

**BMW E36/E46 Poly Rear Differential Bushing Set
Installation Instructions - ES2748545**

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



As these vehicles age, the differential bushings tend to show signs of stress and deterioration resulting in bushing deflection and excess drivetrain movement. The differential sits directly between your gas pedal and the wheels, so these bushings play a critical role in the responsiveness of your drivetrain. Our performance bushings are constructed of firm yet responsive 88A polyurethane and feature anodized aluminum center sleeves. Our bushings are designed to be a direct replacement for the stock units and install with ease. In these instructions we will guide you through the installation process with the subframe removed from the vehicle, however it is important to note that it is possible to press these bushings into place by lowering the differential and subframe slightly without completely removing them. We found that the additional clearance and visibility that dropping the subframe provides is worth the additional work required to remove the subframe completely.

Install time: 1 hour with subframe removed

Parts list for kit: Two front position differential bushings
One rear position differential bushing



Be sure to completely read the notes below & instructions before installing the mounts.

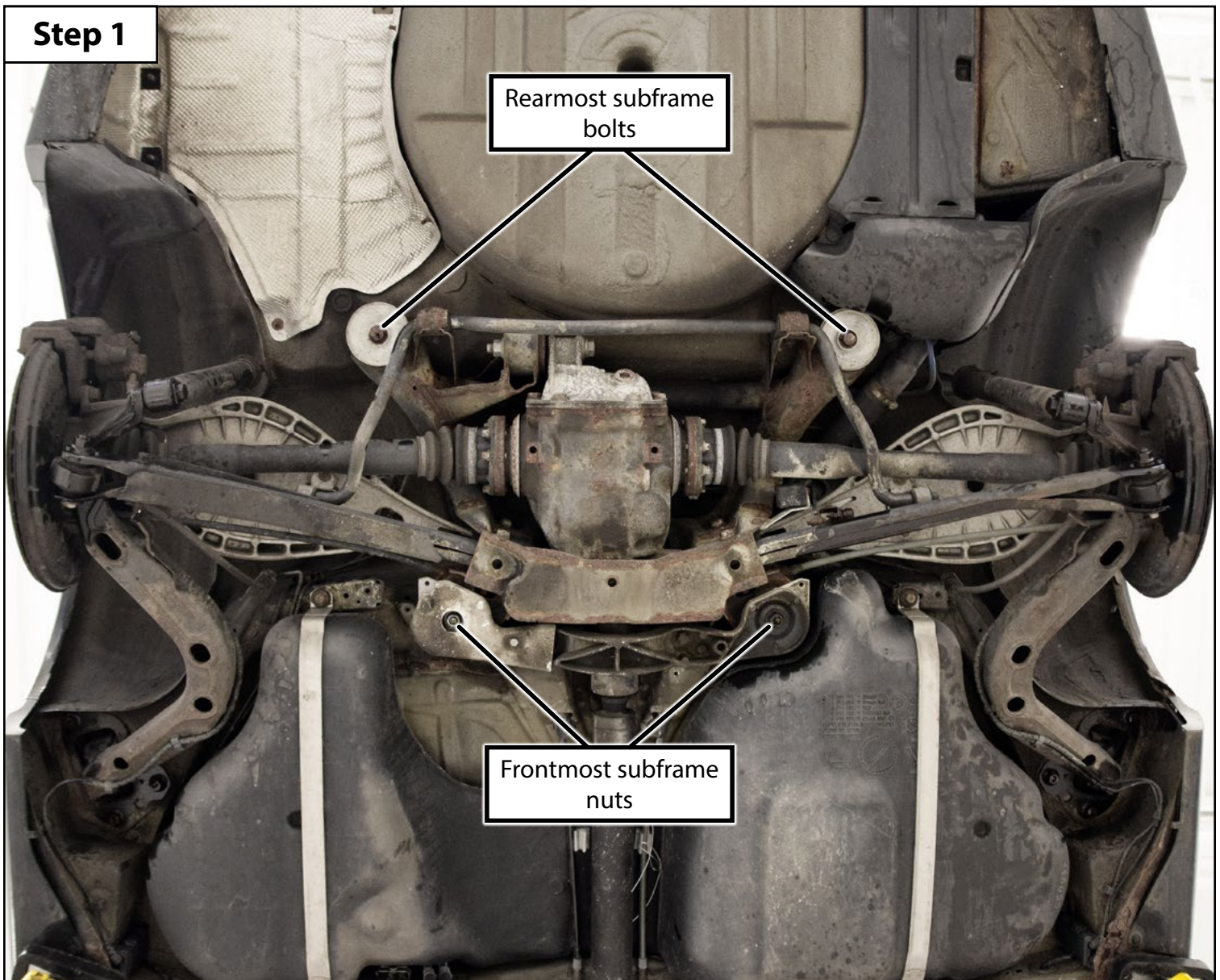
Note: Always use press tooling which correctly fits the surface of the bushings and the subframe. If proper care is not taken to ensure that the bushings go in correctly damage to the subframe **will** result.

