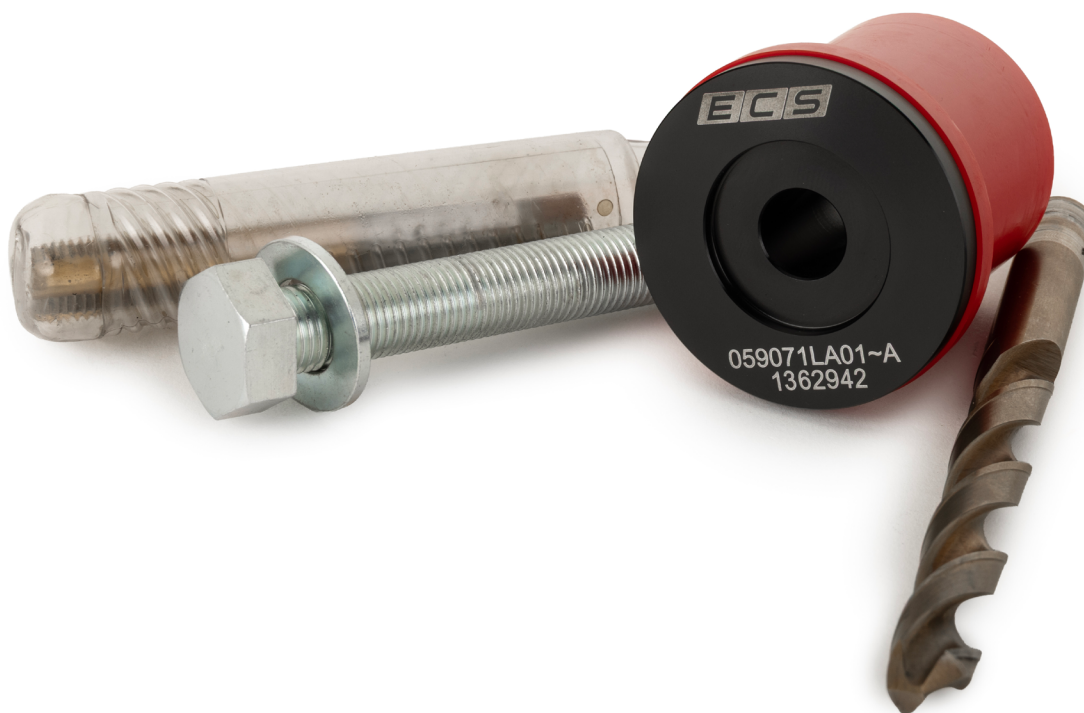




BMW E36 M14 Differential Bolt Upgrade Kit Installation Instructions - [Click HERE to Shop](#)



Skill Level
2 - Moderate
Some Experience
Recommended



Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

INSTALLATION NOTES

- **RH** refers to the *passenger side* of the vehicle.
- **LH** refers to the *driver side* of the vehicle.
- Always use the proper torque specifications.
- If applicable to this installation, torque specifications will be listed throughout the document and at the end as well.
- Please read all of these instructions and familiarize yourself with the complete process **BEFORE** you begin.

GENERAL PREPARATION AND SAFETY INFORMATION

ECS Tuning cares about your health and safety, please read the following safety information. This information pertains to automotive service in general, and while it may not pertain to every job you do, please remember and share these important safety tips.

- Park your car in a safe, well lit, level area.
- Shut the engine off and remove the key from the ignition switch.
- Make sure any remote start devices are properly disabled.
- **ALWAYS** wear safety glasses.
- Make sure the parking brake is applied until the vehicle is safely lifted and supported.
- Whether lifting a vehicle using an automotive lift or a hydraulic jack, be sure and utilize the factory specified lift points.
- Lifting a vehicle in an incorrect location can cause damage to the suspension/running gear.
- **ALWAYS** support the vehicle with jack stands.
- **ALWAYS** read and follow all safety information and warnings for the equipment you are using.



NEVER get underneath a vehicle that is supported only by a jack, and **ALWAYS** make sure that the vehicle is securely supported on jack stands.

