



# Replace 2<sup>nd</sup> Generation Front Junction Box to Front Drive Unit High Voltage Harness

<b>Classification</b>	Campaign Bulletin	<b>Section/Group</b>	44 - High Voltage System	<b>Country/Region</b>	All
<b>Year</b>	2019	<b>Model</b>	Model S, Model X	<b>Version</b>	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 S and Model X vehicles, the 2nd generation High Voltage (HV) harness between the Front Junction Box (FJB) and the front drive unit might become disconnected, which could prompt a driver alert to bring the vehicle to a safe stop, advise the driver of limited acceleration, or prevent the driver from operating the vehicle upon startup. This condition does not affect steering or braking.

## Correction

Replace the 2<sup>nd</sup> generation FJB to front drive unit HV harness. In addition, inspect the connector terminals in the FJB for minor thermal or soot damage. If damage is found, replace the FJB.

Correction Description	Correction	Time
SB-19-44-008 Not Applicable	S011944008	0.00
Replace 2 <sup>nd</sup> Generation FJB To Front Drive Unit HV Harness, Model S	S021944008	1.70
Replace 2 <sup>nd</sup> Generation FJB To Front Drive Unit HV Harness, Model X	S031944008	2.60
Replace 2 <sup>nd</sup> Generation FJB To Front Drive Unit HV Harness And Replace FJB, Model S	S041944008	2.25
Replace 2 <sup>nd</sup> Generation FJB To Front Drive Unit HV Harness and Replace FJB, Model X	S051944008	3.80

Required Part(s):	Part Number	Description	Quantity
		<b>Model S</b>	
	1470511-00-A	HV HARN, FDU - FJB, MS	1
	1004373-00-A	SCR,M6-1.0X18,BH,STL 8.8,ZNC,W/PATCH	4
	1008722-00-A	BOLT HF M8x30 PC109 ADH MAT	4
	1138547-00-A	BATTERY BOLTS, SERVICE REPAIR KIT, SX	1
	1004383-00-C	SCR,M10-1.50X25,HF,MPNT,STL10.9,ZNC,PTCH	16
	1009778-00-C	BOLT TE M8x85 PC109 PTP PC	12
	1037743-00-A	BOLT PF M6x40 PC109 ECOFIX	2
	2007059-00-B	NUT HFPT M10x1.50 [10]-ZnNi	2
		If needed:	
	1059891-00-E	FRONT JUNCTION BOX_HV DSTRBTN_MS2	1
		<b>Model X</b>	
	1471181-00-B	HV HRN, FJB-FDU, MX	1
	1004373-00-A	SCR,M6-1.0X18,BH,STL 8.8,ZNC,W/PATCH	4
	1138547-00-A	BATTERY BOLTS, SERVICE REPAIR KIT, SX	1
	1037743-00-A	BOLT PF M6x40 PC109 ECOFIX	1
		If needed:	
	1049678-00-H	FRONT JUNCTION BOX_HV DSTRBTN_MDLX	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):	Part Number	Description
	1020566-00-E	Batt Man Lift Table – Mdl S
	1026526-00-C	HV Battery Alignment Rods
	1038478-00-A	Asy, Cover, HV Rapid, HVBat, Mdl S
	1028325-00-A	Asy, Cover, LV Rapid, HVBat, Mdl S
	1028149-00-A	Tool, HV Rapidmate Install

## Procedure

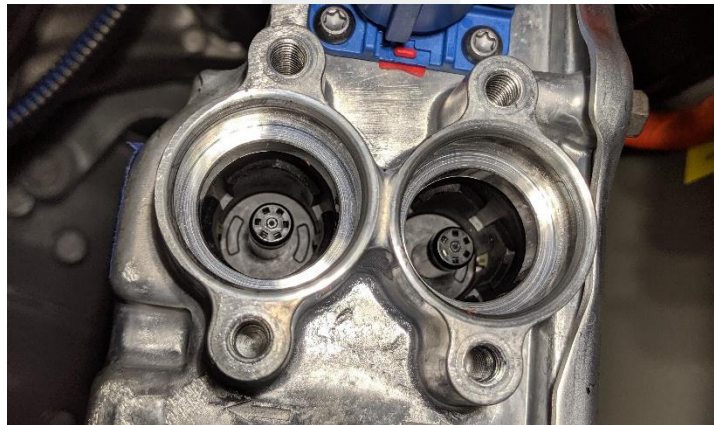
1. Remove the 2<sup>nd</sup> generation FJB to front drive unit HV harness:
  - Model S – Refer to Service Manual procedure 44500702
  - Model X – Refer to Service Manual procedure 44502502
2. Inspect the inside portion of the FJB HV connector terminals for thermal damage:
  - If damage is present (Figures 1 and 2), replace the Front Junction Box (FJB) before continuing this procedure:
    - Model S – Refer to Service Manual procedure 44201302
    - Model X – Refer to Service Manual procedure 44200702
  - If damage is not present (Figure 3), continue this procedure.



**✘ Figure 1 (Example of damage to the FDU HV connector terminal)**



**✘ Figure 2 (Example of damage to the FDU HV connector terminal)**



**✔ Figure 3 (Example of undamaged FDU connector terminals)**

3. Install the 2<sup>nd</sup> generation FJB to front drive unit HV harness:
  - Model S – Refer to Service Manual procedure 44500702
  - Model X – Refer to Service Manual procedure 44502502

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**Affected VIN(s)** Affected Model S and Model X vehicles built between approximately April 26, 2019 and June 14, 2019.

**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.

For feedback on the accuracy of this document, email [ServiceBulletinFeedback@tesla.com](mailto:ServiceBulletinFeedback@tesla.com).

