

CS-DLA3-03

CS-DLA3-10

NOTE:

Please review the product instructions prior to attempting installation to ensure installer is equipped with all tools and capabilities necessary to complete the product installation. We recommend thoroughly reading the instructions at least twice prior to attempting Installation.

Before beginning disassembly of the vehicle, check the “What’s Included” section of the instructions to ensure you’ve received all parts necessary to complete installation. Further, verify that the parts received are PROPER TO YOUR application (year range, motor, etc.) to avoid potential down-time in correcting potential discrepancies. Any discrepancies will be handled by Carli Suspension and the correcting products will be shipped UPS Ground.

LIFETIME PRODUCT WARRANTY

Carli Suspension provides a limited lifetime product warranty against defects in workmanship and materials from date of purchase to the original purchaser for all products produced by Carli Suspension. Parts not manufactured by, but made to Carli Suspension’s specifications by third party manufacturers will carry a warranty through their respective manufacturer. (i.e. King Shocks, Bilstein Shocks, Fox Shocks). Deaver Leaf Spring’s warranty will be processed by Carli Suspension.

Proof of purchase (from the original purchaser only) will be required to process any warranty claims. Carli Suspension products must be purchased for the listed Retail Price reflected by the price listed on the Carli Suspension Website at the time of purchase. Carli Suspension reserves the right to refuse warranty claims made by any customer refusing or unable to present proof of purchase, or presenting proof of purchase reflecting a price lower than Carli Suspension’s Retail Price at the time the item was purchased.

Carli Suspension’s Limited Lifetime Warranty excludes the following parts which are subject to wear: Track Bar Bushings, Track Bar Heim Joints, Limit Straps, Control Arm Bushings, Radius Arm Bushings, Shock Bushings, Sway Bar End Link Heim Joints, Shock Seals, Shock Bearings, and Corrosion on Shock Shafts or Bodies. These items will be warranted for a period of 60 days from the date of purchase only if determined to be installed properly signifying manufacturing defect. Carli Suspension cannot warrant a product’s cosmetic finish due to the varying extreme elements that may be encountered.

Any alterations, modifications, or improper installation, of the product will void this warranty. Products should be inspected for defect upon receipt and approved before installation. Any defect in NEW product will be warranted if returned before installation in its original packaging. Carli Suspension’s obligation under this warranty is limited to the repair or replacement of the defective product only. All costs of removal, installation or reinstallation, freight charges, incidental or consequential damage are expressly excluded from this warranty.

Carli Suspension is not responsible for damages and/or warranty of other vehicle parts related or non-related to the installed Carli Suspension product. This warranty shall not apply to any product that has been subjected to accident, negligence, alteration, abuse or misuse as determined by Carli Suspension. Carli Suspension reserves the right to refuse warranty claims if produced parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension components may cause premature wear and/or product failure. Carli Suspension reserves the right to change/alter product without obligation to update any previously purchased products.

Parts List:

Long Arms

- (Qty. 2) Upper Fabricated Long Arms
- (Qty. 2) Lower Fabricated Long Arms
- (Qty. 2) Fabricated Long Arm Drop Brackets
- (Qty. 2) Short Crossmembers

Hardware

- **Crush Sleeves:**
 - (Qty. 2) Oval Sleeves, $\frac{3}{4}$ " ID
 - (Qty. 4) $\frac{3}{4}$ " OD, $\frac{9}{16}$ " ID Round Sleeves
- **Wobble Stoppers:**
 - (Qty. 4) $\frac{3}{16}$ " – Lower Arm
 - (Qty. 6) $\frac{1}{8}$ " – Upper Arm

Bolts, Washers, & Nuts:

