

Cognito Motorsports LLC, Upper Control Arm Kit for '01-'06 GM 8-Lug

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.
- Always wear safety glasses when using power tools.

Parts List

- Driver upper control arm
- Passenger upper control arm
- (2) Heavy duty ball joint
- Hardware package #9033

Installation Instructions

1. The Cognito Motorsports Upper control arm kit is a direct replacement of the factory upper control arms on lifted vehicles with a spindle/knuckle replacement lift kit.
2. Remove the factory upper control arms by supporting the lower control arms with a floor jack or some kind of stand used in a safe fashion. Loosen the ball joint nut of the upper control arm enough until you can spin the nut with your fingers, but do not remove totally, and use a pickle fork to separate the ball joint from the spindle, or tap on the side of the spindle next to the ball joint stud. When the tapered seat of the ball joint breaks loose, you may then remove the ball joint nut, and separate the factory upper control arms from the spindles.
3. Remove the factory bolts and eccentric washers that connect the control arm to the frame, but retain them for future use. Place them aside in order so they can be re-installed in the same place they came off. The plastic inserts will need to be removed and discarded from the eccentric washers.
4. Mount the supplied ball joints with the 5/16" bolts, flat washers, and locknuts provided in Hardware Package 9033 to either the top or bottom of the ball joint pocket of the Cognito upper control arms depending on your application. Please do not use the bolts provided with the ball joints, as the hardware Cognito supplies is a higher grade steel. Mount the bump stops to the bump stop tabs of the Cognito upper control arms. If you are adding this a-arm kit to a factory height truck just to take advantage of the bolt in ball joint feature and do not plan to level it out, you must drop the ball joint down through the ball joint pocket so that the ball joint flange is on top. **If you are installing the Cognito Motorsports Leveling Kit, skip this instruction set and refer to the Leveling Kit instructions later in this pamphlet.** For other applications, see your Cognito lift kit instructions to determine, or consult with Cognito by telephone or e-mail. Tighten all hardware in this step to 25 ft-lbs. of torque.

5. From the hardware package, insert the polyurethane bushings, crush sleeves, and grease fittings into the ends of the Upper control arms.
6. Mount the Cognito upper control arms to the frame with the factory nuts, bolts, and eccentric washers as previously removed. The bump stop tabs on the Cognito arms go toward the rear of the vehicle. Figure 1 shows the passenger side control arm installed on the truck. Torque alignment nuts to 100 ft-lbs.
7. Mount the ball joint to the spindle with supplied hardware. Use the 9/16" flat washers supplied if the castle nut needs to be spaced in order for the cotter pin to engage, and tighten to 90 ft-lbs. of torque. Figure 1. You may have to chase the small end of the tapered hole with a 9/16" drill bit because the factory ball joint is a metric thread and the aftermarket ball joint is an American thread.
8. If there were factory lines mounted to the factory upper control arms such as ABS or brake lines, they must be restrained as to avoid binding and contact with any moving parts of the vehicle. Use the 1/4" hardware provided to fasten the factory brake line bracket to the Cognito upper control arm. If necessary, slide the brake line through the bracket to obtain a suitable mounting situation.
9. Remove the abs line clip from the top of the frame shock pocket and use the cable ties to restrain the abs line to the brake line as shown in Figure 1. Double check the clearance of both the brake lines and the abs lines after the install while the truck is on the ground through the complete steering cycle. Be sure there is no rubbing or loose cables anywhere.
10. Have the vehicle's front end professionally aligned to the lift kit manufacturer specification. **If you are installing the Cognito Motorsports Leveling Kit, as stated in step 4 above, skip this instruction set and refer to the Leveling Kit instructions later in this pamphlet. You will find the alignment specs for the leveling kit in that section.**



Figure 1 Passenger side Cognito control arm installed

Cognito Motorsports, LLC

Limited Lifetime Warranty

Cognito Motorsports LLC 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 LLC does not warrant the product for finish, alterations, modifications, and/or original installation contrary to Cognito Motorsports LLC. Cognito Motorsports LLC suspension products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (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 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 LLC's obligation under this warranty is limited to the repair or replacement, at Cognito Motorsports LLC's 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 LLC 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 LLC does not warrant products not manufactured by Cognito Motorsports LLC. Cognito Motorsports LLC reserves the right to supercede, discontinue, or change the design, finish, part number and/or application of parts when deemed necessary by Cognito without written notice.

Return Policy

No returns will be accepted without prior written approval. All returned product must 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 Safety and Warning

The installation of this kit will modify the suspension of your vehicle and may cause it to handle differently than a factory equipped vehicle. It 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 may 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 effect the reaction, ride, handling, and wear factor of your vehicle's components.

Cognito Motorsports, Leveling Kit for '01-'06 GM 8-Lug

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.
- Always wear safety glasses when using power tools.
- Recommended max tire size-33"x11.5" on 8" wide rim with 4 5/8" backspace. Max tire size on stock rim 285/75/R16.

