

# 2009-Present 4WD Ram 1500 Lowering Kit Instructions

Applies to 2019-Present "Classic" All Cabs

## FRONT SUSPENSION

If your IHC Suspension product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately. For warranty issues, please return to the place of installation and contact IHC Suspension.

(956) 424-6901

Monday-Friday 8AM-6PM CST

Or

Customer Service: [Sales@ihcsuspension.com](mailto:Sales@ihcsuspension.com)

Tech Support: [Tech@ihcsuspension.com](mailto:Tech@ihcsuspension.com)

## LIMITED LIFETIME WARRANTY

This unique product warranty proves our commitment to the quality and reliability of every product that IHC Suspension manufactures. The IHC Suspension product warranty only extends to the original purchaser of any IHC Suspension product, if it breaks, we will give you a new part. Warranty does not apply to discontinued parts.

Our Limited Lifetime Warranty excludes the following IHC Suspension items, bushings, bump stops, ball joints, and shock absorbers. These parts are subject to wear and are not considered defective when worn. They are warranted for 12 months from the date of purchase for defects in workmanship.

**This product warranty is voided if the vehicle is not aligned after kit installation and proper maintenance is routinely done.**

Product purchased directly from IHC Suspension has a 30-day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original IHC Suspension packaging. Please call 956-424-6901 to get an RMA# for any return. Customer is responsible for shipping costs back to IHC Suspension. **Returns without RMA# will be refused.** Contact IHC Suspension directly about any potentially defective parts prior to removal from vehicle.

IHC Suspension products are **NOT** intended for off-road abuse. Any damage or failure as a result of abuse voids the warranty of the IHC Suspension product. IHC Suspension is **NOT** responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, IHC Suspension reserves

the right to change, modify or cancel this warranty without prior notice.



READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION.

INSTALLATION BY A **CERTIFIED PROFESSIONAL TECHNICIAN** IS HIGHLY RECOMMENDED.

**IHC Suspension IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.**

### **Safety Warning**

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.

Driver and passengers must ALWAYS wear your seat belts, avoid quick sharp turns and other sudden maneuvers. IHC Suspension does not recommend the combined use of suspension drop spindles, drop struts, drop springs or other lowering devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every drag race/race use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lowering of their vehicle before the purchase and installation of any IHC Suspension products.

It is the responsibility of the driver/s to check their surrounding area for obstructions, people, and animals before moving the vehicle.

All lowered vehicles may have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

### **Installation Warning**

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two-post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to ensure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

IHC Suspension recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components. Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components. Due to payload options and initial ride height variances, the amount of drop is a base figure. Final ride height dimensions may vary in accordance with original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

## PRE-INSTALLATION MEASUREMENTS

It is imperative that you record the following measurements and factory components in the tables below. IHC Suspension tests and records as much data from each application as available at the time of product development. Vehicle manufacturers may change components or add models with different options. Recording and not exceeding the fender-to-hub-center IHC Suspension calls out will ensure the drop on the vehicle is correct.

These measurements will affect the performance of this lowering kit. Failure to ensure proper stock conditions may result in over lowering, causing premature failure on ball joints, if 4wd, axles, CV boots and drivetrain. Over lowering a vehicle will also result in an incorrect wheel alignment. This will wear tires incorrectly. Incorrect alignment will cause poor vehicle handling issues including but not limited to under steer. Over lowering the vehicle will also cause incorrect suspension geometry resulting in poor ride quality accompanied by pops and clunks which are symptoms of prematurely wearing components.

Failure to adjust head lamps may cause dangerous driving conditions for you and other drivers on the road. Record the head lamp position before the installation of this lowering kit and adjust to original factory position after the completion to ensure a safe and enjoyable experience. Refer to Owner's Manual.

### VEHICLE HEIGHT MEASUREMENTS

	DRIVER BEFORE	DRIVER AFTER	PASS BEFORE	PASS AFTER
FRONT				
REAR				

**\*\*MEASUREMENT IS TO BE PERFORMED FROM CENTER OF HUB TO FENDER EDGE STRAIGHT UP FROM HUB \*\***

- **Make sure vehicle is on leveled pavement.**
- **All 4 tires are same size (if running stagger fitment measurement will vary)**
- **All 4 tires have corrected air pressure.**



# WARNING

## INSTALLATION WARNING

IHC Suspension recommends all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two-post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

Disconnect the vehicle power source at the ground terminal on the battery. Lock the steering wheel in the straightforward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each frame rail behind the lower control arms.

## Before starting installation

IHC Suspension highly recommends that the installation of this product be performed by a professional technician with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results. If you need an installer in your area, please contact IHC Suspension Customer Service to find one of our IHC Suspension Authorized dealers.

