



Cognito Motorsports, Inc. Block and U-Bolt Kit Installation

Introduction

- Installation requires a qualified mechanic.
- Read instructions carefully and study the pictures (if included) before attempting installation.
- Secure and properly block vehicle prior to beginning installation.
- Always wear safety glasses when using power tools.
- Foot-pound readings are listed on the Torque Specification Chart at the end of the instructions.
- Exhaust modification may be necessary.
- Drive line modification may be necessary.

Parts List

- __ (2) Axle Block
- __ (4) U-Bolt with 2 washers and 2 nuts

Rear End Disassembly

- 1) Park vehicle on level ground. Mark the slip yoke on the drive shaft where it comes out of the tail housing. You will need this mark later to determine how long to lengthen your drive shaft.
- 2) **Never work on an unsupported vehicle.** Remove rear tires.
- 3) If brake line length is needed, remove any clamps holding the rear rubber brake line in place.
- 4) With the rear end and the frame supported, remove the u-bolt nuts from one side of the vehicle.
- 5) Remove and discard the factory u-bolts and nuts. Separate the rear axle away from the spring packs so the block may be inserted between the two.
- 6) New u-bolts may be bigger diameter than old u-bolts depending on the vehicle. Be sure new u-bolts fit through the u-bolt plate. Drill the 4 holes in the u-bolt plate to proper size if needed.

Rear End Assembly

- 7) The centering pin on the block should fit snugly into the hole on the spring perch which is welded to the rear axle housing. Be sure that the pin is not too long and touching the axle housing tube. Trim the length of the pin if needed.
- 8) If the block is tapered, the tall end of the block should be toward the back of the vehicle. This will pitch the pinion angle up toward the transmission. If the block is straight, the pin hole on top of the block may be offset from the pin on the bottom of the block. If offset, turn the block so that the pin is further toward the front of the truck than the pin of the leaf spring.
- 9) The centering pin on the leaf pack should fit snugly into the hole in the top of the block. Use the extended length u-bolts and re-assemble the u-bolt system with the u-bolt plate on top of the spring pack, and the u-bolt nut plate under the rear axle just as they were before disassembly. Apply anti-seize to the threads of the u-bolts before installing the nuts on the u-bolts.
- 10) Repeat steps 4 through 7 for the opposite side of the vehicle.
- 11) Torque the u-bolt nuts as specified in the chart at the end of this instruction sheet. Be sure to tighten the nuts evenly on all the u-bolts, so that the amount of thread protruding from each nut is close to being the same.
- 12) Install extended brake line or bracket if needed and purchased separately. Bleed brakes so there is no air left in the system, if the line was changed. Check system for leaks. Modification may be needed to prevent over extension of the factory brake line.
- 13) If installing a tapered block, the pinion is tilted up and you must add 1 extra quart of gear oil to properly oil the pinion bearings.
- 14) Install new rear shocks.
- 15) Put on rear tires.
- 16) Measure the distance the drive shaft length changed by checking the distance between the mark you made previously and the amount it is in the tail housing now. If that distance is more than 1.5", you need to have the driveline lengthened that amount.

Torque Specification Chart

9/16" Bolts	90Ft.-Lbs
5/8" Bolts	100Ft.-Lbs
<u>3/4" bolts</u>	<u>120 ft-lbs</u>

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 hiem 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.