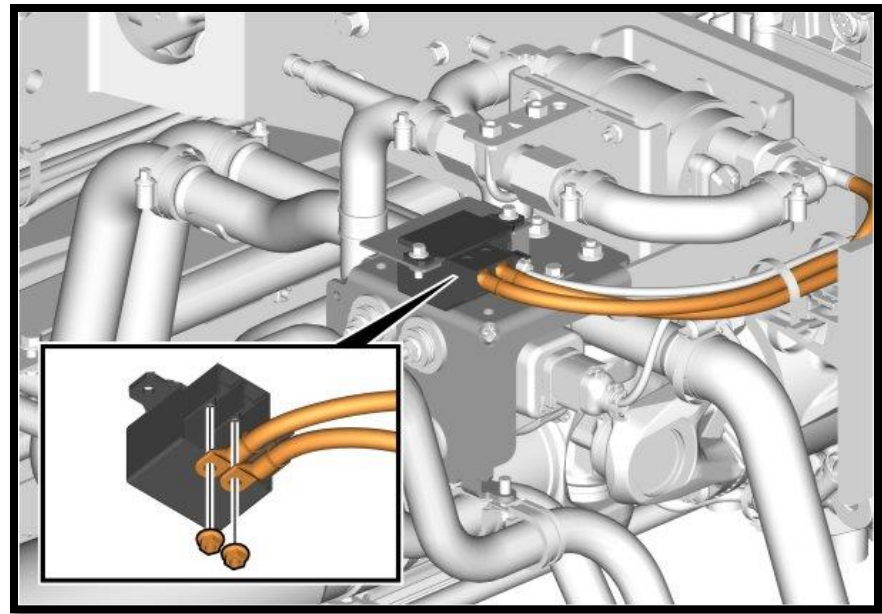
24. Reinstall relay power cables and nuts.

25. Torque relay power cable nuts to specification below.

Tightening torque	
Cable terminal, relay, nut	7.5 \pm 0.5 Nm (6 \pm 0.4 lb _r -ft)