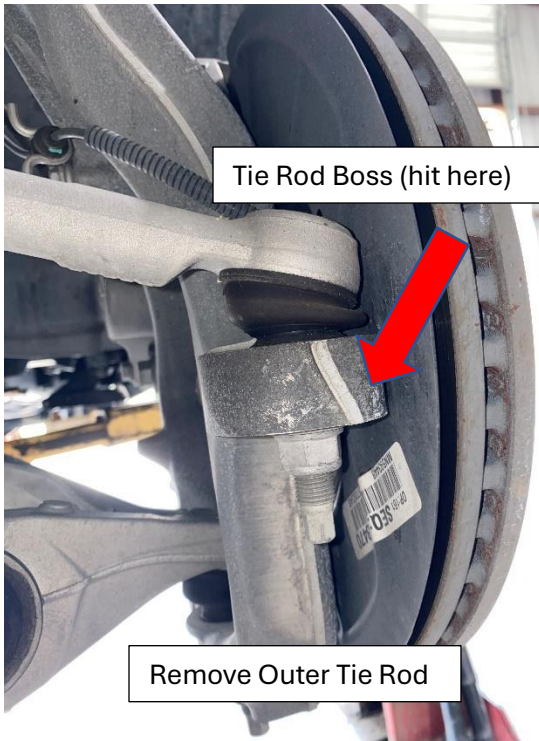
### **INSTALLATION BY A PROFESSIONAL IS HIGHLY RECOMMENDED**

- A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- **A vehicle alignment is REQUIRED after installation of this product.**
- **Speedometer / Computer recalibration is required if changing +/- 10% from factory tire diameter.**
- A vehicle lift or hoist greatly reduces installation time.
- Installation time estimates are based on an available vehicle hoist.

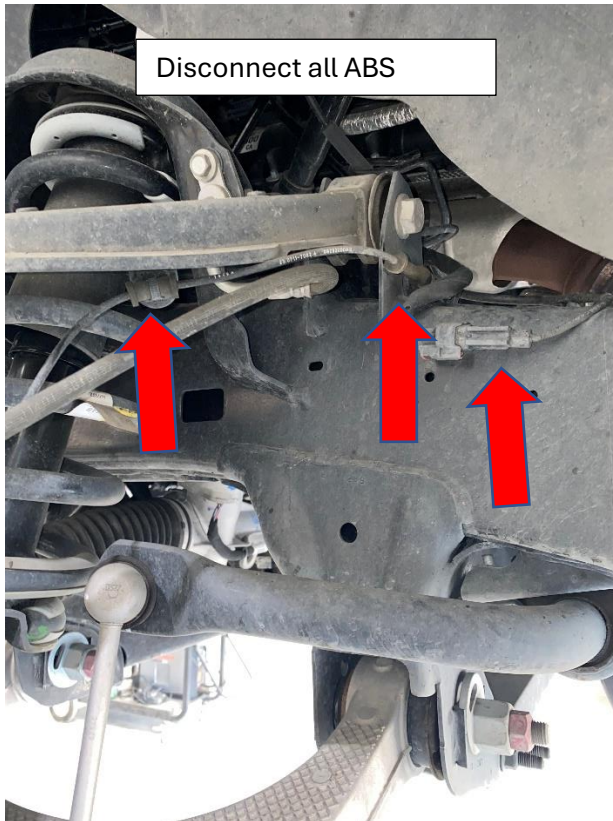
Vehicle must be in excellent operating condition. **Repair or replace any and all worn or damaged components prior to installation of lowering kit**

# Disassembly

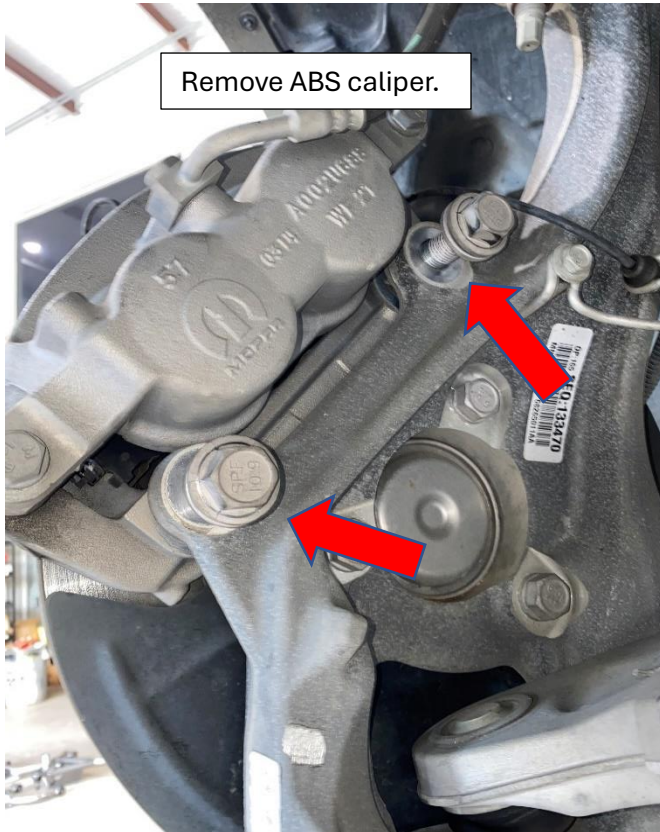
1. Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Remove the tie rods from the knuckle. Strike the tie rod boss on the knuckle with a dead blow hammer to dislodge the taper from the knuckle.



3. Disconnect all ABS wiring and connector. Refer to pic.



4. Remove brake caliper and secure caliper assembly. **NOTE: DO NOT let caliper hang, damage to brake lines may occur.**



5. Loosen upper and lower ball joint nuts. **NOTE: Do not remove nut.**



6. Remove rotors and CAREFULLY unbolt CV Axle hub nut.
7. Unbolt and remove spindle assembly along with abs wiring. Refer to picture.



