BMW F3X Solid Rear Subframe Mount Kit Install

TMS F3x solid rear subframe mounts are derived from those used in TMS race cars and are intended for use in racing classes where non-metallic bushings are required. Thick Delrin casings are used as the non-metallic solid mount. High quality aluminum sleeves are then pressed into each of the casings, with washers integrated into each one for increased surface area. The washers are employed to add an extra safety factor for securing the subframe into position. A BMW's subframe is the heart of the suspension and we have found with a short amount of track time the stock bushings will start to degrade. When the subframe moves, so do all the suspension mounting points. Replace the stock rubber bushings to limit drivetrain and suspension movement and keep your car setup the way it's supposed to be.

Install time: 1 hour with subframe and stock bushings removed

Parts list for kit:

Two front subframe mount sleeves
Two front subframe mount casings
Two rear subframe mount sleeves
Two rear subframe mount casings

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

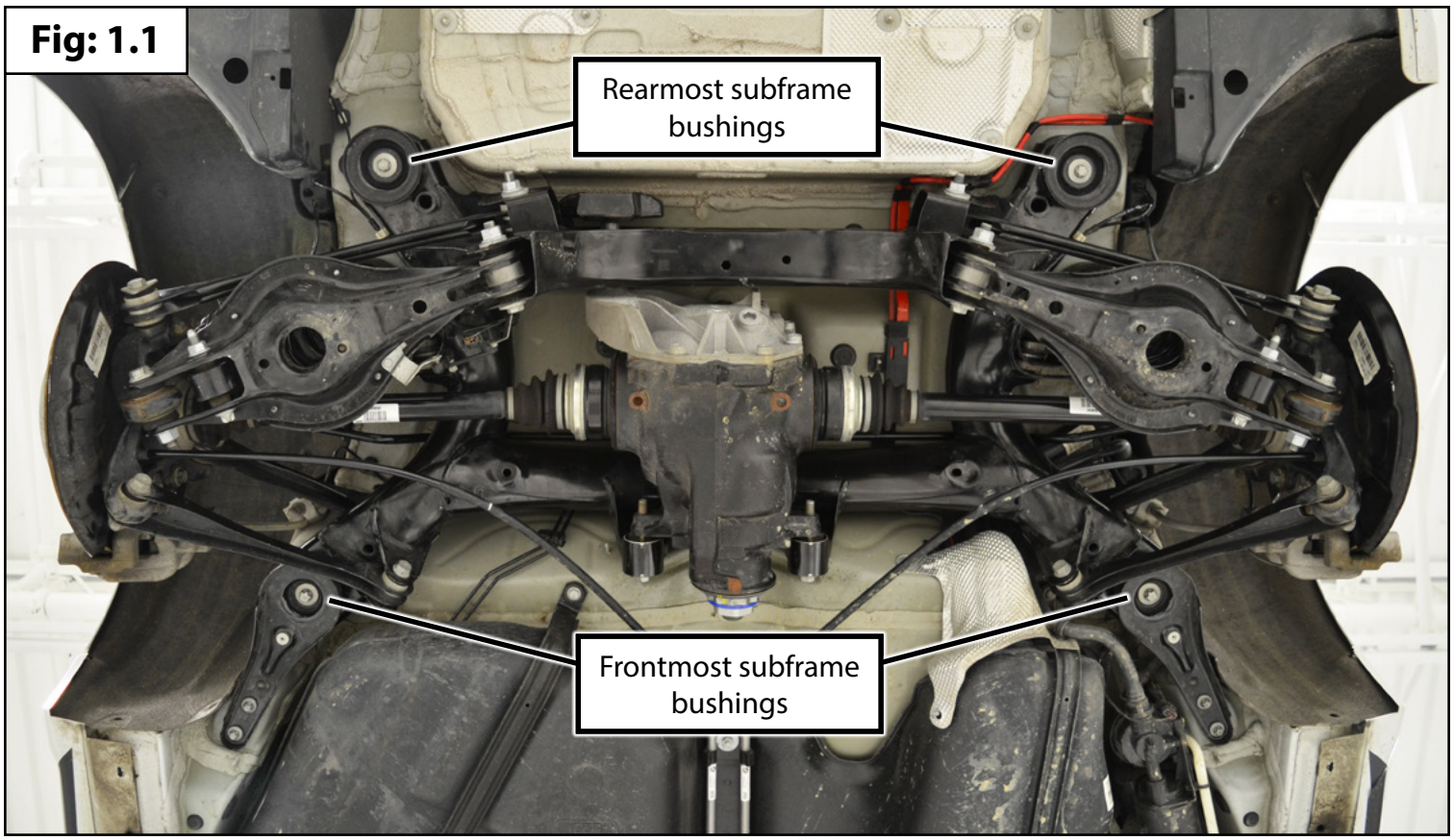
Note: *Always use press tooling which correctly fits the surface of the bushings and the subframe. If proper care is not taken to ensure that the bushings go in correctly damage to the subframe* ***will*** *result.*

