



April 1, 2016

Associate Administrator for Enforcement (NVS-211)  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Subject: Notices, bulletins, customer satisfaction campaigns, consumer advisories and other communications.

Dear Associate Administrator of Enforcement, NHTSA,

On behalf of Tesla Motors, Inc., attached to this cover letter please find the service bulletins issued by Tesla for the month of March 2016.

These documents are provided pursuant to the regulatory submissions requirements for external communications under the TREAD Act and its implementing regulations at 49 C.F.R. Part 579 and include the following:

Bulletin #	Revision	Title
SB-15-33-001	Rev 1	Cold Weather Brake Package
SB-16-11-003	Original	Replace Rear Door Ultrasonic Sensors
SB-16-11-004	Original	Install Foam Tape Around Rear Door Ultrasonic Sensors
SB-16-12-001	Original	Replace Front Fender Garnishes
SB-16-12-002	Original	Replace Cowl to Retrofit Windshield Washer Check Valves
SB-16-13-002	Original	Secure Third Row Seat Backing
SB-16-32-001	Rev 1	Steering Wheel Clicking Sound

Should you have any questions regarding this submission, please contact me at [iconiglio@teslamotors.com](mailto:iconiglio@teslamotors.com) or 510-249-3927, or James Chen at [james@teslamotors.com](mailto:james@teslamotors.com) or 202-549-9819.

Sincerely,

/s/

I.J. Coniglio, Senior Technical Writer  
Service Technical Publications

Enc.

cc: James C. Chen, VP of Regulatory Affairs & Associate General Counsel; Charity Allen, Chief Counsel, Corporate Development; Eric Williams, Sr. Regulatory Counsel, Corporate Development; Matthew Schwall, Director Field Performance Engineering



## Cold Weather Brake Package

**Classification** Repair Bulletin      **Section/Group** 33 - Brakes      **Country/Region** All

**Year** 2012-2016      **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 electrical component 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.*

*This Service Bulletin supersedes SB-15-33-001, dated 13-Apr-15. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.*

### Condition

In extremely cold or wet regions, or in areas where road salts are used to melt snow, Model S brake pads could become seized or stick to the rotors after being parked for an extended period of time.

In addition, brake pedal feel and travel could be affected in the following scenarios:

- Mild rust builds up on the rotors while the vehicle is parked
- Snow gathers around the calipers then melts onto the pads while the vehicle is parked
- The brake pads become wet while driving in heavy rain without regular brake usage or when using mainly regenerative braking
- The brake pads become wet while washing the vehicle

The brakes continue to conform with regulatory and internal Tesla standards for brake performance even under these circumstances. However, the brake pads could require slightly increased brake pedal force or longer pedal travel during the first few stops prior to the pads warming up and/or drying off.

### Correction

Upon customer complaint, ensure that the vehicle has rear dust shields, 2<sup>nd</sup> generation front dust shields, front brake pads with a part number of 1055066-00-B or later, and rear brake pads with a part number of 1055068-00-B or later. Replace rotors as a cosmetic improvement, if necessary.

In addition, remind the customer that all disc brake systems are susceptible to mild rust and that affected brake pedal feel and travel is normal behavior for any vehicle with wet brake pads.

Required Part(s):	Part Number	Description	Quantity
		<b>If necessary:</b>	
	1055068-00-B	REAR BRAKE PAD SVC KIT HP1000-T	1
	1055066-00-B	FRONT BRAKE PAD SVC KIT HP1000-T	1
	1027661-01-B	FRONT CW BRAKE ROTOR SHIELD LH	0-1
	1045945-01-B	FR BRAKE DISC DUST SHIELD LH - DUAL MOTOR	0-1
	1027662-01-B	FRONT CW BRAKE ROTOR SHIELD RH	0-1
	1045951-01-B	FR BRAKE DISC DUST SHIELD RH - DUAL MOTOR	0-1
	6006432-00-A	RR BRAKE DISC ROTOR DUST SHIELD LH	1
	6006433-00-A	RR BRAKE DISC ROTOR DUST SHIELD RH	1
	2007067	BOLT TRX BTNHD M6x1.0x16[6.8]U-MP-ZnAIW	12
	1020297-00-A	NUT HF M24x1.5 [8.8] ZnFI-W	2
	1004377-00-B	BLT CSK TRX M8x1.25x20 10.9-ZnAl-W	2-4
	1025099-00-B	FR BRAKE ROTOR W/ AS-CAST OUTER HAT	2
	6006431-00-D	REAR BRAKE ROTOR - OUTER HAT AS CAST	2
	1063021-00-A	BRAKE CALIPER CERAMIC GREASE	As required

