



Install Ferrite Bead on Forward Junction Box Wires to Reduce Radio Noise

Classification	Repair Bulletin	Section/Group	21 - Infotainment	Country/Region	All
Year	2013-2015	Model	Model S	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 Motors assumes no liability for injury or property damage due to a failure to properly follow these instructions or repairs attempted by unqualified individuals.

Condition

During normal vehicle operation, some Model S vehicles might experience radio noise or reception issues due to electrical noise coming from the forward junction box (FJB).

Correction

Upon customer complaint, install a ferrite bead onto the low voltage wires that connect to the FJB.

Correction Description	Correction	Time
SB-15-21-002 Not Applicable	S011521002	0.00
Install Ferrite Bead On FJB Wires To Reduce Radio Noise, RWD Vehicle	S021521002	0.40
Install Ferrite Bead On FJB Wires To Reduce Radio Noise, Dual Motor Vehicle	S031521002	1.05

Required Part(s):	Part Number	Description	Quantity
	1038706-00-A	61 ROUND CABLE CORE ASSM – FERRITE	1
	1038765-00-A	TESA ELECTRICAL TAPE	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.

Procedure for Rear Wheel Drive (RWD) Vehicles

NOTE: This section contains instructions for rear wheel drive vehicles. If working on a Dual Motor vehicle, perform the procedure detailed in the “Procedure for Dual Motor Vehicles” section of this document.

1. Disconnect 12V power (refer to Service Manual procedure 17010100).
2. Remove the underhood storage extension box (refer to Service Manual procedure 15240902).
3. Disconnect the 12V logic connector (X040) from the forward junction box (FJB) (Figure 1).

TIP: It might be helpful to release the barrel clip that secures the harness to the stud on the bulkhead (Figure 1).

