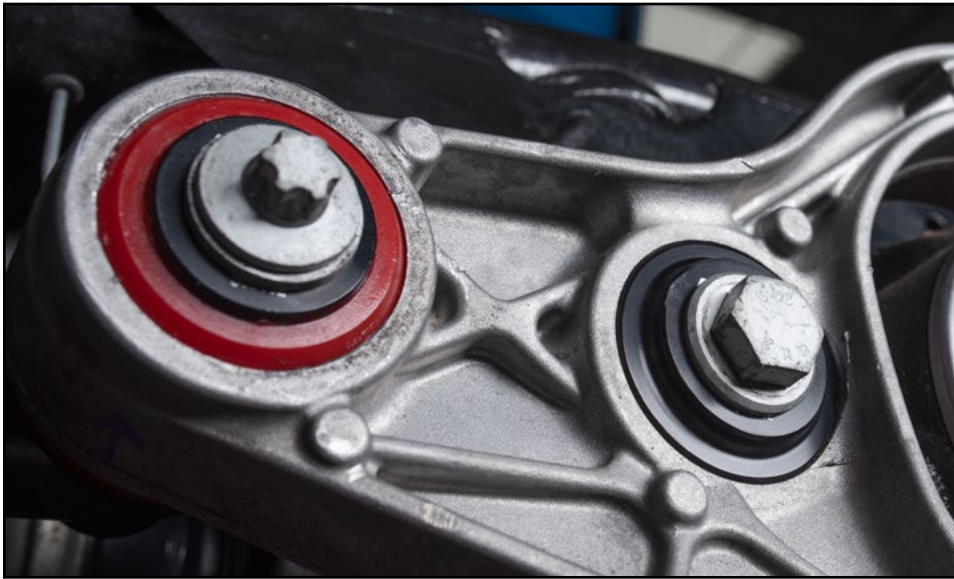


BMW F8x Poly Rear Differential Bushing Set Installation Instructions - **ES4040092**



Thank you for purchasing your new BMW F8x Poly Rear Differential Bushing Set, we appreciate your business!



These installation instructions have been broken up into several sections:

1) Removing the Rear Subframe

[\(Page 2\)](#)

2) Installing the New Poly Bushings

[\(Page 3\)](#)

3) Reassembly

[\(Page 8\)](#)