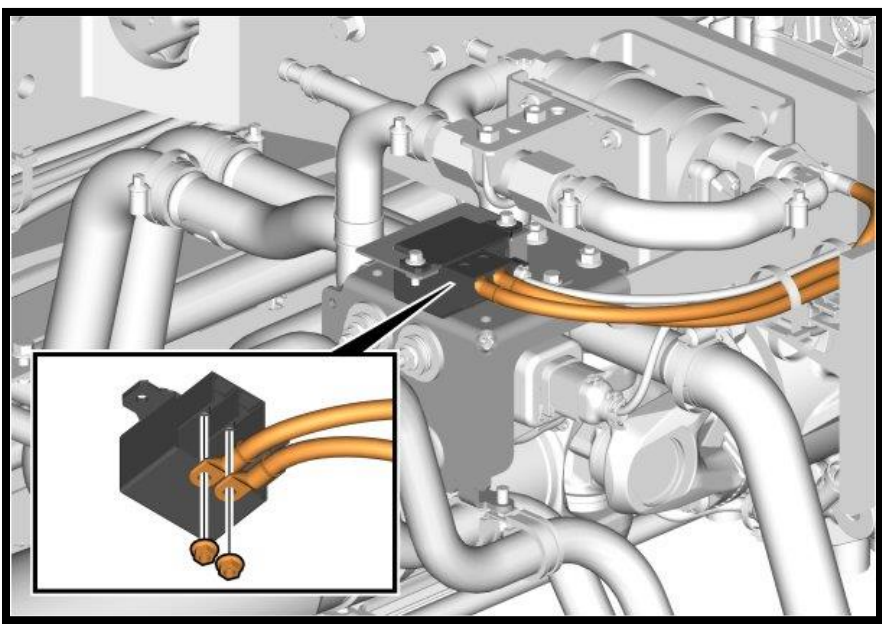


26. Remove relay power cable nuts and remove cables.



27. Inspect cable and mating surface to ensure and clean connection.

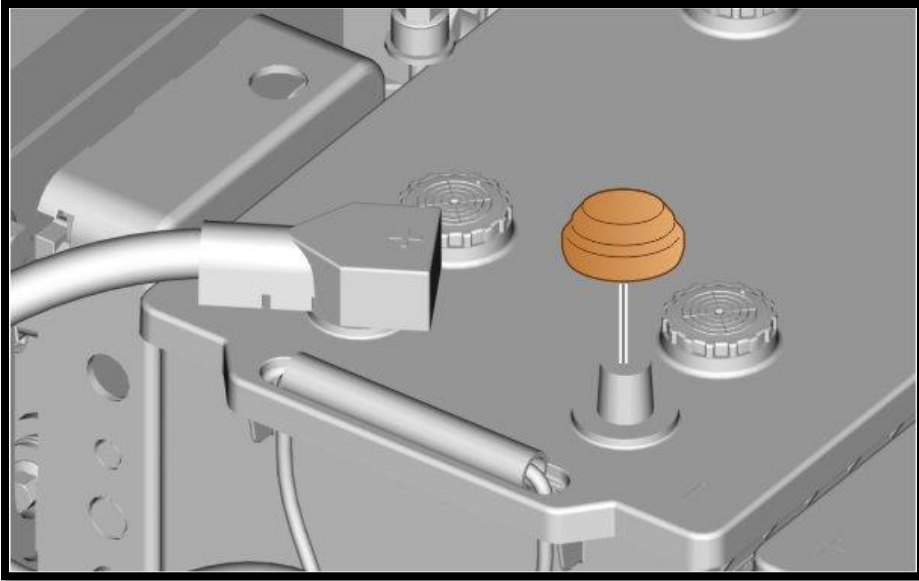
28. Reinstall relay power cables and nuts.



29. Torque relay power cable nuts to specification below.

Tightening torque	
Relay, nut	7.5 ±0.5 Nm (6 ±0.4 lb _r -ft)

30. Remove the plug.

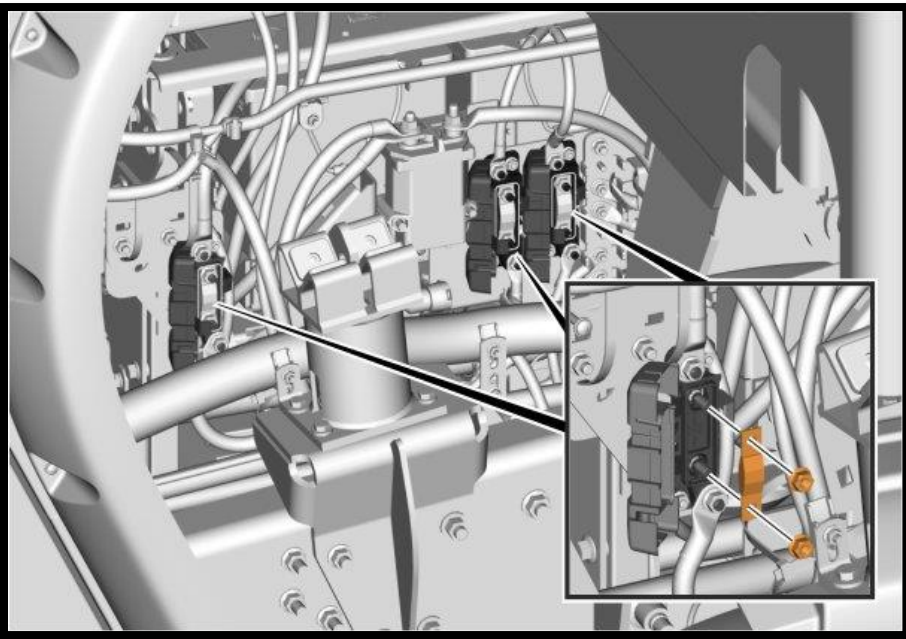


31. Connect the cable to the negative terminal.

32. Torque the nut to spec below.

Tightening torque	
Battery, cable terminal, nut	20 ±2 Nm (15 ±1 lb _r ·ft)

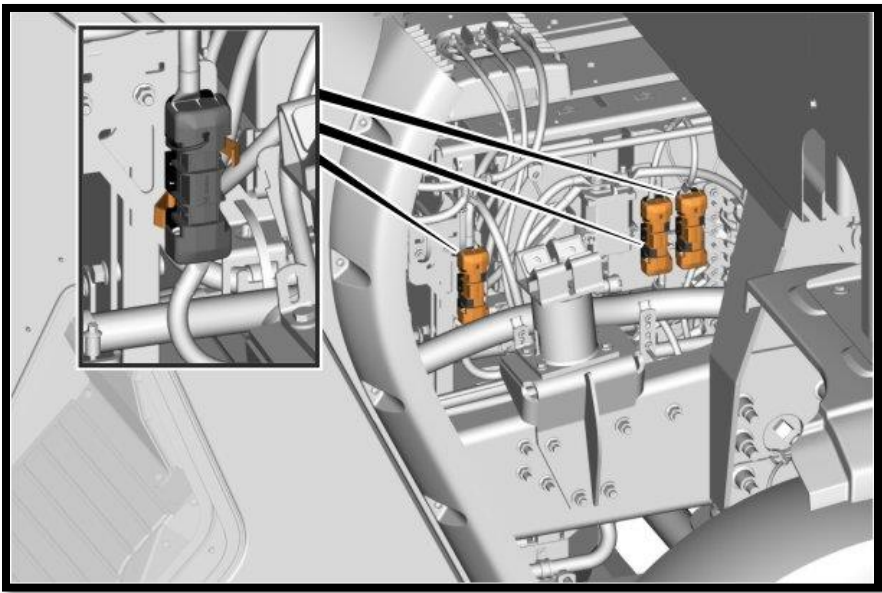
33. Install fuses and the mount nuts.



