



Underbody Shield Installation

Classification	Parts and Accessories Bulletin	Section/Group	30 - Chassis	Country/Region	All
Year	2012-2014	Model	Model S	Version	All

Bulletin Classification: This bulletin provides instructions and guidelines for a vehicle procedure that is not the result of a defect. 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 assumes no liability for injury or property damage due to a failure to properly follow these instructions or repairs attempted by unqualified individuals.

This Service Bulletin supersedes SB-14-30-002 R3, dated 26-Jun-15. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.

A set of underbody shields is now available for installation upon customer request (Figure 1). The purpose of these shields is to provide additional protection for the underbody from road debris.

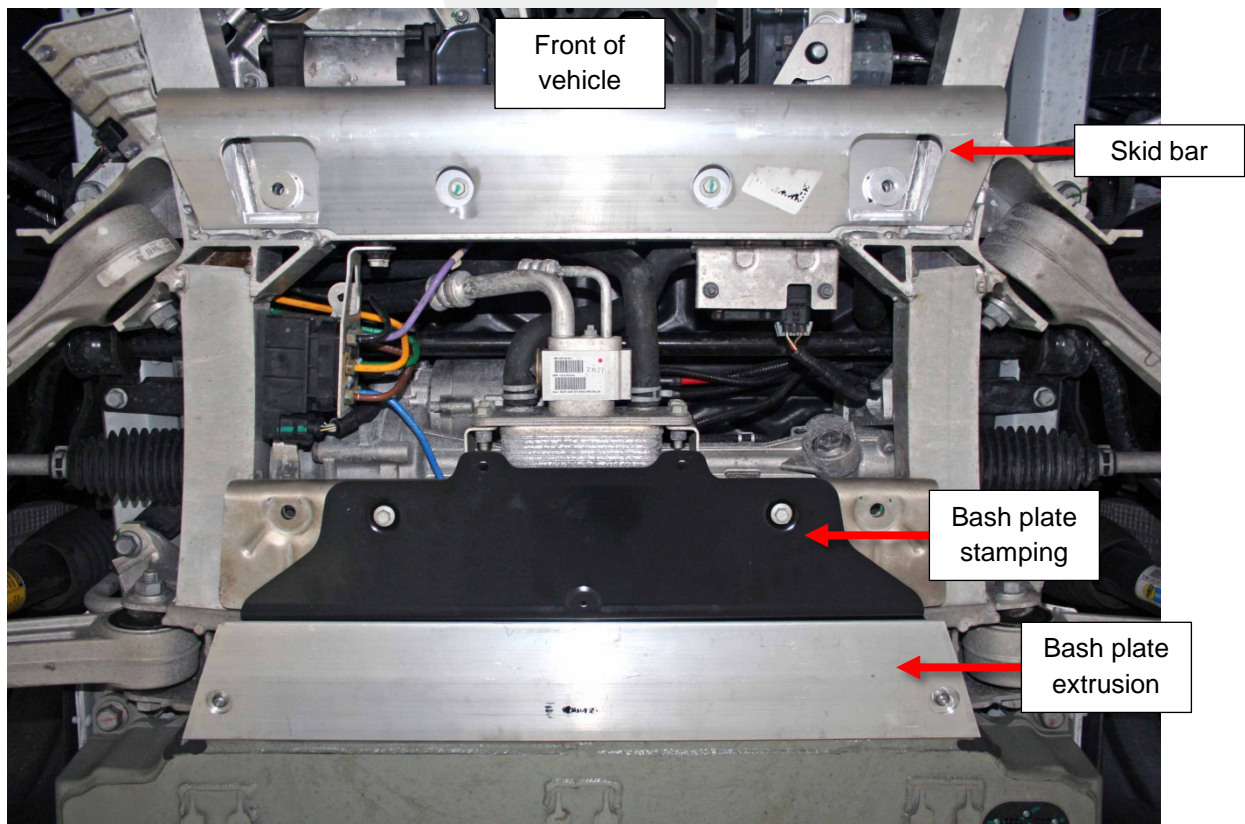


Figure 1 (Underbody shield set)

Correction Description	Correction	Time
Vehicle Inspection Only; Underbody Shield Installation Not Required	S011430002	0.20
Install Underbody Shield Using Underbody Shield Kit, Modify and Install Front Undershield	S021430002	0.45
Customer Declined Underbody Shield Installation	S031430002	0.05

