		<b>Tesla, Inc.</b> Service Bulletin		<b><i>UHF Antenna Wire Rework To Improve Charge Port Door Response To Charge Cable Button Press</i></b>	
<b>SB-22-17-005</b> April 29, 2022					
<b>Classification</b>		<b>Section/Group</b>	<b>Mobile Service</b>	<b>Configuration</b>	
Repair Bulletin		17 - Electrical	Cannot Perform	All	
<b>Model Year</b>	<b>Model</b>	<b>Country/Region</b>	<b>Build Location</b>		
2021	Model S	United States, Canada	Fremont		
The model(s) and model year(s) listed are a general approximation 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.					

Repair Bulletin: This repair bulletin provides instructions on addressing a noted condition or possible customer concern regarding the operation of Tesla vehicles. These instructions should only be performed by trained professionals.

## Condition

On some Model S vehicles manufactured before June 1, 2021, the charge port door may be unresponsive to a charge cable button press and may not open because of poor Ultra High Frequency (UHF) antenna performance. However, the charge port door still opens through the touchscreen, press-to-open (vehicle unlocked), key fob, or mobile app.

## Correction

Inspect the vehicle for symptoms related to the condition. If symptoms are present, install a new UHF antenna overlay wire. If the new overlay wire does not fix the issue, replace the charge port ECU.

Correction Description	Correction	Time
SB-22-17-005 Not Applicable	S012217005	0.0
Overlay UHF Antenna Wire To Improve Responsiveness Of Charge Port Door To Charge Cable Button Press	S022217005	1.0
Overlay UHF Antenna Wire To Improve Responsiveness Of Charge Port Door To Charge Cable Button Press And Replace Charge Port ECU	S032217005	1.0

	Part Number	Description	Quantity
<b>Parts Required</b>	1061177-00-B	Wire Harness Repair Kit	As Required
	1115735-00-A	Terminal Repair Kit 1	As Required
	1115736-00-A	Terminal Repair Kit 2	As Required
	1115737-00-A	Terminal Repair Kit 3	As Required
	1684770-00-A	Box 2: Terminal Kits 2.0	As Required
	1684771-00-A	Box 3: Terminal Kits 2.0	As Required

**If Necessary** 1619321-00-C ASY. CHARGE PORT CONTROLLER GEN 4, MS EU 1

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the [Parts Catalog](#).

**Shop Supplies** Electrical tape  
Cable tie

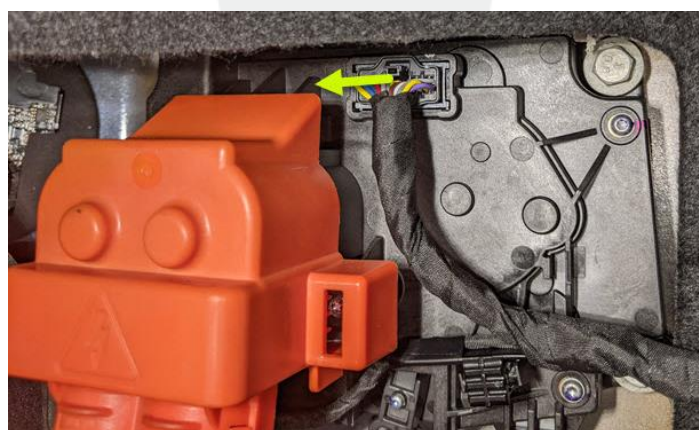
## Procedure

1. Remove the rear underhood apron (refer to Service Manual [12251102](#)).
2. Disconnect LV power (refer to Service Manual procedure [17010200](#)).
3. Remove the LH trunk side trim (refer to Service Manual procedure [15245002](#)).
4. Cut the cable tie that attaches the wiring harness loop to the inlet logic branch (Figure 1).



**Figure 1**

5. Disconnect charge port electrical connector X1400 (Figure 2).



**Figure 2**

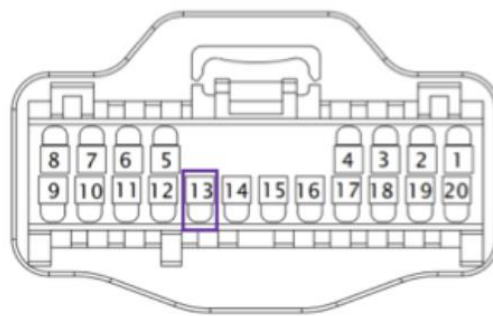
6. Disconnect charge port ECU electrical connector X1496 (Figure 3).



**Figure 3**

7. Unpin the purple UHF antenna wire at charge port inlet electrical connector X1400, cavity 13 (Figure 4) by releasing the connector lock.

