



Cognito Motorsports, Inc. GM Heavy Duty Tie Rod Steering Kit, 99-06 6-lug SUV & 4WD truck, & 2001-2010 8-lug vehicles

Introduction

- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures (if included) before attempting installation.
- Check the parts and hardware packages against the parts list to assure that your kit is complete.
- Foot-pound readings are listed on the Torque Specification Chart at the end of the instructions.

Parts List

- (2) Adjuster tubes
- (2) Steering adapters
- (2) Spindle studs
- Hardware package #9116

Installation Instructions

1. Unscrew the factory tie rod end assembly and the grease fitting from the drag link at the inner joint, which is also the end of the drag link. Remove the grease fittings, and clean the grease and old thread locker out of these holes completely. Use contact cleaner and air dry.

2. From the hardware package, insert the 18mm metric bolt through one lock washer, then through the steering adapter bracket. Thread the bolt into the end of the drag link where the factory hardware was removed. Bolt the steering adapter to the drag link with the tab of the adapter on the bottom of the drag link. Be sure that the steering adapter bolt hole runs horizontal, and use a 1/4" fine thread bolt and lock washer from the hardware package and bolt the tab to the drag link using the old grease fitting hole. You may have to use some of the 1/4" flat washers provided as shims in between the tab and the drag link if there is a gap. Tighten the 18mm bolt to 90 ft-lb, and the 1/4" bolt to 10 ft-lb. See Figure 1
3. Thread the appropriate left and right-hand jam nuts on to the appropriate left and right hand rod ends. Use an anti-seize lubricant on the threads and thread the rod ends in to the appropriate ends of the Cognito steering adjusters.
4. Use the 3 1/2" long bolts with the head of the bolt toward the front of the truck, washers and nuts to mount the end of the Cognito steering adjuster assembly that has the left handed rod end in the Cognito steering adapter. The rod end must have a spacer from the hardware package on each side of it inside the Cognito adapter. See Figure 1
5. The spindle studs are stainless steel, therefore plenty of anti-seize lubricant is required. apply anti-seize lubricant to the surface of the stainless stud where the rod end will fasten, and the 3/8" internal threads of the stud. insert the stud into the rod end, then apply anti seize to the spherical washer mating surface and insert into the rod end and screw in the 12-point bolt with the 3/8" lock washer under the head.
6. Lubricate with anti-seize the tapered surface of the stud that seats inside the tapered hole of the spindle, and the external threads. Then mount the Cognito spindle stud to the spindle appropriately with a 9/16" flat washer and lock nut from the hardware package for an 8-lug vehicle, or the 1/2" flat washer and lock nut from the hardware package for a 6-lug vehicle. You may have to chase the small end of the spindles tapered hole with a 9/16" drill bit for an 8-lug vehicle, and 1/2" drill bit for a 6-lug vehicle. The reason is the

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factory studs are metric, and the Cognito studs are slightly larger standard thread size. hold the 12 point bolt with a 3/8" 12-point box end wrench or socket, and torque the lock nut appropriately. Also torque the 12 point bolt to 30 ft. lbs.

7. Tighten all other fasteners at this time.
8. The toe settings of the vehicle will have to be adjusted to factory specs with a professional alignment. Jam the 3/4" thin nuts to the Cognito steering adjuster to lock it in place.

