



Cognito Motorsports, Inc. Adjustable Limit Strap Kit for '01-'10 GM 8-Lug Trucks and SUV's

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.
- Limiting strap kit is necessary to prevent upper control arm damage when using this upper control arm kit to maximize suspension travel. This will prevent arm to droop stop damage.

Parts List

- (2) Limit Strap, length will depend on application
- Hardware package #9105

Installation Instructions

1. Unless otherwise specified, flat washers will always be used under the heads of bolts and under nuts. Therefore, one bolt with one nut will require 2 flat washers.
2. Do not cut off the factory frame perch down travel stop!
3. Remove the factory location front shocks from the vehicle if they are not already removed to allow room to work. This will keep from damaging the shock with the drill bit while drilling the holes in the next steps.
4. Loosely assemble the limit strap assembly to determine best mounting location, refer to figure 1 to visualize how the upper assembly goes together before continuing to read instructions. Thread the jam nut onto the clevis bracket about 1/2". Thread the clevis bracket into the threaded hole of the frame bracket until jam nut stops, so you are only threading together about 8 turns to leave plenty of adjustment to get shorter. Figure 1 shows the clevis threaded all the way into the frame bracket, do not do this because you will not have adjustment to get shorter, 9 out of 10 times you will have to shorten more than you think due to the amount of stretch the limit strap will have once you are finished. Use the 1/2" x 1.1/2" bolt to secure limit strap to clevis. Use an extra 1/2" washer to shim gap between inside of clevis and the limit strap tab if needed. See figure 1.

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5. Bolt the bottom end of the limit strap to the factory lower shock mount. If no shock will be used in the factory location, use the supplied crush sleeves on each side of the limit strap tab, and 9/16" washers for shims if needed, mount inside lower shock mount bracket with the factory bolt and nut. The limit strap bracket may need the hole drilled out to 9/16". If a shock will be used in the factory location, mount the limit strap tab to the rearward side of the lower shock mount bracket using the same bolt that fastens the shock. The limit strap bracket may need the hole drilled out to 9/16". if you are using the factory shock that has the shock body at the bottom, the strap may need to be spaced away from the mount with 2 or 3 flat washers so that the strap does not rub the shock, a longer bolt may be needed for this (not included).
6. Raise the front end of the vehicle off of the ground by the frame, so that the suspension lets the front wheel droop out until the upper control arm touches the down travel droop stop, and the front tire is not touching the ground.
7. Hold the limit strap assembly in place on the rearward vertical part of the pocket so the limit strap lines up best with the rearward side of the lower shock mount bracket. With the limit strap stretched tight, mark the frame at the top with the hole of the upper limit strap mounting bracket. Figure 1 shows the general location where this upper mount hole will be drilled.
8. Drill a 1/2" hole through the frame pocket about 1/4" above the position previously located, because the assembly will stretch quite a bit more than you are able to by hand. You may have to use an angle drill.
9. Adjust the jam nut on the clevis so it is threaded about 1/2 the way up. Re-adjust clevis so it is threaded into the frame bracket up to the jam nut.
10. Lower the front end of the vehicle back to the ground to ride height to aid in fastening the upper end of the limit strap.
11. Bolt the frame bracket to the frame with the 1/2x1.1/2" bolt, nut and flat washers.
12. Now, raise the vehicle off of the ground again by the frame, and the front wheels drooping. Verify that the upper control arm is not touching the droop stop yet, and is about 1/4" from touching. If needed, adjust the length of the clevis to limit the downward travel of the upper control arm. This 1/4" gap will provide ample room for limit strap stretch during break in period while the wheel droops out under driving condition.
13. When the correct length is obtained, tighten all hardware to 60 ft-lbs and the jam nut very tight with an open end wrench while using a backup wrench to keep the clevis from turning while tightening the jam nut.
14. Periodic inspection is necessary to adjust the length to accommodate any excessive limiting strap stretching. To inspect, raise front of vehicle off ground letting wheels droop out until not touching the ground, verify the gap between the upper control arm and the droop stop, this gap can be nothing to an 1/8", it just shouldn't be to the point where the strap isn't taking the load, so the polyurethane bump stop should not be smashed like a pancake against the frame.

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Figure 1

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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.