November 5, 2014



# Rear Fascia with 4 Park Assist Sensors Retrofit

Classification	Repair Bulletin	Section/Group	10 - Body	Country/Region	All
Year	2012-2014	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 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.

### Condition

The Model S rear fascia design has been updated. The locations of the holes for the park assist sensors have changed.

**NOTE:** It is not possible to retrofit the 6-sensor park assist system on a vehicle with 4 park assist sensors.

### Correction

After a rear collision or another scenario where an old rear fascia with 4 park assist sensors must be replaced, replace the park assist harness assembly as well as the rear fascia.

Required Part(s):	<b>Part Number</b> 1052917-00-A 1004421-03-N	Description ASY, REAR FASCIA, 4 PARK ASSIST, SRVC ASY,HRN,MDLS,ALL,BUMP RR,PKA	<b>Quantity</b> 1 1		
	<b>lf necessary:</b> 1014388-00-A	SENSOR, PARK ASSIST - UNPAINTED	0-4		
	These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.				
<b>Correction Descri</b>	ption	Corr	rection Time		
Vehicle Inspection Required	Rear Fascia with 4 Park Assist Sensors Not S01	1410002 0.1			
Retrofit New Rear	Assist Sensors S02	1410002 2.15			

# Procedure

**NOTE:** Before performing this procedure, it is necessary to work with a Tesla Approved Body Shop to have the new rear fascia painted to match the rest of the body.

- 1. Measure the distance between the 2 middle park assist sensors on the fascia being replaced:
  - If the sensors are approximately 600 mm apart (Figure 1), discontinue this procedure. Only the rear fascia needs to be replaced.
  - If the sensors are approximately 400 mm apart (Figure 2), continue to the next step of this procedure.

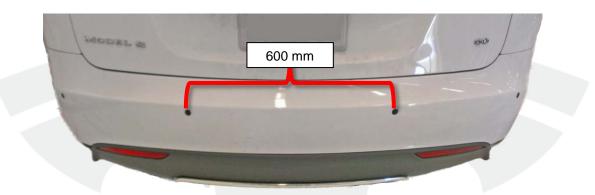


Figure 1 (Updated rear fascia)



Figure 2 (Old rear fascia)

- 2. Remove the rear fascia (refer to Service Manual procedure 10013001).
- 3. Remove the 4 park assist sensors (refer to Service Manual procedure 17201202).
- 4. Discard the rear fascia and park assist harness assembly.

- 5. Install the 4 rear park assist sensors in the updated rear fascia:
  - a. Place each sensor into a retainer and push down evenly. The sensors snap into place.

**NOTE:** It might be helpful to use the handle of a screwdriver to evenly apply force to the sensors. Ensure that the retainer rings remain smooth and do not get pinched. If necessary, use a trim stick to smooth out the retainer rings (Figure 3).

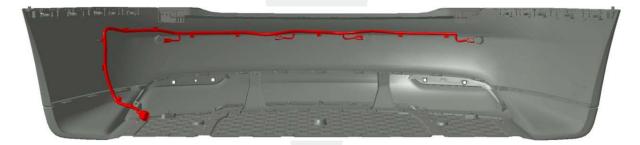
**CAUTION:** If any of the retainer rings are not smooth, the system produces a fault.



Figure 3

b. Secure the park assist harness assembly to the rear fascia (Figure 4).

**NOTE:** Leave the same amount of slack between each of the 4 sensors.





- c. Connect the 4 park assist sensor connectors.
- d. Inspect the sensors from the rear and ensure that they are flush with the fascia.
- 6. Connect the rear park assist harness assembly.
- 7. Install the rear fascia.
- 8. Perform the steps detailed in the "Functionality Tests" section of this document.

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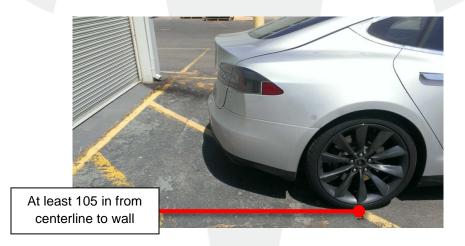
# **Functionality Tests**

**NOTE:** If any of the tests fail, ensure that the sensors are mounted properly and that all harness connections are secure. If necessary, contact Service Engineering for assistance.

- 1. Verify the maximum range of the rear sensors:
  - a. Position the vehicle facing away from a flat wall. Ensure that the vehicle is perpendicular to the wall and far enough away from the wall so that there are no alerts from the park assist system.
  - b. Slowly drive the vehicle in reverse towards the wall. Ensure that the vehicle remains perpendicular to the wall.
  - c. Stop the vehicle as soon as the park assist system alerts that there is an object behind the vehicle.

**CAUTION:** Do not rely on the park assist system to avoid touching the wall. Have an assistant stand outside the vehicle and provide signals as the vehicle gets closer to the wall.

d. Exit the vehicle and verify that the distance between the wall and the centerline of the rear wheels is at least 105 in (267 cm) (Figure 3).





2. Drive the vehicle in reverse through a standard 2-post lift (Figure 4). Ensure that both the left and right park assist warnings appear on the instrument cluster (Figure 5).



Figure 4



- 3. Verify that short objects are detected:
  - a. Place a soft object that is approximately 1 ft (30 cm) tall, such as a water jug or an empty bucket, approximately 5 ft (152 cm) behind the center of the vehicle.

**CAUTION:** Have an assistant stand outside the vehicle and provide signals as the vehicle gets closer to the object. Do not allow the vehicle to touch the object.

b. Drive the vehicle in reverse very slowly. Verify that park assist indicator on the instrument cluster displays a green warning. The warning turns yellow approximately 2.8 ft (85 cm) from the object, and then turns red approximately 1.3 feet (40 cm) from the object. The word "Stop" also appears.

**CAUTION:** Stop the vehicle as soon as the indicator turns red (Figure 6).

**NOTE:** The 3 warnings can appear 15 cm closer or further from the object than the above numbers without any issue.



Affected VIN(s) Affected Model S vehicles with Park Assist built before approximately September 15, 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.

For feedback on the accuracy of this document, email <u>ServiceBulletinFeedback@teslamotors.com</u>.