		<b>Tesla, Inc.</b> Service Bulletin		<b>Reseal Front Upper Control Arm Ball Joints</b>	
<b>SB-20-31-006</b> July 1, 2021		<b>R2</b>			
<b>Classification</b>			<b>Section/Group</b>		<b>Mobile Service</b>
Campaign Bulletin			31 - Suspension		Can Perform (where permitted)
<b>Model Year</b>	<b>Model</b>		<b>Country/Region</b>		<b>Version</b>
2018 - 2020	Model X, Model 3, Model Y		All		All
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.					

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.

*This Service Document supersedes SB-20-31-006 R1, dated 5-Nov-20. Each content change is marked by a vertical line in the left margin. Discard the previous version and replace it with this one.*

## Condition


On certain Model 3, Model Y, and Model X vehicles, there may be a water ingress path to both front upper control arm ball joints that, over time, could possibly lead to surface corrosion of these ball joints. This may result in a creaking sound coming from the front suspension when steering at low speeds and under high loads. This is exclusively an NVH condition only and does not result in premature failure of the ball joints.


## Correction

Reseal the area around the ball joints using urethane to prevent water ingress at both front upper control arm ball joints.

Correction Description	Correction	Time
SB-20-31-006 Not Applicable	S012031006	0.00
Reseal Area Around Both Front Upper Control Arm Ball Joints With Urethane (Model X)	S022031006	0.35
Reseal Area Around Both Front Upper Control Arm Ball Joints With Urethane (Model 3, Model Y)	S032031006	0.30

Part Number	Description	Quantity
<b>Parts Required</b>		
1048645-00-A	<b>All regions except EMEA:</b> SEALANT, BETASEAL EXPRESS/EXPRESS +	1
1099801-00-A	<b>EMEA:</b> SEALANT, BETASEAL 1527EP	1
1059658-00-A	<b>All countries except China:</b> CHEMICAL, BETAPRIME, 10ML	1
1076300-00-A	<b>China:</b> ADHESION PROMOTER 4298UV	1


 **NOTE:** These parts are available through [Warp eProcurement](#)

 **NOTE:** If these parts are unavailable but similar substitute parts are available, please reached out to [servicebulletinfeedback@tesla.com](mailto:servicebulletinfeedback@tesla.com) to confirm that the substitute parts are acceptable.

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** Isopropyl Alcohol Wipes  
Brake Cleaner

## Procedure

 **NOTE:** The images in this document show Model X, unless otherwise noted. The procedure is similar for Model 3 and Model Y.

1. Raise the vehicle on a 2 post lift to a comfortable working height (refer to Service Manual procedure 10000205; [Model X](#), [Model 3](#), [Model Y](#)).
2. Thoroughly clean the areas surrounding the LH front upper control arm ball joint shown in Figures 1–5 with brake cleaner and a clean shop towel or an IPA wipe. If necessary, use a nylon brush to clean the area.


 **NOTE:** Take note of the location of the seams as they will be sealed with urethane later in this document.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5

3. Apply a coat of primer to the areas shown in Figures 6–8.


 **NOTE:** Allow a minimum of 2 minutes for the primer to dry before continuing to the next step.



Figure 6



Figure 7



**Figure 8**

4. Prepare the caulking gun with the urethane, and then use diagonal cutters to cut the urethane applicator tip at an angle for easier application of the product as shown in Figure 9.



**Figure 9**

5. Apply the urethane to the areas shown in Figures 10–17.

**⚠ CAUTION:** Do not apply urethane to the ball joint boot.

**📄 NOTE:** Do not delay in performing the next step because the urethane begins to dry after being applied.



**Figure 10**

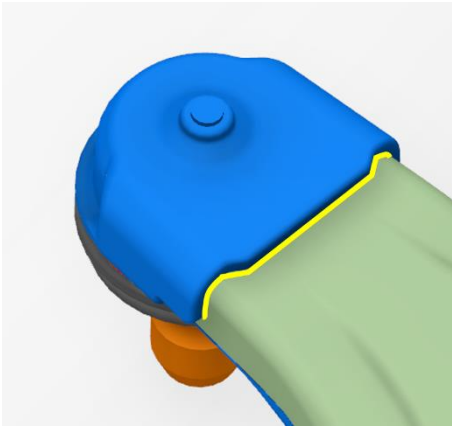


Figure 11 – Model X

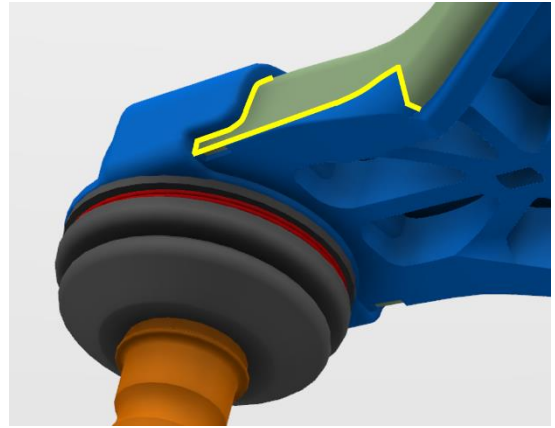


Figure 12 – Model X

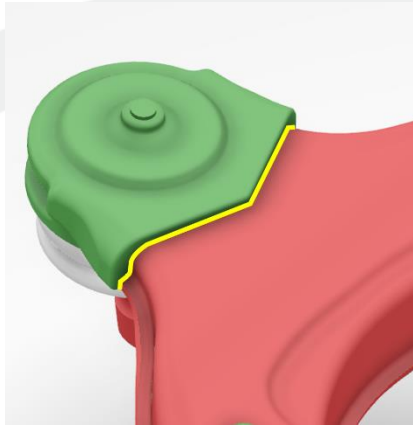


Figure 13 – Model 3 and Model Y



Figure 14 – Model 3 and Model Y



Figure 15





Figure 16




**Figure 17**

6. Use a plastic trim tool to smooth out the urethane before it begins to dry (Figures 18–23).

 **NOTE:** The urethane application should be as smooth as possible.

 **NOTE:** The urethane must cover the neck of the control arm and along the top and sides of the molded plastic.

 **NOTE:** Use a mirror to verify that all seam areas are covered with urethane.



**Figure 18**



**Figure 19**



**Figure 20**



**Figure 21**



**Figure 22**



**Figure 23**

7. Repeat steps 3–6 on the RH front upper control arm.
8. Allow the urethane to dry for 1 hour before returning the vehicle to the customer.