**Shop supplies:**

5 mm or #8 drill bit  
M6x1 tap  
Brake cleaner

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):	Part Number	Description
	1057529-00-A	BRUSH 1 3/8" LONG NYLON BRISTLE
	1062500-00-A	MAGNETIC FIELD VIEWING CARD

Correction Description	Correction	Time
SB-15-33-001 Not Applicable	S011533001	0.00
Vehicle Inspection Only; Cold Weather Brake Package Components Already Installed	S021533001	0.60
Install Front Rotors	S031533001	0.75
Install Rear Rotors	S041533001	0.85
Install Front And Rear HP1000-T Brake Pads	S051533001	1.10
Retrofit 2nd Generation Front Dust Shields, Install Front Rotors	S061533001	1.35
Retrofit 2nd Generation Front Dust Shields	S071533001	1.35
Install Front Rotors, Install Front And Rear HP1000-T Brake Pads	S081533001	1.40
Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S091533001	1.50
Retrofit 2nd Generation Front Dust Shields, Install Rear Rotors	S101533001	1.60
Install Front Rotors, Install Rear Rotors	S111533001	1.60
Retrofit 2nd Generation Front Dust Shields, Install Front And Rear HP1000-T Brake Pads	S121533001	1.75
Retrofit 2nd Generation Front Dust Shields, Install Front Rotors, Install Front And Rear HP1000-T Brake Pads	S131533001	1.75
Install Rear Dust Shields, Install Rear Rotors	S141533001	1.75
Install Front Rotors, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S151533001	1.80
Retrofit 2nd Generation Front Dust Shields, Install Front Rotors, Install Rear Rotors	S161533001	1.85

Install Rear Dust Shields	S171533001	1.85
Install Rear Dust Shields, Install Front Rotors, Install Rear Rotors	S181533001	2.15
Retrofit 2nd Generation Front Dust Shields, Install Front Rotors, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S191533001	2.15
Retrofit 2nd Generation Front Dust Shields, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S201533001	2.15
Install Rear Dust Shields, Install Front Rotors	S211533001	2.25
Install Rear Dust Shields, Install Front And Rear HP1000-T Brake Pads	S221533001	2.25
Install Rear Dust Shields, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S231533001	2.25
Install Rear Dust Shields, Install Front Rotors, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S241533001	2.45
Install Rear Dust Shields, Install Front Rotors, Install Front And Rear HP1000-T Brake Pads	S251533001	2.65
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Front Rotors, Install Rear Rotors	S261533001	2.70
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields	S271533001	2.70
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Front Rotors	S281533001	2.70
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Rear Rotors	S291533001	2.70
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Front And Rear HP1000-T Brake Pads	S301533001	2.90
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S311533001	2.90
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Front Rotors, Install Front And Rear HP1000-T Brake Pads	S321533001	2.90
Retrofit 2nd Generation Front Dust Shields, Install Rear Dust Shields, Install Front Rotors, Install Rear Rotors, Install Front And Rear HP1000-T Brake Pads	S331533001	2.90

## Procedure

1. Raise and support the vehicle (refer to Service Manual procedure 10000205).
2. Inspect the rear brakes for dust shields (Figures 1 and 2).
  - If rear dust shields are already installed, continue to the next step in this procedure.
  - If rear dust shields are not installed, install rear brake dust shields (refer to Service Manual procedure 33011802).



