 Tesla, Inc. Service Bulletin		<h2>Retrofit EPB Wires with Corrugated Tubing</h2>	
SB-22-17-003 March 18, 2022			
Classification		Section/Group	Mobile Service
Campaign Bulletin		17 - Electrical	Can Perform (where permitted)
Model Year	Model	Country/Region	Build Location
2021 - 2022	Model S, Model X	North America	Fremont
<small>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.</small>			

Campaign Bulletin: 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 list.

Condition

On certain Model S and Model X vehicles, the electrical wires for the Electronic Parking Brake (EPB) may be subject to abrasion caused by long term vibration cycling. Abrasion between the EPB wires and the backshell may strip the EPB wire insulation, resulting in water ingress or an electrical short.

Correction

Inspect the vehicle for corrugated tubing on the LH and RH EPB wires. If no corrugated tubing is present, retrofit the EPB wires with corrugated tubing. If wire damage has occurred, replace the rear chassis harness(es).

Correction Description	Correction	Time
SB-22-17-003 Not Applicable	S012217003	0.00
Inspect LH And RH EPB Wires; Corrugated Tubing Already Present	S022217003	0.10
Inspect LH And RH EPB Wires; Retrofit Corrugated Tubing On LH And RH Rear Chassis Harnesses	S032217003	0.20
Inspect LH And RH EPB Wires; Retrofit LH Corrugated Tubing And Replace RH Rear Chassis Harness	S042217003	0.65
Inspect LH And RH EPB Wires; Retrofit RH Corrugated Tubing And Replace LH Rear Chassis Harness	S052217003	0.65
Inspect LH And RH EPB Wires; Replace LH And RH Rear Chassis Harnesses	S062217003	0.90

	Part Number	Description	Quantity
Parts Required (if needed)	1732408-00-A	70MM CORRUGATED TUBE	1-2
	1420781-00-C or 1420781-00-D	CHASSIS HARNESS REAR LEFT HAND LONG RANGE	1
	1420783-00-C or 1420783-00-D	CHASSIS HARNESS REAR LEFT HAND PERFORMANCE	1
	1420782-00-C or 1420782-00-D	CHASSIS HARNESS REAR RIGHT HAND LONG RANGE	1
	1420784-00-C or 1420784-00-D	CHASSIS HARNESS REAR RIGHT HAND PERFORMANCE	1

! **CAUTION:** Revision C does not have the corrugated tubing and must be retrofitted with the corrugated tubing (1732408-00-A) before installation. Chassis harness with revision D or higher already has the corrugated tubing.

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

Procedure

1. Remove the LH and RH rear wheel caps, if equipped.

NOTE: Lift every other wheel cap spoke (Figure 1) until the wheel cap is removed from the wheel.



Figure 1

2. Carefully inspect the LH EPB wires at the rear brake caliper. Repeat this inspection for the RH side.
 - If the EPB wires are covered with corrugated tubing (Figure 2), no further rework is needed. Reinstall the wheel caps, if equipped, and discontinue this procedure.
 - If the EPB wires are NOT covered with corrugated tubing but no wire damage is evident (Figure 3), continue to the next step.
 - If the insulation of the EPB wires is damaged (Figure 4), replace the rear chassis harness (refer to Service Manual procedure 17107302; [Model S](#), [Model X](#)):
 - If the new rear chassis harness is revision C, it does not have the corrugated tubing and must be retrofitted with the corrugated tubing. Install the new rear chassis harness, and then skip to step 5.
 - If the new rear chassis harness is revision D, it has the corrugated tubing. Install the new rear chassis harness, and then skip to step 9.

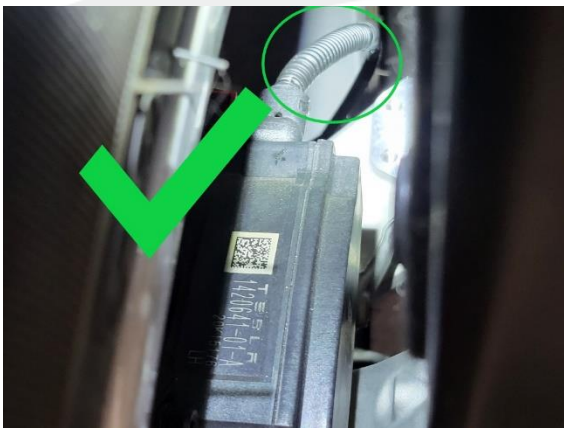


Figure 2 – Corrugated tubing installed




Figure 3 – Corrugated tubing not installed



Figure 4 – EPB wire insulation damaged

3. Raise and support the vehicle on a 2 post lift (refer to Service Manual procedure 10000205; [Model S](#), [Model X](#)).