**⚠ CAUTION:** Use the proper jig pick to avoid damage to the electrical connector housing.

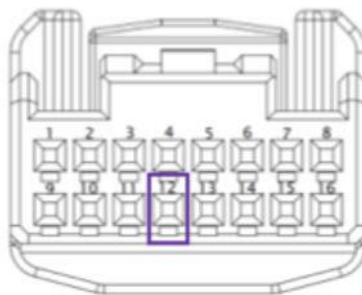


**X1400**

**Figure 4**

8. Unpin the purple UHF antenna wire at charge port ECU electrical connector X1496, cavity 12 (Figure 5) by releasing the connector lock.

**⚠ CAUTION:** Use the proper jig pick to avoid damage to the electrical connector housing.



**X1496**

**Figure 5**

9. Cut off the wire terminals at both ends of the purple UHF antenna wire using diagonal cutters, and then use electrical tape to cover the leftover wire (Figures 6 and 7).



Figure 6



Figure 7

10. Prepare the new UHF antenna overlay wire:

- Obtain an overlay wire (0.35mm<sup>2</sup>) 450 mm in length.
- Obtain new wire terminals 1116824-00-A and 1099424-00-A from the wire harness repair kit.
- Peel off approximately 7 mm of wire insulation at both ends of the overlay wire.

**⚠ CAUTION:** Do not remove any wire strands during the stripping of insulation.

**📄 NOTE:** Make sure enough wire conductor is exposed to reach the center stop of the crimp barrel.

- Install the wire terminals on both ends of the overlay wire appropriately. For more information, refer to document [SI-17-17-002](#), Electrical Harness Repair.

11. Install the new wire terminal (1116824-00-A) from the UHF antenna overlay wire into electrical connector X1400, cavity 13 (Figure 4).

**📄 NOTE:** Make sure the correct wire terminal 1116824-00-A is being inserted.

**📄 NOTE:** Make sure the electrical connector TPA is relocked after the wire terminal is inserted.

12. Install the new wire terminal (1099424-00-A) from the UHF antenna overlay wire into electrical connector X1496, cavity 12 (Figure 5).

**📄 NOTE:** Make sure the correct wire terminal 1099424-00-A is being inserted.

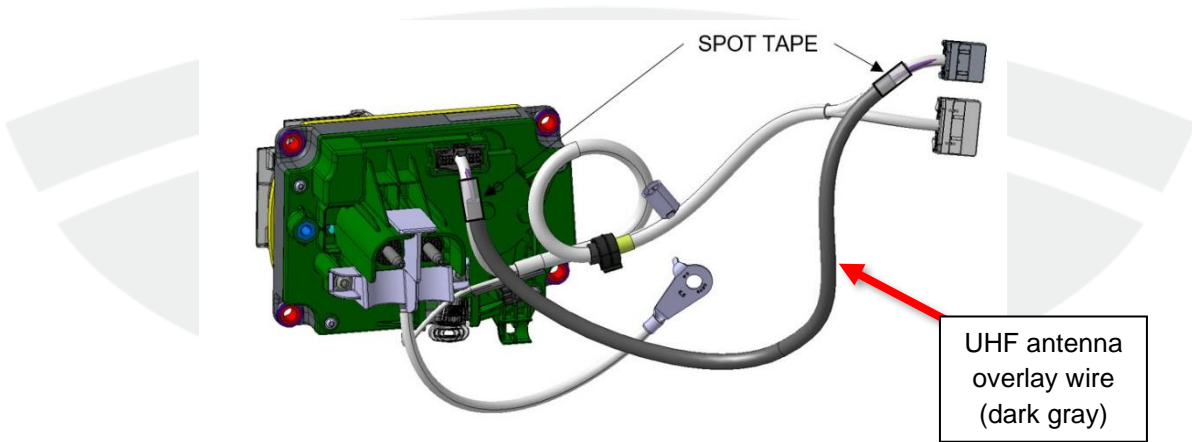
**📄 NOTE:** Make sure the electrical connector TPA is relocked after the wire terminal is inserted.

13. Add electrical tape at each end of the new UHF antenna overlay wire to the existing harness, and then position the UHF antenna overlay wire relative to connector positions as shown in Figure 8.

**⚠ CAUTION:** Failure to route the UHF antenna overlay wire as instructed may cause lower than expected UHF performance.

**⚠ CAUTION:** The new UHF antenna overlay wire should be routed in front of the busbars and sit inboard of all the other inlet wiring.

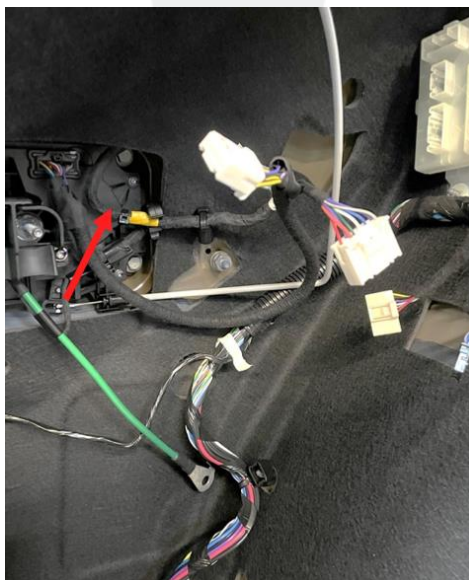
**📄 NOTE:** The distance between the center of the electrical tape and the back side of each electrical connector should be approximately 30 mm (Figure 8).