Required Part(s):	Part Number	Description	Quantity
	1039909-00-A	UNDERBODY SHIELDS KIT ASY, SERVICE	1
		If required:	
	1006535-00-A	RIVIT - PUSH-PULL 8x18x28.5	As required
	1015755-00-A	RVT PUSH PULL 10X22X29	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.			
Special Tool(s):	1080576-00-A	RIVET NUT INSTALLER 6mm	
	1039845-00-A	TOOL, UNDRBDY AEROSHIELD CUT TEMPLATE	
	1058573-00-A	9" MULTI-PURPOSE SNIP	

⚠ WARNING: To avoid personal injury, eye protection must be worn when performing this operation.

Accessing the Front Subframe

1. Remove the front undershield panel (refer to Service Manual procedure 12030102).
2. Inspect the vehicle for staybars (Figure 2). If staybars are installed, remove them from the front subframe and front bumper carrier and discard.

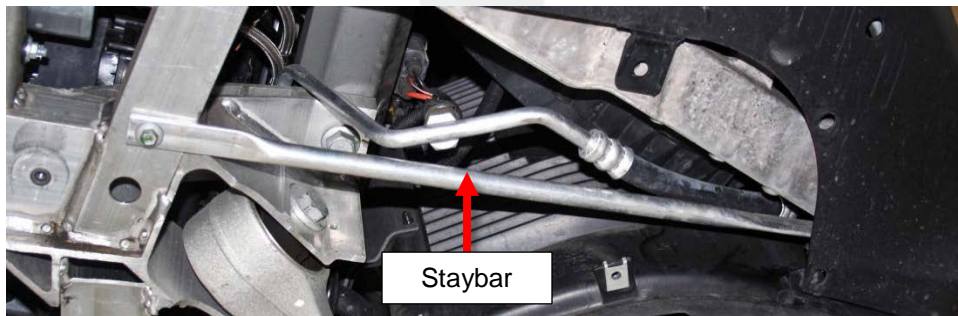


Figure 2 (LH staybar shown, RH similar)

Installing the Skid Bar

1. Apply 2 pieces of double-sided adhesive (1017616-00-A) to each spacer (1036619-00-A) (Figure 3).



Figure 3

2. Remove the backing from each piece of double-sided tape. Align the spacers to the bolt holes on the ends of the skid bar (Figure 4); press firmly to secure.



Figure 4

3. Position the skid bar in place beneath the front subframe and hand-tighten the bolts (1014288-00-B) (Figure 5). Do not torque the bolts at this time.

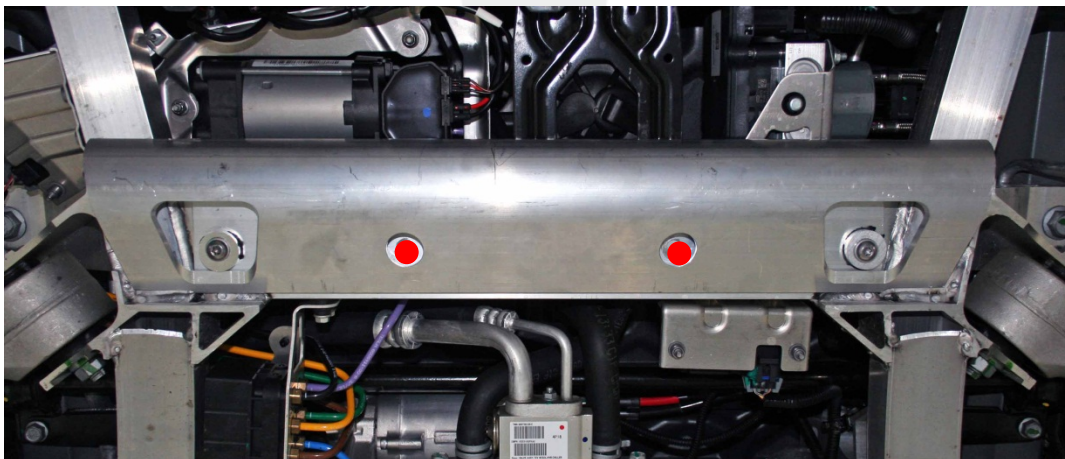


Figure 5

4. Using a center punch, mark two drill holes on the front subframe through the middle holes on the skid bar (Figure 5).
5. Remove the skid bar from the front subframe.