- (Qty. 2) $\frac{3}{4}$ " x 5- $\frac{1}{2}$ " Bolts
- (Qty. 2) $\frac{3}{4}$ " x 4- $\frac{1}{2}$ " Bolts
- (Qty. 8) $\frac{3}{4}$ " Flat Washers
- (Qty. 4) $\frac{3}{4}$ " Nyloc Nuts:
- (Qty. 2) $\frac{1}{2}$ " x 1- $\frac{1}{4}$ " Bolts
- (Qty. 2) $\frac{1}{2}$ " x 4" Bolts
- (Qty. 4) $\frac{1}{2}$ " x 7" Bolts
- (Qty. 14) $\frac{1}{2}$ " Flat Washers
- (Qty. 6) $\frac{1}{2}$ " Top Lock Nuts
- (Qty. 2) $\frac{9}{16}$ " x 7- $\frac{1}{2}$ " Bolts
- (Qty. 4) $\frac{9}{16}$ " Flat Washers
- (Qty. 2) $\frac{9}{16}$ " Nyloc Nuts

NOTES

- Front end alignment is necessary upon completion of install.
- This instruction is intended to be a continuation of a modular, full kit installation; if you're just installing this product, there may be additional steps involved or products required not mentioned in this document.
- Long Arm Systems requires the Steering Stabilizer to be relocated to the outside (front) of the bracket. There is a supplement attached to the last page of this instruction
- These arms are compatible with any 3" Carli Suspension System. Given the new roll-center, Carli shocks designed for short arms should be retuned when run with the long arms. To experience the extended travel capability of the long arm system, customers should run Carli 12" travel front shocks which require 4th Gen, Linear Rate Coil Springs, Extended Brake Lines, Short Bump-Stop Drop and 6.25" Fabricated Tower.

Installation Instruction

- 1) Lay out all the parts provided by Carli to ensure everything is accounted for according to the parts list above.



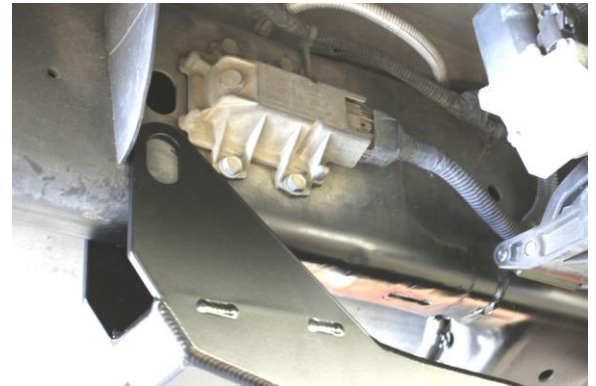
- 2) Remove the fender liners and disassemble the front end. The control arms, coil springs and shocks should all be removed. Unbolt the brake line bracket from between the control arm mounts on the axle. Either remove the front axle or support it with an appropriate ratchet strap from the coil bucket ensuring to support the pinion. With everything removed or supported, cut off the factory control arm mounts from the frame. We offer no real guidance or shortcuts; cutting off the factory control arm mounts is a pain. Once the control arm frame mounts have been removed and the frame painted; you're prepped to install our Long-Arms. No body-mount modification is necessary for installation.



- 3) We recommend installing both sides simultaneously as there is a substantial amount of drilling involved and it's easier to drill everything at once than one side at a time. For this reason, a lift is recommended as well but the installation can be done on the ground.



