



# Replace Rear Drive Unit Ground Strap

**Classification** Repair Bulletin    **Section/Group** 17 - Electrical    **Country/Region** North America

**Year** 2017    **Model** Model 3    **Version** All

**Bulletin Classification:** *This repair bulletin provides instructions and guidelines for a noted condition or a customer concern. The information provided can address a broad range of known or perceived issues with the operation of Tesla vehicles. This bulletin might not be VIN-specific. 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 some Model 3 vehicles, the solid-wire rear drive unit (RDU) ground strap might transfer motor vibration into the cabin. This might result in customer perception of high motor noise levels.

## Correction

Inspect the vehicle for symptoms related to the condition. If symptoms are present, replace the solid-wire RDU ground strap with an updated, braided-wire ground strap.

Correction Description	Correction	Time
SB-18-17-003 Not Applicable	S011817003	0.00
Replace Rear Drive Unit Ground Strap	S021817003	0.55

Required Part(s):	Part Number	Description	Quantity
	1070979-00-F	ASY,CABLE,RDU GND STRAP,M3	1
	<b>Shop supplies:</b> IPA wipes		
	This part number was current at the time of publication. Use the revision listed or later, unless otherwise specified in the Parts Manual.		

**Special Tool(s):** 1076927-00-A Resistance meter, microohm, Hioki RM 3548

## Procedures

1. Disconnect 12V power (refer to Service Manual procedure 17010200).
2. Remove the rear LH wheel (refer to Service Manual procedure 34015001).
3. Remove the mid aero shield panel (refer to Service Manual procedure 12030502).
4. Remove the nut that attaches the RDU ground strap to the frame rail, and then remove the ground strap ring terminal from the frame rail (Figure 1).



**Figure 1**

5. Release the clip that attaches the RDU ground strap to the rear subframe.
6. Remove the bolt that attaches the RDU ground strap to the RDU, and then remove the ground strap from the vehicle (Figure 2).



**Figure 2**

7. Use isopropyl alcohol (IPA) wipes to clean the surface of the rear subframe where the ground strap ring terminal was removed.
8. Allow the IPA to dry for at least one minute.
9. Install the ring terminal of the new RDU ground strap, and hand-tighten the nut that attaches the RDU ground strap to the frame rail.
10. Fasten the clip that attaches the RDU ground strap to the rear subframe.

11. Use isopropyl alcohol (IPA) wipes to clean the surface of the RDU where the ground strap ring terminal was removed.
12. Allow the IPA to dry for at least one minute.
13. Position the ring terminal of the new RDU ground strap on the RDU, and hand-tighten the bolt that attaches the RDU ground strap to the RDU.
14. Make sure that the collar sits flat against the frame rail and that the orientation of the ground strap doesn't cause any strain on the strap.
15. Hold the ring terminal in position and tighten the bolt at the RDU (torque 10 Nm).
16. Hold the ring terminal in position and tighten the nut at the frame rail (torque 10 Nm).

**⚠ WARNING:** To reduce the risk of electric shock from the Hioki resistance meter, make sure that both HV insulating gloves and leather glove protectors are on before continuing this procedure.

17. Use the Hioki resistance meter to measure the resistance between the ring terminal at each end of the ground strap and the nearby mounting surface.
  - If the resistance is less than 0.12 milliohms, continue to the next step.
  - If the resistance is 0.12 milliohms or greater, escalate a Toolbox session.
18. Install the mid aero shield panel (refer to Service Manual procedure 12030502).
19. Install the rear LH wheel (refer to Service Manual procedure 34015001).
20. Connect 12V power (refer to Service Manual procedure 17010200).

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**Affected VIN(s)** Affected Model 3 vehicles built before approximately December 29, 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.

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