6. Drill the marked bolt holes with a 23/64" (9 mm) bit.
7. Install a rivet nut (2007016) into each hole (Figure 6).

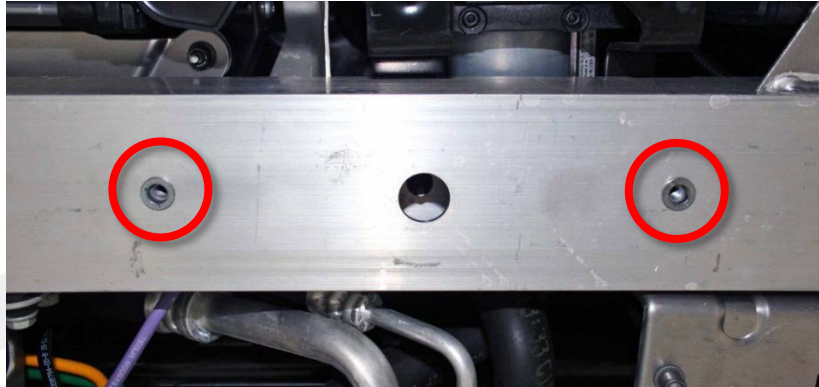


Figure 6

8. Temporarily secure the middle section of the skid bar to the rivet nuts using the bolts (1006529-00-A).
9. Temporarily secure the ends of the skid bar to the front subframe through the spacers using the bolts (1014288-00-B). This is necessary to ensure the end bolts remain in place while tightening the middle bolts.
10. Torque the middle bolts on the skid bar (10 Nm).
11. Remove the end bolts from the skid bar and set aside. They will be replaced during the undershield installation.

Installing the Bash Plates

1. Verify 1 isolator patch is installed on each side of the bash plate stamping (Figure 7).



Figure 7 (One side shown; inspect both sides)

NOTE: The isolator patches in earlier versions of the kit are separate from the bash plate stamping. In these cases, install the patches (1038621-00-B) as shown.

2. Remove the 2 bolts from the front subframe skid plate and discard them (Figure 8).

NOTE: Inspect the front subframe skid plate for a 3rd bolt. If the 3rd bolt is installed, remove it and discard.

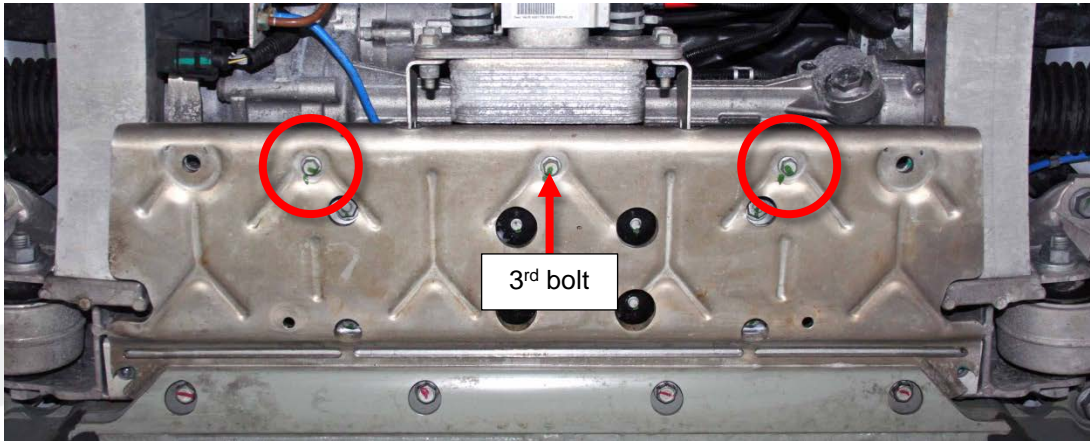


Figure 8

3. Slide 1 shoulder washer (1038838-00-A) onto 1 bolt (2007206) (Figure 9).

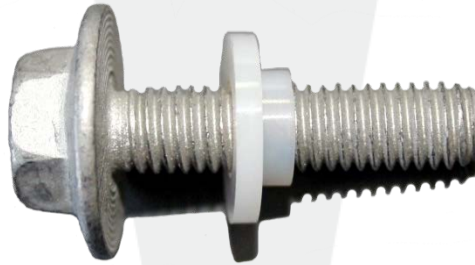


Figure 9

- Slide the bolt through the bolt hole on the bash plate stamping from the road-facing side (Figure 10). Slide 1 washer (1038837-00-A) onto the end of the bolt from the vehicle-facing side of the bash plate stamping (Figure 11).



