



# Upgrade HVJB to Charger Harnesses

<b>Classification</b>	Repair Bulletin	<b>Section/Group</b>	44 - High Voltage System	<b>Country/Region</b>	Europe, APAC
<b>Year</b>	2012-2014	<b>Model</b>	Model S	<b>Version</b>	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 electricity repairs, and should only be executed by trained professionals. Tesla Motors assumes no liability for injury or property damage due to a failure to properly follow these instructions or repairs attempted by unqualified individuals.

This Service Bulletin supersedes SB-14-44-003 R2, dated 30-May-14. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

## Condition

Upgraded harnesses that connect the High Voltage Junction Box (HVJB) to the charger or chargers are now available. These new harnesses are necessary to charge at 16A per phase.

## Correction

Upon customer complaint of an inability to charge at 16A per phase, replace the harnesses that connect the HVJB to the charger or chargers. Use Toolbox to update the vehicle's configuration to allow charging at 16A per phase.

Required Part(s):	Part Number	Description	Quantity
	1037646-00-A	ASY,HV HARN,JB_CHGR,AC/DC,SSBR,MSTR,GEN2	2
	1037648-00-A	ASY,HV HARN,JB_CHGR,AC/DC,SSBR,SLV,GEN2	2 (If vehicle equipped with dual chargers)

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

Correction Description	Correction	Time
Vehicle Inspection Only; Updated HVJB to Charger Harnesses Not Required	S011444003	0.8
Replace 2 HVJB to Charger Harnesses (Single Charger)	S021444003	1.2
Replace 4 HVJB to Charger Harnesses (Dual Charger)	S031444003	1.3

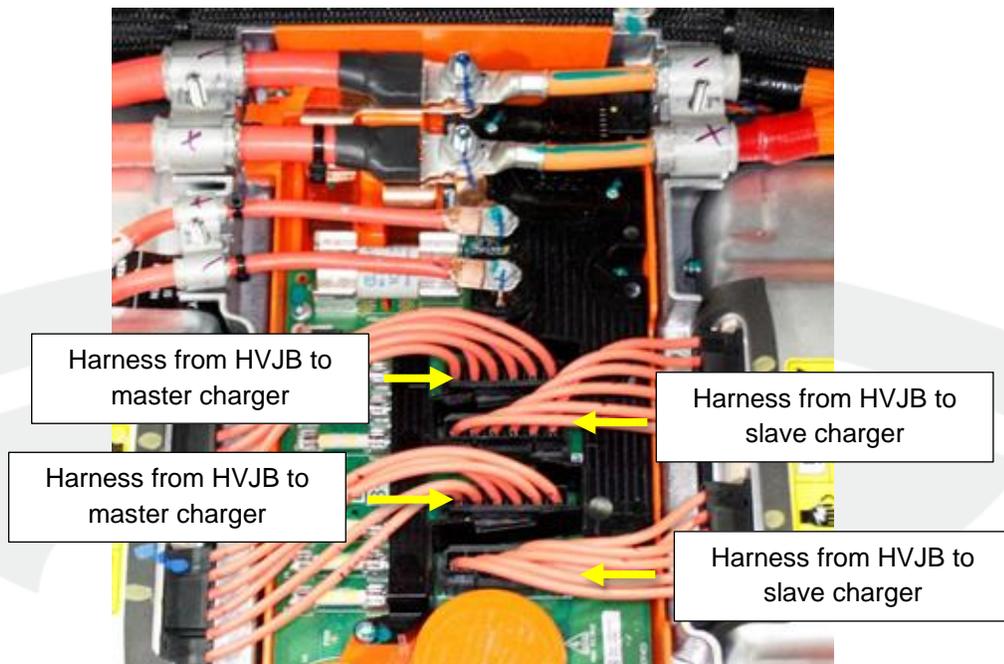
## Procedure

**NOTE:** Before beginning this procedure, record the serial numbers of all new harnesses so that they can be entered into the Repair Order.

**⚠ 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 00 (500V) must be worn any time a high voltage cable is handled. Refer to service bulletin TN-15-92-003, “High Voltage Awareness Care Points”, for additional safety information.

1. Perform the vehicle electrical isolation procedure (refer to Service Manual procedure 17010000).
2. Remove the HVJB cover (refer to Service Manual procedure 44301102).

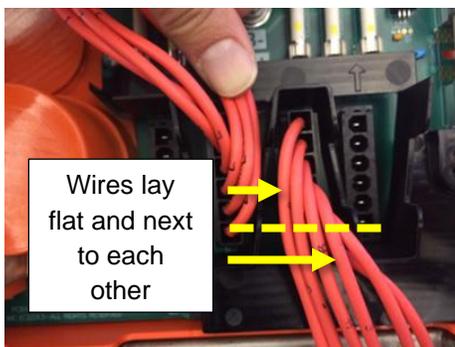
- Replace the 2 harnesses that connect the HVJB to the master charger (Figure 1). If the vehicle is equipped with dual chargers, also replace the 2 harnesses that connect the HVJB to the slave charger.