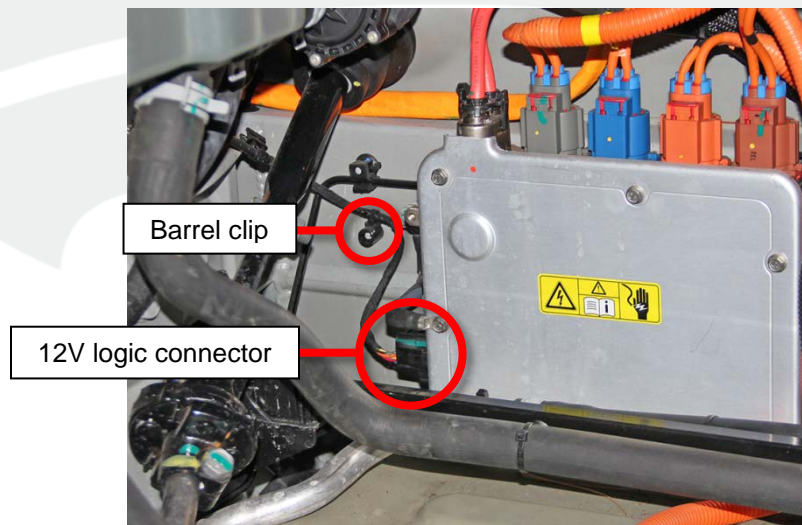


Figure 1

4. Identify the affected wires (Figure 2) attached to pins 5 and 6 (Figure 3) on the FJB logic connector.

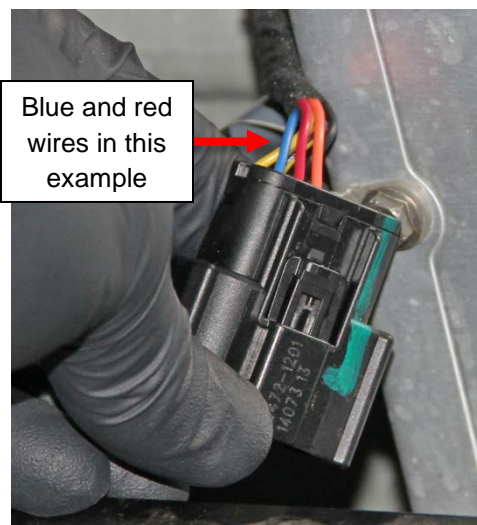


Figure 2

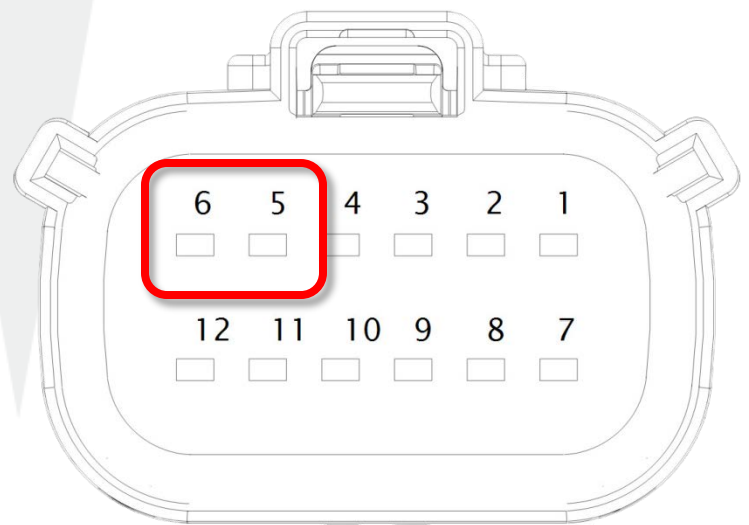


Figure 3

5. Starting from the connector, carefully remove approximately 2 in (50 mm) of electrical tape from all the wires.

⚠ CAUTION: Do not damage the wires or insulation when removing the electrical tape.

6. Wrap the 2 affected wires together with cloth tape.

NOTE: Ensure that the cloth tape extends at least 1.75 in (44 mm) from the connector.

7. Install a ferrite bead onto the wrapped wires as close to the connector as possible (Figure 4).

! CAUTION: Install the ferrite bead only onto the area that is covered in cloth tape.

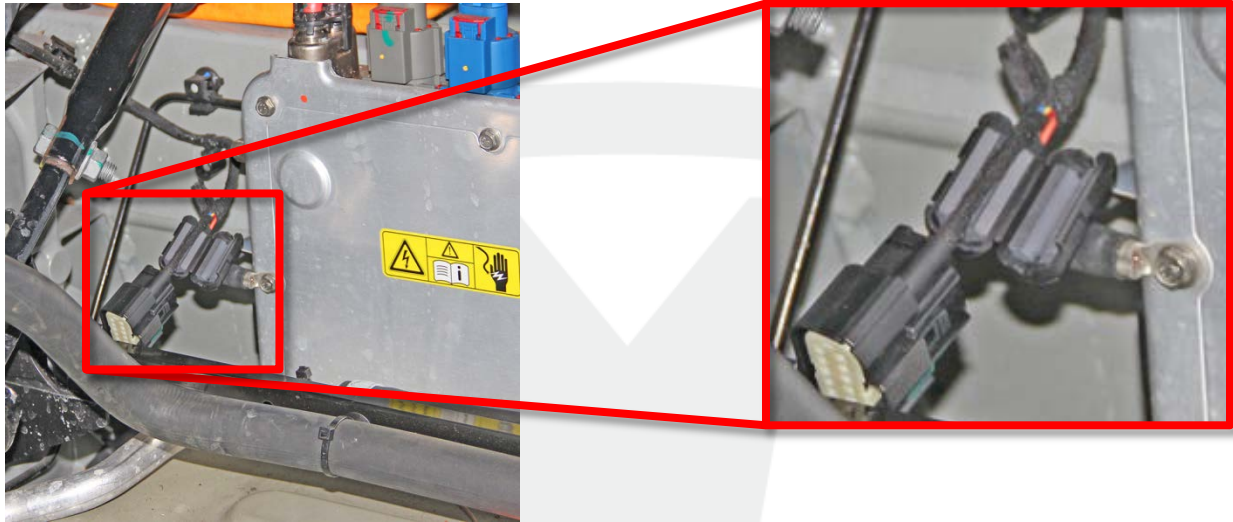


Figure 4

8. Wrap cloth tape around the harness so that all wires and the ferrite bead are covered from the connector to approximately 3 in (75 mm) from the connector (Figure 5).