**Figure 1 (Rear dust shield)**

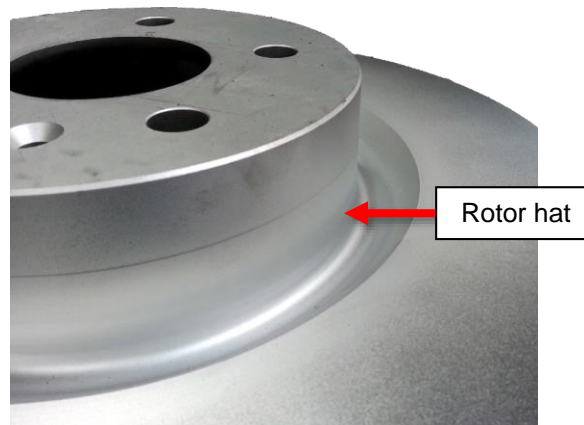


**Figure 2 (Rear dust shield highlighted)**

3. Inspect the part number on the rear rotors:
  - If the part number is 6006431-00-D or later, continue to the next step in this procedure.
  - If the part number is not 6006431-00-D or later and the hat (Figure 3) has excessive visible rust, replace the rear rotors (refer to Service Manual procedure 33010202).

**NOTE:** Do not replace the rotors unless there is excessive visible rust on the hat.

**NOTE:** If the rotors are close to the service limit, recommend replacement to the customer for their convenience. However, do not claim them under warranty.



**Figure 3 (No visible rust on hat)**

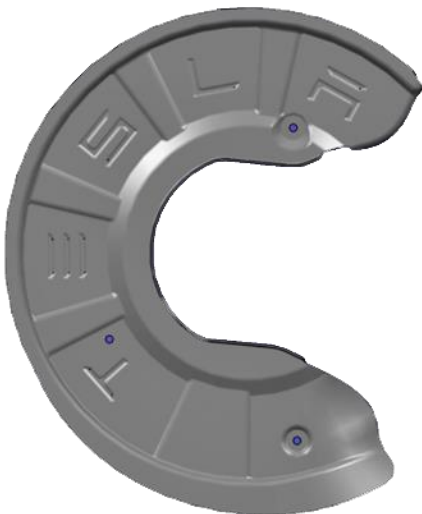
4. Remove the rear brake pads (refer to Service Manual procedure 33010802) and check the part number (Figure 4).
- If the part number is “XB4.L0.10” or “07.7783.54” (and the thickness is within Tesla-approved specifications), reinstall the brake pads and continue this procedure.
  - If the part number is unreadable or is anything other than “XB4.L0.10” or “07.7783.54”, replace the brake pads.

**⚠ CAUTION:** Follow the installation procedure in Service Manual procedure 33010802 when installing the rear brake pads.

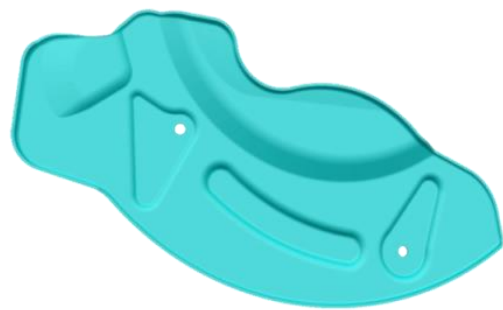


**Figure 4 (Part number location highlighted)**

5. Inspect the front brakes for 2<sup>nd</sup> generation dust shields (Figure 5).
- If the vehicle has 2<sup>nd</sup> generation front dust shields (Figure 5), skip to step 7.
  - If the vehicle has 1<sup>st</sup> generation front dust shields (Figure 6) or no front dust shields, continue to the next step in this procedure.



**✓ Figure 5 (2<sup>nd</sup> generation front dust shield)**



**✗ Figure 6 (1<sup>st</sup> generation front dust shield)**

6. Retrofit 2<sup>nd</sup> generation front dust shield on both sides of the vehicle (refer to Service Manual procedure 33012006).

7. Inspect the part number on the front rotors:

- If the part number is 1025099-00-B or later, continue to the next step in this procedure.
- If the part number is not 1025099-00-B or later and there is visible rust on the hat, replace the rear rotors (refer to Service Manual procedure 33010102).

**NOTE:** Do not replace the rotors unless there is visible rust on the outer hat.

**NOTE:** If the rotors are close to the service limit, recommend replacement to the customer for their convenience. However, do not claim them under warranty.

8. Remove the front brake pads (refer to Service Manual procedure 33010702) and check the part number (Figure 7).

- If the part number is “07.C593.10”, “XB4.L0.04”, or “07.C593.11” (and the thickness is within Tesla-approved specifications), reinstall the brake pads and continue this procedure.
- If the part number is unreadable or is anything other than “07.C593.10”, “XB4.L0.04”, or “07.C593.11”, replace the brake pads.

