



Check Resistance at Ground Terminals

Classification Campaign Bulletin **Section/Group** 17 - Electrical **Country/Region** United States

Year 2017 **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

Some Model 3 vehicles might have increased resistance at certain ground terminals.

Correction

Check the terminal resistance at the 15 ground terminals listed, and replace any ground terminal bolt where there is increased resistance.

Correction Description	Correction	Time
SB-17-17-011 Not Applicable	S011717011	0.00
Inspect 15 Ground Terminals, No Repairs Needed	S021717011	1.3
Inspect And Replace Bolts For 15 Ground Terminals	S031717011	1.75

Required Part(s):	Part Number	Description	Quantity
	1006529-00-A	BOLT HF M6X18 PC88 MAT	As Required
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	

Remove Components to Expose Ground Terminals

1. Remove the cowl screen panel (refer to Service Manual procedure 12250902), to expose the VCFRONT ground terminal (Figure 1), the LH shock tower terminals (x4) (Figure 2), and the RH shock tower terminals (x2) (Figure 3).



Figure 1 (VCFRONT terminal)

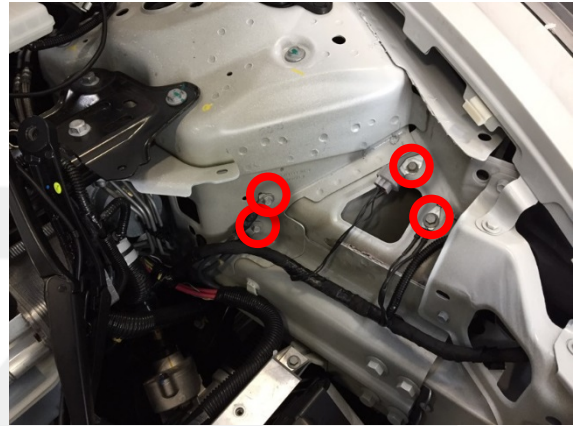


Figure 2 (LH shock tower terminals)



Figure 3 (RH shock tower terminals)

2. Remove the package tray trim (refer to Service Manual procedure 15243002), to expose the parcel shelf ground terminal (Figure 4).



Figure 4 (parcel shelf terminal)

3. Remove the LH trunk side trim (refer to Service Manual procedure 15245002), to expose the LH rear quarter ground terminal (Figure 5).



Figure 5 (LH rear quarter terminal)

4. Remove the trunk lid trim (refer to Service Manual procedure 15111902), to expose the decklid ground terminals (x2) (Figure 6).



Figure 6 (decklid terminals)

5. Remove the LH and RH lower B-pillar trim (refer to Service Manual procedure 15183402), to expose the LH sill ground terminal (Figure 7) and RH sill ground terminal (Figure 8).



Figure 7 (LH sill terminal)



Figure 8 (RH sill terminal)

6. Remove the driver footwell cover (refer to Service Manual procedure 14055302).
7. Remove the passenger footwell cover (refer to Service Manual procedure 14055402).
8. Remove the LH and RH center console side panel carpets (refer to Service Manual procedure 15195402).
9. Release the clips (x3) that secure the carpeting to the body in the LH and RH footwells, and pull back the carpeting to expose the LH toeboard ground terminal (Figure 9) and RH toeboard ground terminal (Figure 10).

NOTE: Foam on the back of the carpet resists rolling or bending.



Figure 9 (LH toeboard terminal)



Figure 10 (RH toeboard terminal)

10. Disconnect 12V power (refer to Service Manual procedure 17010200).
11. Measure the ground path resistance of the terminals. Refer to the **Measure Ground Terminal Resistance** section of this document.

Measure Ground Terminal Resistance

Use the VCFRONT ground terminal as a reference point for measuring the LH and RH shock tower terminals. In this situation, the threshold resistance is 5 milliohms or greater.

Other reference points are unpainted studs that protrude through the body sheet metal, bright metal bolts that thread directly into the body, and bare metal threads that are exposed when a body bolt is removed. When using these reference points, the threshold resistance is 4 milliohms or greater.

NOTE: Do not measure at the bolt head of the ground terminal. Measure at the metal of the ground terminal itself (Figure 11).



Figure 11 (measure on ground terminal metal)

1. Prepare the Hioki resistance meter for resistance measurement and put on personal protective equipment (PPE).

⚠ WARNING: Make sure that both HV insulating gloves and leather glove protectors are on before continuing this procedure.

2. Measure the ground path resistance between the ground terminal and reference point listed in the following table.
 - If the measured resistance is less than the threshold resistance, the bolt at that ground terminal does not need to be replaced. Measure the next ground terminal.
 - If the measured resistance is equal to or greater than the threshold resistance, replace the bolt at that ground terminal. Refer to the **Replace a Terminal Bolt** section of this document.

Ground Terminal (Red probe)	Reference Point (Black probe)	Threshold Resistance
VCFRONT (Figure 1)	Negative 12V battery lead	4 milliohms
LH Shock Tower (x4) (Figure 2)	VCFRONT ground terminal	5 milliohms
RH Shock Tower (x2) (Figure 3)	VCFRONT ground terminal	5 milliohms
Parcel Shelf (Figure 4)	Stud on RH C-pillar	4 milliohms
LH Rear Quarter (Figure 5)	Stud on taillight assembly	4 milliohms
Decklid (x2) (Figure 6)	Nut internal threads (remove bolt from latch assembly (torque 8 Nm))	4 milliohms
LH Sill (Figure 7)	Door striker mounting bolt	4 milliohms
RH Sill (Figure 8)	Door striker mounting bolt	4 milliohms
LH Toeboard (Figure 9)	Door striker mounting bolt	4 milliohms
RH Toeboard (Figure 10)	Door striker mounting bolt	4 milliohms

3. After measuring all terminals and replacing problematic bolts, perform the steps listed in the **Remove Components to Expose Ground Terminals** section of this document in reverse sequence to install the components removed for access.

Replace a Terminal Bolt

1. Remove and discard the terminal bolt.
2. Use compressed air to clean any debris or shavings from the nut.
3. Hand install a new bolt, and then torque it to 10 Nm.
4. Measure the ground path resistance of the ground terminal to the reference point.
 - If the measured resistance is less than the threshold resistance, continue with the steps listed in the **Measure Ground Terminal Resistance** section of this document to measure the next terminal listed.
 - If the measured resistance is still equal to or greater than the threshold resistance, discontinue this procedure and escalate a Toolbox session.

Affected VIN(s) Affected Model 3 vehicles built before approximately August 3, 2017.

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.