Section 1: Subframe Removal

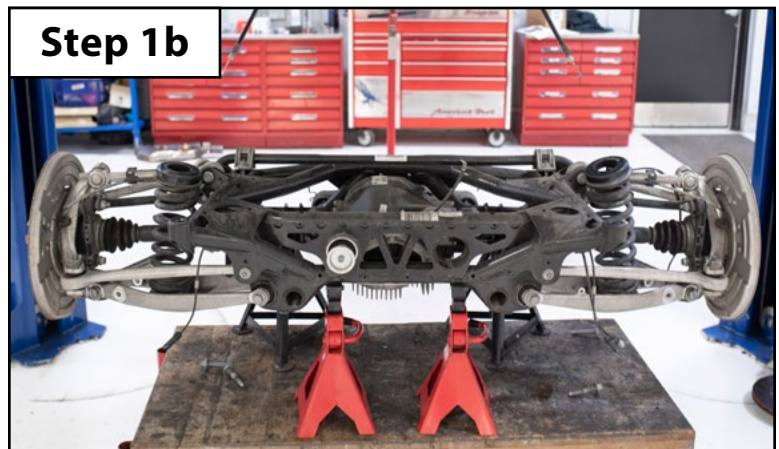
Step 1a



Step 1

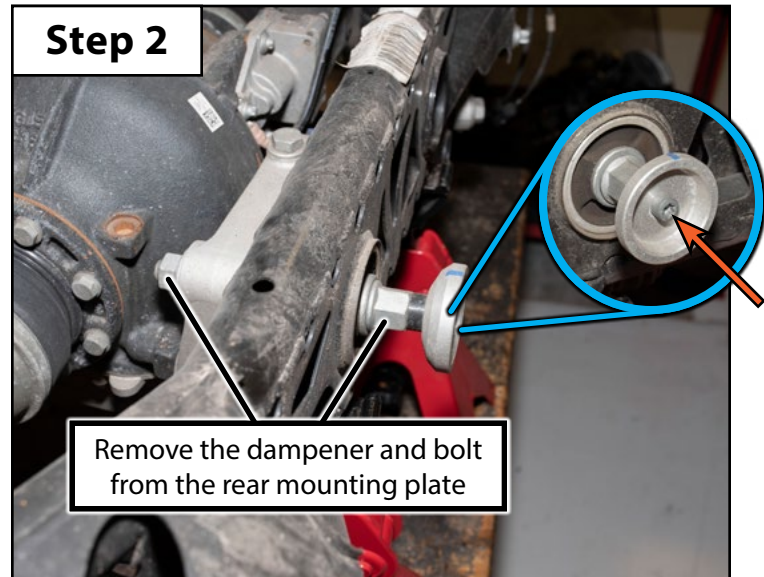
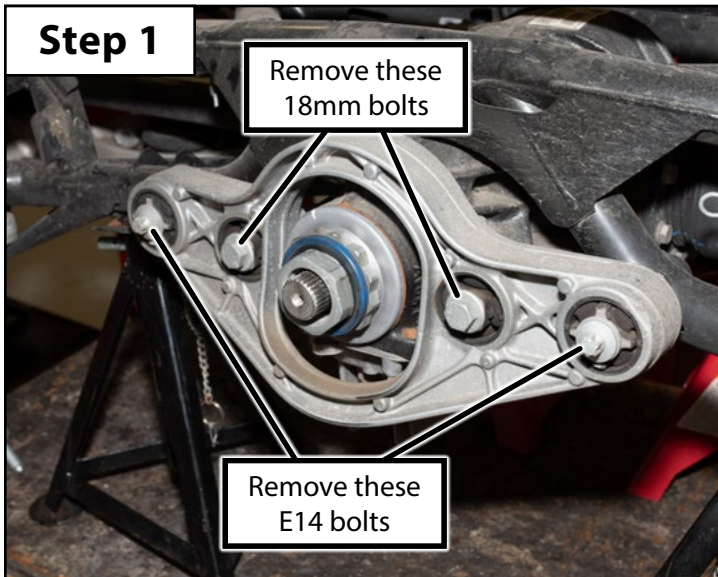
- Remove the subframe from the vehicle (reference the **Step 1a** photo above). This will include the following:
 - Remove the rear wheels
 - Remove the exhaust system and heat shields
 - Remove all applicable underbelly panels and braces
 - Remove the driveshaft (or disconnect it from the rear differential and support it from below)
 - Remove the rear coil springs, remove the lower shock absorber bolts
 - Remove and safely support the rear brake calipers
 - Disconnect the parking brake cables from the drums inside the rear rotors
 - Disconnect all sensors from the subframe and release all harness connections/tie downs
 - Support the subframe from below
 - Remove the subframe bolts and brackets
 - Lower the subframe and safely support it from below (**Step 1b** photo on the right)