34. Torque nuts.

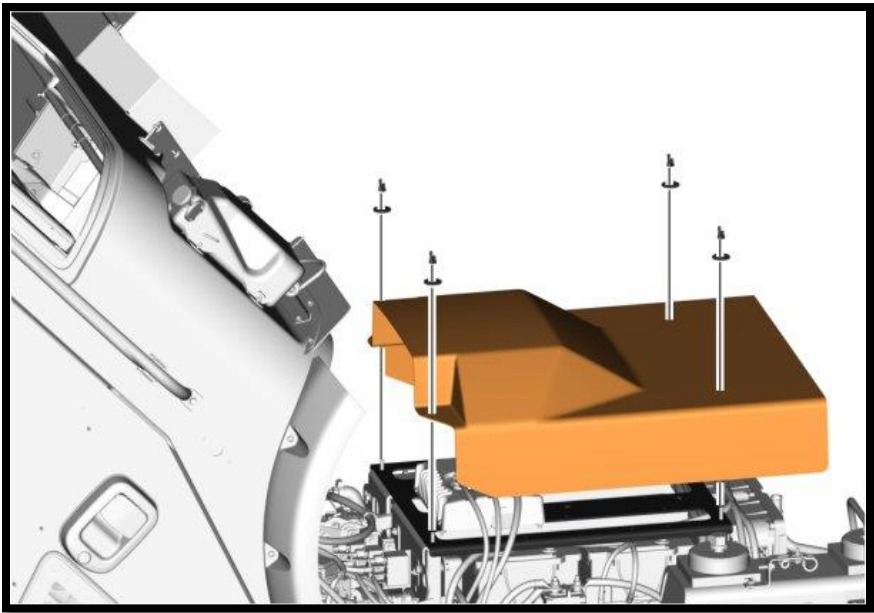
Tightening torque	
Fuse, nut	15 ±3 Nm (11 ±2 lb _f -ft)