8. Remove sway bar link from LCA.



9. Loosen lower control arm hardware. **NOTE: DO NOT REMOVE HARDWARE ONLY LOOSEN!**





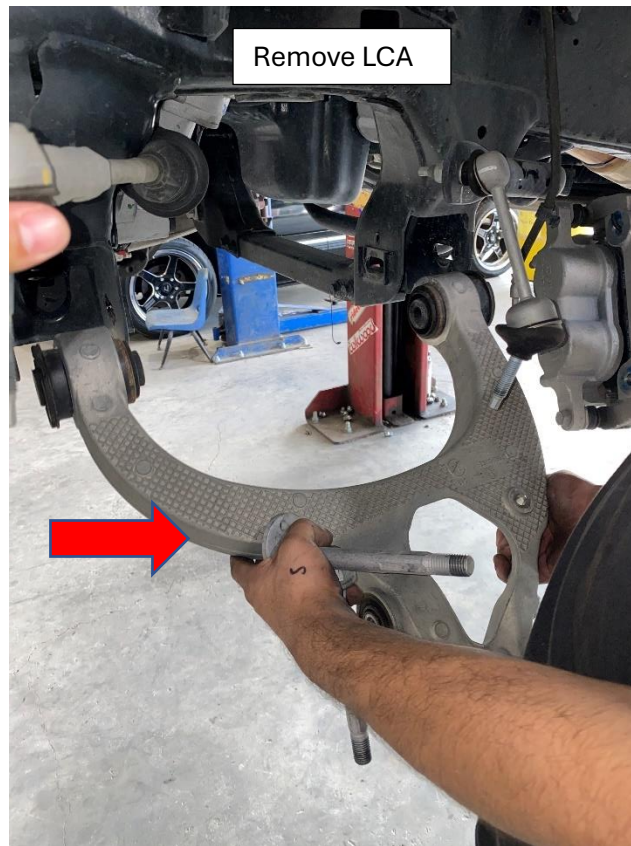
10. Remove upper and lower strut hardware.



11. Remove strut assembly.



12. Remove lower control arm hardware and lower control arms.



13. Remove upper control arm hardware and upper control arm.

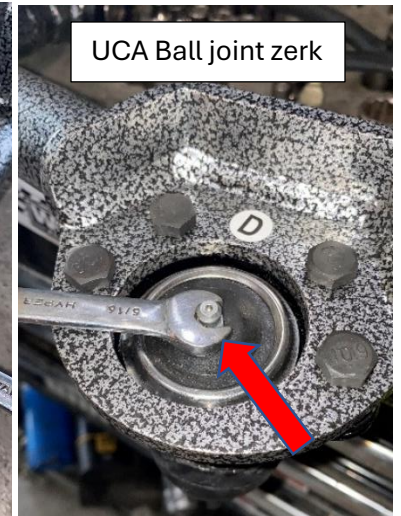


14. Front suspension should look like this.

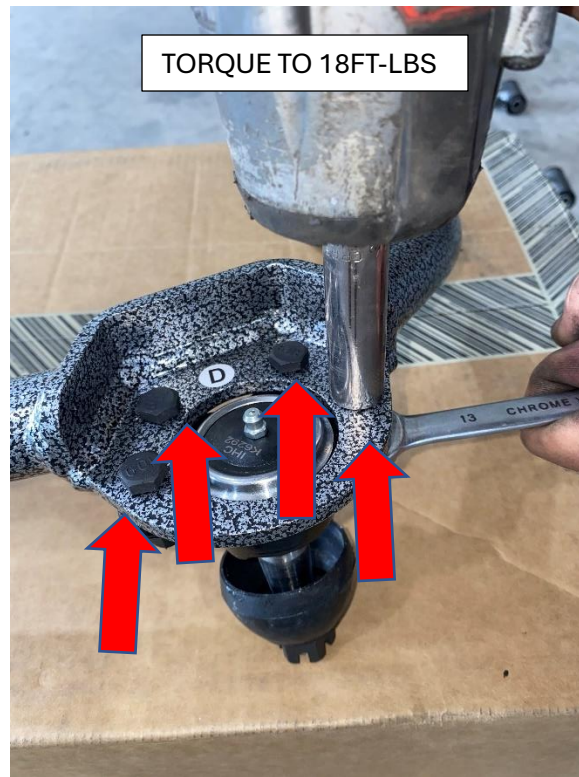


## ASSEMBLY

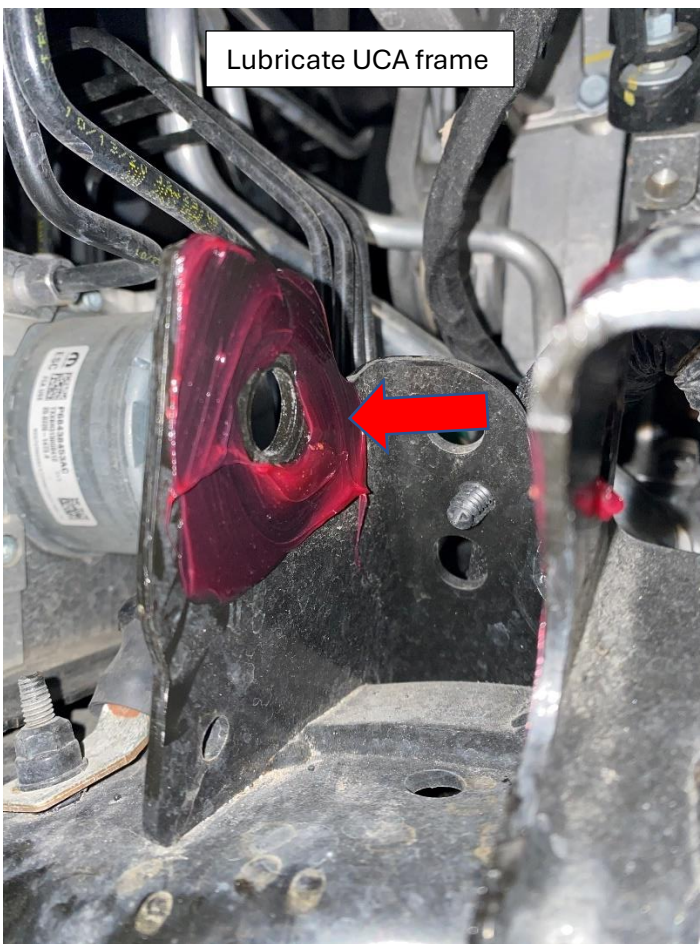
15. Install zerk fittings on IHC upper/lower control arms and ball joints (Refer to picture below)