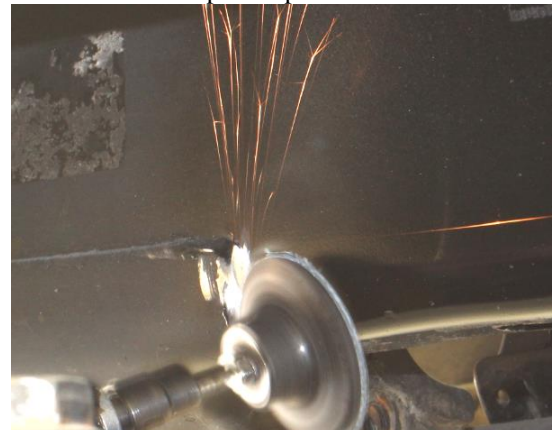
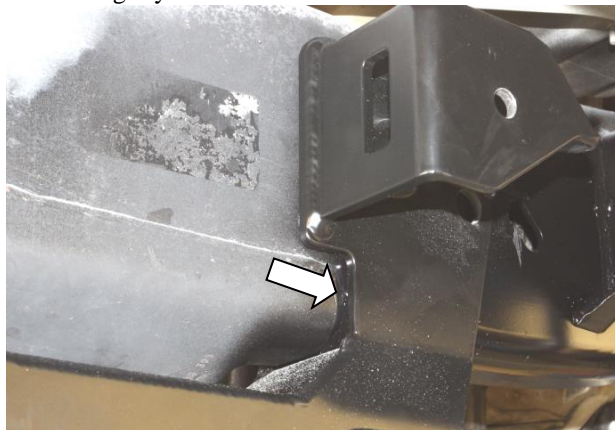
- 4) **6.7 Rams ONLY:** On the passenger frame rail of 6.7L equipped Rams, there is an exhaust module in the way of the long-arm drop-bracket. Begin by removing this module with a 13mm socket and let it hang for now. 5.9L trucks do not have this module.



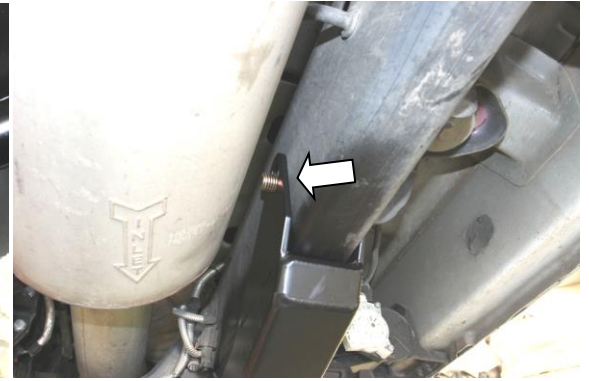
- 5) Slide the drop brackets into place on the frame rail. This will likely require a large dead-blow hammer as tolerances are TIGHT. Once in position, insert the rear, upper (oval) crush sleeve into the existing hole to index the drop bracket.



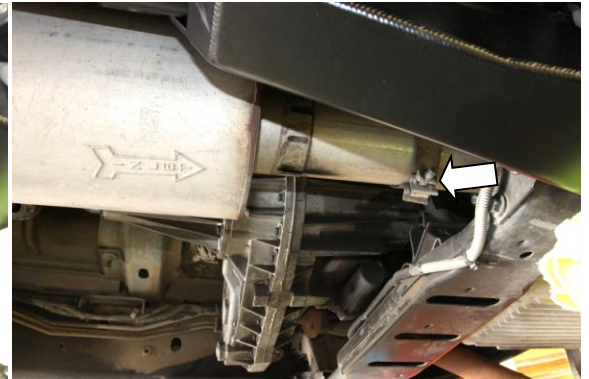
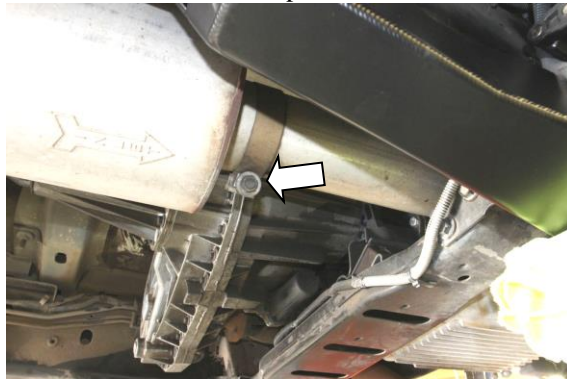
NOTE: Some trucks may need to slightly clear the transmission crossmember weld to slide the drops into place



- 6) Once inserted and flush with the bracket on both sides, insert the provided $\frac{3}{4}$ " x 4.5" Bolt with a washer on each side of the bracket and the provided Nyloc Nut hand tight for now.