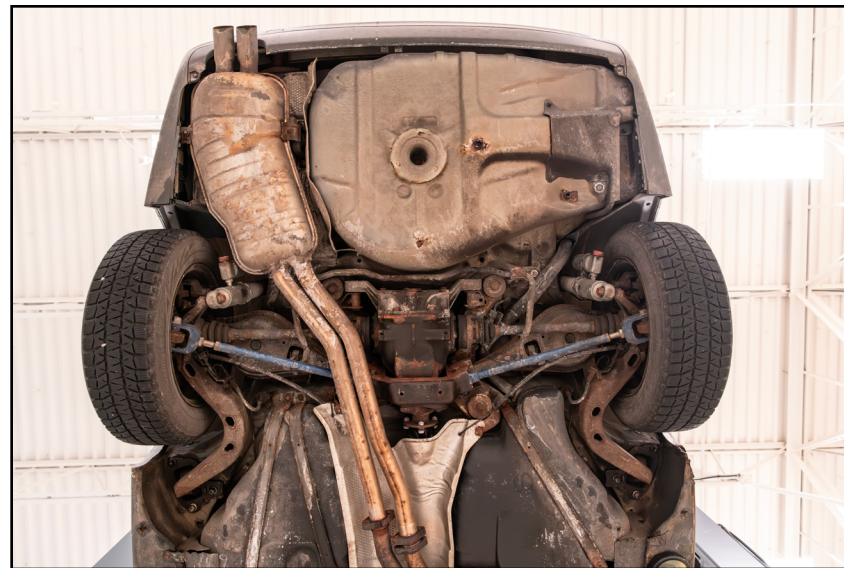
DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 1: 13mm Wrench, 13mm Socket & Ratchet

Safely lift and support the vehicle, then remove the exhaust system.

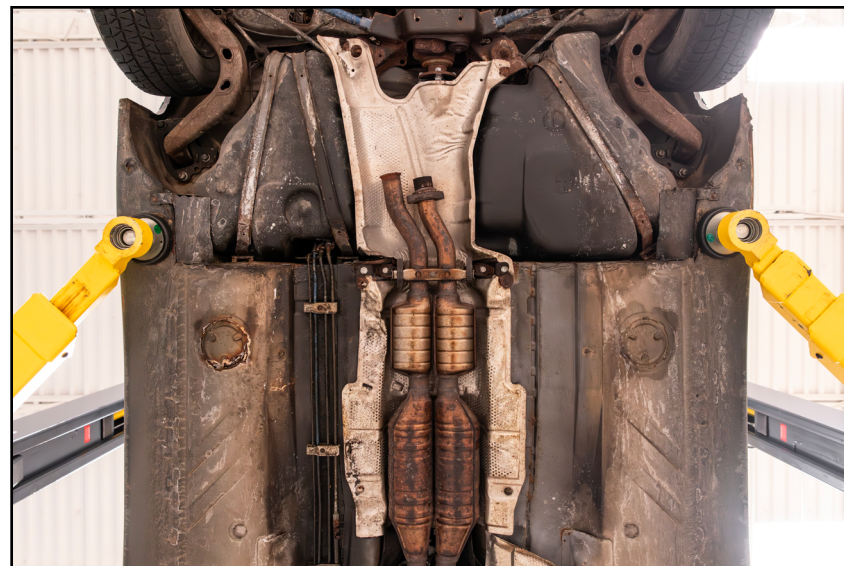


For this install we opted to remove the rear section of the exhaust, we highly recommend removing the entire exhaust system for ease of access.



Step 2: 10mm Socket & Ratchet

Remove the exhaust heat shield from the vehicle.



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 3: 13mm Wrench, 13mm Socket & Ratchet

Remove the nuts (**RED** circles) and bolts that secure the sway bar brackets to the rear subframe.



Step 4:

Slide the sway bar brackets free from the slots in the rear subframe, then pivot the sway bar downward out of the way as shown.



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 5: 17mm Wrench, 17mm Socket & Ratchet

Remove the hardware and disconnect the driveshaft from the differential.



Step 6: E12 Torx Socket & Ratchet

Remove the six bolts that secure each axle to the differential, then pivot them downward out of the way.



Inspect the axle flanges for signs of leakage. Replace any worn or leaking axle seals as necessary (available [HERE](#)).



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 7: Transmission Jack, 18mm Socket & Ratchet

Support the differential from below with a transmission jack then remove the two rear differential bolts (arrows).