NOTE: This prevents the ferrite bead from rattling against other surfaces in the vehicle.

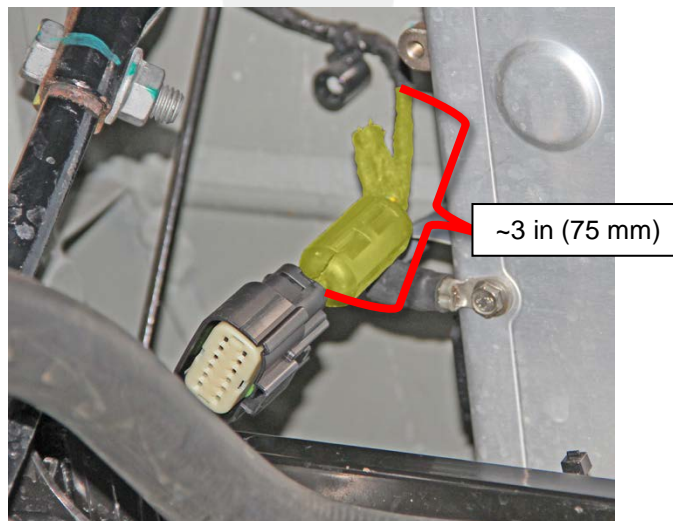


Figure 5 (Apply tape to highlighted area)

9. Reconnect the 12V logic connector to the FJB.

10. Reconnect 12V power and reinstall all components that were removed for access.

Procedure for Dual Motor Vehicles

NOTE: This section contains instructions for Dual Motor vehicles. If working on a RWD vehicle, perform the procedure detailed in the “Procedure for Rear Wheel Drive (RWD) Vehicles” section of this document.

1. Remove the HV Battery (refer to Service Manual procedure 16010101).
2. Working underneath the vehicle, disconnect the 12V logic connector (X040) from the forward junction box (FJB) (Figure 6).



Figure 6

3. Release the barrel clip that secures the harness to the stud on the bulkhead.
4. Remove all electrical tape between the connector and the barrel clip from all wires.

⚠ CAUTION: Do not damage the wires or insulation when removing the electrical tape.