Figure 10 (Road-facing side)



Figure 11 (Vehicle-facing side)

NOTE: The road-facing side of the bash plate stamping has indented bosses (Figure 12).

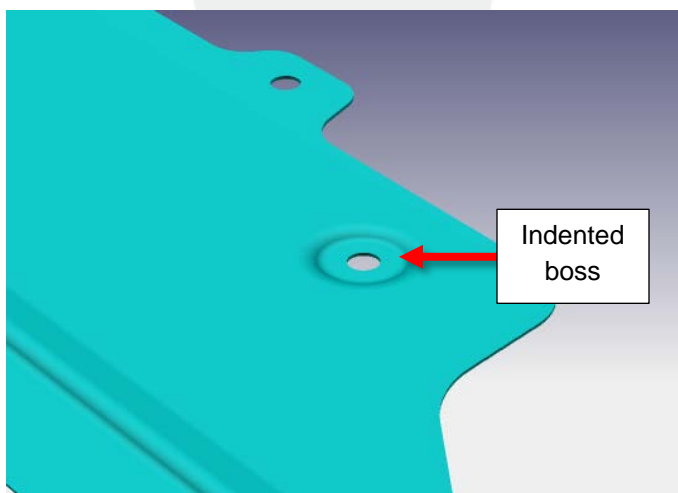


Figure 12 (Road-facing side)

- Position the bash plate stamping in place beneath the front subframe skid plate and loosely install the bolt.

- Repeat steps 3 through 5 for the other side of the bash plate stamping (Figure 13).

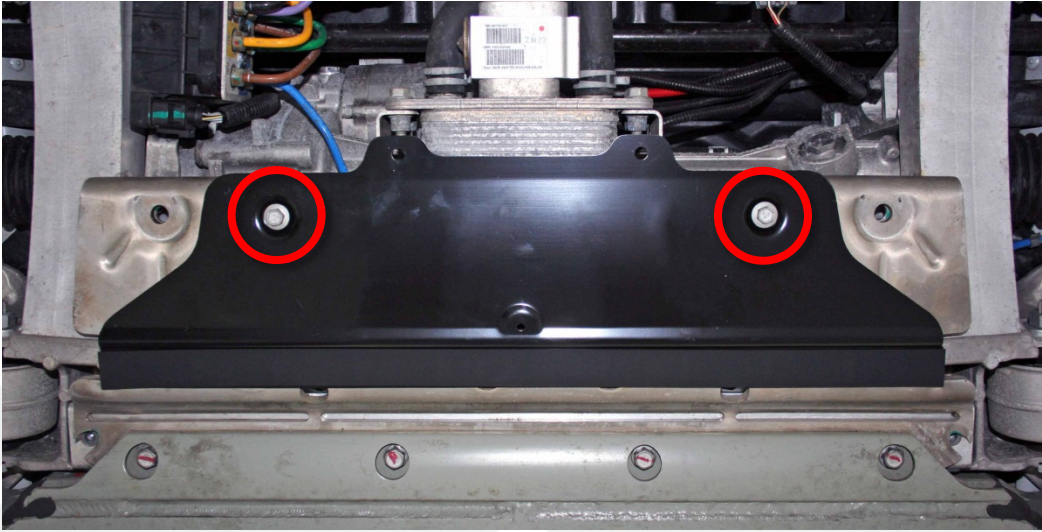


Figure 13

- Position the bash plate extrusion in place beneath the front subframe and hand-tighten the bolts (1037743-00-A) (Figure 14).