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 5](#))

Section 1: Removing the Rear Subframe

- Step 1**
- Remove the subframe from the vehicle (reference the **Step 1 Photo** below). This will include the following:
 - Disconnect the negative (-) battery cable.
 - Remove the rear wheels, exhaust system and heat shields.
 - Unbolt the driveshaft center bearing from the body, unbolt the driveshaft from the differential and hang it out of the way.
 - Disconnect the parking brake cables from the handle in the cabin, and the guides clips under the vehicle.
 - Disconnect the rear vehicle level sensor from the UCA (if applicable).
 - Disconnect the rear brake pad sensor, and all other wiring harness connections between the subframe and the chassis.
 - Remove the outermost LCA bolts.
 - Remove the calipers from the spindles and hang them out of the way.
 - Unbolt the shocks from the spindles, remove the bolts which secure the trailing arms to the vehicle.
 - Remove the rear coil springs.
 - Remove the four bolts which secure the differential support bracket to the vehicle.
 - Remove the heat shield from the support bracket which covers one of the subframe nuts.
 - Support the subframe from below, then remove the subframe nuts and bolts.
 - Lower the subframe slightly, ensure that the parking brake cables freely slide out with the subframe.
 - Carefully lower the subframe and safely support it.



[Table of Contents](#)

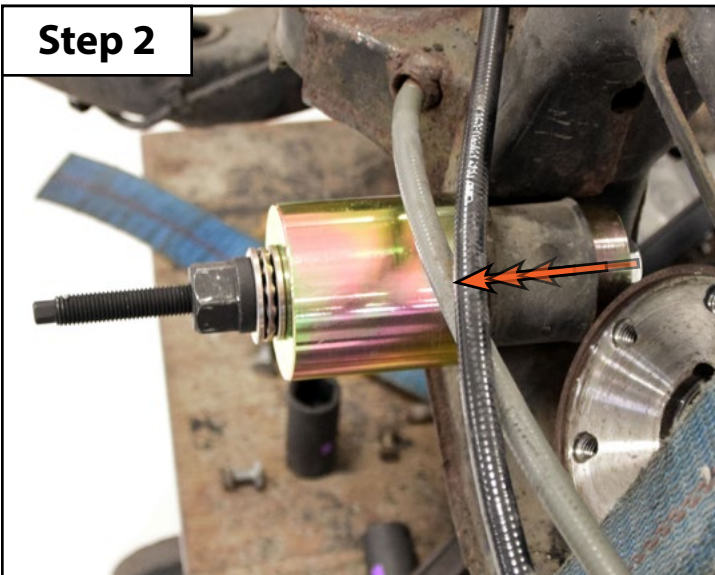
Section 2: Installing the New Poly Bushings

- Step 1**
- Remove the sway bar from the subframe (**Step 1 Photo**).
 - Remove the three differential bolts and carefully lower the differential so as not to damage it or overextend the rear axles.
- Step 2**
- Press the stock front position differential bushings out of the subframe as shown using the BMW tool or equivalent (**Step 2 Photo**).
- Step 3**
- Press the stock rear position differential bushing out of the subframe as shown using the BMW tool or equivalent (**Step 3 photo**).
 - Prep the subframe.
 - Clean, remove rust and paint if necessary.
 - Remove leftover bushing material.
 - Be careful not to damage the bushing mount surface.

