7	Tesla, Inc.
TRULK	Service Bulletin

Install Ferrite Cores onto Ancillary Bay Harness

SB-23-16-008 February 29, 2024

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Classification	Section/Group	Mobile Service	Configuration
Repair Bulletin	16 - HV Battery System	Cannot Perform	LHD Structural Pack

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Model Year	Model	Country/Region	Build Location	
2023	Model Y	Europe	Giga Berlin	

The model(s) and model year(s) listed are a general approximation of the affected VIN list. Refer to the VIN/Bulletin Tracker or Customer/Vehicle profile to determine applicability of this bulletin for a particular vehicle

This repair bulletin provides instructions on addressing a possible customer concern regarding the operation of Tesla vehicles. These instructions should only be performed by trained professionals.

This Service Document supersedes SB-23-16-008, dated February 15, 2024. This new revision, R2, adds notes for the correction codes. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

Condition

Some Model Y vehicles built at Giga Berlin are equipped with a low voltage (LV) harness in the ancillary bay with suboptimal placement of ferrite cores, which may cause electromagnetic interference that triggers a recoverable graceful-power-off event.

Correction

Inspect the ancillary bay LV harness part number. For revision -E, remove two ferrites from the harness and install two ferrites in the correct locations on the harness. For revision -F or later, install one ferrite.

Correction Description	Correction	Time
SB-23-16-008 Not Applicable	S012316008	0.00
Install Clip-on Ferrite Core Onto Ancillary Bay Harness	S022316008	1.74
Remove Ferrite Cores and Install New Ferrite Cores Onto Ancillary Bay Harness	S032316008	2.04

NOTE: Use only one of the correction codes above. Each correction code and FRT reflect all of the work required.

Part Number	Description	Quantity
2019928-00-A	YSB, PH, FERRITE 46 ROUND CABLE CORE ASS	1
1104475-00-F	BOLT WSHR DBL M8X23 STL ZNFL SDOG ADH	2
	If Required:	
1941793-00-A	YSB, PH, FERRITE 31 SOLID CORE	1
1089890-00-A	TAPE,PET CLOTH,ACRYLIC,19mm W,150C,BK	
1089974-00-A	ELECTRICAL JOINT COMPOUND	
1	2019928-00-A 1104475-00-F 1941793-00-A	YSB, PH, FERRITE 46 ROUND CABLE CORE ASS H104475-00-F BOLT WSHR DBL M8X23 STL ZNFL SDOG ADH If Required: YSB, PH, FERRITE 31 SOLID CORE H089890-00-A TAPE,PET CLOTH,ACRYLIC,19mm W,150C,BK

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Catalog.





Procedure

- 1. Determine the harness part number before ordering parts:
 - a. Go to Genealogy of the Electronic Parts Catalog (refer to Parts Catalog).
 - b. Enter the VIN, and then find the part number of the high voltage (HV) battery pack.
 - If the part number is 1733002-D0-C or 1733002-D0-D, the vehicle is equipped with a revision -F LV harness. Do not order 1941793-00-A.
 - If the part number is not 1733002-D0-C or 1733002-D0-D, the vehicle is equipped with a revision -E LV harness. Order all pars on the parts list.
- 2. Remove the ancillary bay cover (refer to Service Manual procedure 16101052).
- 3. Remove the pyrotechnic battery disconnect (refer to Service Manual procedure).
- 4. Confirm the ancillary bay LV harness part number.

NOTE: The part number label is located on top of the PCS, next to HVC connector (Figure 1).



Figure 1

- If the part number is 1616706-00-F or later, go to step 23.
- If the part number is 1616706-00-E or earlier, go to the next step.
- 5. Verify that the HV insulator covers are present (Figure 2).
 - NOTE: If necessary, install insulator covers before continuing this procedure.



Figure 2

 6. Remove the leather outer gloves, but do not remove the HV gloves.

CAUTION: This is a one-time exception to remove only the leather gloves for this procedure. Make sure the HV gloves are not damaged during rework.

7. If clip-on ferrites are present on this section of the ancillary bay LV harness, remove and discard the ferrites from the PCS logic harness branch and the HV+ sense harness branch (Figure 3).

NOTE: The clip-on ferrites are covered in tape. If the tape on the harness is damaged or removed, apply new tape to the PCS logic harness branch. The tape on the HV+ sense harness branch will be removed in a later step.

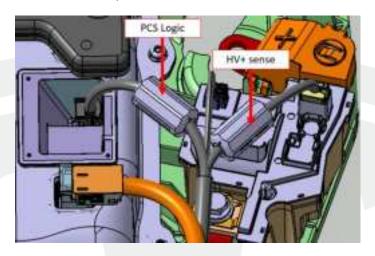


Figure 3

8. Disconnect the HV+ sense connector (Figure 4).



Figure 4

9. Apply electrical tape to the positive pack contactor (Figure 5).



Figure 5

10. Remove the tape from the HV+ sense harness branch. (Figure 6).



CAUTION: Do not cut past the splice and do not remove the cable sleeves.