Step 8: Transmission Jack, 18mm Socket & Ratchet

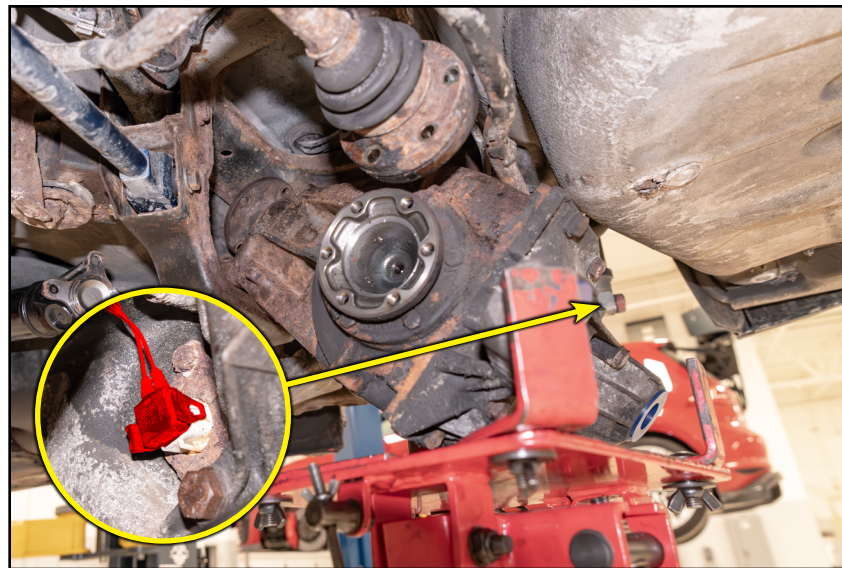
Move the driveshaft out of the way, then and remove the front differential bolt (arrow).



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 9: Transmission jack

Disconnect the connector (highlighted in **RED** in inset photo) from the differential, then carefully lower the rear of the differential as shown and guide it free from the vehicle.

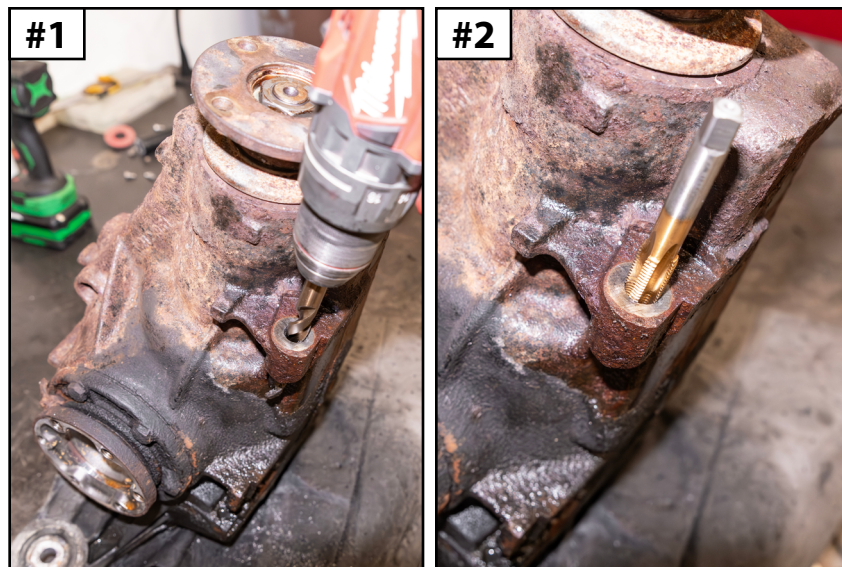


Step 10: Drill, Tap Handle

Lubricate the front mounting hole, then slowly and carefully drill it out using the provided 12.5mm drill bit (as shown in **Photo #1**). Tap new threads into the hole using the provided M14 x 1.5 tap (as shown in **Photo #2**).



CAUTION: Ensure the drill and tap are kept perfectly straight and square to the hole. Incorrect drilling or tapping angle will cause permanent damage to the differential.



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

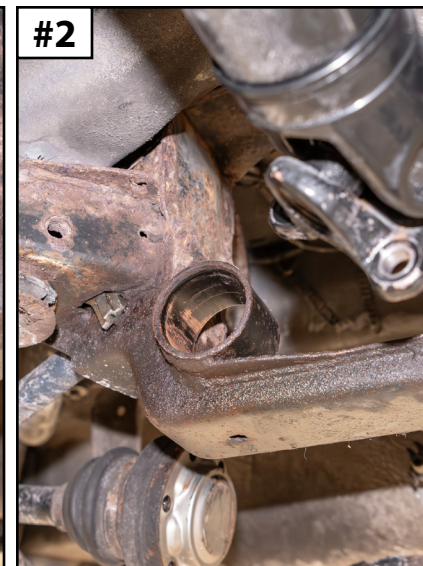
Step 11: Differential Bushing Press Tool Set

Optional: If not already equipped, we highly recommend upgrading to polyurethane rear position differential bushings before reinstalling the differential (available [HERE](#)).