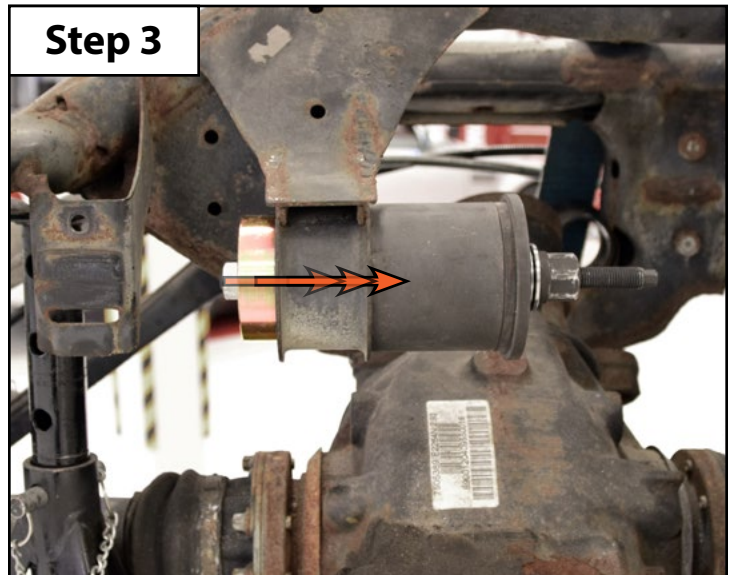
Step 1



Step 2



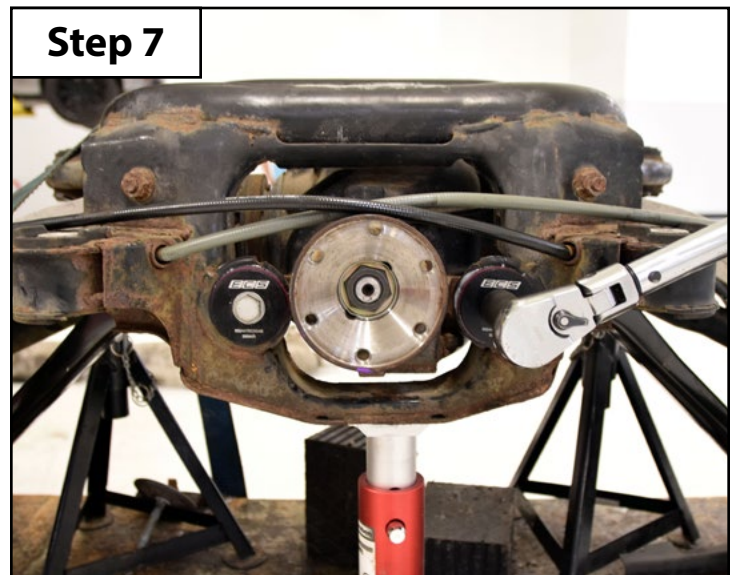
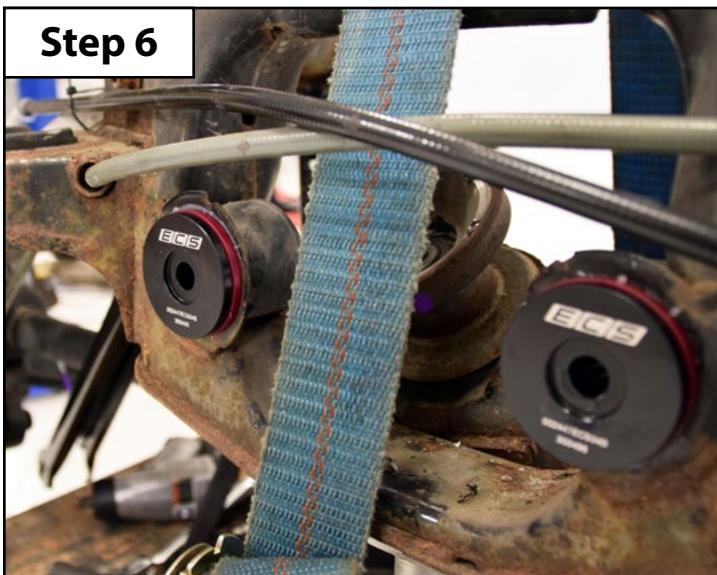
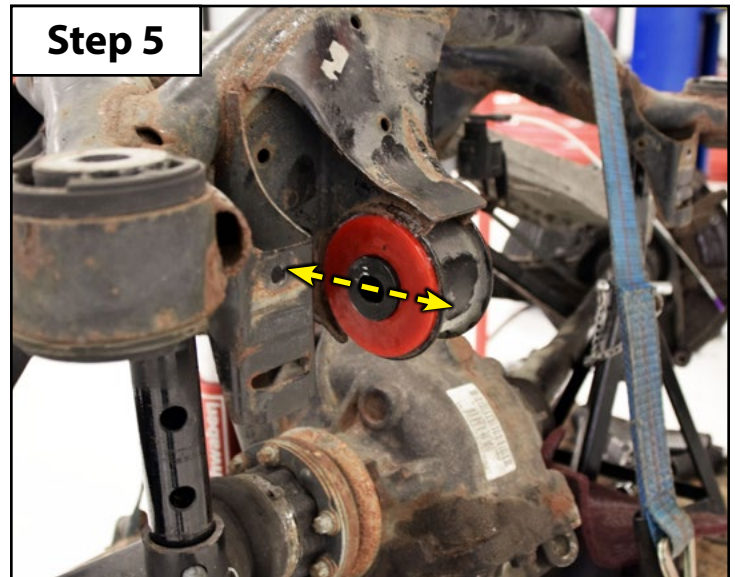
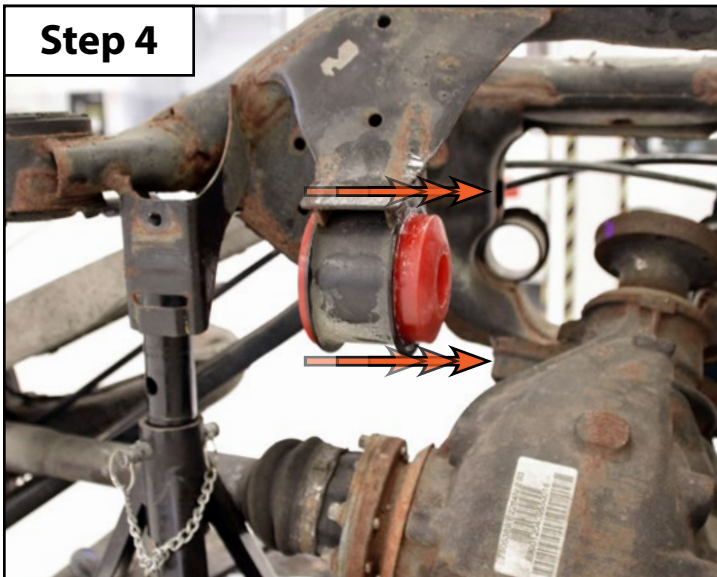
Step 3



[Table of Contents](#)

Section 2: Installing the New Poly Bushings

- Step 4**
- Lube the rear position poly bushing, then push it into the subframe (**Step 4 Photo**).
- Step 5**
- Push the billet sleeve into the bushing, ensuring that the slotted bolt hole remains horizontal (**Step 5 Photo**).
- Step 6**
- Lube the front position poly bushings, then push them into the subframe (**Step 6 photo**).
 - Slide the billet sleeves into the bushings place as shown.
- Step 7**
- Lift the differential back up into place and loosely install the rear bolt and nut (**Step 7 photo**).
 - Install the new provided front differential bolts and torque them to 95 Nm (70 Ft-lbs), then go back and torque the rear differential bolt to 174 Nm (128 Ft-lbs).
 - Reinstall the rear sway bar.



[Table of Contents](#)

Section 3: Reassembly

- Step 1**
- Reinstall the subframe into the vehicle in the reverse order of removal (reference the **Step 1 Photo** below). This will include the following:
 - Tighten all suspension and shock absorber bolts to their final torque with the suspension set at ride height.
 - Test the parking brake and adjust if needed.
 - Perform a 4-wheel alignment.



[Table of Contents](#)