



Replace Positive Busbar Nut and Additional Bolts

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

On certain Model 3 vehicles, the positive busbar nut under the power conversion system and additional bolts within the High Voltage (HV) battery penthouse were insufficiently torqued during manufacturing.

Correction

Replace and properly torque the positive busbar nut and the bolts.

Correction Description	Correction	Time
SB-18-16-006 Not Applicable	S011816006	0.0
Replace And Torque Busbar Nut And Additional Bolts	S021816006	2.5

Required Part(s):	Part Number	Description	Quantity
	1108958-00-A	SEAL,PROBE LID,HVBAT	1
	1108907-00-A	BREATHER, NITTO Z-PLUG-S	1
	1117669-00-A	BOLT,5-LOBE,M6X19,[109],ZNNI,MAT,PTP,SEAL	2
	1104475-00-C	BOLTANDWSHR[DBL],M8X23,STL ZNFL,SDOG ADH	5
	1093060-00-A	NUT&WSHR,M8,STL[9],DOUBLE SEMS	1
	1115916-00-A	BOLT,TE,M6X14,[88],ZNNI,SEAL,SDOG	5
	2007104-00-B	NUT HFPT M8X1.25 [10]-ZNNI	1
	1117252-00-A	BOLT,HF,M12X40,STL [109],ZN,ADH,MAT	2
	1111033-00-D	M3 2R BOLSTER CLIP	1
	If necessary:		
	1467483-00-A	KIT, PENTHOUSE HV INSULATORS, M3	1
	Shop supplies:		
		Absorbent pads	
		Tesla G-48 Coolant (1012820-00-A)	
		Butyl rope	

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 RM 3548
	1126496-00-B	Wrench, Torque+Angle, 3/8" DR
	1059330-00-B	Skt, 1/4in Dr, 5-Lobe Torx External
	1144879-00-A	Kit, Encl Leak Test Adapters, HV Battery
	1026636-00-A	Pack Enclosure Leak Tester, HV Battery
	1132185-00-B	Kit, Coolant Leak Test Adapters, Model 3
	1133843-00-A	Kit, Coolant Drain & Fill Adapters, M3
	1135762-00-A	Kit, Svc Plug, Cooling Hose, Model 3
	1053600-00-C	Drive Unit Pressure Test Fixture
	1108272-00-B	Cap, Logic Conn, Inv, 3DU
	1133603-00-A	Kit, HV Pyro-disconnect Replacement, BRP
	1131071-00-A	Dummy Disconnect, Pyro, Safety
	1050448-00-A	Refiller, Cooling System
	1111868-00-B	Connector Removal, Coolant, PCS, M3
	1057602-00-A	Ratchet, 1/4" Sq Dr, HV Insulated
	1057603-00-A	Ext Bar, Wobble, 1/4" Dr, HV Insulated
	1057607-00-A	Magnet, Flexible, HV Insulated, 18"
	1133768-00-A	Socket, 1/4" Dr, Deep, 10 mm, Thin Wall, Insul
	1057606-00-A	Skt, 1/4" Sq Dr, 13mm, HV Insulated
	1127845-00-A	Asy, Service Cover, Penthouse, Model 3

Procedure

1. Remove the power conversion system (refer to Service Manual procedure 16301002).
2. Remove the insulator cap from the HV positive busbar joint nut (Figure 1).

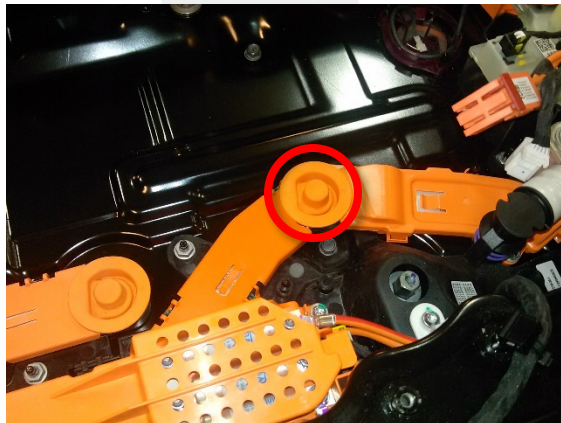


Figure 1

3. Remove and discard the nut that attaches the positive busbars at the joint (Figure 2).

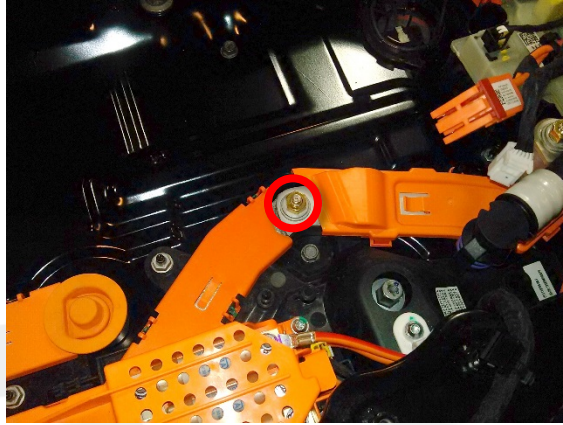


Figure 2

4. Install a new nut to attach the positive busbars at the joint, and then mark the nut with a paint pen after it is torqued (torque 5 Nm +35°) (Figure 2).
5. Use the Hioki resistance meter to measure the resistance at the HV joint between the positive busbars (Figure 3).