 **NOTE:** For Mobile Service, lift the LH rear side of the vehicle first. After completing this procedure on the LH side, repeat this procedure on the RH side.

4. Remove the LH rear wheel (refer to Service Manual procedure 34015001; [Model S](#), [Model X](#)).

5. Remove the EPB connector backshell:

- a. Insert a plastic trim tool into the slot (Figure 5), and then pry open the backshell as shown (Figure 6).

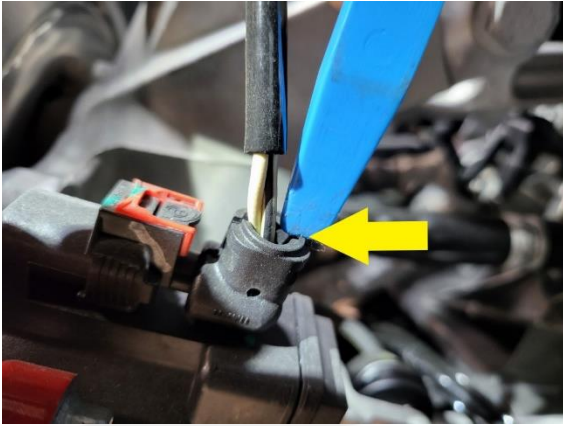


Figure 5

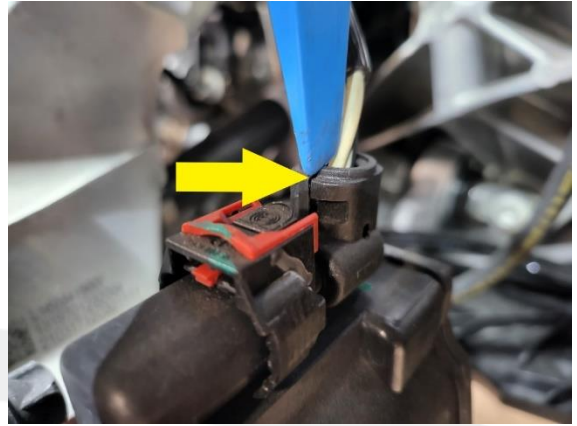


Figure 6

- b. After the backshell is unclipped, pull open the backshell enough to install the corrugated tube (Figure 7).

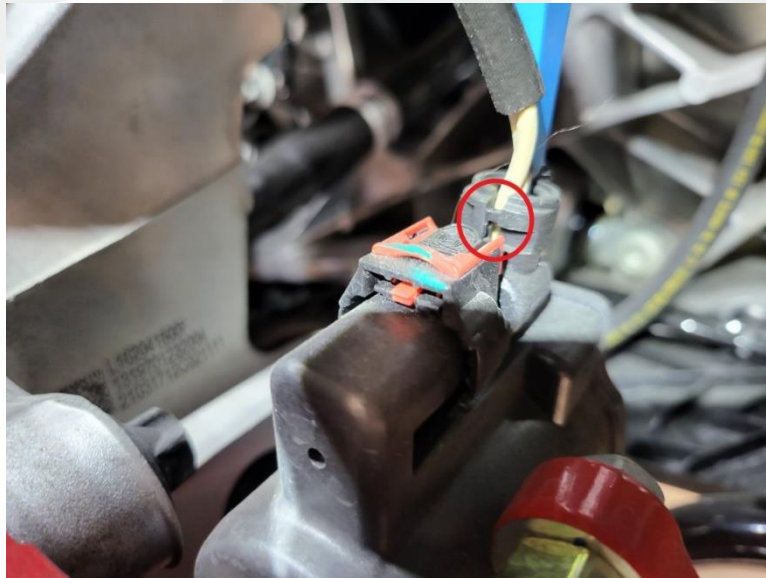


Figure 7

⚠ CAUTION: If the backshell has worn through the outer jacket or the EPB wires are damaged (Figure 8), the rear chassis harness must be replaced (refer to Service Manual procedure 17107302; [Model S](#), [Model X](#)):

- If the new rear chassis harness is revision C, it does not have the corrugated tubing and must be retrofitted with the corrugated tubing. Install the new rear chassis harness, repeat step 5, and then continue to the next step.
- If the new rear chassis harness is revision D, it has the corrugated tubing. Install the new rear chassis harness, and then skip to step 9.