Step 1b

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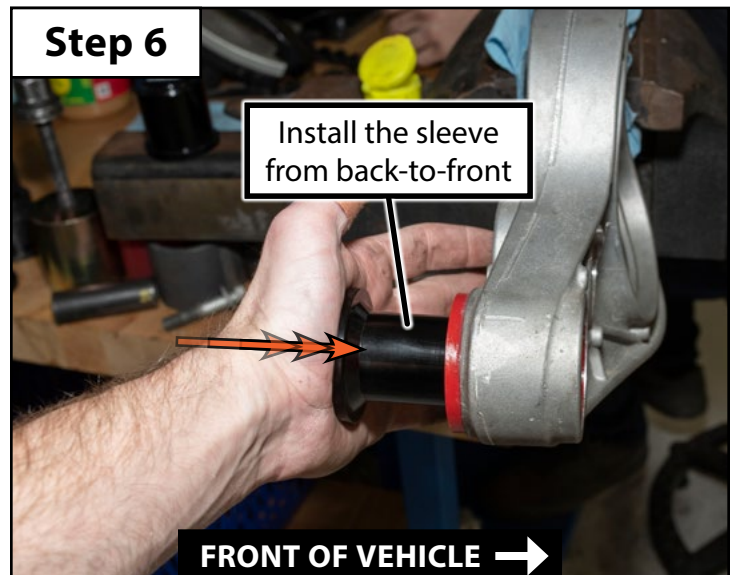
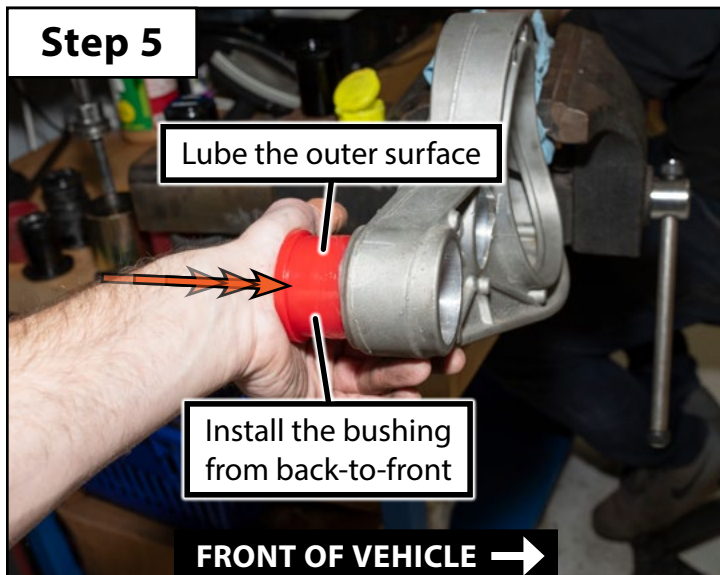
Section 2: Installing the New Poly Bushings

- Step 1**
- Safely support the diff from below.
 - Remove the two E14 E-Torx bolts and the two 18mm bolts from the forward mounting plate (**Step 1 photo**).
- Step 2**
- Remove the T30 bolt from the vibration dampener (arrow in the inset photo).
 - Remove the 21mm bolt and nut from the stock rear diff bushing (**Step 2 photo**).
- Step 3**
- Lower the diff out of the way for better access to the bushings inside the subframe (**Step 3 photo**).