Parts List

- Driver upper control arm
- Passenger upper control arm
- (2) Heavy duty ball joint
- Hardware package #9033
- (2) Lower A-arm shock brackets (If purchased with leveling kit)

Installation Instructions

1. The Cognito Motorsports Upper control arm kit is a direct replacement of the factory upper control arms on vehicles with stock suspension. If you have purchased and are replacing the torsion bar adjuster keys along with the Cognito leveling kit, unload the torsion bars now, and remove the factory torsion adjuster keys from the vehicle. Replace with the new torsion bar keys and reload the torsion bars lightly.
2. Remove the factory upper control arms by supporting the lower control arms with a floor jack or some kind of stand used in a safe fashion. Loosen the ball joint nut of the upper control arm enough until you can spin the nut with your fingers, but do not remove totally, and use a pickle fork to separate the ball joint from the spindle, or tap on the side of the spindle next to the ball joint stud. When the tapered seat of the ball joint breaks loose, you may then remove the ball joint nut, and separate the factory upper control arms from the spindles.

3. Remove the factory bolts and eccentric washers that connect the control arm to the frame, but retain them for future use. Place them aside in order so they can be re-installed in the same place they came off. The plastic inserts will need to be removed and discarded from the eccentric washers.
4. Mount the supplied ball joints with the 5/16" bolts, flat washers, and locknuts provided in Hardware Package 9033, underneath the ball joint pocket of the Cognito upper control arms. Please do not use the bolts provided with the ball joints, as the hardware Cognito supplies is a higher grade steel. Mount the bump stops to the bump stop tabs of the Cognito upper control arms. Tighten all hardware in this step to 25 ft-lbs. of torque. If you are adding this a-arm kit to a factory height truck just to take advantage of the bolt in ball joint feature and do not plan to level it out, you must drop the ball joint down through the ball joint pocket so that the ball joint flange is on top.
5. From the hardware package, insert the polyurethane bushings, crush sleeves, and grease fittings into the pivot ends of the Cognito upper control arms. Figure 2



Figure 2: Assembled driver side control arm

6. Mount the Cognito upper control arms to the frame with the factory nuts, bolts, and eccentric washers as previously removed. The bump stop tabs on the Cognito arms go toward the rear of the vehicle. Figure 1 shows the passenger side control arm installed on the truck. Torque alignment nuts to 100 ft-lbs.
7. Mount the ball joint to the spindle with supplied hardware. Use the 9/16" flat washers supplied if the castle nut needs to be spaced in order for the cotter pin to engage, and tighten to 90 ft-lbs. of torque. Figure 3. You may have to chase the small end of the tapered hole with a 9/16" drill bit because the factory ball joint is a metric thread and the aftermarket ball joint is an American thread.



Figure 3: Passenger side Cognito control arm installed

8. If there were factory lines mounted to the factory upper control arms such as ABS or brake lines, they must be restrained as to avoid binding and contact with any moving parts of the vehicle. Use the ¼" hardware provided to fasten the factory brake line bracket to the Cognito upper control arm. If necessary, slide the brake line through the bracket to obtain a suitable mounting situation.
9. Remove the abs line clip from the top of the frame shock pocket and use the cable ties to restrain the abs line to the brake line as shown in Figure 3. Double check the clearance of both the brake lines and the abs lines after the install while the truck is on the ground through the complete steering cycle. Be sure there is no rubbing or loose cables anywhere.
10. Remove the lower shock bolts, and then remove the factory shock mount from the lower control arm. Clean the bolts from any thread locker, as well as the threaded hole. Be sure both are clean, as a stripped or broken bolt will be extremely difficult to repair. Replace the factory mount with the extended Cognito shock mounts as shown in Figure 4, torque bolts to 50 ft-lbs.. Replace the shock to its new mount with the factory hardware previously removed, and torque to 65 ft-lbs. If you are using an aftermarket shock, you may not need to use the Cognito extended shock mounts depending on the length of the shock. Consult with Cognito Motorsports if needed.



Figure 4: Cognito lower shock bracket

11. Install front wheels, torque lugs to manufacturers' specification. Set the height of the vehicle by adjusting the torsion bar adjuster screws. Be sure and jack up the front of the vehicle to unload the torsion bars before turning the adjuster screws. At the desired ride height, with the truck sitting on the ground, there should be no less than ½" clearance in between the frame bump stop, and the bump stop on the Cognito upper control arm. This will insure the proper amount of available down travel.
12. Check wheel and tire clearance one last time through the steering cycle. Make adjustments as needed.
13. Have the vehicle's front end professionally aligned.

Alignment Specifications

Caster, +4.0 to +6.0 degrees with both sides within ½ degree of one another.
Camber, 0.0 to +.25 degrees.
Toe, 1/16" to 1/8" toe in.

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