16. Install IHC upper ball joint to UCA. **Torque to 18ft lbs.**



17. Lubricate upper/lower frame pockets. **Failure to do so will cause premature wear and noise.**



18. IHC UCA have threaded ends for camber adjustment. Refer to chart to make correct adjustment.

**NOTE:** IHC UCA have threaded ends for camber adjustment. Refer to chart to make correct adjustment.

FRONT LOWERING AMOUNT	HOW MUCH TO UNTHREAD UCA
3 inches	Unthread 3/8 <sup>th</sup> of an inch

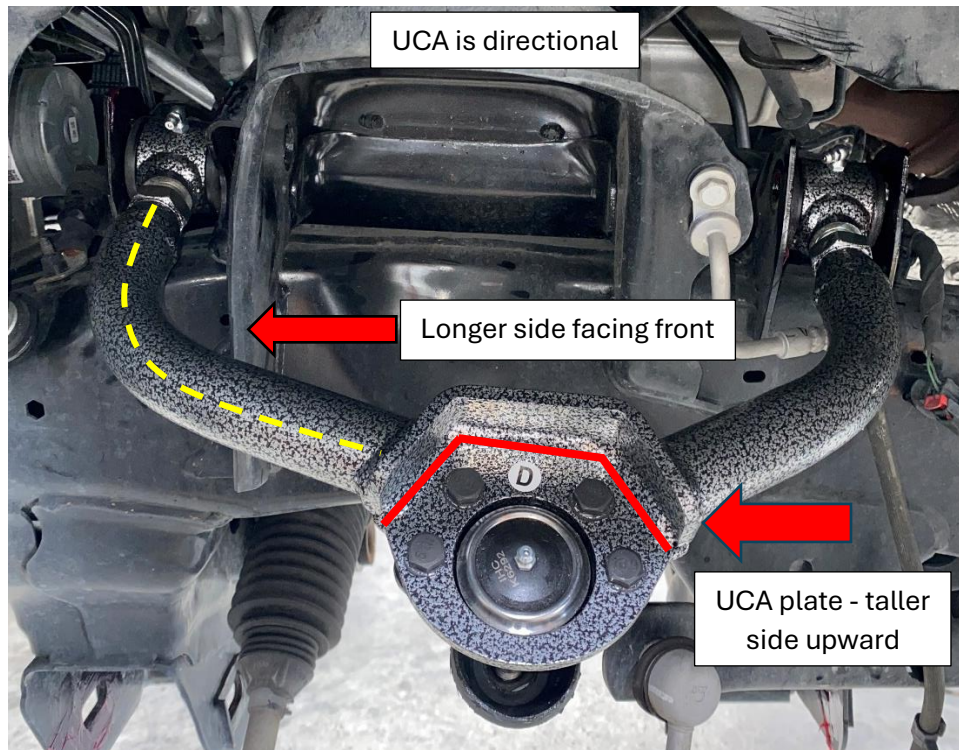


19. Install IHC UCA. DO NOT TIGHTEN **TORQUE SPECS** in Step 40

20. NOTE: IHC UCA are directional. They are labeled P and D. Longer side of UCA goes facing front of truck.

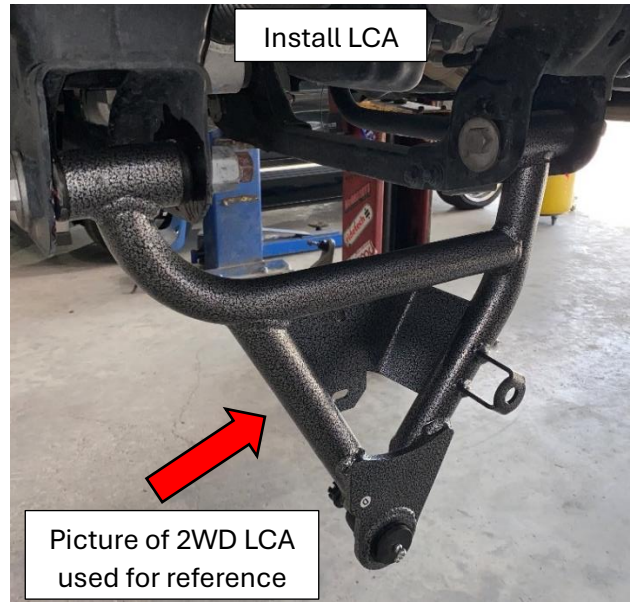
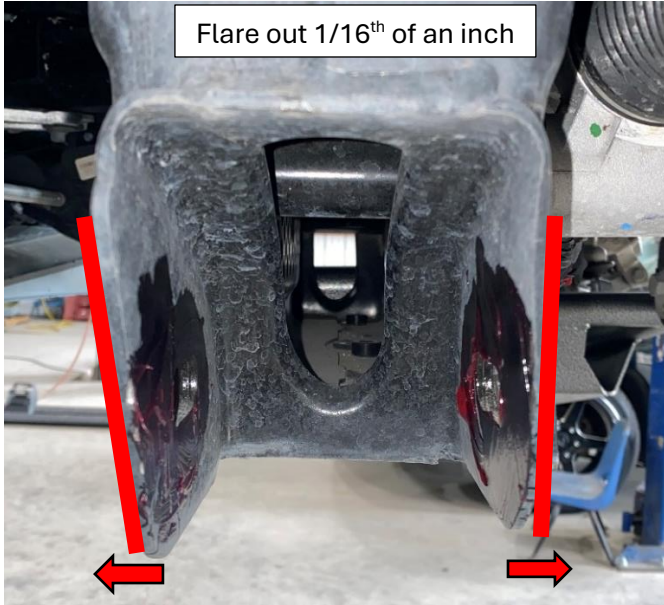
21. NOTE: Picture shown is Driver side.