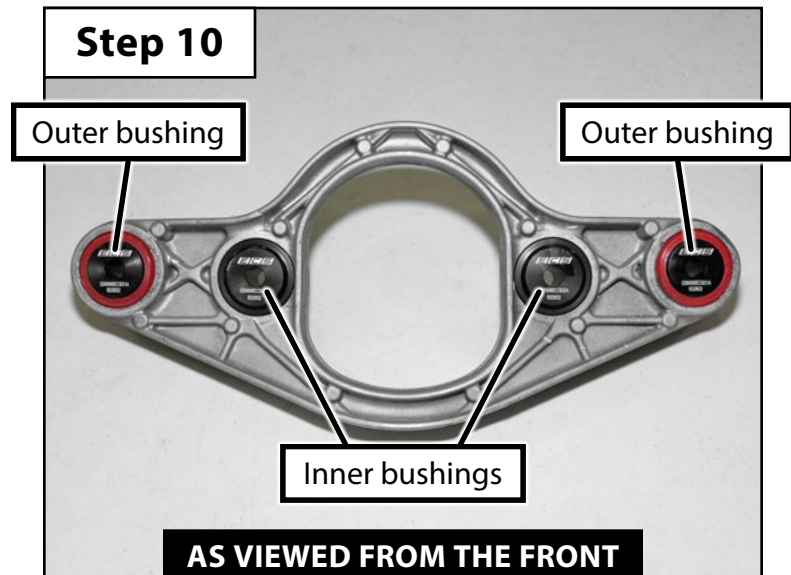
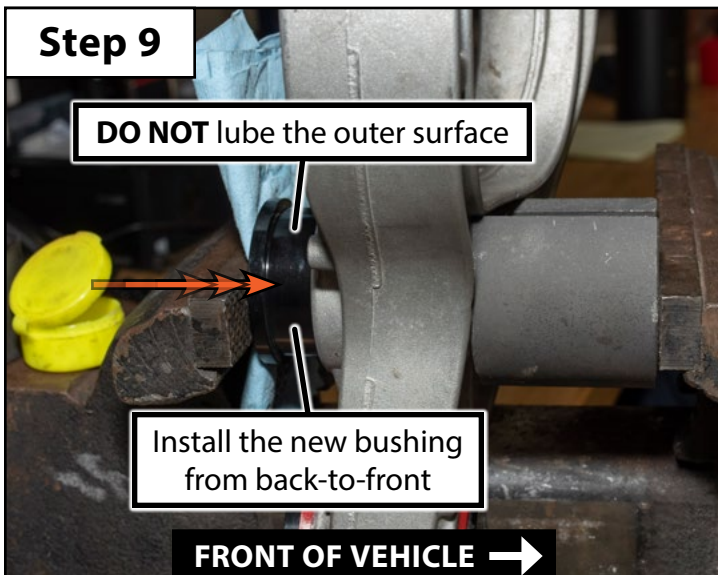
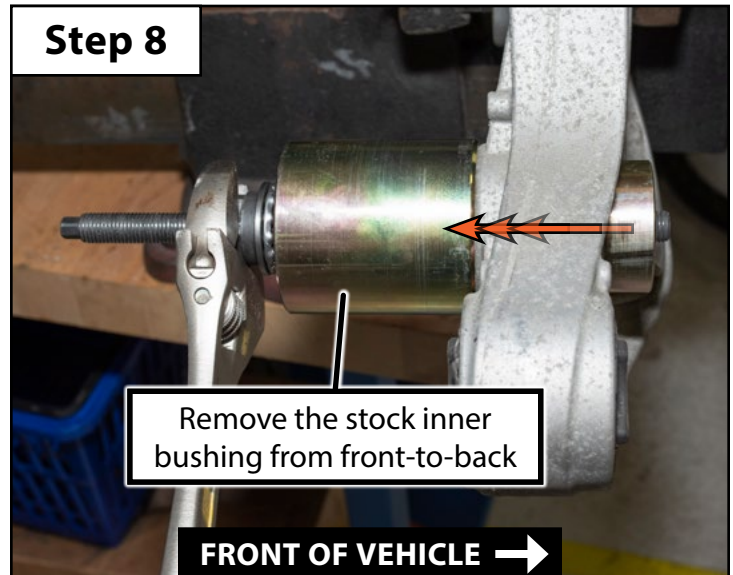
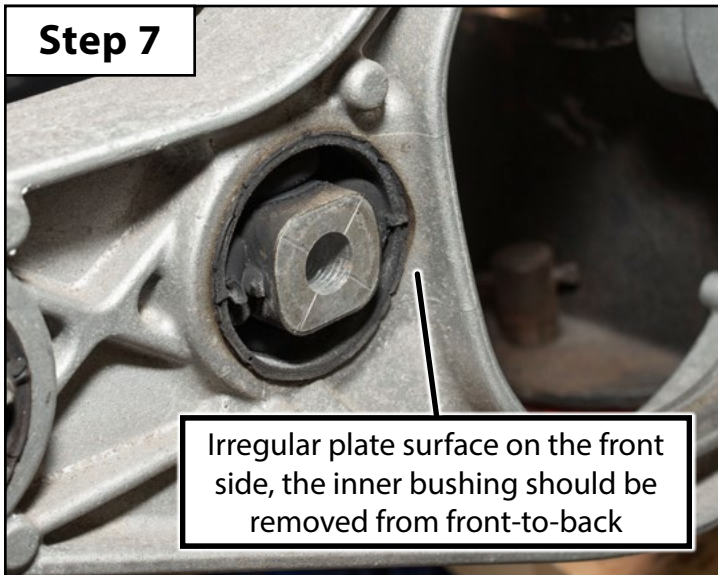
Section 2: Installing the New Poly Bushings

