



## Interior Sound Proofing Upgrade, Roadster 1.5 & 2.0

**Classification:** Parts Bulletin**Section/Group:** 10 - Body**Country/Region:** Global**Year:** All**Model:** Roadster**Version:** 1.5 / 2.0

**Bulletin Classification:** *Parts, this bulletin is issued to address various parts related topics regarding the operation of Tesla vehicles that include part changes, supersession, and authorized modifications.*

*This Service Bulletin supersedes SB-12-10-002 R1, dated 19-Nov-12. The content changes are identified with double vertical lines and italics. Please discard the previous Service Bulletin and replace with this one.*

Sound proofing insulation is available to increase customer satisfaction by reducing road noise and temperature variations in the passenger compartment. Customers can order one of 2 service center-installed sound proofing kits for the Roadster 1.5 and 2.0:

- 1<sup>st</sup> stage: The 1<sup>st</sup> stage sound proofing materials are pre-cut sheets of insulating material for the interior, replacement front and rear underpanels, and replacement wheel arch liners for the front wheel housings (Figure 1).
- 2<sup>nd</sup> stage: Optionally, a second level of sound proofing can be added. This 2<sup>nd</sup> stage sound proofing includes 2 materials that the technician will cut to fit. Dynamat is a vibration and sound absorber with metallic material on one side and adhesive on the other. Dynaliner is a foam thermal and sound insulation with adhesive on one side (Figure 2). These materials are applied to the floor, rear bulkhead, and door shells. The 2<sup>nd</sup> stage kit also includes additional door weatherstrips to reduce wind noise coming from the door areas. These also keep dirt and debris from building up in the door sill area.

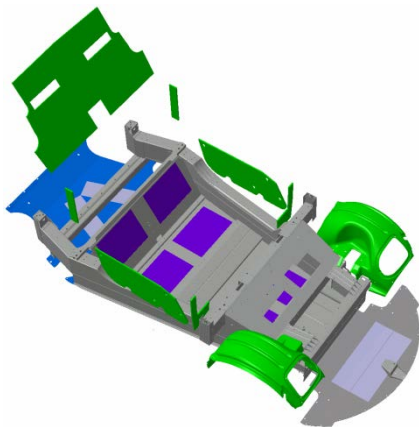


Figure 1  
1<sup>st</sup> Stage Kit

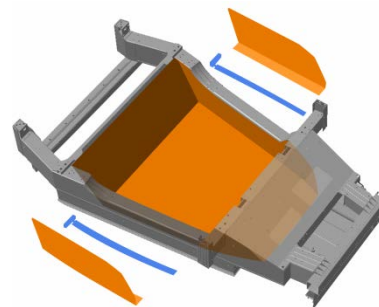


Figure 2  
2<sup>nd</sup> Stage Kit

**NOTE:** This bulletin provides information for Roadster 1.5 and 2.0 only. Refer to SB-12-10-005 for Roadster 2.5 sound proofing installation.

1. Remove the seats, center console, rocker trim panels, and B post trim panels. Refer to the Service Manual for specific removal instructions.
2. Remove the carpet from the floor pan, side rocker panel sills, and foot well areas (Figure 3).

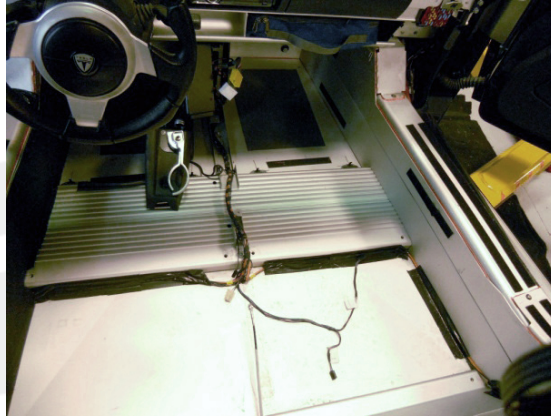


Figure 3

3. Apply the 6 floor damping sheets to the footwells and the panels under and behind the seats.
  - Thoroughly clean the mounting surfaces with a quick-drying, residue-free solvent or rubbing alcohol. Remove all dirt, grease, oil, wax, and moisture to ensure a permanent bond between the damping sheets and the mounting surfaces.
  - Remove the backing material and attach the floor damping sheets to the seating and footwell areas as shown in Figure 4.