7) Loosen the exhaust clamp in front of the muffler and separate.



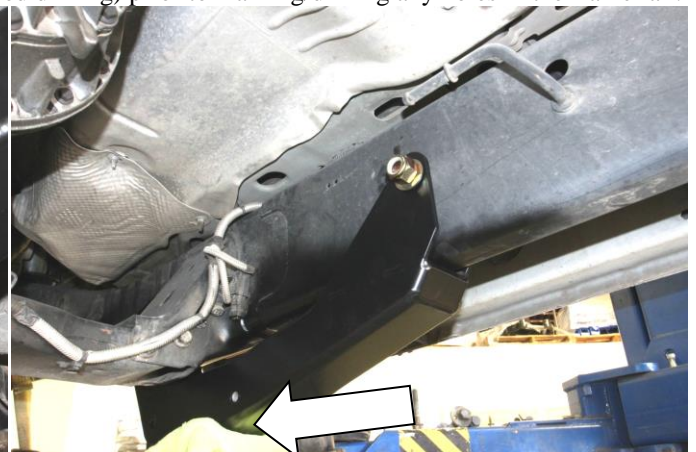
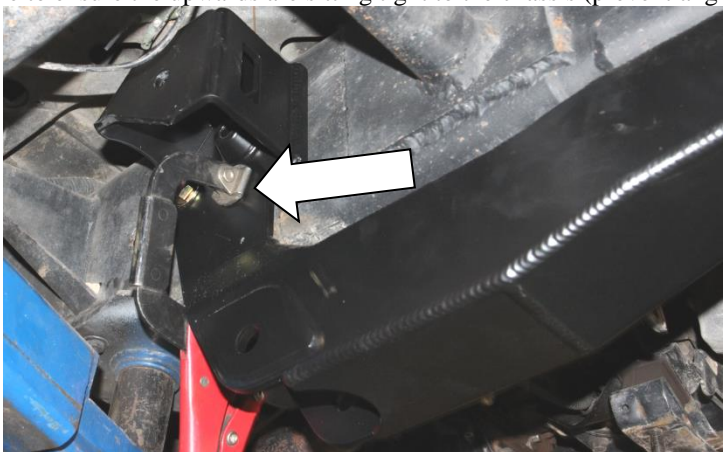
8) Undo the hangers and remove the rear section of the exhaust.

9) Using an 11mm socket, loosen the band clamp on the downpipe/turbo to remove it.

10) Remove the downpipe to gain access to the inside of the frame rail. *Our test truck was equipped with an aftermarket wastegate; that is the second flange you see in the pictures.*



11) Use a jack under the front of the drop bracket to ensure the front is properly seated and a clamp that holds the drop to the sides of the frame to ensure the upwards are sitting tight to the chassis (prevent angled drilling) prior to marking/drilling any holes in the frame rail.



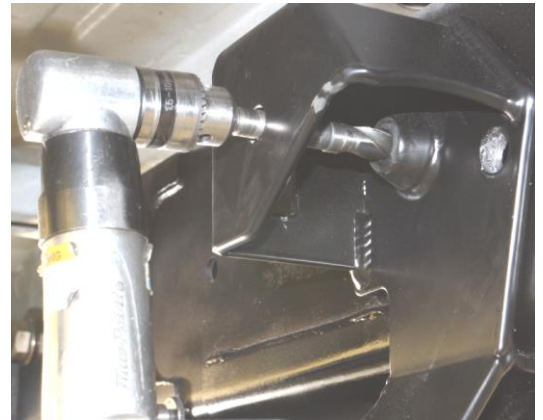
- 12) Once the drop bracket is confirmed to be sitting flush to the bottom of the frame rail and the rear, upper 3/4" bolt is hand tight, use the provided 3/4" hole saw to drill frame from the outside (front-most hole, 3/4" diameter). The hole saw will index itself to the ID of the hole in the drop bracket. A right angle drill helps for clearance here.