- Step 4**
- Press the stock outer bushing out of the front mounting plate (**Step 4 photo**).
 - Our [Schwaben Subframe & Differential Bushing Tool Set](#) can be used for this.
 - Clean out the bushing bore as needed to remove any rust or leftover bushing material (not shown).
 - Scotch-Brite™ pads work very well for this.
- Step 5**
- Remove the center sleeve from the poly bushing, apply lube to the outer bushing surface.
 - Push the poly bushing into the front mounting plate from back-to-front as shown (**Step 5 photo**).
 - The lip on the poly bushing must be on the back side of the plate.
- Step 6**
- Press the sleeve into the bushing from back-to-front as shown (**Step 6 photo**).
 - You may need to tap this sleeve in with a soft-face or deadblow hammer.
 - We do not recommend lubing the outer surface of the sleeve.



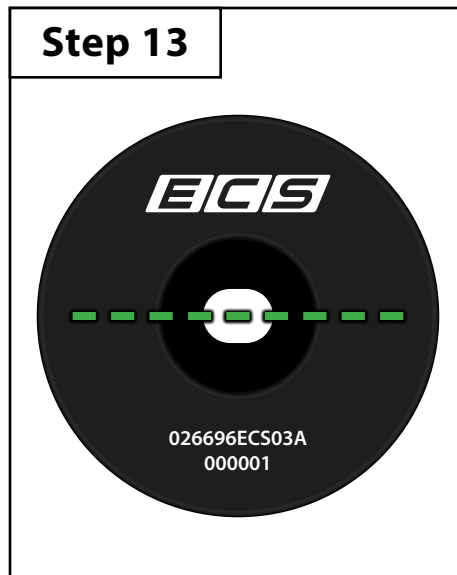
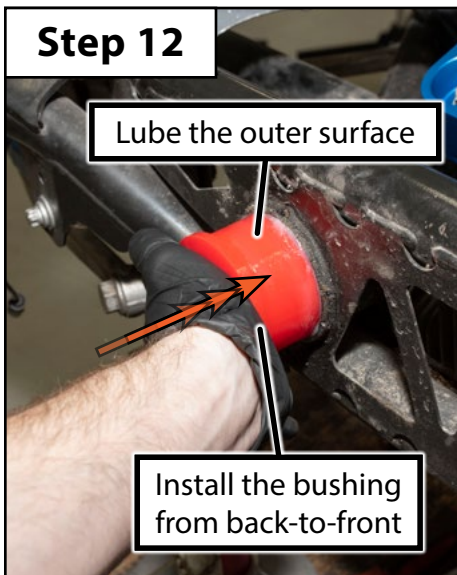
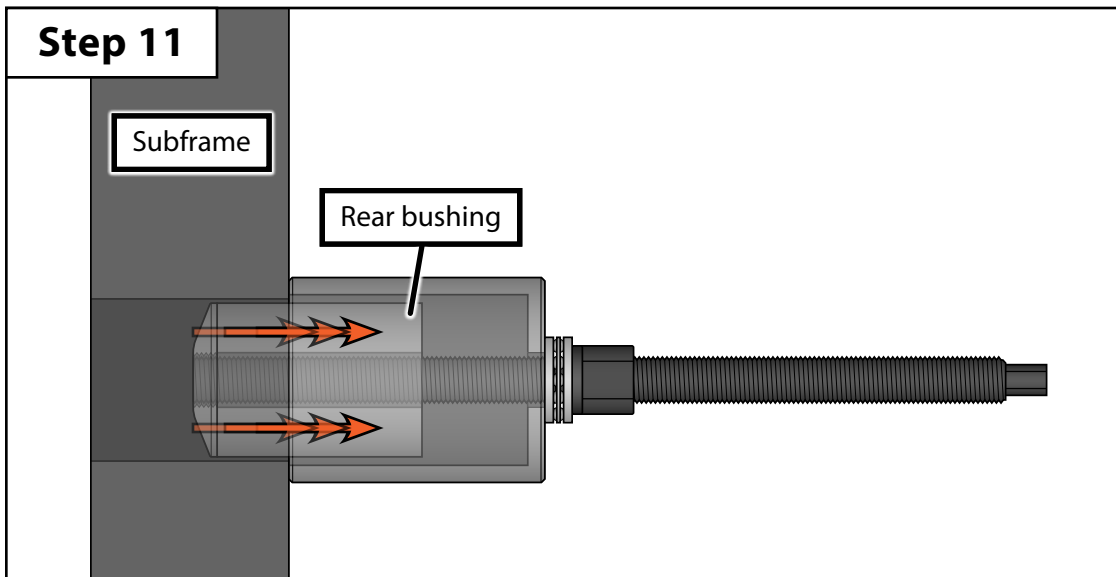
Section 2: Installing the New Poly Bushings

