



Inspect Power Conversion System 12V DCDC Positive Terminal

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, a screw that secures the 12V DCDC positive terminal within the power conversion system (PCS) might have become loose. A loose terminal might present alerts on the touchscreen, or cause the PCS to shut down.

Correction

Inspect the PCS for symptoms related to the condition. If symptoms are present, replace the PCS.

Correction Description	Correction	Time
SB-19-16-005 Not Applicable	S011916005	0.00
Inspect PCS 12V DCDC Positive Terminal, PCS Replacement Not Necessary	S021916005	1.05
Inspect PCS 12V DCDC Positive Terminal, Replace PCS	S031916005	2.40

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-C	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
	1111033-00-E	BRACKET - PLASTIC	1
	If necessary:		
	1467483-00-A	KIT, PENTHOUSE HV INSULATORS, M3	1
	1104475-00-C	BOLT&WSHR[DBL],M8x23,STL ZNFL,SDOG ADH	2
	1135558-00-C	ASY,PCS,48A,NA,MDL3	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):	1076921-00-B	Insulation Multimeter, Fluke 1507
	1130480-00-A	Test Probes, Slim, Fluke TP38
	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
	1053600-00-C	Drive Unit Pressure Test Fixture
	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
	GSN-TL-000564	Kit, Battery Coolant Drain and Fill

⚠ WARNING: Proper personal protective equipment (PPE) and HV insulating gloves with a minimum rating of class 0 (1000V) must be worn any time high voltage might be present. Refer to [TN-15-92-003](#), “High Voltage Awareness Care Points” for additional safety information.

⚠ WARNING: Proper personal protective equipment (PPE) is required to perform this procedure:

- High voltage insulating gloves
- Leather glove protectors
- High voltage glove tester
- Safety glasses
- Electrical hazard rated safety shoes

⚠ WARNING: Make sure that the HV gloves are not expired. HV gloves can be used up to 12 months after the testing date printed on the glove, but only 6 months after first use even if the gloves are still within the 12-month period.

⚠ WARNING: A glove inflator is the only recommended way to test HV gloves. Both HV gloves must pass testing before beginning this procedure. If either glove does not pass the air check, discard the pair.

Procedure

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 the vertical position (Figure 1).



Figure 1

3. Remove the nuts that attach the terminals of the 12V DCDC harness to the 12V DCDC passthrough busbars (Figure 2).



Figure 2

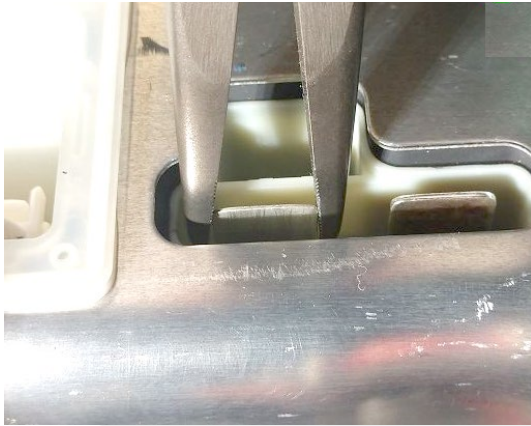
4. Pull up on the locking tab to release the 12V DCDC harness connector, and then use a plastic pry tool to separate the connector from the PCS (Figure 3).



Figure 3

5. Use needle nose pliers to gently grasp the edges of the 12V DCDC positive terminal (Figure 4).

⚠ CAUTION: Do not grip the flat sides of the terminal as it will damage the terminal (Figure 5). If the terminal is damaged, the PCS must be replaced.



✓ **Figure 4 (Correct)**



✗ **Figure 5 (Incorrect)**

6. Gently wiggle the 12V DCDC positive terminal side-to-side, and up and down to check for play (Figure 6).

- If there is any feeling of looseness, or if the terminal makes a sound while being manipulated, discontinue this procedure, and replace the PCS (refer to Service Manual procedure 16301002).
- If the terminal silently remains firmly in place, continue to the next step.



Figure 6

7. Insert the 12V DCDC harness connector into the PCS, and then push down on the locking tab to secure the connector (Figure 3).

8. Install the nuts that attach the terminals of the 12V DCDC harness to the 12V DCDC passthrough busbars (torque 4.5 Nm), and then mark the nuts with a paint pen (Figure 2).

- Use the Hioki resistance meter to measure the resistance between the positive joint of the 12V DCDC harness and the positive terminal of the 12V DCDC passthrough (Figure 7).

NOTE: The maximum acceptable resistance is 0.100 mΩ (100 μΩ). If the resistance is above this value, escalate a Toolbox session, as appropriate.

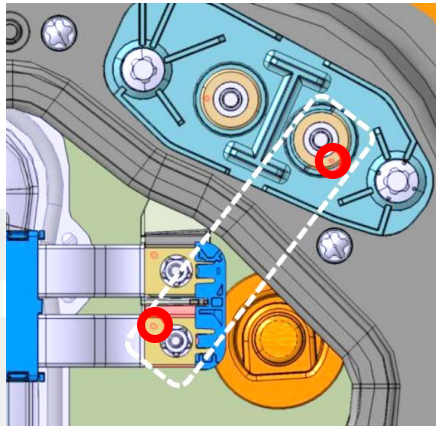


Figure 7

- Use the Hioki resistance meter to measure the resistance between the negative joint of the 12V DCDC harness and the negative terminal of the 12V DCDC passthrough (Figure 8).

NOTE: The maximum acceptable resistance is 0.100 mΩ (100 μΩ). If the resistance is above this value, escalate a Toolbox session, as appropriate.

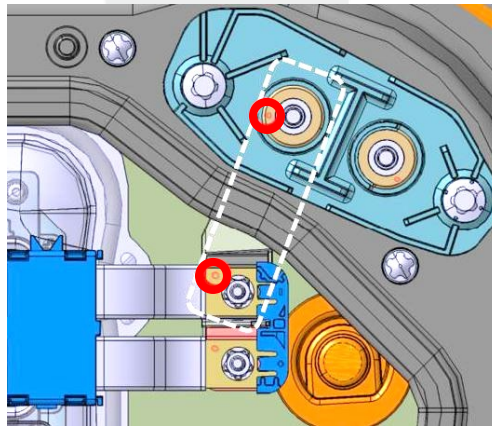


Figure 8

- Lower the high voltage controller (Figure 1).
- 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 August 9, 2018 and October 21, 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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