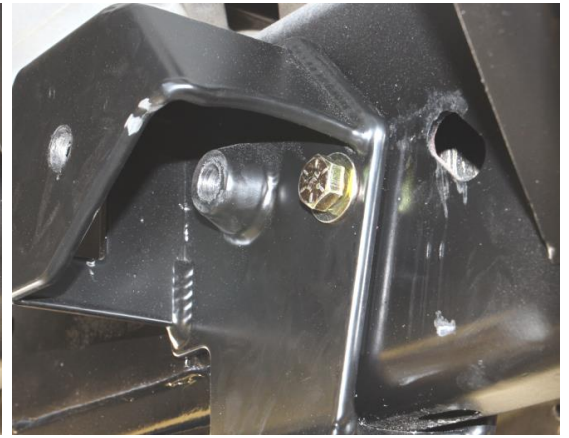
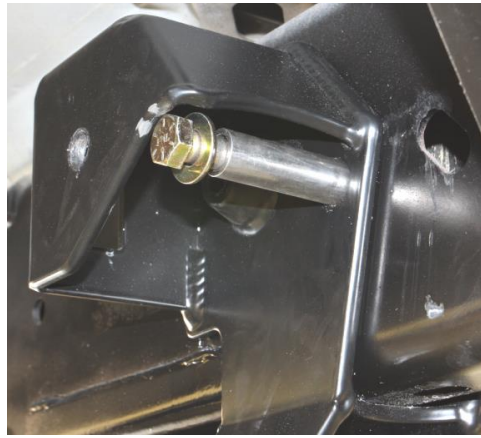
- 13) Moving to the inside of the drop bracket and frame rail, use a 1/2" drill bit to drill the corresponding, forward most hole in the inner frame as indexed by the drop bracket. The 3/4" (slightly higher/rearward) hole is to be drilled with the supplied 3/4" hole saw. **NOTE:** Front driveshaft might need to be removed to do this on the Driver's side.



- 14) The last hole to be drilled is from the outside of the frame rail for the upper arm bolt. Using a 9/16" bit and right angle drill, drill the outside of the frame rail as it's indexed by the upper arm mounting pocket.



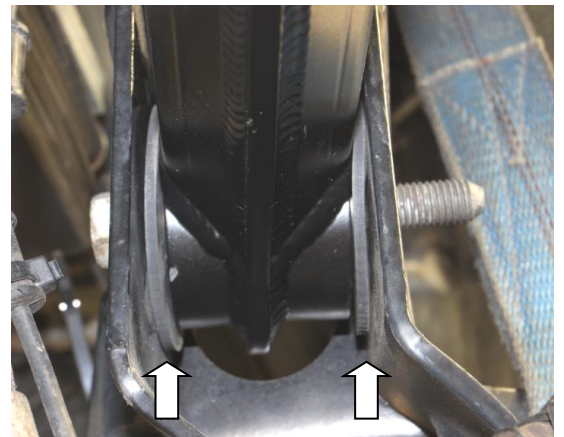
- 15) Insert the provided 3/4" OD, 9/16" ID crush sleeve into the drilled hole from the outside of the drop bracket in the forward most, drilled hole. These crush sleeves sit flush against the INSIDE of the inner frame rail and outside of the Carli Drop Bracket. The 1/2" ID will match to the corresponding drilled hole on the inside of the frame rail.
- 16) Insert provided 1/2" x 4-1/2" bolt into the crush sleeve (with a washer between the bolt head and crush sleeve) into the drop bracket and assemble a washer and nyloc hand tight on each bolt on the inside of the frame rail for now. Some finesse will be required to get this assembly together. We insert the bolt/washer into the crush sleeve and slide it in as an assembly. Hammer the bolt head to push the threads through the inner drilled holes if necessary. If this is required, watch the threads as they can be damaged if the hole were drilled too far off. (pictures on next page)