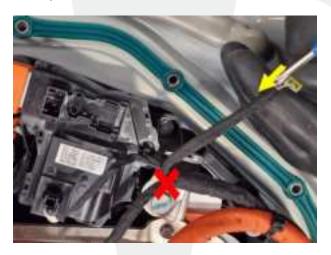


Figure 6

11. Disconnect the positive pack contactor switch connector (Figure 7).



Figure 7

12. Remove the tape from the positive pack contactor switch harness branch. (Figure 8).



A CAUTION: Do not cut past the splice.

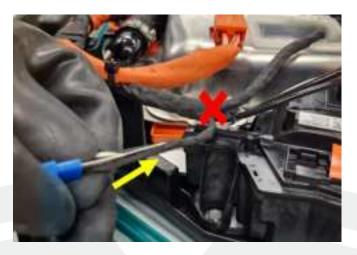


Figure 8

13. Mark the connector housing and the wires of the HV+ sense connector to help identify the wires later in this procedure (Figure 9).



NOTE: Use two different colors of paint pen to differentiate the terminals.



Figure 9

14. Release the terminals from the HV+ sense connector (Figure 10).

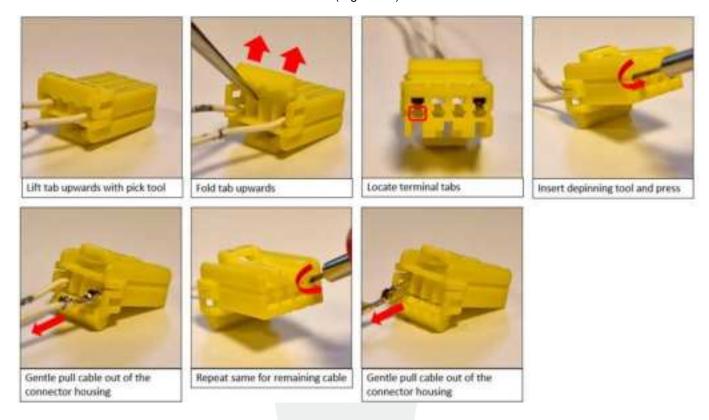


Figure 10

15. Mark the connector housing and the wires of the positive pack contactor switch connector (Figure 11).

NOTE: Use two different colors of paint pen to differentiate the terminals.



Figure 11

16. Release the terminals from the positive pack contactor switch connector (Figure 12).

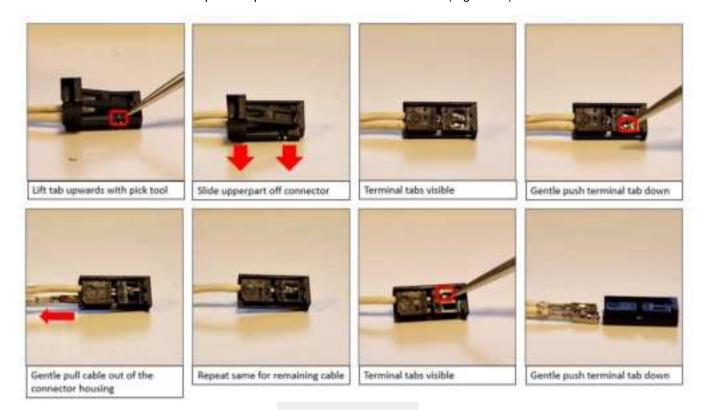


Figure 12

17. Route the wires (x4) through the solid core ferrite, and then position the ferrite as close to the harness splice as possible. (Figure 13).



Figure 13

18. Secure the solid core ferrite to the harness using tape (Figure 14).

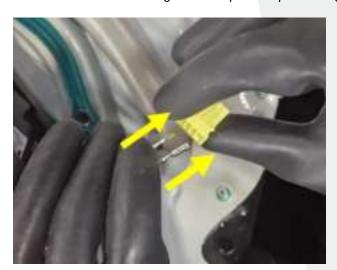
NOTE: Make sure the tape is wrapped around the harness on both sides of the ferrite core.



Figure 14

19.Insert the terminals (x2) into the HV+ sense connector (Figure 15).

NOTE: Use the markings from step 11 for positioning. If necessary, use the wiring diagram (Figure 16).



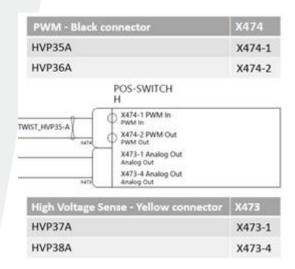


Figure 15 Figure 16 20. Insert the terminals (x2) to the positive pack contactor switch connector (Figure 17).

NOTE: Use the markings from step 13 for positioning. If necessary, use the wiring diagram (Figure 16).



Figure 17
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- 21. Remove the tape from the positive pack contactor (Figure 5).
- 22. Reconnect the HV+ sense connector and the positive pack contactor switch connector (Figure 18).



Figure 18

- 23.Install a clip-on ferrite core to the shunt harness, and then reinstall the pyrotechnic battery disconnect (refer to Service Manual procedure <u>16305026</u>).
- 24. Install the ancillary bay cover (refer to Service Manual procedure 16101052).
- 25.If only the clip-on ferrite was installed, use correction code S022316008. If both ferrites were installed, use correction code S032316008.

NOTE: Use only one of the correction codes above. The FRT for the clip-on ferrite install is also reflected in correction code S032316008.