Torque Specification Chart

1/2" fasteners	60Ft.-Lbs
9/16" fasteners	70Ft.-Lbs
5/8" fasteners	80 Ft.-Lbs

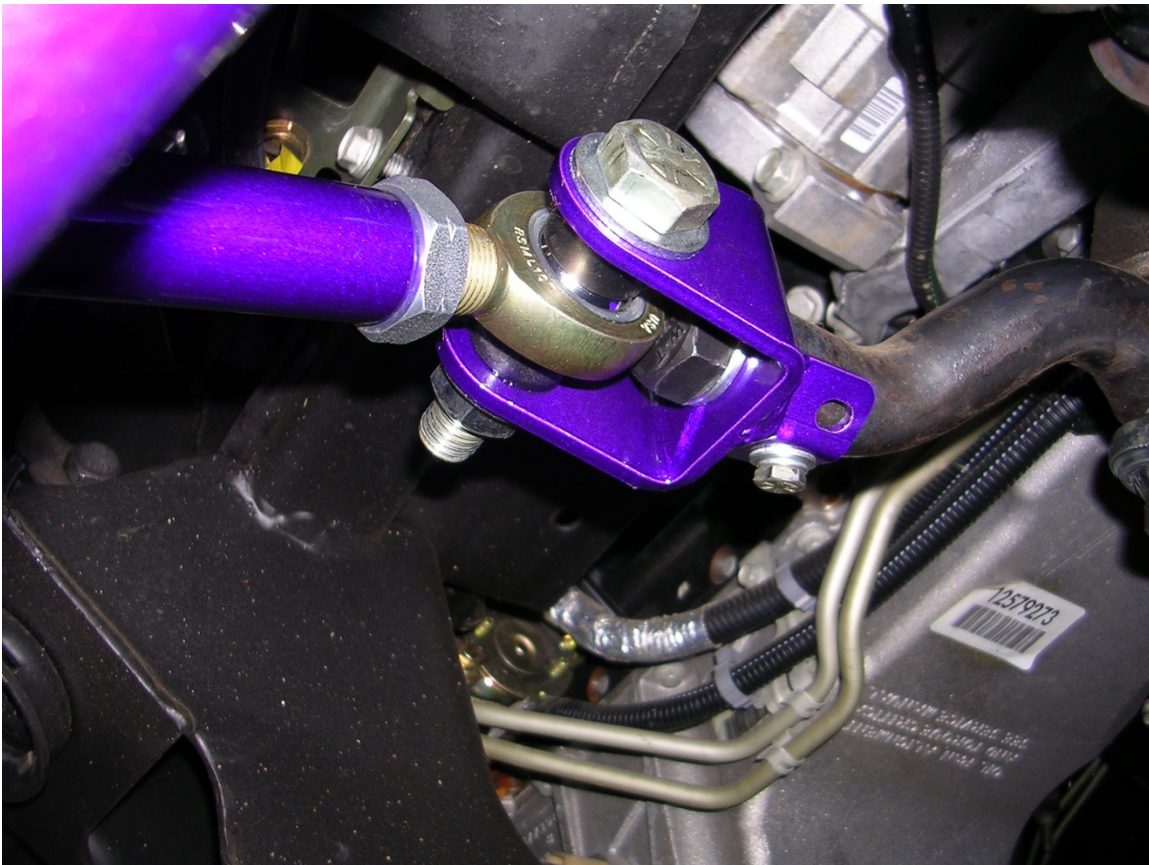


Figure 1: Steering Adapter Assembly

Cognito Motorsports

Limited Lifetime Warranty

Cognito Motorsports warrants, to the original retail purchaser, that its suspension products are free from defects in workmanship and material for as long as the purchaser owns the vehicle on which the product was originally installed. Cognito Motorsports does not warrant the product for finish, alterations, modifications, and/or original installation contrary to specifications of Cognito Motorsports. Cognito Motorsports suspension products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities involving abnormal abuse other than the vehicle was originally designed to handle or endure. (A "RACE" is defined as any contest between two or more vehicles, and/or contest of one or more vehicle against the clock, whether or not such contest is for a prize.)

This warranty is for a one-time replacement of each Cognito Motorsports product and does not cover any part that Cognito Motorsports has previously replaced under this warranty. This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warrant are sales outside of the United States of America. Alterations to the finish of the parts including but not limited to painting, powder coating, plating, and/or welding will void all warranties. Cognito Motorsports obligation under this warranty is limited to the repair or replacement, at Cognito Motorsports option of the defective product. Any and all costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty.

This warranty excludes the following items: bushings, bumpstops, tie-rod ends, limiting straps, and heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days of purchase for defects in workmanship. Cognito Motorsports suspension components must be installed as a complete system. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty. This warranty shall not apply to any product that had been subject to accident, negligence, alteration, abuse, or misuse. Cognito Motorsports does not warrant products not manufactured by Cognito Motorsports. Cognito Motorsports reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of parts when deemed necessary by Cognito Motorsports without written notice, and in the sole and absolute discretion of Cognito Motorsports.

Warranty Claims

All warranty claims must be submitted through the original company of purchase. All claims must be shipped back to the original company of purchase with an approved RMA number listed as a reference on the shipping label and clearly printed on two opposing sides of the package(s); product in question must be inspected by Cognito Motorsports before replacement parts are shipped out.

Return Policy

Cognito Motorsports has a no refund return policy. Under special circumstances, returns might be accepted with prior written approval. All returned product will be shipped freight prepaid. Product returned is subject to a 25% restocking fee. No returns will be accepted after 30 days upon receipt of product.

Product Consumer Safety and Warning

The installation of this kit will modify the suspension of your vehicle and may cause it to handle significantly different than a factory equipped vehicle. Installing larger tires with modified suspension and increased ground clearance will significantly alter the handling characteristics of the vehicle, and may result in increased braking distances as well as changes in vehicle maneuverability and handling compared to the factory equipped vehicle. As with any vehicle, extreme caution and care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts and drive safely, recognizing the reduced speeds and specialized driving techniques is required.

This suspension system will not strengthen nor reinforce the stock frame of the vehicle, nor will it increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for tightness of fit or any damage. Installation of these parts will modify the height of the vehicle and will raise the center of gravity. Altered height modifications and off-road operation may increase your vehicle's susceptibility to roll over conditions and may cause serious injury or death. Many states regulate the height modification to each vehicle. Check the laws in your state for exact specifications. Height modifications may affect the reaction, ride, handling, and wear factor of your vehicle's components.

Failure to drive this vehicle safely may result in injury or death! Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications and combinations of modifications are not recommended, unsafe, and may not be permitted in your state. Consult your vehicle owner's manual, the instructions accompanying this product, and your state laws before undertaking these modifications. The owner of the modified vehicle and the qualified mechanic required to install this product are responsible for the legality and safety of the vehicle being modified.