Step 12: Differential Bushing Press Tool Set

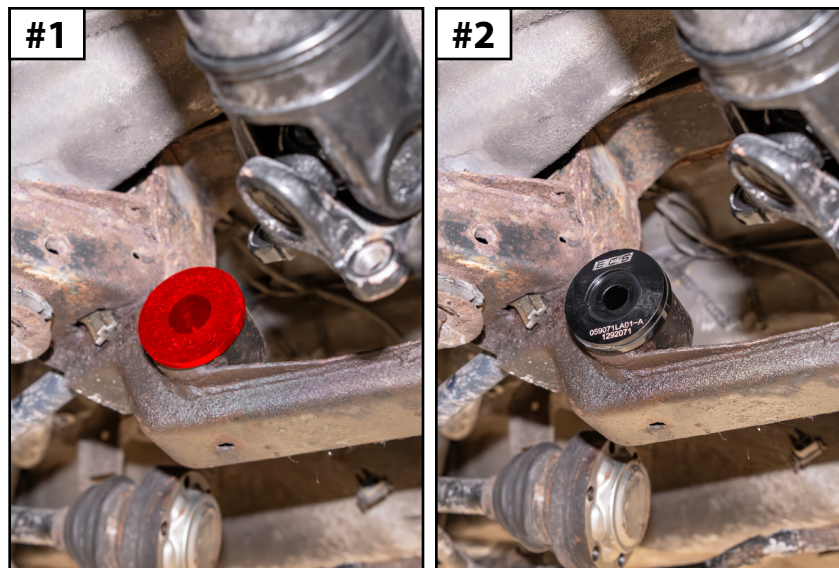
Using a differential bushing press tool (available [HERE](#)), carefully remove the OE front position differential bushing from the subframe (as shown in **Photo #1**), then clean the bushing bore to remove any corrosion or debris (as shown in **Photo #2**).



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

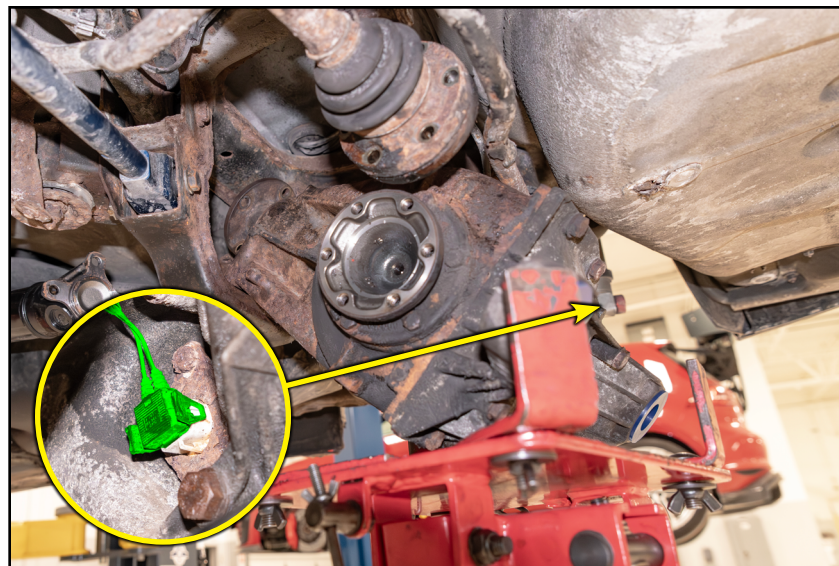
Step 13: Rubber Mallet

Push the new poly bushing into the subframe from the front (as shown in **Photo #1**), then lubricate the billet insert using the provided polyurethane grease and insert it into the bushing until it is flush (as shown in **Photo #2**).



Step 14: Transmission Jack

Carefully lift the differential back up into place and reconnect the connector (highlighted in **GREEN** in inset photo).



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 15: 18mm Socket & Ratchet

Replace the rear differential bolts (arrows), tightening until lightly snug.



Step 16: 18mm, 22mm Socket & Torque Wrench

Replace the front differential bolt (arrow) and torque it to 92 Nm (68 Ft-lbs), then torque the rear differential bolts to 77 Nm (57 Ft-lbs).