- Step 7**
- Due to the irregular surface on the front side of the front mounting plate, we strongly suggest removing the stock inner bushing from front-to-back (**Step 7 photo**).
- Step 8**
- Press the stock inner bushing out of the front mounting plate from front-to-back as shown (**Step 4 photo**).
 - Our [Schwabens Subframe & Differential Bushing Tool Set](#) can be used for this.
 - Clean out the bushing bore as needed to remove any rust or leftover bushing material (not shown).
 - Scotch-Brite™ pads work very well for this.
- Step 9**
- Our solid inner bushing does not have a center sleeve. **DO NOT** apply lube to the outer bushing surface.
 - Push the new inner bushing into the front mounting plate from back-to-front as shown (**Step 9 photo**).
 - The lip on the bushing must be on the back side of the plate.**
 - You may need to tap this bushing in with a soft-face or deadblow hammer, or place the entire assembly into a vice and push it into position.
- Step 10**
- Repeat steps 4-9 to install the other two bushings into the front mounting plate (**Step 10 photo**).



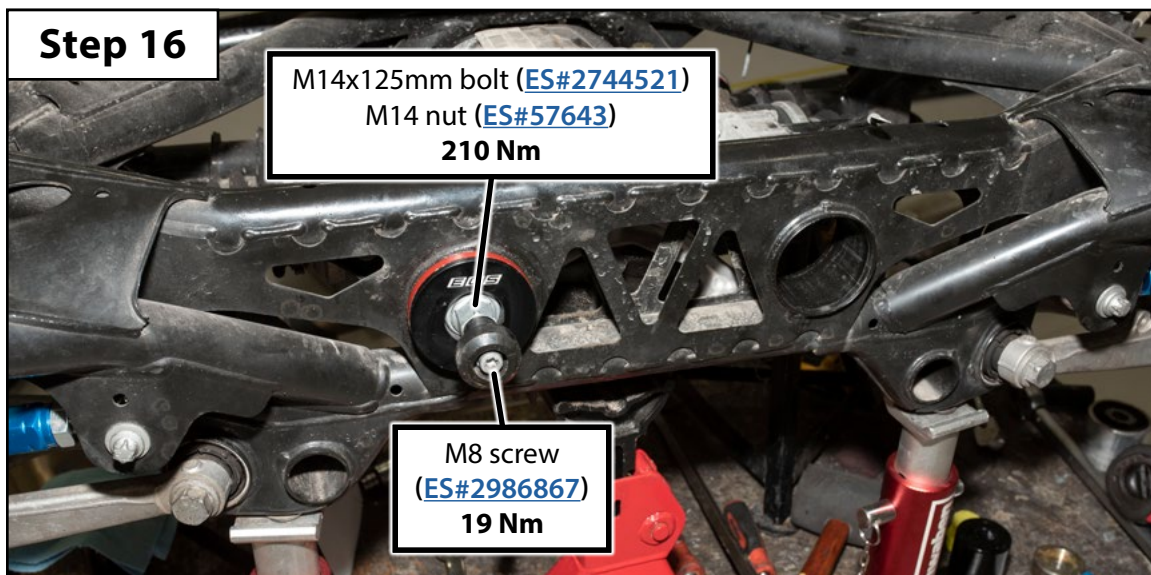
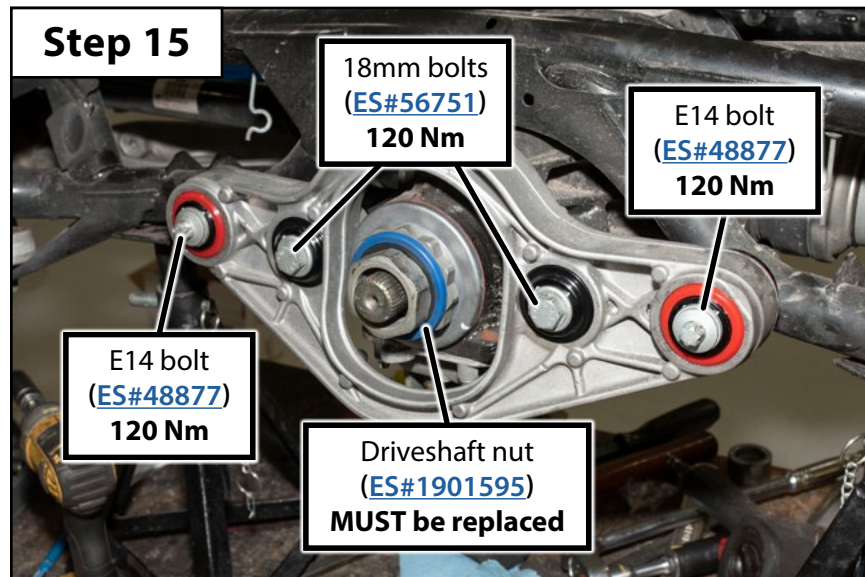
Section 2: Installing the New Poly Bushings

- Step 11**
- Remove the stock rear bushing from the subframe using the [OEM tools](#) or equivalent (**Step 11 photo**).
 - This bushing can be removed from either direction, but if you pull it out through the back of the subframe you won't have to worry about working around the differential housing.
 - Clean out the bushing bores as needed to remove any rust or leftover bushing material (not shown).
 - Scotch-Brite™ pads work very well for this.
- Step 12**
- Remove the center sleeve from the poly bushing, apply lube to the outer bushing surface.
 - Push the poly bushing into the subframe from back-to-front as shown (**Step 12 photo**).
 - The lip on the poly bushing should be on the back side of the subframe.**
- Step 13**
- Take note of the slotted hole inside the sleeve (**Step 13 photo**).
 - This slot must be level side-to-side once installed into the bushing.**
- Step 14**
- Press the sleeve into the bushing from back-to-front as shown (**Step 14 photo**).
 - You may need to tap this sleeve in with a soft-face or deadblow hammer.
 - We do not recommend lubing the outer surface of the sleeve.**