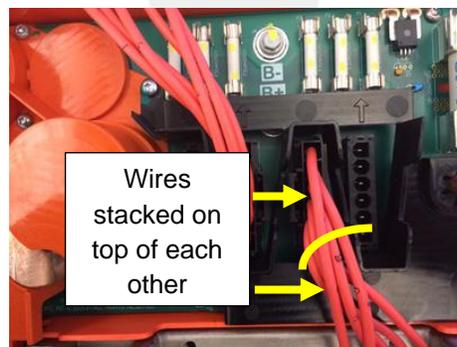
**Figure 1 (Dual Charger configuration shown)**

**⚠ CAUTION:** The harnesses for the different chargers are visually similar and have similar part numbers. Ensure that the correct harnesses are installed in the correct location. Note that the harnesses to the master charger are slightly longer than the harnesses to the slave charger.

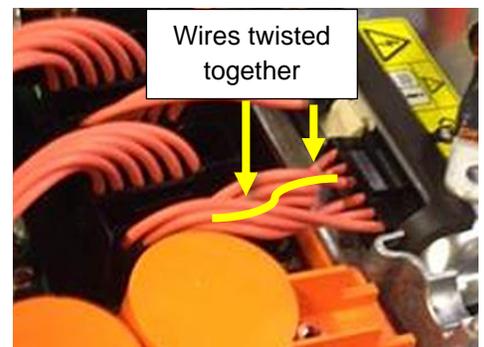
**⚠ CAUTION:** During installation, ensure that the harnesses are arranged neatly and are not twisted, and that they do not put unnecessary stress on the ports inside the HVJB or the charger (Figures 2–4).



✓ **Figure 2**



✗ **Figure 3**



✗ **Figure 4**

- Inspect the original harnesses for any signs of overheating, such as discolored insulation or deformed plastic on the connector. If there is any evidence of overheating, create a Toolbox session and escalate it to Service Engineering.
- Add the serial numbers of all replacement parts to the correction part record of the Repair Order.
- Reinstall all components that were removed for access and reconnect electrical power.
- Update the vehicle's firmware, if necessary.

8. Use Toolbox 3 to change the “HVJB 16A Per Phase OK” configuration variable:
  - a. Connect a laptop with Toolbox 3 to the vehicle.
  - b. In Toolbox 3, click **Dashboards**, and then type “Infotainment” in the search field.
  - c. Click **Infotainment Dashboard**, and then click **Vehicle Configuration**.
  - d. Click **Read Config**.
  - e. Expand the drop down next to “HVJB16A PerPhaseOK”, and then select **true**.
  - f. Click **Apply Changes**, and then click **Run** to save the updated configuration.  
**NOTE:** The gateway reboots. Wait for the reboot before continuing to the next step.
  - g. Verify that the configuration change was successful.
9. On the touchscreen, select **Controls > Charging**.
10. In the “Charge Current” box, set the value to 16A.
11. Charge the vehicle for at least 10 minutes.
12. Verify that the charging icon to the right of the range bar displays a circle icon with the number “3”, and displays “16 / 16 A” (Figure 5).

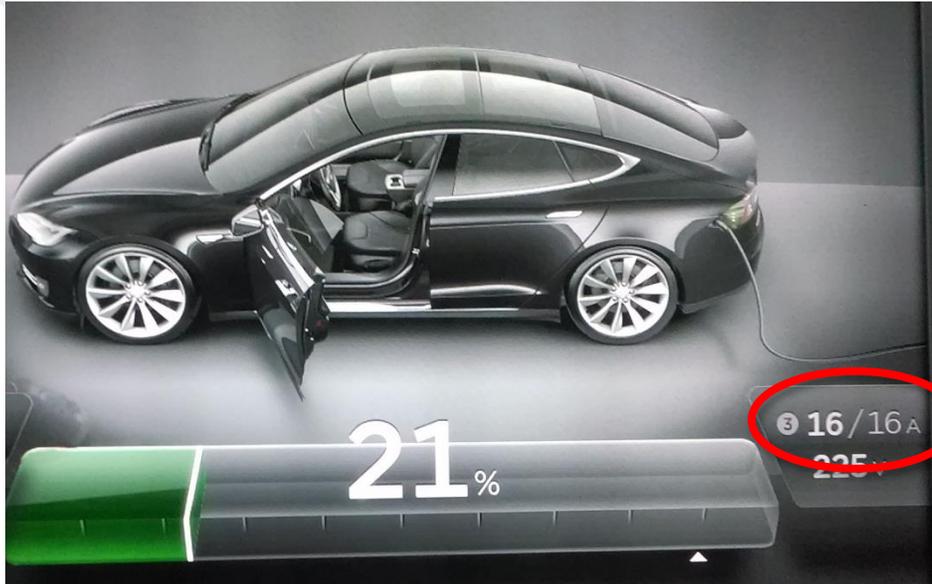


Figure 5

**Affected VIN(s)** Affected European and Asia Pacific Model S vehicles built through approximately May 16, 2014.

**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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