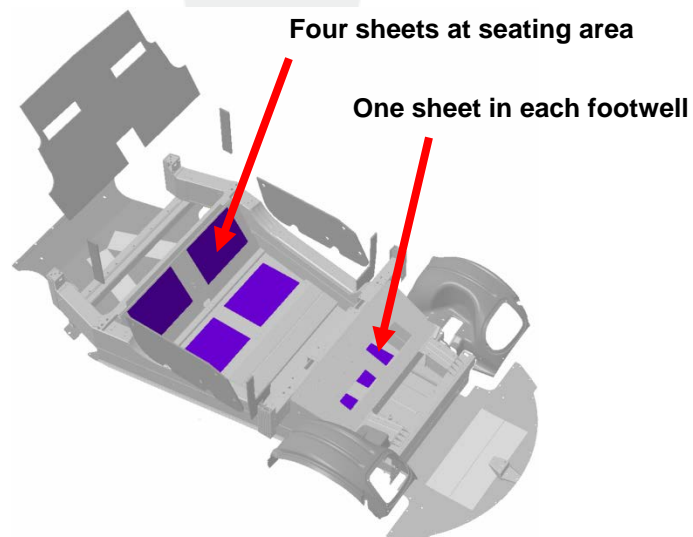


Figure 4

**NOTE:** If you are not installing the 2<sup>nd</sup> stage sound proofing kit, skip to the Interior Sound Absorber Installation section of this document.

## Dynamat Installation

1. The Dynamat and vehicle body should be at room temperature. Heating the Dynamat is not necessary. Thoroughly clean the mounting surfaces with rubbing alcohol or a quick-drying, residue-free solvent. Remove all dirt, grease, oil, wax, and moisture to ensure a permanent bond between the Dynamat and the mounting surface.
2. Using a razor knife, tin snips, or scissors, cut the Dynamat sheet to the proper shape and size (you may find a cardboard or paper template helpful.)
3. Remove the liner material from the back of the Dynamat.
4. Apply the Dynamat to the floor pan. Start at one side of the material and work your way across. This will maximize contouring and promote the best adhesion and performance. Use a roller tool to work the Dynamat into all contours of the panel (Figure 5).

**NOTE:** The liner material can be kept for use as a template to cut the Dynaliner or for installations in other Roadsters in the future.



Figure 5

5. Using a razor knife, puncture any air pockets that may have formed between the panel and the Dynamat. Work the air out with the roller tool. Eliminating air pockets ensures maximum sound suppression.
6. Repeat the above steps to install Dynamat material on the inner rocker panels, foot well areas, and the panel behind the seats.
7. Remove the left and right side door trim panels and the plastic water protection sheets.
8. Thoroughly clean the mounting surface with rubbing alcohol or a quick-drying, residue-free solvent. Remove all dirt, grease, oil, wax, and moisture to ensure a permanent bond between the Dynamat and the insides of the door shells.

9. Install Dynamat inside the doors on the vertical surfaces (Figure 6).



Figure 6

10. Install Dynamat inside the doors on the horizontal surfaces (Figure 7).



Figure 7

## Dynaliner Installation

The Dynaliner foam is placed directly over the Dynamat insulation for added sound suppression and thermal insulation.

1. Install the Dynaliner foam, following the same procedure as used for the Dynamat. Install Dynaliner on the floor pan, kick panels, inner rocker panels, and panel behind the rear seats (Figure 8).



