



Inspect HV Battery Positive Contactor Fasteners

Classification	Campaign Bulletin	Section/Group	16 - HV Battery System	Country/Region	United States, Canada
Year	2018	Model	Model 3	Version	All

Bulletin Classification: *This campaign bulletin addresses a known non-safety-related condition and provides recommended technical diagnosis and repair procedures. Apply this procedure to all vehicles in the affected VIN range listed. These instructions assume knowledge of motor vehicle and high voltage electrical component repairs, and should only be executed by trained professionals. Tesla assumes no liability for injury or property damage due to a failure to properly follow these instructions or repairs attempted by unqualified individuals.*

Condition

Certain Model 3 vehicles might have too few HV battery positive contactor mounting nuts installed. Too few mounting nuts allow movement that might affect the conductivity of the contactor terminals.

Correction

Inspect the vehicle for symptoms related to the condition. If symptoms are present, replace the mounting nuts, the terminal fasteners, or the contactor itself.

Correction Description	Correction	Time
SB-18-16-013 Not Applicable	S011816013	0.00
Inspect Contactor, Fasteners Check OK	S021816013	1.00
Install Insulators, Inspect Contactor, Fasteners Check OK	S031816013	1.00
Inspect Contactor, Replace Fasteners	S041816013	1.05
Install Insulators, Inspect Contactor, Replace Fasteners	S051816013	1.10
Inspect And Replace Contactor	S061816013	1.35
Install Insulators, Inspect And Replace Contactor	S071816013	1.35

Required Part(s):	Part Number	Description	Quantity
	1117669-00-A	BOLT,5-LOBE,M6X19,[109],ZNNI,MAT,PTP,SEAL	2
	1108958-00-A	SEAL,PROBE LID,HVBAT	1
	1108907-00-A	BREATHER, NITTO Z-PLUG-S	1
	1115916-00-A	BOLT,TE,M6X14,[88],ZNNI,SEAL,SDOG	5
	1117252-00-A	BOLT,HF,M12X40,STL [109],ZN,ADH,MAT	2
	1093060-00-A	NUT&WSHR,M8,STL[9],DOUBLE SEMS	1

If necessary:

1467483-00-A	KIT, PENTHOUSE HV INSULATORS, M3	1
2007207-00-A	NUT HF M6-1.00[8]ZnAl	3
1093060-00-A	NUT&WSHR,M8,STL[9],DOUBLE SEMS	1
2007104-00-B	NUT HFPT M8X1.25 [10]-ZNNI	1 - 2
1104475-00-C	BOLTANDWSHR[DBL],M8X23,STL ZNFL,SDOG ADH	1 - 2
1089334-00-H	ASY, SWITCH, HV	1

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

Special Tool(s):	1076927-00-A	Resistance meter, microohm, Hioki RM3548
	1059330-00-B	Skt, 1/4in Dr, 5-Lobe Torx External
	1026636-00-A	Pack Enclosure Leak Tester, HV Battery
	1140501-00-A	Pack Kit, Enclosure, Leak Test, HV Battery, Complete
	1144879-00-A	Kit, Encl Leak Test Adapters, HV Battery
	1455410-00-A	Kit, Dummy Plug
	1108272-00-B	Cap, Logic Conn, Inv, 3DU

Procedure

⚠ WARNING: Only technicians who have been trained in High Voltage Awareness are permitted to perform this procedure. Proper personal protective equipment (PPE) and insulating HV gloves with a minimum rating of class 0 (1000V) must be worn at all times a high voltage cable, busbar, or fitting is handled. Refer to Tech Note TN-15-92-003, "High Voltage Awareness Care Points" for additional safety information.

1. Remove the penthouse cover (refer to Service Manual procedure 16101002).

NOTE: Install insulators if they are not installed (refer to Service Manual procedure 16302001).