22. NOTE: **JAM NUT MUST BE TIGHTEN TO CONTROL ARM SIDE!**



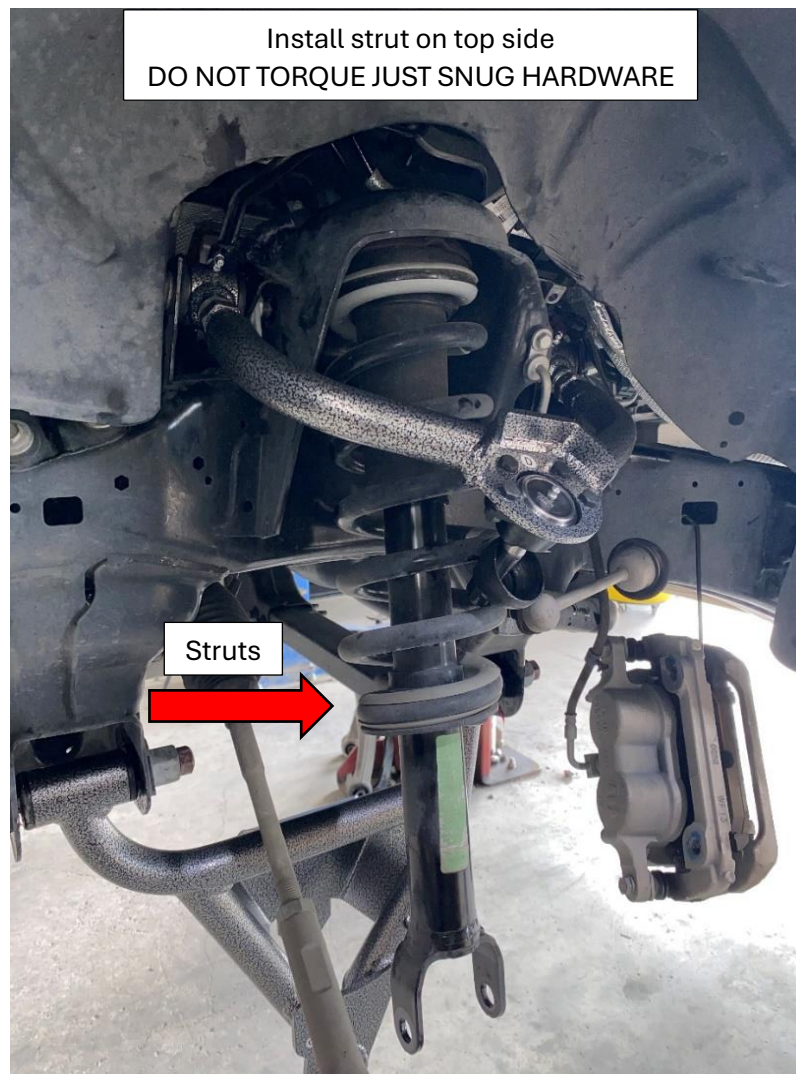
23. Recommend flaring LCA frame pockets 1/16<sup>th</sup> of an inch each side and install LCA.

**Torque specs in step 40**



24. Install OEM strut assembly on top side only. DO NOT TIGHTEN YET **Torque specs in Step 28**

Please refer to pic



25. **IMPORTANT STEP:** Struts will have to be turned for it to align and bolt up. Please refer to picture



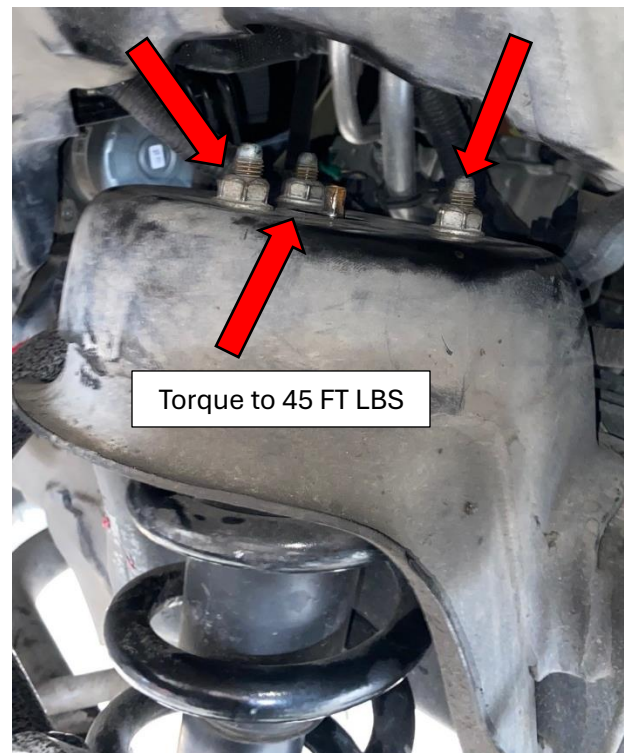
26. Lubricate LCA bottom strut mount bushings and bottom strut mounts.