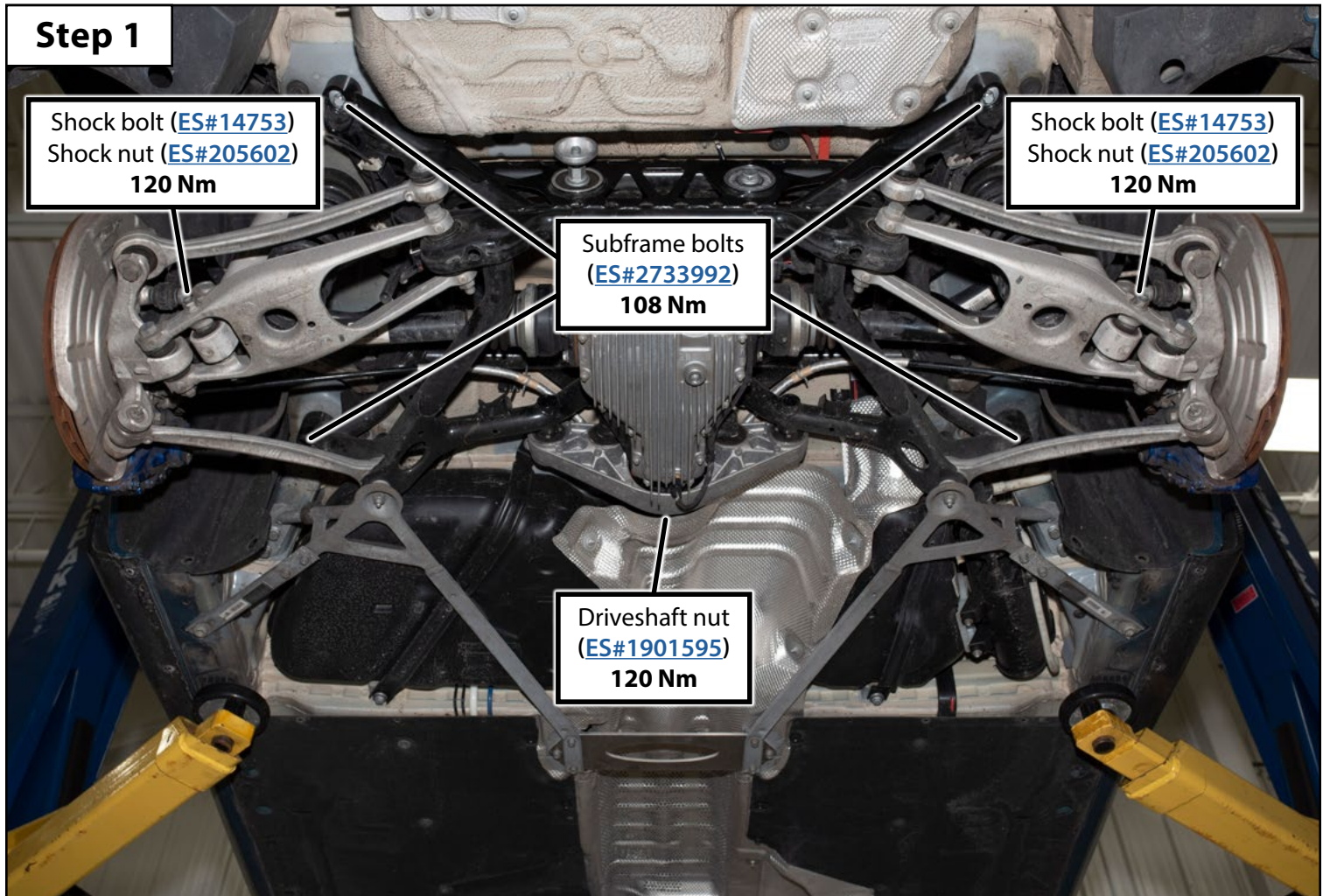


Section 2: Installing the New Poly Bushings

- Step 15**
- Replace the driveshaft nut (**Step 15 photo**).
 - Lift the differential up into position in the subframe, then thread in the forward mounting plate bolts in by hand (**Step 15 photo**).
- Step 16**
- Thread in the rear mounting plate bolt by hand (**Step 16 photo**).
 - Torque the four forward mounting plate bolts to 120 Nm (**Step 15 photo**).
 - Torque the rear mounting plate bolt and nut to 210 Nm (**Step 16 photo**).



Section 3: Reassembly



- Step 1**
- Reinstall the subframe into the vehicle in the reverse order of removal (**Step 1 photo above**).
 - Tighten all suspension arms and shock absorber fasteners to final torque with the suspension set to ride height.
 - Test the parking brake and adjust if needed.
 - Reinstall the exhaust system and adjust if needed.
 - Perform a 4-wheel alignment.