**⚠ CAUTION:** Follow the installation procedure in Service Manual procedure 33010702 when installing the front brake pads.



**Figure 7 (Part number location highlighted)**

9. Reinstall all components that were removed for access.

**⚠ CAUTION:** Ensure that all rotors spin freely before reinstalling the wheels.

10. If any brake pads were replaced, perform the brake burnishing procedure (refer to Service Manual procedure 33013000).

11. Ensure that the customer is aware of the following:

- The Tesla Mobile app’s ability to “precondition” Model S; refer to “Preconditioning Model S” within this document.
- The new features that were introduced through firmware; refer to “New Firmware Features” within this document.

## Preconditioning Model S

- I Similar to a remote start system on an internal combustion vehicle, some devices have the ability to remotely precondition Model S prior to driving by using the Tesla App. Tesla recommends preconditioning Model S before driving, especially in cold climates. This will ensure that the cabin is comfortable for the occupants and that the Battery has warmed up.

**NOTE:** Regenerative braking is not available when the Battery's state of charge (SOC) is at 100% or if the Battery is too cold. Preconditioning the vehicle in cold weather and charging to less than 100% is recommended to immediately gain the benefits of regenerative braking.

## New Firmware Features

Firmware version 5.14 (1.66.45) (released in September, 2014) introduced 2 new changes in Model S that help mitigate issues that occur due to soaked brakes in cold climates—brake disc wipe (BDW) and hydraulic fade compensation (HFC).

BDW can intermittently apply brake pressure to keep the brake pads and rotors dry. HFC allows Model S to increase hydraulic pressure if brake pad friction is compromised (brake fade, ice buildup, etc.).

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- I **Affected VIN(s)** Affected Model S vehicles built before approximately August 1, 2016.

**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 [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).*





# Replace Rear Door Ultrasonic Sensors

**Classification** Campaign Bulletin    **Section/Group** 11 - Closures    **Country/Region** United States

**Year** 2016    **Model** Model X    **Version** All

**Bulletin Classification:** *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 range listed. These instructions assume knowledge of motor vehicle and high voltage electrical component 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

On some Model X vehicles, the adhesive that secures the rear door ultrasonic sensors might be prone to early delamination, resulting in reduced rear door operation. The user can still continue to open the door by holding the door switch.

## Correction

Replace the rear door ultrasonic sensors.

Correction Description	Correction	Time
SB-16-11-003 Not Applicable	S011611003	0.00
Replace Rear Door Ultrasonic Sensors	S021611003	1.55

Required Part(s):	Part Number	Description	Quantity
	1055890-00-C	SENSOR, ULTRASONIC, RADIAL	2

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

### Shop supplies:

Alcohol wipes (1054788-00-A or equivalent)

Special Tool(s):	Part Number	Description
	1080580-00-A	Heat Gun
	1080603-00-A	Infrared Thermometer
	1080978-00-A	Force Gauge
	1080978-10-A	22 mm Diameter Adapter for Force Gauge

## Procedure

1. Replace the LH and RH rear door ultrasonic sensors (refer to Service Manual procedure 11334202).

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**Affected VIN(s)** Affected Model X vehicles built before February 3, 2016.

**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 [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).





# Install Foam Tape Around Rear Door Ultrasonic Sensors

**Classification** Campaign Bulletin    **Section/Group** 11 - Closures    **Country/Region** United States

**Year** 2016    **Model** Model X    **Version** All

**Bulletin Classification:** *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 range listed. These instructions assume knowledge of motor vehicle and high voltage electrical component 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

On some Model X vehicles, an open rear window might cause the rear door ultrasonic sensors to detect non-existent objects, causing the door to stop unnecessarily while it is opening. The user can still continue to open the door by holding the door switch.

## Correction

On both sides of the vehicle, install foam tape around the rear door ultrasonic sensor.