27. Raise IHC lower control arm up. In some cases you will need to apply upwards pressure to align holes to install hardware. **If on post lift, place a sturdy mount under LCA and safely lower vehicle to align holes. If installing on the floor, use a floor jack to apply upward pressure to align holes. NOTE: When raising LCA, make sure it does not lift from hoist/jackstands.**

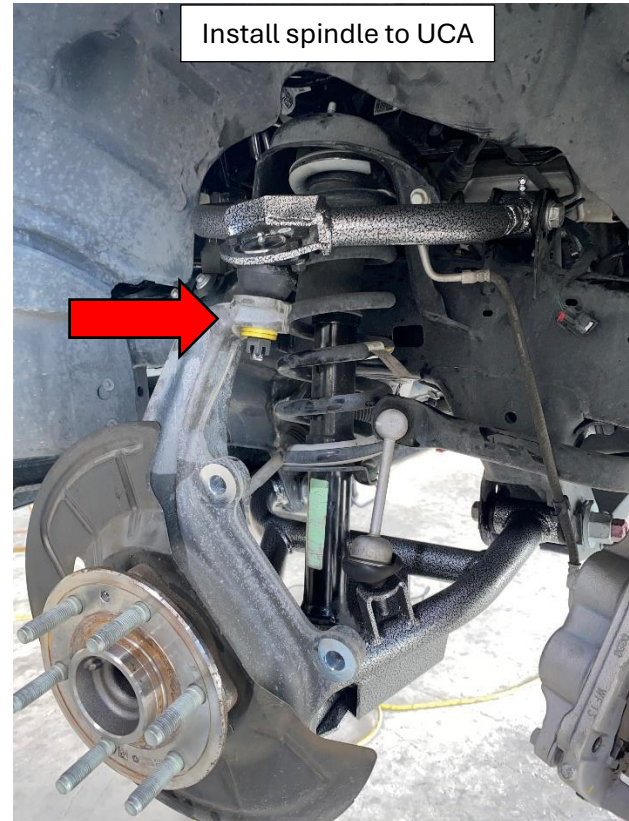


28. Insert lower strut bolt and tighten down firmly. **Torque upper strut hardware to 45 ft lbs.**

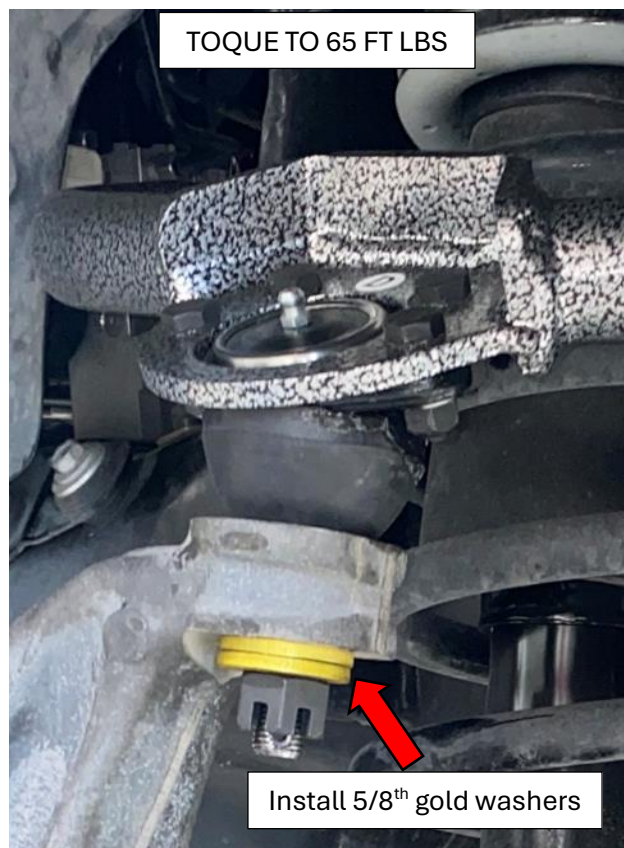




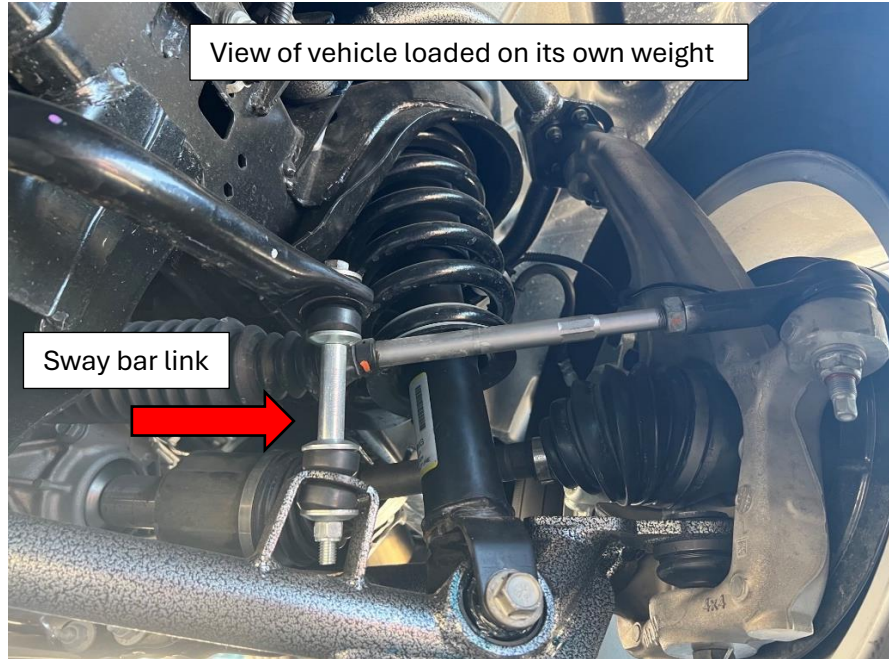
29. Install OEM spindle to LCA. **Torque to 120ft lbs.** Refer to pic