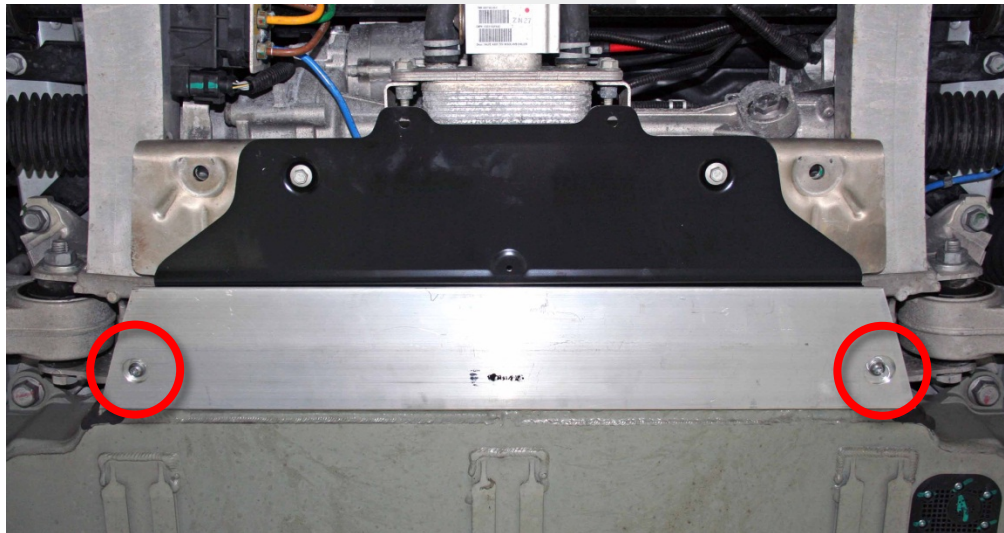


Figure 14

- Torque the bolts on the bash plate stamping (9 Nm).
- Torque the bolts on the bash plate extrusion (10 Nm).

Modifying and Installing the Front Undershield

1. Set the front undershield road-facing side up on a covered support that allows you to cut and drill through the undershield.
2. Set the template on top of the undershield so the plugs in the template are aligned with the drain holes in the undershield (Figure 15). Use clamps to secure the template in place, if needed.



Figure 15

3. Use tape or a paint pen in to mark a line on the undershield along the bottom of the template (Figure 16).



Figure 16

4. Use a pointed tool to mark the two 15/32" drill holes identified on the template (Figure 16).
5. Remove the template from the undershield.

⚠ WARNING: To avoid personal injury, cut-resistant gloves must be worn when performing the following step.

6. Use the multi-purpose snips, pneumatic die grinder, or reciprocating saw to cut the undershield along the marked line. Use a file or deburring tool to remove any rough parts on the edge.

⚠ WARNING: Do not use a razor blade or utility knife to cut the undershield.

7. Drill through the marked holes on the undershield with a 15/32" (11.5 mm) bit.
8. Reinstall the modified front undershield panel (refer to Service Manual procedure 12030102). Replace any broken plastic rivets.
9. Add 2 additional plastic rivets (1006521-00-A) through the two holes drilled in step 7 in this section (Figure 17).



Figure 17

10. Reinstall the bolts (1014288-00-B) through the undershield and the skid bar (4 Nm) (Figure 18).

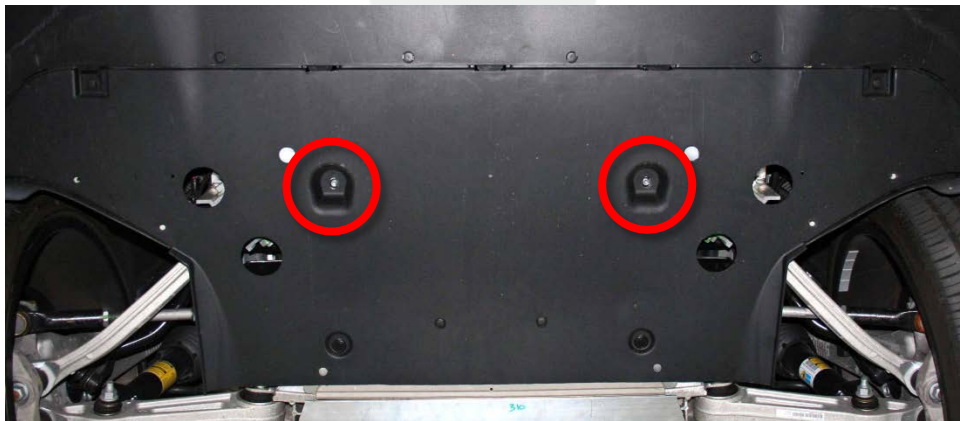


Figure 18

11. Inspect the undershield for plugs (Figure 19). If plugs are installed, remove them and discard.



Figure 19

Affected VIN(s) Affected Model S vehicles built between approximately May 31, 2012 and March 6, 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.

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