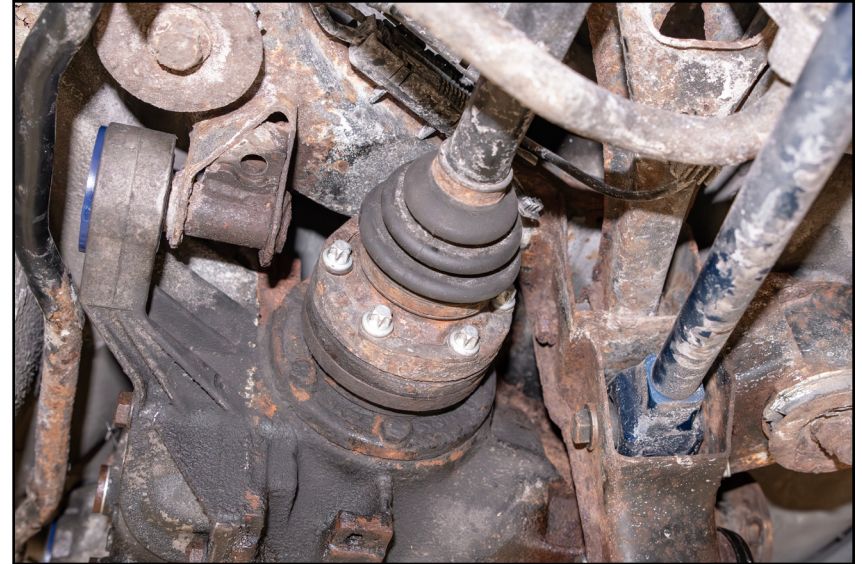
DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 17: E12 Torx Socket & Ratchet

Reconnect the axles to the differential, then replace the bolts and torque them to 80 Nm (59 ft lb).



Torque specifications for these bolts vary by vehicle model and hardware type. Verify the correct specification for your specific application before torquing.



Step 18: 13mm Wrench, 13mm Socket & Torque Wrench

Reinstall the sway bar brackets into the slots in the subframe, then replace the hardware (circled in **YELLOW**) and torque it to 22 Nm (16 Ft-lbs).



DIFFERENTIAL BOLT UPGRADE KIT INSTALLATION

Step 19: 17mm Wrench, 17mm Socket & Torque Wrench

Reconnect the driveshaft to the differential and torque the hardware to 60 Nm (44 Ft-lbs).

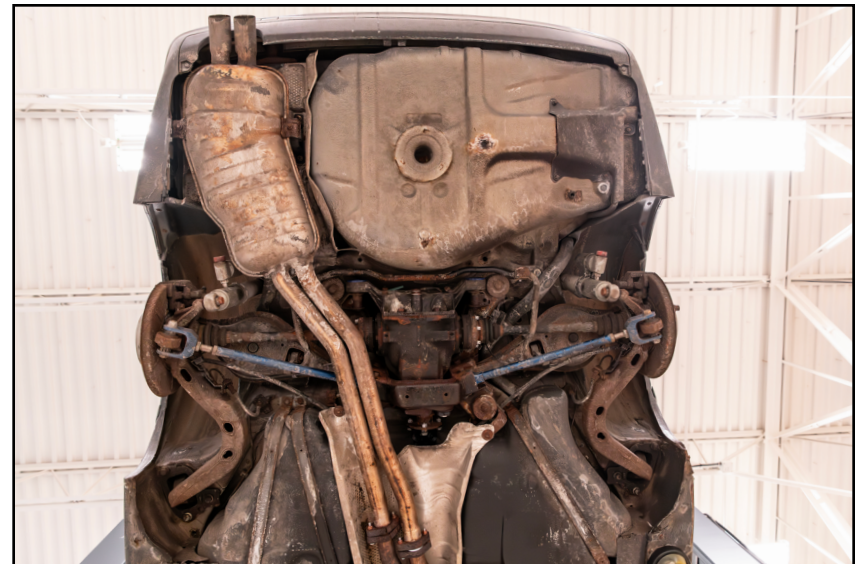


Torque specifications for these bolts vary by vehicle model and hardware type. Verify the correct specification for your specific application before torquing.



Step 20: 13mm Wrench, 10mm, 13mm Socket & Ratchet

Reinstall the exhaust heat shield and exhaust system, replacing all gaskets and hardware.



Congratulations, Your installation is complete!

Your Differential Bolt Upgrade Kit installation is complete!



These instructions are provided as a courtesy by ECS Tuning

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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