30. Install and tighten UCA. Install 5/8 gold washers prior to installing castle nut **torque to 65ft lbs** and install cotter pin. Refer to pic

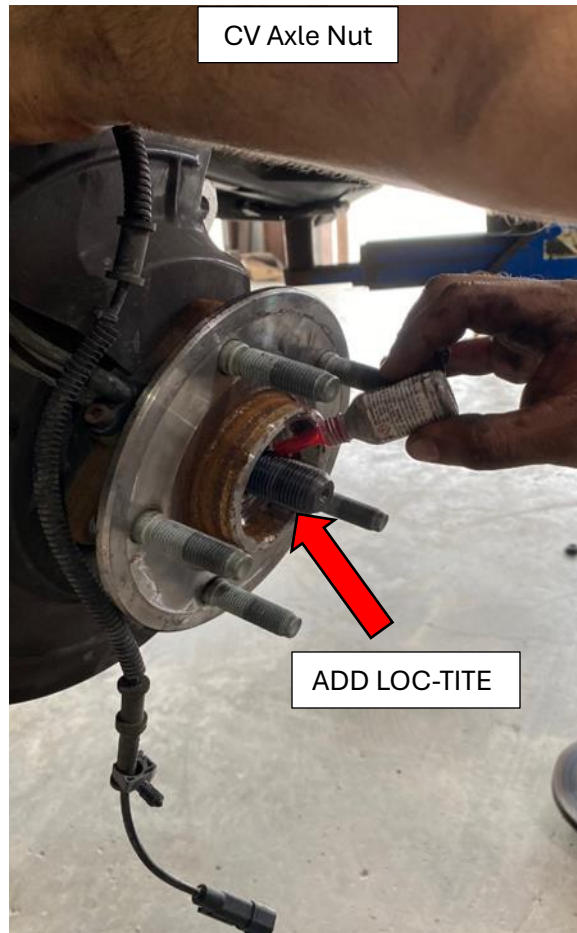


**Important Note:** Sway bar links **will not align due to suspension being at full droop**. Can be **installed once the vehicle is on its own weight** or at the alignment rack. Refer to picture.