- 17) Install $\frac{3}{4}$ " OD, $\frac{9}{16}$ " ID crush sleeve from the inside of the frame rail

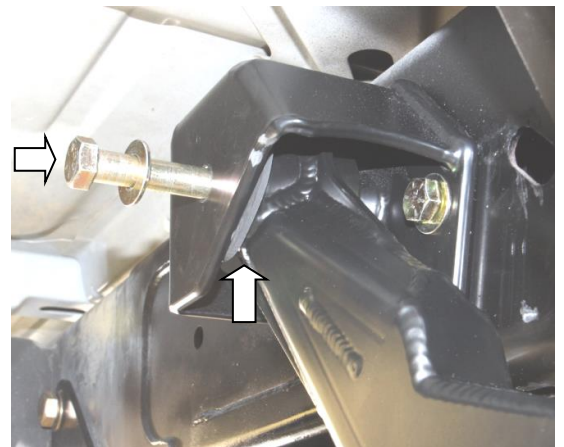


- 18) Assemble one $\frac{1}{8}$ " thick wobble stopper (rubber washer) to each side of the front Johnny Joint and insert the front of the upper arm into the factory upper axle pocket. Slide the factory 14mm bolt through and hand thread on the factory nut. Note the bolt orientation, head to the inside, nut to the outside.



- 19) The axle may need some slight manipulation to get the upper arm to line up. Assemble one $\frac{1}{8}$ " thick wobble-stopper to the outside of the upper arm Johnny Joint (prevent rub on the outer portion of the arm bracket) and slide the arm into the bracket securing it with the provided $\frac{9}{16}$ " x $7\frac{1}{2}$ " bolt. This bolt runs through the arm, bracket, frame crush sleeve and out the inner frame rail. Place the $\frac{9}{16}$ washer and thread on the nyloc nut.

- 20) The crush sleeve may slide out a bit as the bolt comes through but, as you tighten the $\frac{9}{16}$ " nut, it will press back into the frame. Everything should end up flush to the inside of the drop bracket. If the assembly gets tough to tighten and there is any exposed crush sleeve between the washer and the drop, something is not seating and need to be corrected. **DO NOT FORCE IT!**



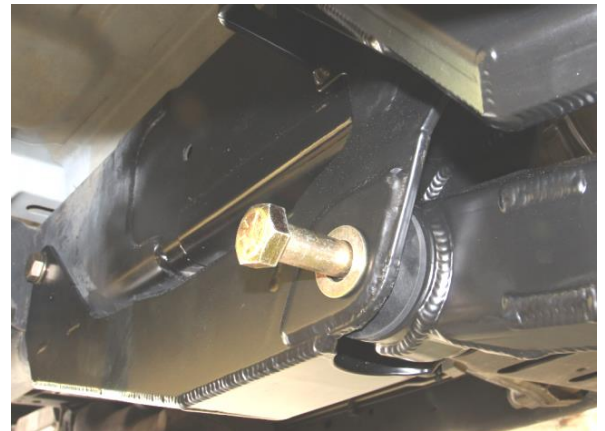
- 21) **6.7 ONLY:** With the drops now in place and hardware secured, the exhaust module can be remounted on the passenger side frame rail on the 6.7L equipped vehicles. This depends on the customer's preference. One could stack $\frac{1}{4}$ " (bracket material thickness) of washers on the back of the bracket's upper two mounting holes and re-utilize the factory 2 upper bolts to secure the bracket (not utilizing the lower two holes). The bracket could also be shifted slightly forward and assembled to the frame rail with (4) self tappers as we did (*not provided*).