Note: *These mounts have a tight tolerance press fit. If one of the mounts gets bound up, back off the press arm, check for interference problems and try again.*

Note: *The Delrin casings are slotted for proper fitment, these slots must be aligned with the tabs which are punched in along the bushing bores on the subframe. Be sure to follow the instructions for aligning the locating mark on the casings with the locating notch on the subframe.*

Section 1: Subframe Removal

Fig: 1.1



1: Remove the subframe from the vehicle (reference **Fig: 1.1**). This will include the following steps:

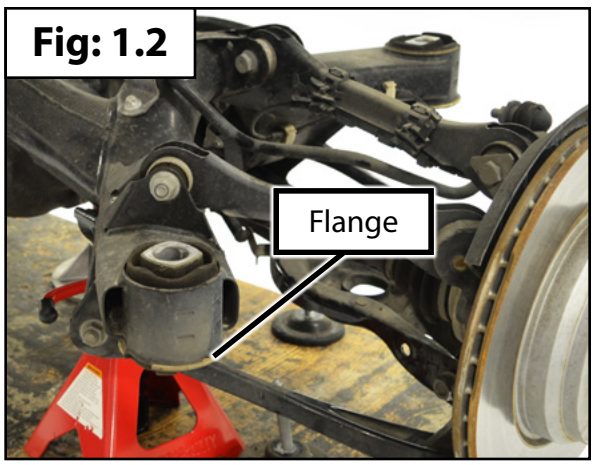
- Remove the rear wheels
- Remove the exhaust system and heat shields
- Remove all applicable underbelly panels
- Remove the driveshaft
- Disconnect the rear vehicle level sensor from the LCA (if applicable)
- Remove the rear coil springs
- Disconnect the rear brake pad sensor
- Remove and safely support the rear brake calipers
- Disconnect the parking brake cables from the drums inside the rear rotors
- Disconnect all wiring harness connections between the subframe and the chassis
- Support the subframe from below
- Remove the subframe bolts and brackets
- Lower the subframe and safely support it

2: Remove the stock subframe bushings (**Fig: 1.2**). There are two ways of doing this:

1. Use the BMW tool or equivalent
2. Use a chisel to break off the plastic flanges, then use a press to remove them.

NOTE: Be sure to note their orientation before removal.
NOTE: Be careful not to deform the subframe.

Fig: 1.2



3: Prep the subframe.

- Clean, remove rust and paint if necessary.
- Remove leftover bushing material.
- Be careful not to damage the bushing mount surface.

Section 2: Bushing Installation

Step #1

- Align the locating mark on each delrin bushing casing with the corresponding notch on the subframe (**Fig: 2.1**).

Step #2

- Press the delrin casings into place from the top of the subframe (**Fig: 2.2**).
  - You can easily identify front and rear casings because the rear casing outside diameter is larger than the front casing outside diameter.
  - Stop the press when the flanges of the casings are just flush to the subframe, **DO NOT** attempt to press them in any further.

Step #3

- Press the sleeves into place from the bottom of the subframe (**Fig: 2.2**).
  - When installing sleeves the cutouts in the flanges of the sleeve should be installed in the same orientation as the factory bushing
  - Each sleeve needs to be pressed in from the bottom of the sub-frame (the flange on the sleeve faces the ground).
  - Stop press when the flanges of the sleeves are just flush to the subframe, **DO NOT** attempt to press them in any further.
- Finished product shown in **Fig: 2.3**.