**Figure 8**

14. Route the remaining LV harness bundle so that the existing harness loop is tucked securely inside the trim cavity (Figure 9).

**⚠ CAUTION:** Failure to tuck the harness as instructed may cause lower than expected UHF performance.



**Figure 9**

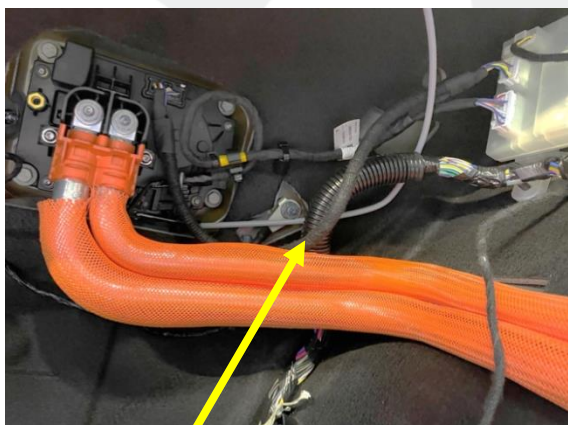
15. Connect charge port ECU electrical connector X1496 (Figure 3).

16. Connect charge port electrical connector X1400 (Figure 2).

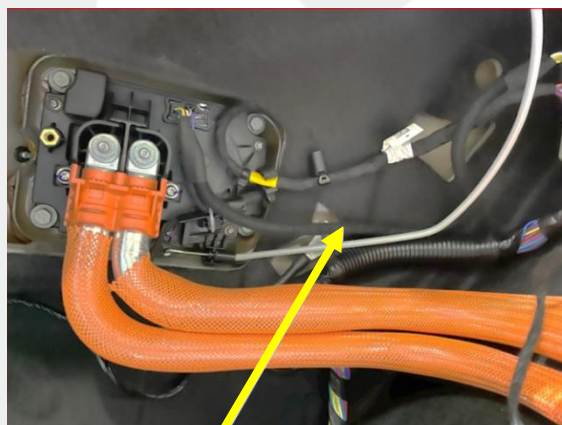
17. Verify that the UHF antenna overlay wire is properly routed as demonstrated in Figures 10, 11, and 12.



✓ **Figure 10 – Wiring harness is correctly routed in front of busbars**



✗ **Figure 11 – Wiring harness is not correctly routed (behind busbars)**



✗ **Figure 12 – Bring the wiring harness to the front of the busbars**

18. Close the liftgate.

19. Verify that the charge port door opens using the charge port handle button at approximately 12 inches (30 cm) away from these locations (Figures 13 and 14):

- Center of the charge port door.
- Left of the charge port door.
- Right of the charge port door.

If the charge port door still does NOT function properly, replace the charge port ECU (refer to Service Manual procedure [44015002](#)).

**⚠ CAUTION:** Keep the new harness routing as instructed in steps 13 and 14 even if the charge port ECU is being replaced. Replacement of the charge port ECU is not an alternative, but a supplemental step to be performed if the UHF antenna overlay wire alone is ineffective.

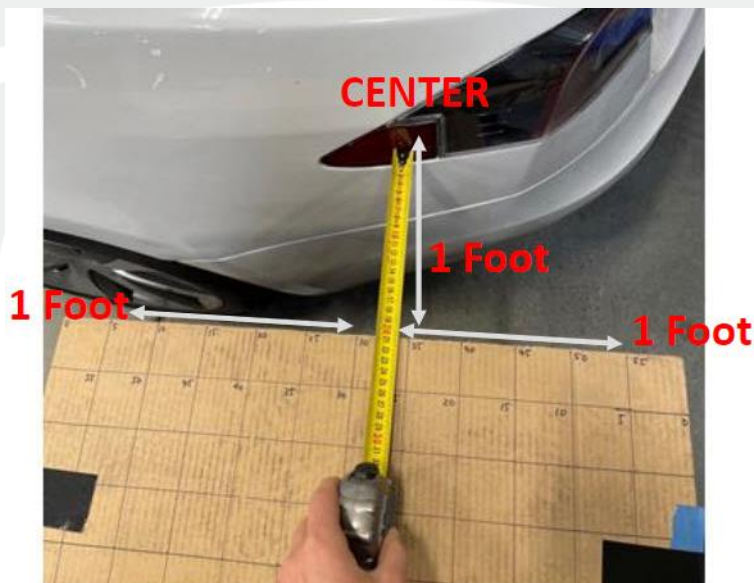


Figure 13



Figure 14

20. Install the LH trunk side trim (refer to Service Manual procedure [15245002](#)).

21. Reconnect LV power (refer to Service Manual procedure [17010200](#)).

22. Install the rear underhood apron (refer to Service Manual [12251102](#)).