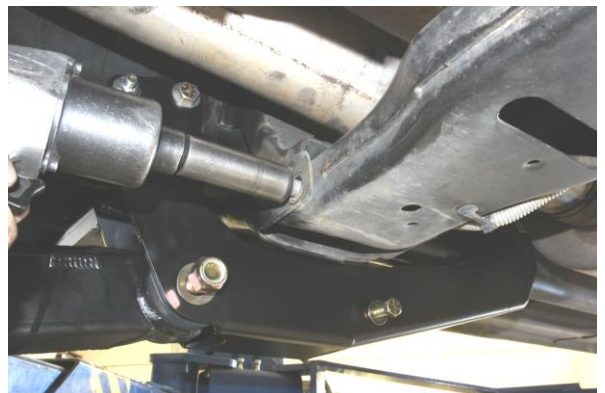
- 22) Insert the lower arm into the factory axle pocket and assemble hand tight using the factory, eccentric bolt/adjustment. Center it in its adjustment.



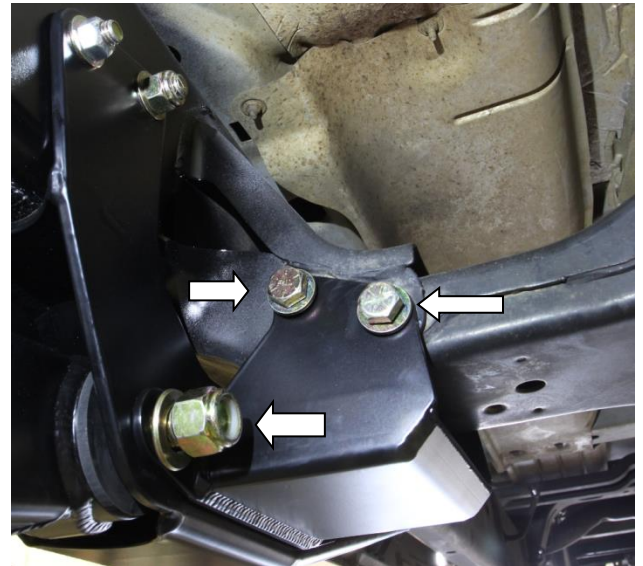
- 23) Assemble a $\frac{3}{16}$ " thick wobble-stopper to each side of the lower arms rear pivot joint and insert into the drop bracket. Insert the provided $\frac{3}{4}$ " x $5\frac{1}{2}$ " bolt with a washer between the head and the drop inward. Leave the bare threads on the inside as this is the attachment point for the crossmember.



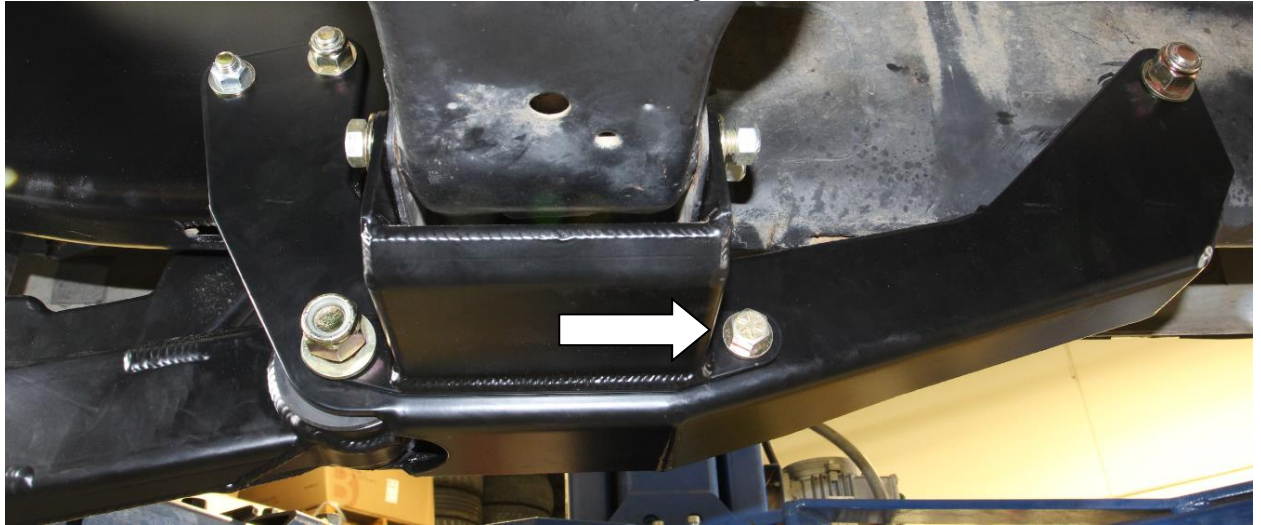
- 24) Support the transmission crossmember and remove the two factory bolts on each side that hold it to the frame rail.