Figure 8

2. Add the Dynaliner covering to both the horizontal and vertical surfaces of the doors (Figure 9).



Figure 9

## Interior Sound Absorber Installation

1. Remove the backing material from the adhesive tape and attach the door trim panel insulators, B-Pillar inserts, and upper door sill inserts to the corresponding interior trim panels, as highlighted in Figure 10.

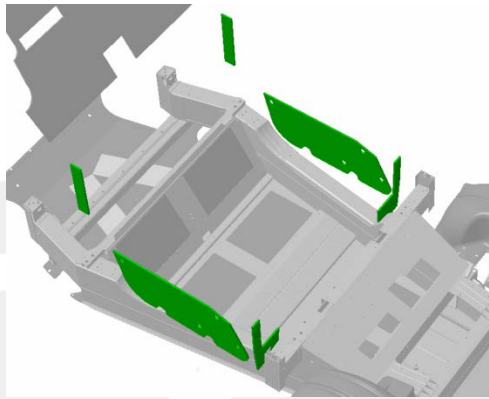


Figure 10

2. Install the rear bulkhead insulator (Figure 11).

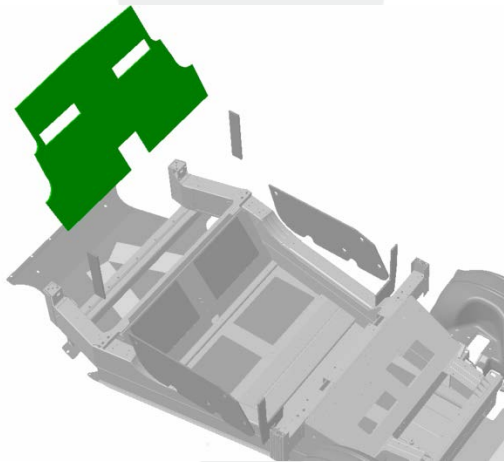


Figure 11

3. Reinstall the carpet, starting from the front floorboard area. The rear carpet will overlap the front carpet sections.
4. Reinstall the door liners, door trim panels, and interior components.

## Exterior Sound Absorber Installation

1. Remove the existing front wheel arch liners, front underpanel, and rear underpanel (Figure 12). Refer to the Service Manual for specific instructions.
2. Replace with insulated parts (see Affected Parts list below for part numbers).

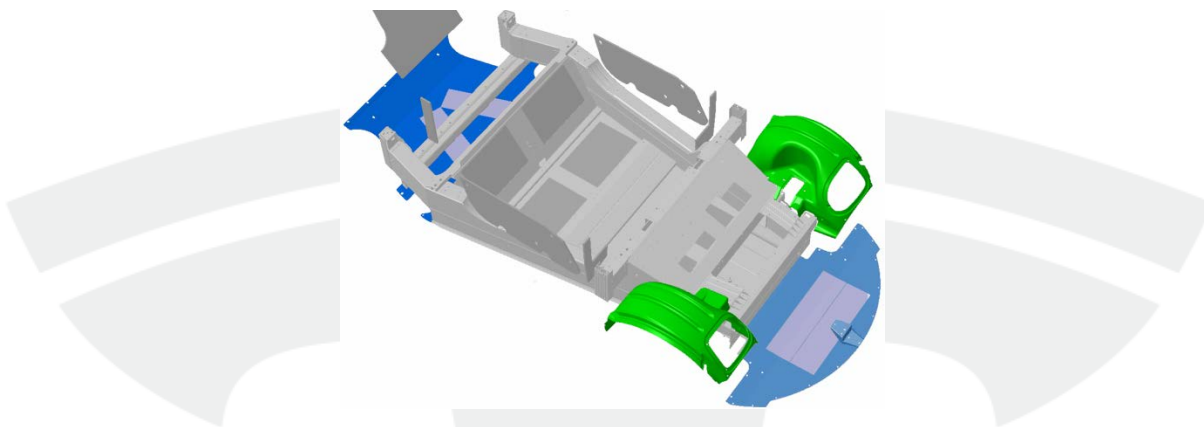


Figure 12

## Door Weatherstrip Installation (2<sup>nd</sup> stage kit only)

The door sealing kit includes:

- Long (890mm) Weatherstrips (Qty. 2)
- Short (127mm) Weatherstrips (Qty. 2)
- Push-Type Retainers (Qty. 12)

1. Clean the undersides of both doors thoroughly, using rubbing alcohol or a quick-drying, residue-free solvent. Remove all dirt, grease, oil, wax, and moisture.
2. Close the driver's door. Test fit the long weatherstrip. The long weatherstrip will attach to the bottom of the door and butt up against the vertical edge of the rocker panel to better seal the lower gap (Figure 13).



Figure 13

3. With the door closed, remove the backing liner from the long weatherstrip and attach it to the bottom of the door, making sure that the vertical edge of the weatherstrip fully contacts the vertical edge of the rocker panel.
4. Open the door. Using an 8 mm drill bit, drill 6 holes through the weatherstrip and the bottom of the door, as shown in Figure 12. Drill 1 hole on each side of the protrusion in the middle of the door. Drill 1 hole on each end of the weatherstrip. Space the remaining 2 holes evenly between the protrusion and the ends of the doors (Figure 14).
5. Install a push-type retainer in each hole.



Figure 14

6. Remove the backing liner from the short weatherstrip and attach the weatherstrip to the lower rear edge of the door. Place the short weatherstrip so that it touches the rear edge of the long weatherstrip (Figure 15).



Figure 15

7. Repeat the procedure on the other door.

**Affected Parts**      *1<sup>st</sup> stage Sound Proofing Materials:*

6005069      NVH Insert Carpet Bulkhead Rr  
 6005072      NVH Insert B-Pillar (Qty. 2 Required)  
 6005051      Sheet NVH Damping (Qty. 6 Required)  
 6005070      NVH Insert Door Trim LH  
 6005296      NVH Insert Door Trim RH  
 6005071      NVH Insert Asy Sill Mldg Upr LH  
 6005295      NVH Insert Asy Sill Mldg Upr RH  
 6009096      NVH Pnl W-Arch Liner Upr Fr LH  
 6009095      NVH Pnl W-Arch Liner Upr Fr RH  
 6005053      Pnl, Undershield Fr  
 6005052      Pnl, Undershield Mid

*2<sup>nd</sup> stage Sound Proofing Materials:*

1018488-00-A   NVH Sheet, Aftermarket Upgrade, Dbm Xtrm (Qty. 9 Required)  
 1018489-00-A   NVH Liner, Aftermarket Upgrade, Dynaliner ¼" / 6 mm (Qty. 2 Required)  
 1018298-00-A   Roadster Under Door Env. Sealing Kit

*Kit part numbers (for DMS part entry purposes only; order components separately as listed above):*

KIT-SB1210002-01      NVH Kit, 1<sup>st</sup> stage only  
 KIT-SB1210002-02      NVH Kit, 2<sup>nd</sup> stage only (For Roadsters that had the 1<sup>st</sup> stage kit installed previously)  
 KIT-SB1210002-03      NVH Kit, 1<sup>st</sup> and 2<sup>nd</sup> stages

**Warranty/DMS Coding:**

Description	Complaint	Cause	Correction
Installation of 1 <sup>st</sup> Stage NVH Kit Only	A091	B053	S011210002
Installation of 2 <sup>nd</sup> Stage NVH Kit Only (For Vehicles With 1 <sup>st</sup> stage NVH Kit Previously Installed)	A091	B053	S021210002
Installation of 1 <sup>st</sup> Stage NVH Kit and 2 <sup>nd</sup> Stage NVH Kit	A091	B053	S031210002