509 Hemlock St
Philipsburg, PA 16866
Ph- 814.343.6315 Fax- 814.343.6318

UMI Performance
Race Proven Suspension Systems

Installation Instructions

support@umiperformance.com
www.umiperformance.com

GM F-Body Transmission Mounted Adjustable Torque Arm

Item # 2205

Note: Moser Engineering Rear-Ends- The Moser 12-Bolt rear end uses a (4) bolt set-up to attach the torque arm to the rear end instead of a through bolt design such as a factory GM rear. These bolts, over time have been known to come loose and cause damage to aftermarket and factory torque arms. We highly recommend if running a Moser rear end that bolts be checked often for tightness. We also recommend Loctite or other locking methods but still ask bolts be checked periodically. Please note UMI Performance will *not* cover damages caused to our torque arm when running a Moser Engineering rear end.

1. Jack up front of vehicle to a good working height. Place (2) jack stands under the front vehicle sub-frame. Move to the back and jack rear of vehicle, place (2) jack stands on the inner frame rails on each side. Do not place jack stands under rear axle.
2. Under vehicle remove the stock tunnel brace.
3. Place jack under pumpkin or center section of the rear end and place slight upward pressure on the rear end. This will help hold the rear into place when torque arm is unbolted.
4. Unbolt the clamshell from the front of the torque arm on the transmission.
5. On the rear end loosen and remove the (2) bolts holding the torque arm in place and save bolts. Slide the torque arm to the driver's side and pull out of front tail shaft bushing.
6. Using the installation sheet supplied with the new torque arm bushing remove old bushing by drilling out rivets and install new bushing.
7. Locate new UMI torque arm. Using the supplied grease packet lube the new bushing and the front mount of the torque arm. Slide the torque arm into the new bushing.
8. Now install torque arm onto rear end. To help ease installation grease may be applied to the rear end surface. Start towards the front of the rear end and slide the torque arm into position. If the rear end has been powder coated the torque arm mount may fit tight. If so, using a block of wood and lightly tapping mount should ease it into place. Use the up and down movements of the jack to move rear end to help installation. Turning the adjuster in or out may also be necessary to help ease installation.
9. Locate the long rear end bolts removed in step 4. If re-using these bolts the factory washers must be removed in order for bolt length to be appropriate, do not use the washers. For best fit and safety we recommend using our bolt kit # 3003. Install bolts from the TOP only with the nuts on the bottom. **Do not** install bolts up through with the nuts on top; this is unsafe if a nut were to come loose. Install nuts only finger tight. If the vehicle is equipped with a **Moser Engineering** rear end re-use the bolts Moser has supplied.
10. At the rear end and tighten bolts holding torque arm to the rear end to 100 ft lbs. Also tighten both 5/8" rear bolts attaching the torque arm to the rear mounting bracket. Tighten **all** jam nuts; all torque arm bolts are supplied finger tight by UMI Performance so make sure all bolts are tightened!
11. Tighten front clamshell bolts holding front bushing into place.

Setting Pinion Angle

UMI Performance presets the torque arm to 0 degrees on a stock height car. However please double check these adjustments. An angle finder is needed to measure the drive line angle of the vehicle.

How to Check the Current Pinion Angle- To check the current pinion angle the vehicle must be level with the suspension loaded. Place the angle finder on the drive shaft and record the angle. Now place the angle finder on the bottom plate of the torque arm where it attaches to the rear end, record this angle as well. To achieve true pinion angle you must add the two measurements. For example if the drive shaft measures 0 degrees and the torque arm mount measures -1 degrees you have -1 degrees of pinion angle. We have found the best settings for a street driven car are: Automatics 1-2 degrees downward, manual 2-3 degrees downward.

How to Adjust the Pinion Angle- Using UMI Performance's on-car adjuster, adjusting pinion angle is simple. First loosen both 5/8" bolts that attach the torque arm to the rear mounting bracket. These bolts must be loose in order for the torque arm to pivot. Second, loosen both jam nuts on the adjuster and rod end, there is no need to loosen top jam nut. With the angle finder on the bottom of the torque arm mounting plate use a 1" wrench on the adjuster and turn to desired angle. It won't take much to get a degree. Once pinion angle is set tighten **all** jam nuts tight. Check all bolts and jam nuts often. Pinion angle is to be set with suspension loaded and vehicle level.

12. Test drive vehicle. After driving re-tighten all bolts, if any driveline vibration is present this may mean the pinion angle is too severe. Re-check drive line angle and adjust accordingly.

Image 1- New Front Bushing Installed in Factory Clamshell

Image 2- Rear Torque Arm Mount Bolted to Stock Rear-End

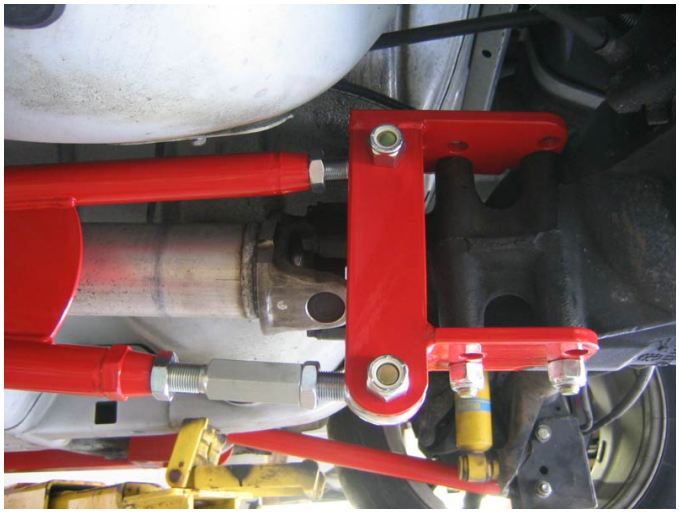
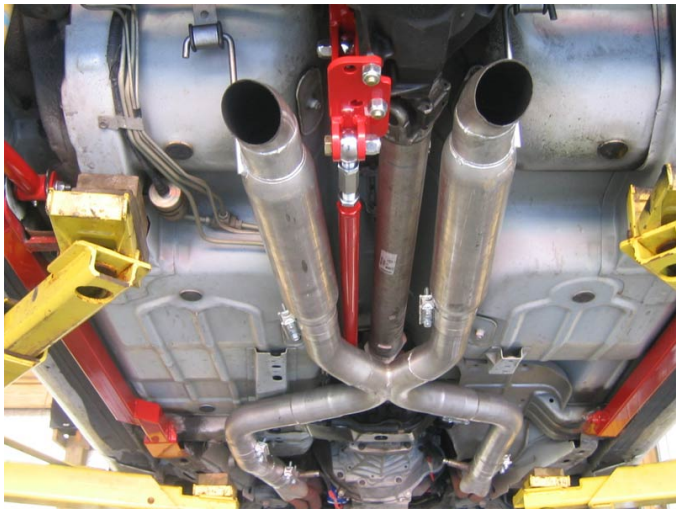


Image 3- Rear Torque Arm Mount Bolted in Place

Image 4- Completed Installation with TSP True Duals



Please visit us online at **www.umiperformance.com**

1982-2002 GM F-Body Torque Arm Installation Instructions

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