Fig: 2.1

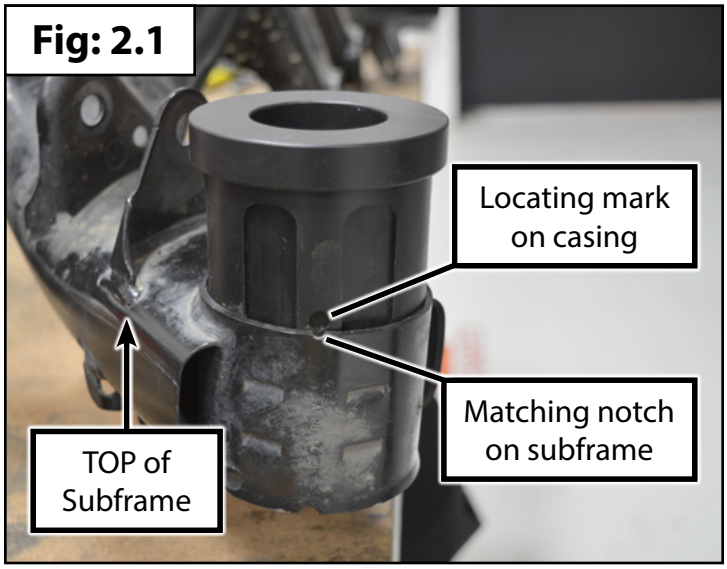


Fig: 2.2

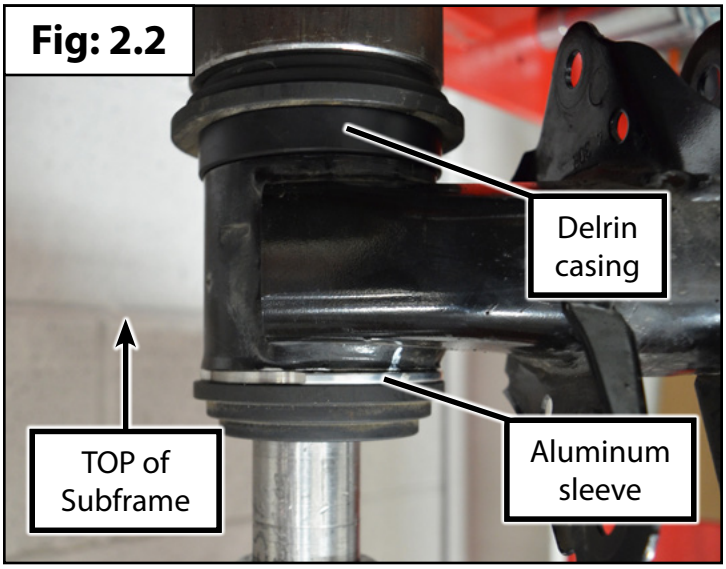
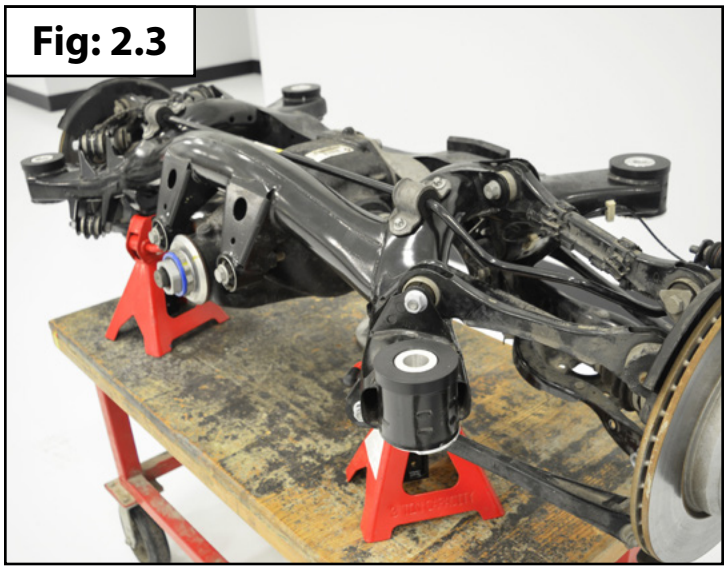
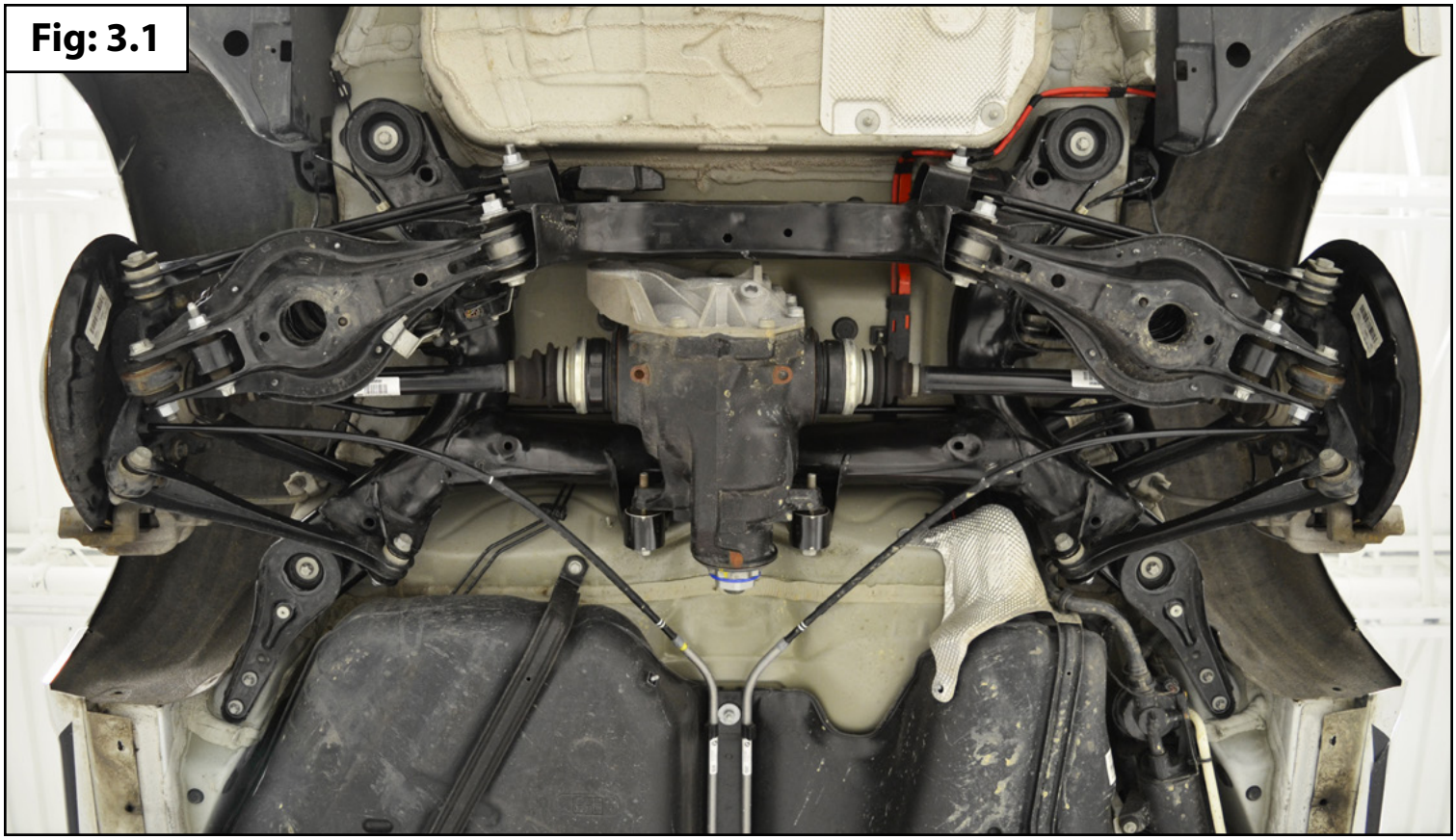


Fig: 2.3



Section 3: Reinstall the Subframe

Fig: 3.1



Step #1

- Reinstall the subframe into the vehicle in the reverse order of removal (**Fig: 3.1**).
  - 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.
- Perform a 4-wheel alignment.