Correction Description	Correction	Time
SB-16-11-004 Not Applicable	S011611004	0.00
Install Foam To Improve Rear Door Sensor Operation	S021611004	1.35

Required Part(s):	Part Number	Description	Quantity
	1072338-00-A	NORSEAL V710 FOAM TAPE <b>NOTE:</b> One roll of tape contains enough material for 10 vehicles.	1

This part number was current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

### Shop supplies:

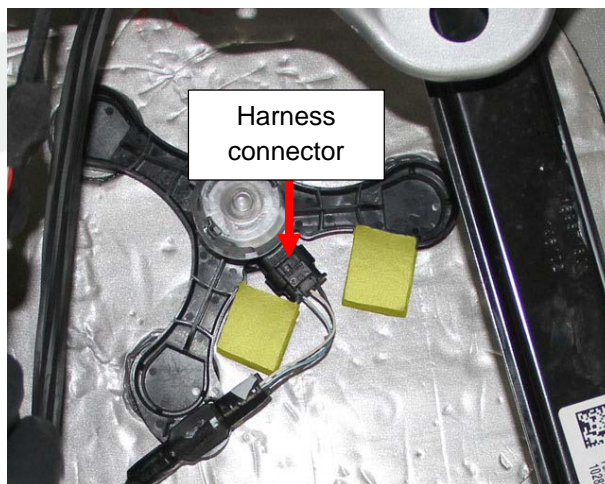
Alcohol wipes (1054788-00-A or equivalent)

## Procedure

**NOTE:** Perform this procedure on both sides of the vehicle.

1. Remove the LH rear door closeout panel (refer to Service Manual procedure 11701401).
2. Use alcohol to clean the areas around the sensor carrier. Allow the alcohol to fully dry before continuing.
3. Cut two 2.5 cm pieces of foam tape.
4. Install the 2.5 cm pieces of foam tape on both sides of the sensor harness connector as shown (Figure 1).

**⚠ CAUTION:** Do not allow the foam tape to touch the sensor harness or its connector.



**Figure 1 (Foam tape highlighted)**

5. Cut a 12 cm piece of foam tape.
6. Install the foam tape along the curved rear section of the sensor as shown (Figure 2).



**Figure 2 (Foam tape highlighted)**

7. Cut a 14 cm piece of foam tape.
8. Install the foam tape along the curved top section of the sensor as shown (Figure 3).



**Figure 3 (Foam tape highlighted)**

9. Reinstall the rear door closeout panel.
10. Repeat steps 1-9 on the RH side of the vehicle.

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**Affected VIN(s)** Affected Model X vehicles built before approximately March 10, 2016.

**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 [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).



# Replace Front Fender Garnishes

<b>Classification</b>	Repair Bulletin	<b>Section/Group</b>	12 - Exterior Fittings	<b>Country/Region</b>	United States
<b>Year</b>	2016	<b>Model</b>	Model X	<b>Version</b>	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 electrical component 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 parking sensors might not be flush with the front fender garnishes (Figure 1) on some Model X vehicles, causing a perceived quality issue.