NOTE: The maximum acceptable resistance is 0.060 mΩ (60 μΩ). If the resistance is above this value, escalate a Toolbox session, as appropriate.

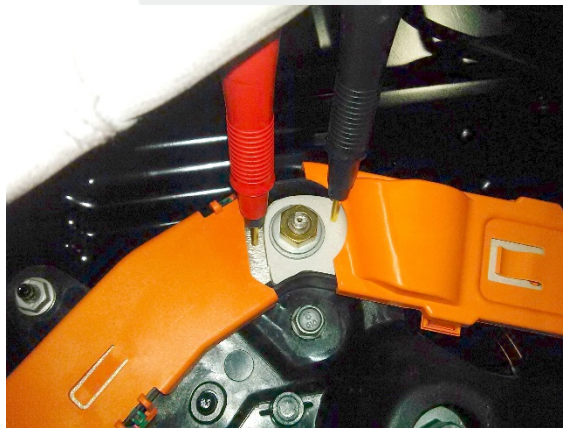


Figure 3

6. Install the insulator cap onto the HV positive busbar joint nut (Figure 1).

7. Remove the insulator cap from the HV battery positive contactor output terminal bolt (Figure 4).



Figure 4

8. Remove and discard the bolt that attaches the HV battery positive contactor to the positive busbar (Figure 5).



Figure 5

9. Install a new bolt to attach the HV battery positive contactor onto the positive busbar, and then mark the bolt with a paint pen after it is torqued (torque 5 Nm +60°) (Figure 5).

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

NOTE: The maximum acceptable resistance is 0.060 mΩ (60 μΩ). If the resistance is above this value, escalate a Toolbox session, as appropriate.



Figure 6

11. Install the insulator cap onto the HV battery positive contactor output terminal bolt (Figure 4).
12. Release the clips that attach the fuse access insulator to the penthouse, and then remove the insulator from the penthouse (Figure 7).

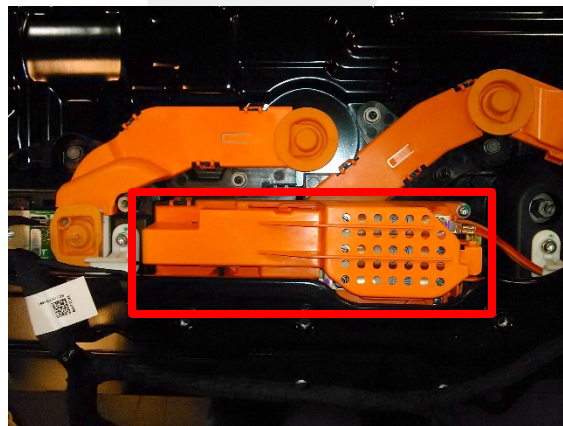


Figure 7

13. Remove and discard the bolts that attach the positive and negative busbars to the rear drive unit HV header (Figure 8).

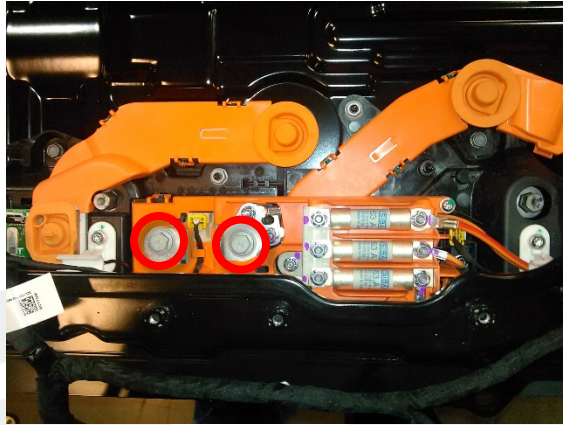


Figure 8

14. Install new bolts to attach the positive and negative busbars to the rear drive unit HV header, and then mark the bolts with a paint pen after they are torqued (torque 5 Nm +60°) (Figure 8).
15. Use the Hioki resistance meter to measure the resistance at the HV joint between the rear drive unit HV header and the busbar at each bolt (Figure 9).

NOTE: The maximum acceptable resistance is 0.070 mΩ (70 μΩ). If the resistance is above this value, escalate a Toolbox session, as appropriate.

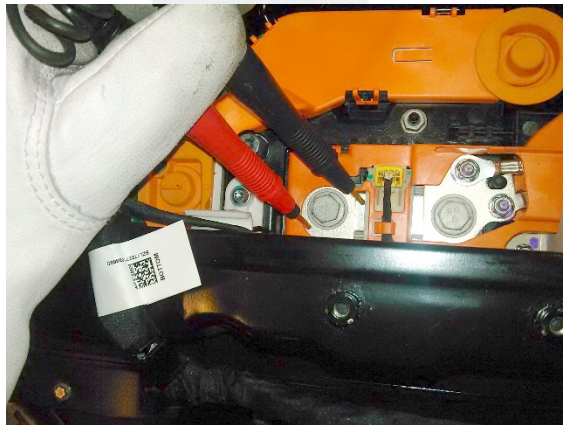


Figure 9

16. Install the fuse access insulator, and then fasten the clips that attach the insulator to the penthouse (Figure 7).
17. Install the power conversion system (refer to Service Manual procedure 16301002).

Affected VIN(s) Affected Model 3 vehicles built between approximately July 5, 2018 and July 12, 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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