Figure 8

6. Install the corrugated tube into the EPB electrical harness (Figure 9).



Figure 9 – EPB electrical connector disconnected for clarity

7. Insert the corrugated tube into the backshell, and then secure it:
 - a. Align the corrugated tube with the ridge on the backshell (Figure 10).



Figure 10

- b. Align the third groove on the corrugated tube with the ridge and snap the backshell shut (Figures 11 and 12). Listen for an audible click when closing the backshell.

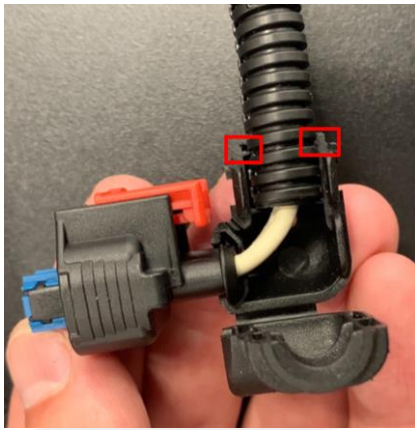


Figure 11 – EPB electrical connector disconnected for clarity

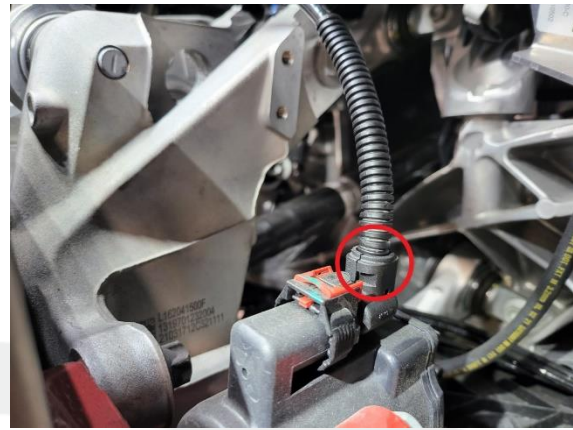


Figure 12

- c. Perform a pull check on the backshell and verify that the tube cannot easily pull from the backshell (Figure 13).

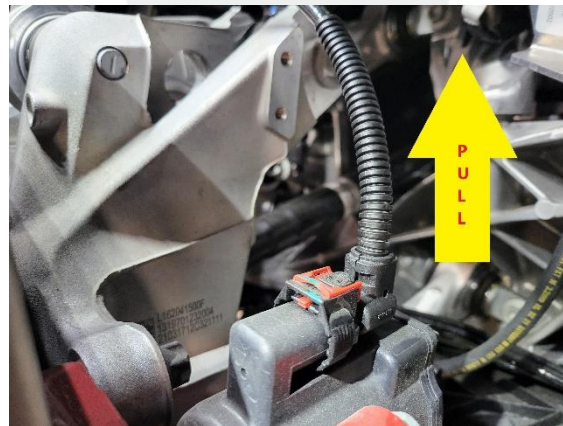


Figure 13

8. Secure the corrugated tube to the electrical harness by installing a strip of electrical tape of approximately 10 cm (4 in) in length (Figures 14 and 15).



Figure 14

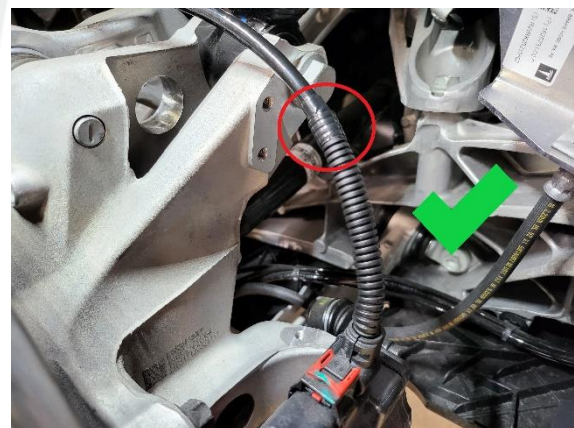


Figure 15

9. Install the LH rear wheel (refer to Service Manual procedure 34015001; [Model S](#), [Model X](#)).
10. Repeat steps 4–9 for the RH side if corrugated tubing is not present.