35. Install fuse covers and lock clips.

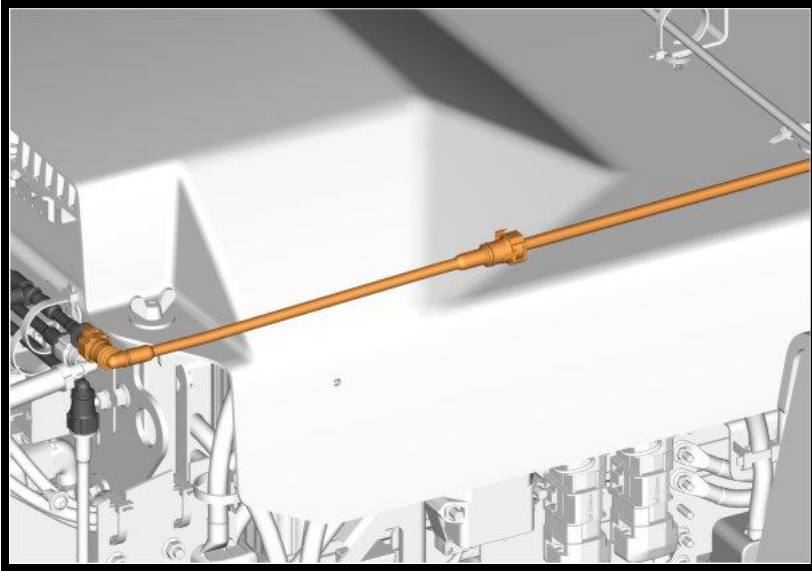


36. Install the cover.

37. Install washers and nuts.



38. Position Hose.



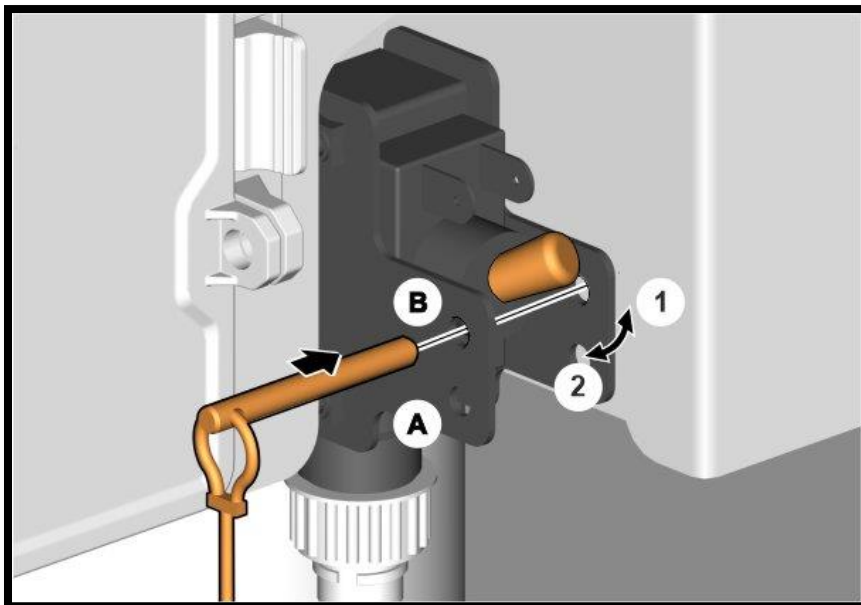
39. Tilt back the cab.

40. Remove the safety pin from the slot **(B)** and install in the slot **(A)**.

41. Set the chassis switch to position **(2)**.

Switch, position

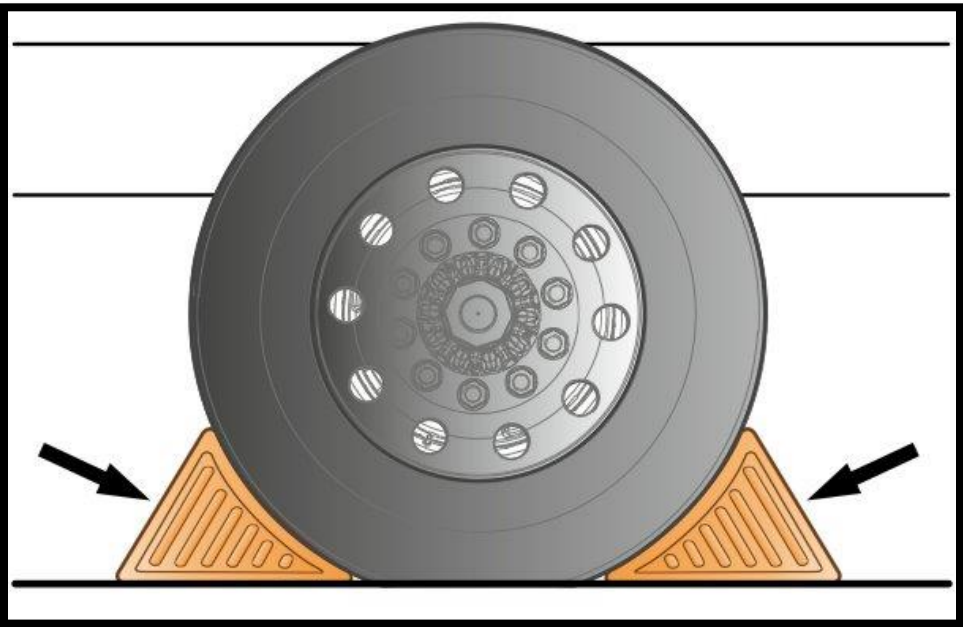
Position	Status
1	OFF
2	ON



42. Unlock the access to the CCS.



43. Remove wheel chocks.



44. Return truck to service.

REIMBURSEMENT

This repair is covered by an authorized Safety Recall. Reimbursement is obtained through the normal claim handling process.	
	UCHP Reimbursement
Claim Type (used only when uploading from the Dealer Business System)	40
Recall Status	
Vehicle repaired per instructions	1-Modified per instructions
Labor Codes	
3100-09-01-06 Low voltage system, Decommissioning	0.3
3100-09-01-05 Low voltage system, Commissioning	0.3
1720-16-09-01 Campaign, General x3	0.1
Causal Part	20709545
Authorization Number	C0292

Note: Dealers are to perform Safety Recalls on all subject vehicles at no charge to the vehicle owner regardless of mileage, age of vehicle or ownership (original purchaser or subsequent purchasers). Whenever vehicles are subject to a Safety Recall are brought to your dealership for service, or taken into your dealership vehicle inventory, it is strongly recommended that every effort be made to perform the recall correction before the vehicle is sold or released to the owner.