2. Raise the high voltage controller to a vertical position (Figure 1).

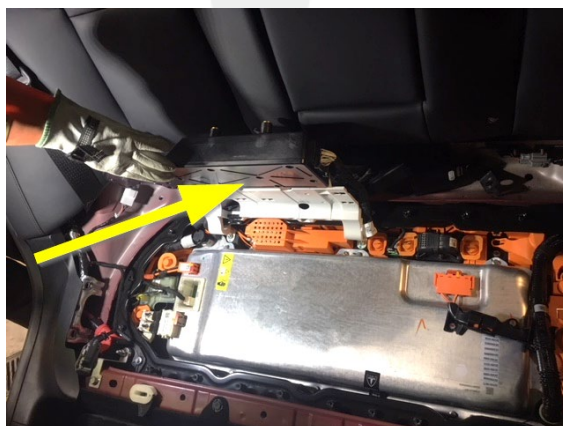


Figure 1

3. Remove the insulator caps from the HV battery positive contactor (Figure 2).

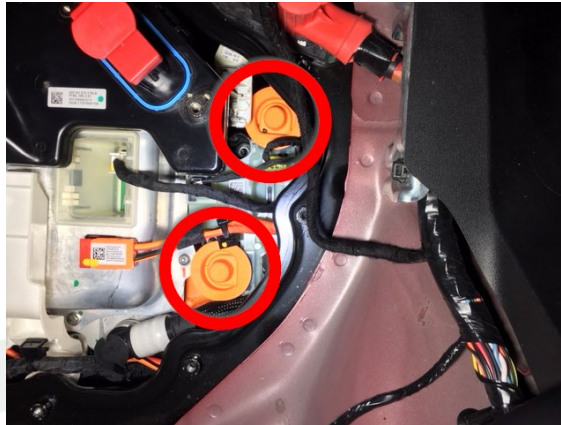


Figure 2

4. Visually inspect the nuts that attach the HV battery positive contactor to the penthouse floor (Figure 3).
 - If there are 3 nuts installed, skip to step 18.
 - If there are less than 3 nuts installed, describe which nuts are missing in the Cause Narrative field of the Repair Order, and then continue to the next step.



Figure 3

5. Remove and discard the nuts that attach the HV battery positive contactor to the penthouse floor (Figure 3).
6. Install 3 new nuts to attach the HV battery positive contactor to the penthouse floor (torque 8 Nm) (Figure 3), and then mark the nuts with a paint pen after they are torqued.

7. Visually inspect the positive DC busbar and insulator near the HV battery positive contactor, and where the busbar attaches to the contactor, for any signs of damage (Figure 4).
 - If damage is seen, take photographs of the damage, create a Toolbox session, attach the photos to the session, indicate Toolbox Article #44198 as the problem, escalate the session, and then wait for further instruction.
 - If damage is not seen, continue to the next step.



Figure 4

8. Use the Hioki resistance meter to measure the resistance at the HV joint between the HV battery positive contactor and the center of the HV battery positive terminal (Figure 5).



Figure 5

9. If the resistance:
 - Is 0.11 mOhms (110 μ Ohms) or less, skip to step 13.
 - Is greater than 0.11 mOhms (110 μ Ohms), continue to the next step.
10. Remove and discard the nut, install a new nut (torque 9 Nm), and then mark the nut with a paint pen after it is torqued.
11. Use the Hioki resistance meter to measure the resistance again at the HV joint between the HV battery positive contactor and the center of the HV battery positive terminal (Figure 5).
12. If the resistance:
 - Is 0.11 mOhms (110 μ Ohms) or less, skip to step 13.
 - Is still greater than 0.11 mOhms (110 μ Ohms), record the resistance in the Cause Narrative field of the Repair Order, and then skip to step 20.

13. Use the Hioki resistance meter to measure the resistance at the HV joint between the HV battery positive contactor and the positive DC busbar (Figure 6).



Figure 6

14. If the resistance:
- Is 0.06 mOhms (60 μ Ohms) or less, skip to step 18.
 - Is greater than 0.06 mOhms (60 μ Ohms), continue to the next step.
15. Remove and discard the bolt, install a new bolt (torque 9 Nm), and then mark the bolt with a paint pen after it is torqued.
16. Use the Hioki resistance meter to measure the resistance again at the HV joint between the HV battery positive contactor and the positive DC busbar (Figure 6).
17. If the resistance:
- Is 0.06 mOhms (60 μ Ohms) or less, skip to step 18.
 - Is still greater than 0.06 mOhms (60 μ Ohms), record the resistance in the Cause Narrative field of the Repair Order, and then skip to step 20.
18. Install the insulator caps onto the HV battery positive contactor (Figure 2).
19. Lower the high voltage controller (Figure 1), and then skip to step 22.
20. Perform all of the steps to remove and discard the HV battery positive contactor (refer to Service Manual procedure 16302102).
21. Perform all of the steps to install a new HV battery positive contactor (refer to Service Manual procedure 16302102).
22. Install the penthouse cover, perform a penthouse air leak test, and connect 12V power (refer to Service Manual procedure 16101002).

Affected VIN(s) Affected Model 3 vehicles built between approximately May 1, 2018 and May 19, 2018.

NOTE: This is a simplified summary 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.

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