

BMW F8x Dual-Mount Differential Plate Installation

Introducing the new F8x Dual-Mount Differential Plate! As you may know, BMW left provisions in the F8x for dual rear differential bushings, but only utilized one! By only utilizing a single rear bushing on the differential BMW has left the door open to unwanted driveline deflection and movement. Reports have come in of early-production F8x vehicles with hydraulic (fluid filled) differential bushings failing in as little as 30,000 miles.

Our dual-mount differential plate is manufactured from a single piece of 6061-T6 billet aluminum which is then coated in a type II anodized finish for terrific corrosion resistance. This plate takes the place of the stock unit and allows you to utilize a second rear differential bushing for a more enhanced driving experience.

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Install time: ~1 hour with subframe removed

Kit Contents: 1x Turner Dual-Mount Diff Plate 3x M12x1.5x60mm bolts (diff plate to diff) 1x M14x1.5x82mm bolt (diff plate to second bushing)

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Be sure to completely read these instructions before installation.

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.



Section 1: Subframe Removal



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)





Section 2: Removing the Stock Diff Plate

- **Step 1** Remove the two E14 E-Torx bolts from the forward mounting plate (**Step 1 photo**).
- **Step 2** Safely support the diff from below.
 - 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
 Rotate the diff forward for better access to the rear mounting plate bolts.
 Remove and discard the three 18mm bolts from the rear mounting plate (Step 3 photo).
 NOTE: These bolts have threadlocking compound applied to them when installed at the factory. This will make them significantly tougher to remove, a pneumatic impact wrench works best here but a breaker bar will also work in a pinch. We strongly suggest having someone help to hold the subframe and the diff in place while removing the plate bolts.
- **Step 4** Clean out any debris or threadlocker out of the threaded holes in the rear diff (**Step 4 photo**).









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Section 3: Installing the New Dual-Mount Diff Plate

 Step 1 . Use the Step 1a, Step 1b, & Step 1c photos below to ensure you orient the new bushing correctly in the bore.
 NOTE: The steps on this page only apply if you are installing an OEM bushing into the subframe. If you are installing some sort of aftermarket bushings (poly, delrin, etc.) be sure to follow the installation instructions for that product for proper orientation, then skip ahead to Page 5.

- **Step 2** Install the new bushing into the open bore in the subframe. This will include the following:
 - Coat the outside of the bushing sleeve with Circolight lubricant or equivalent
 - Use the special tools listed in the Step 2a photo below to install the bushing into place
 - Remove all of the tools and ensure that the bushing is slightly recessed into the bore (**Step 2b photo**) **NOTE:** The tools required for this procedure can be found on our website by clicking <u>HERE</u>.





Section 3: Installing the New Dual-Mount Diff Plate

Step 3 • Install the new dual-mount diff plate onto the rear differential in the following order:

- Start all three of the provided bolts by hand OC
 - 2. Torque **bolt #1** to 120 Nm 🥥
 - 3. Torque **bolt #2** to 120 Nm 🥥
 - 4. Torque **bolt #3** to 120 Nm 🔵





Section 3: Installing the New Dual-Mount Diff Plate

Step 4 • Replace the driveshaft nut (**Step 4 photo**).

- Lift the differential up into position in the subframe, then thread in the two forward mounting plate bolts in by hand (**Step 4 photo**).
- **Step 5** Thread in the two rear mounting plate bolts in by hand (**Step 5 photo**).
 - Torque the two forward mounting plate bolts to 120 Nm (Step 4 photo).
 - Torque the M14 rear mounting plate bolt to 100 Nm (Step 5 photo).
 - Torque the M12 rear mounting plate bolt and nut to 210 Nm (Step 5 photo).





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Section 4: 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.