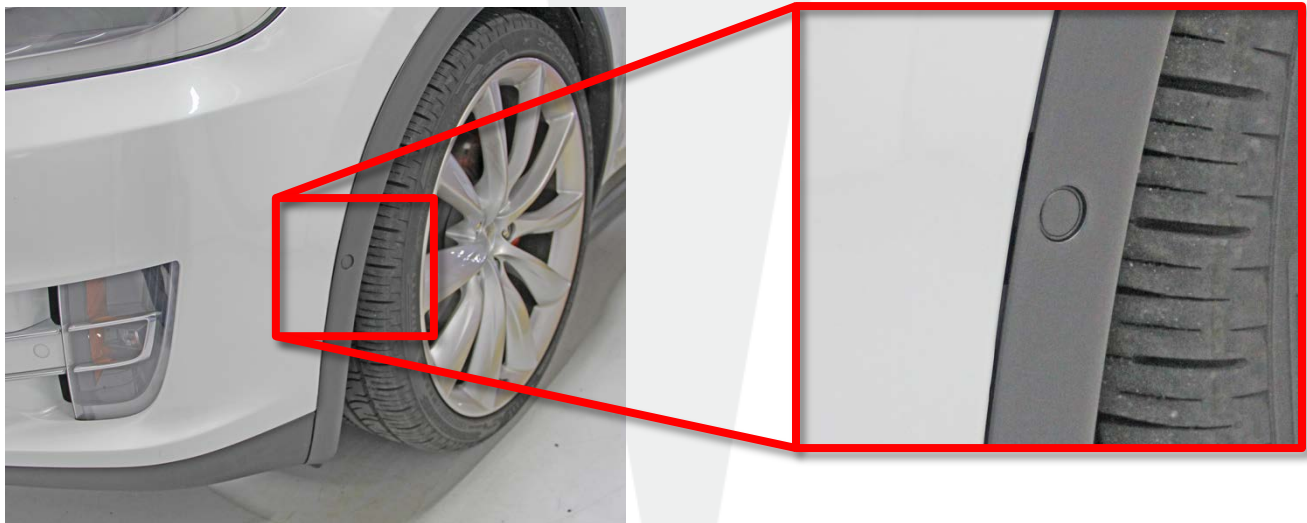


Figure 1

## Correction

Upon customer complaint, replace both front fender garnishes.

Correction Description	Correction	Time
SB-16-12-001 Not Applicable	S011612001	0.0
Replace LH And RH Front Fender Garnishes Due To Underflush Parking Sensors	S021612001	0.1

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Required Part(s):	Part Number	Description	Quantity
	1035288-99-F	ASSY, FENDER GARNISH FR, LH MDL X	1
	1035289-99-F	ASSY, FENDER GARNISH FR, RH MDL X	1

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

## Procedure

1. Remove and discard the LH front fender garnish assembly (refer to Service Manual procedure 12201202).

**NOTE:** The new front fender garnishes come with the parking distance sensor and retaining ring already installed.

2. Ensure that the parking sensor is flush with the new fender garnish.
3. Install the new front fender garnish.
4. Perform steps 1-3 on the RH side of the vehicle.

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**Affected VIN(s)** Affected Model X vehicles built before approximately December 22, 2015.

**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 [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).



# Replace Cowl to Retrofit Windshield Washer Check Valves

<b>Classification</b>	Repair Bulletin	<b>Section/Group</b>	12 - Exterior Fittings	<b>Country/Region</b>	United States
<b>Year</b>	2016	<b>Model</b>	Model X	<b>Version</b>	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 electrical component 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

Some Model X vehicles were built with cowl screens that have windshield washer hoses without a check valve. This condition causes the windshield washer fluid to travel back into the reservoir, resulting in dry wiping during the first few seconds of use.

## Correction

Upon complaint, replace the cowl screen with an updated part that has check valves on the windshield washer hoses.

Correction Description	Correction	Time
SB-16-12-002 Not Applicable	S011612002	0.00
Replace Cowl To Retrofit Windshield Washer Check Valves	S021612002	0.15

Required Part(s):	Part Number	Description	Quantity
		<b>One of the following:</b>	
	1036245-99-D	MX COWL SCREEN LHD REWORKED	1
	1036245-00-E	MX COWL SCREEN ASY LHD	1

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

## Procedure

1. Replace the cowl screen (refer to Service Manual procedure 12250902).

**NOTE:** The windshield washer hoses that are secured to the new cowl screen already have the check valves installed.



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**Affected VIN(s)** Affected Model X vehicles built before approximately March 4, 2016.

**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 [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).





# Steering Wheel Clicking Sound

**Classification** Repair Bulletin      **Section/Group** 32 - Steering      **Country/Region** All

**Year** All      **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 electrical component 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.*

*This Service Bulletin supersedes SB-16-32-001, dated 22-Feb-16. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.*

## Condition

Some customers might complain about a clicking sound when turning the steering wheel at low speed, leading to a perceived quality issue.

## Correction

Upon customer complaint, install friction shims between the steering rack and subframe. Replace the steering rack bolts.

Required Part(s):	Part Number	Description	Quantity
	1051424-00-A	BOLT HF M14x78 PC109	2
	1080982-00-A	FRICION SHIM,M14x17.5x0.16,STL,GRADE 25	2

### Shop supplies:

Alcohol wipes (1054788-00-A or equivalent)

These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Manual.