5. Identify the affected wires (Figure 7) attached to pins 5 and 6 (Figure 8) on the FJB logic connector.

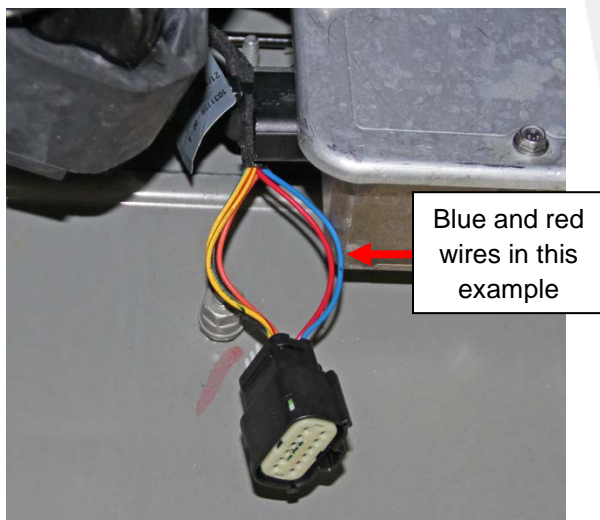


Figure 7

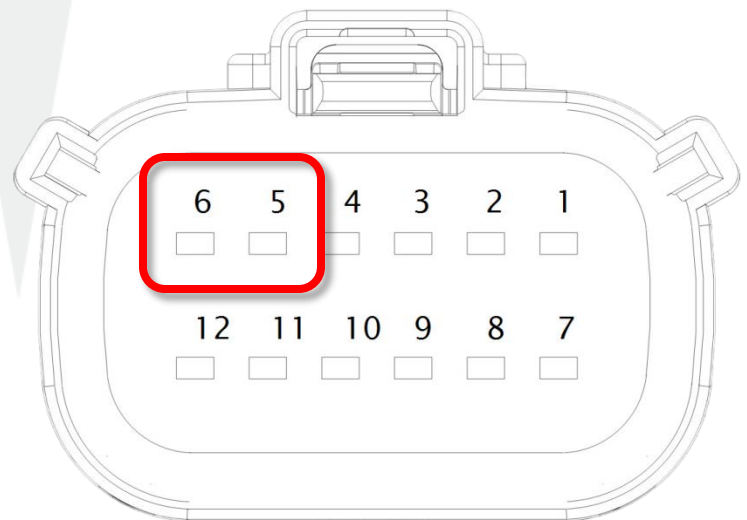


Figure 8

11. Wrap the 2 affected wires together with cloth tape.

NOTE: Ensure that the cloth tape extends from the barrel clip to approximately 0.75 in (20 mm) away from the connector (Figure 9)

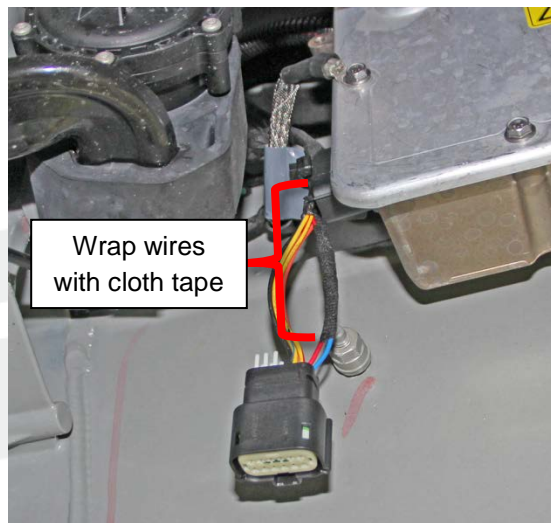


Figure 9

12. Install a ferrite bead onto the wrapped wires so that the closest side is approximately 1.2 in (30 mm) from the connector (Figure 10).

! CAUTION: Install the ferrite bead only onto the area that is covered in cloth tape.

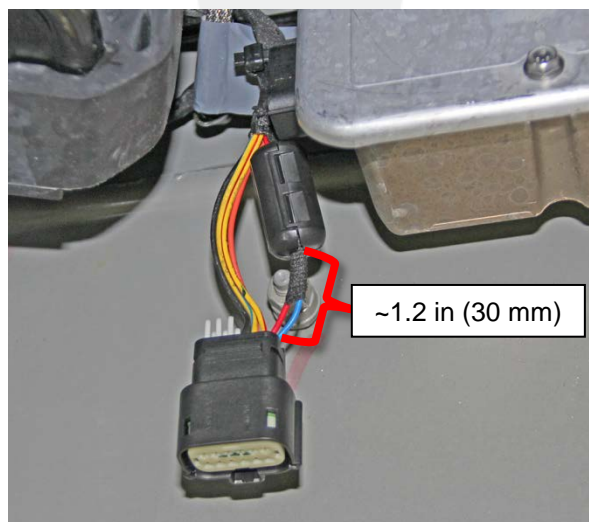


Figure 10

13. Temporarily connect the 12V logic connector to the FJB and ensure that the ferrite bead does not touch the battery coolant pump and that the wires do not have an excessive bend. If the ferrite bead contacts the battery coolant pump, remove the ferrite bead and reinstall it closer to the barrel clip.

! CAUTION: Contact between the ferrite bead and the battery coolant pump can result in NVH issues.

14. Disconnect the 12V logic connector from the FJB.

15. Wrap cloth tape around the harness so that all wires and the ferrite are covered between the connector and the barrel clip (Figure 11).

NOTE: This prevents the ferrite bead from rattling against other surfaces in the vehicle.



Figure 11

16. Reconnect the 12V logic connector to the FJB.

17. Reinstall the barrel clip that secures the harness to the stud on the bulkhead.

18. Reinstall the HV Battery.

Affected VIN(s) Affected Model S vehicles built between approximately July 18, 2013 and October 8, 2015.

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@teslamotors.com.