- 25) Install the provided Carli crossmember into position so it slides over the lower arm bolt and the upper mounting holes align with the transmission crossmember mounting locations
- 26) Insert the 1/2" x 7" bolts, washers and nuts, affix the crossmembers to the transmission crossmember mounting holes on each side.
- 27) Assemble washer and 3/4" Nyloc nut to the lower long-arm bolt. Hand tight for now.



- 28) Insert the provided 1/2" x 1-1/4" bolt and washer into the rear crossmember mounting hole.



- 29) Final Torquing procedure:
 - a) Torque the drop bracket hardware.
 - i) Rear 3/4" Bolt (Through The Oval Crush Sleeve) Should Be Torqued To 300 Lb/Ft.
 - ii) 1/2" Bolt At The Front Of The Drop Bracket: 100lb/Ft.
 - iii) 9/16" Upper Arm Bolt: 150lb/Ft.
 - iv) 3/4" Lower Arm Bolt: 250lb/Ft.
 - v) 1/2" X1.25" Rear Crossmember/Drop Bolts: 100lb/Ft.
 - vi) 1/2" X 7" Transmission Crossmember Bolts To 100ft.Lbs.
 - vii) 14MM Upper Control Arm Axle Hardware: 120lb/Ft.
 - viii) 16MM Or 18MM Lower Control Arm Factory Hardware: 175lb/Ft.

NOTE: Ensure The Adjustment Is Centered For Proper Caster!

- 30) The arm installation is now complete. Customers running existing Carli systems including King shocks with short-arm valving are recommended to send their shocks in to be retuned to work with the long arms. Carli Long Arms are not meant to work with 2.0" shocks.

- 31) Carli recommends the following with the Long-Arm System:

Carli Extended Travel, Long Arm Tuned Shock Package:

 - a) **PERFORMANCE 2.5** (12" Travel) Carli King Shocks
OR
 - b) **UNCHAINED 3.5"** (11.25" Travel) Carli King Shocks

These shock packages will also require:

- (1) Carli 4th Gen Linear Rate Coil Springs
- (2) Carli Extended, Stainless Brake Lines
- (3) Carli Front Bump Stop Drop
- (4) Carli 6.25" Tall, Slide Over Towers

Steering Stabilizer Supplement:

With the Carli Long Arms, The position of the Low Mount Steering Stabilizer will need to be relocated to a single sheer mount external to the factory bracket. We provide a 1/2" Allen head Bolt, 1/2" Nut, (3) 1/2" washers, (2) Bearing Spacers and a Crush Sleeve to facilitate this mounting.

- 32) Remove the factory/Carli Steering Stabilizer from the axle-mount. (steering mount can remain installed)
- 33) Place 1/2 washer over threads of the 1/2 bolt, followed by a bearing spacer, then slide the assembly through the steering stabilizer eyelet.
- 34) Place a bearing spacer after the stabilizer, followed by another 1/2" washer.
- 35) Slide the provided crush sleeve into the factory bracket and affix the stabilizer hardware to the front of the bracket by sliding the bolt through the factory mount/crush sleeve.
- 36) Slide 1/2 washer and nut over the threads and tighten the assembly.