Correction Description	Correction	Time
SB-16-32-001 Not Applicable	S011632001	0.00
Install Shims and Replace Steering Rack Bolts To Prevent Steering Wheel Clicking (Rear Wheel Drive Vehicle)	S021632001	0.65
Install Shims and Replace Steering Rack Bolts To Prevent Steering Wheel Clicking (Dual Motor Vehicle)	S031632001	0.55

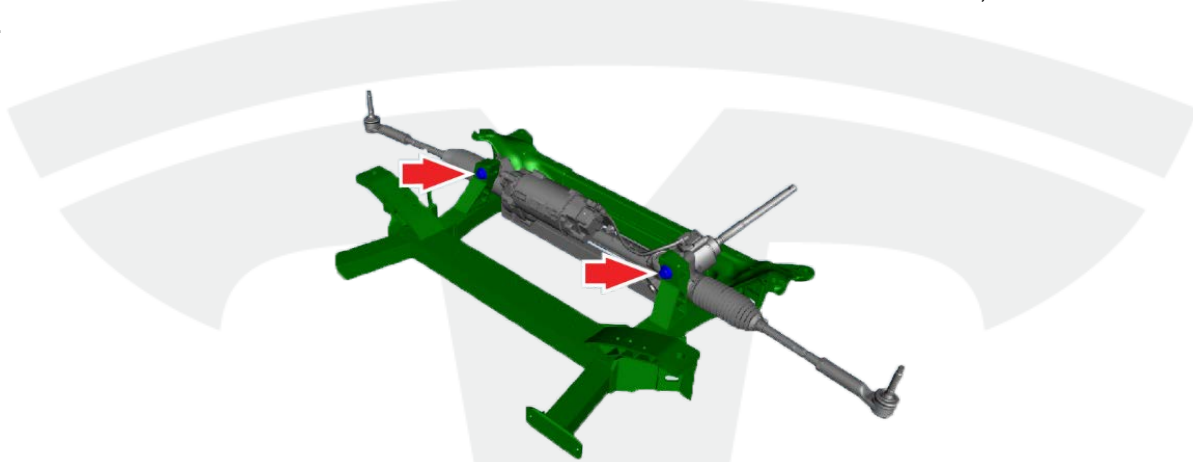
## Procedure

1. Remove the underhood storage unit:

- **RWD vehicles:** Refer to Service Manual procedure 15240701.
- **Dual Motor vehicles:** Refer to Service Manual procedure 15242002.

2. Remove and discard the 2 bolts that secure the steering rack to the subframe (Figure 1).

**NOTE:** Some vehicles have a washer between the subframe and steering rack on one side of the vehicle. Note whether the washer is installed on the LH or RH side of the subframe. Remove and retain this washer; it will be reinstalled in a later step.



**Figure 1**

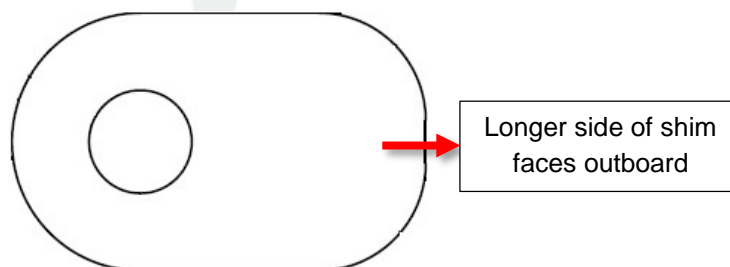
3. Use an alcohol wipe to clean the mating surfaces between the steering rack and subframe. If there is excessive buildup between the mating surfaces, use a razor blade to remove the buildup.

**⚠ WARNING:** To avoid personal injury, wear cut-resistant gloves during this step.

4. If a washer was removed earlier in the procedure, reinstall it between the steering rack and subframe on the correct side of the vehicle, as noted in step 2.

5. On both sides of the vehicle, install a friction shim between the steering rack and the subframe. If the shim is rectangular with rounded corners (Figure 2), ensure that the longer side of the shim faces outboard.

**NOTE:** If a washer is present between the steering rack and subframe, install the shim between the washer and subframe.



**Figure 2**

6. Install new bolts to secure the steering rack to the subframe (torque 175 Nm).

7. Reinstall all components that were removed for access.
8. Perform an alignment check (refer to Service Manual procedure 31002100).

For feedback on the accuracy of this document, email [ServiceBulletinFeedback@teslamotors.com](mailto:ServiceBulletinFeedback@teslamotors.com).