**31.** Tighten LCA ball joint. **Torque to 110ft lbs** and install a cotter pin.

**32. 4WD:** Re-install CV Axle and Nut. Apply **LOC-TITE** and **torque to 185ft lbs**.

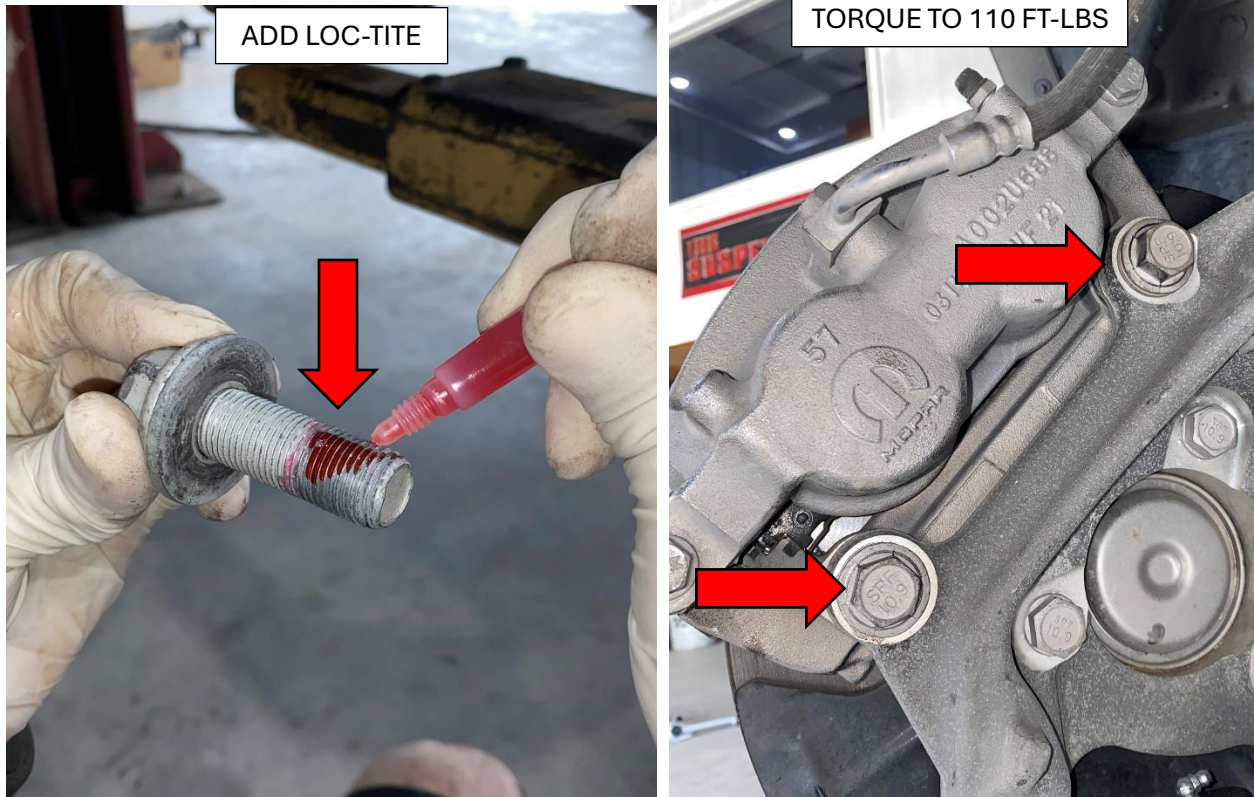


**NOTE: DO NOT  
OVERTORQUE CV AXLE NUT.**

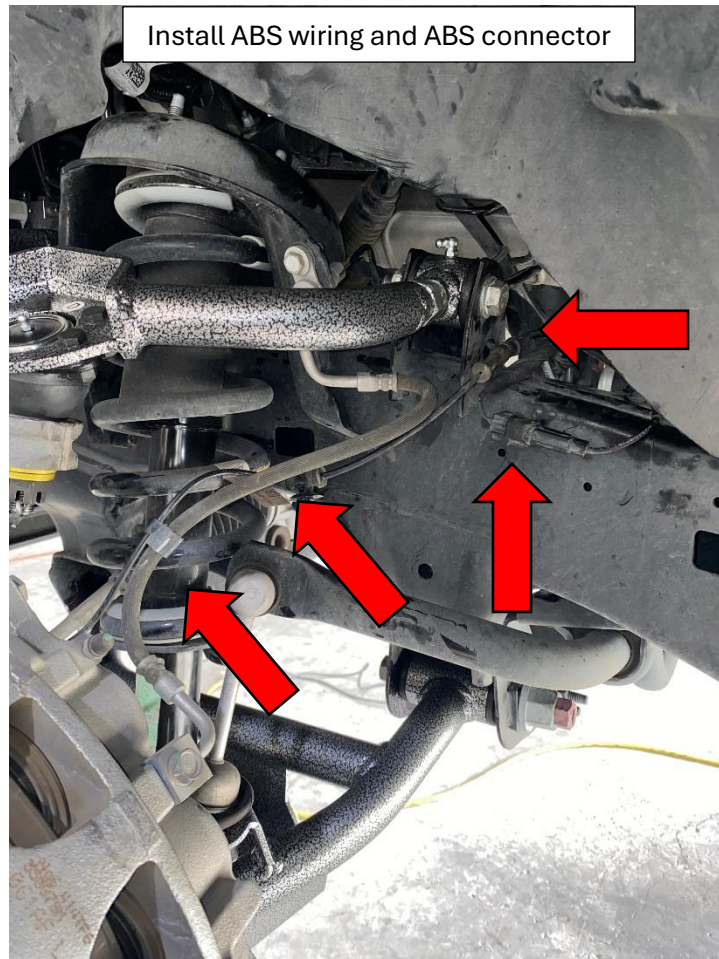
**IF BROKEN YOU WILL NEED  
TO REPLACE CV AXLE.**

**TORQUE: 185 ft-lbs.**

33. Install brake caliper. **Torque to 110ft lbs. Note: Make sure LOC-TITE is used!** Refer to pic.



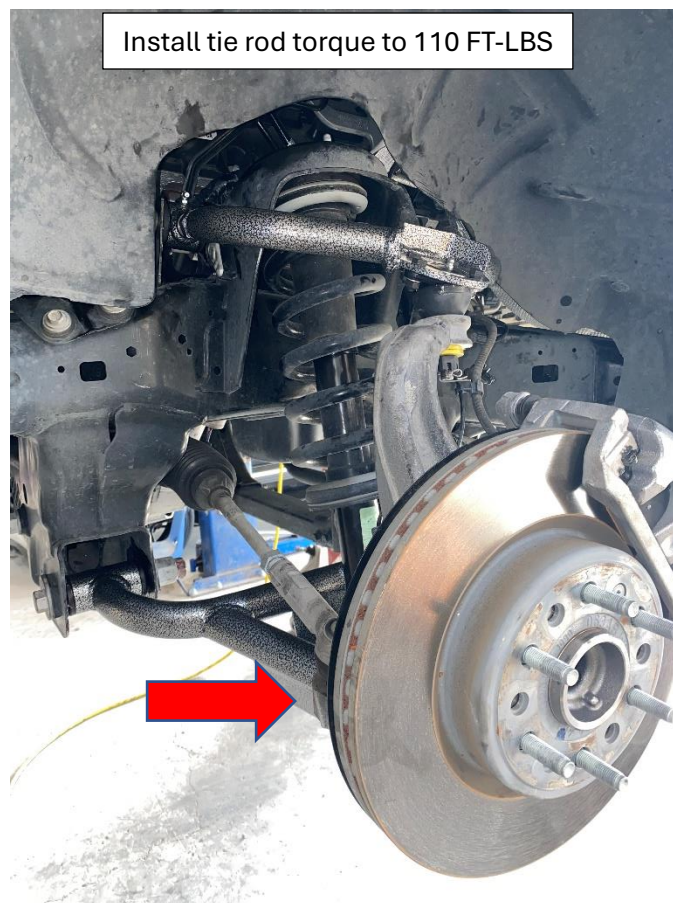
34. Re-install all ABS and brake lines. Reconnect ABS connector. Refer to pic



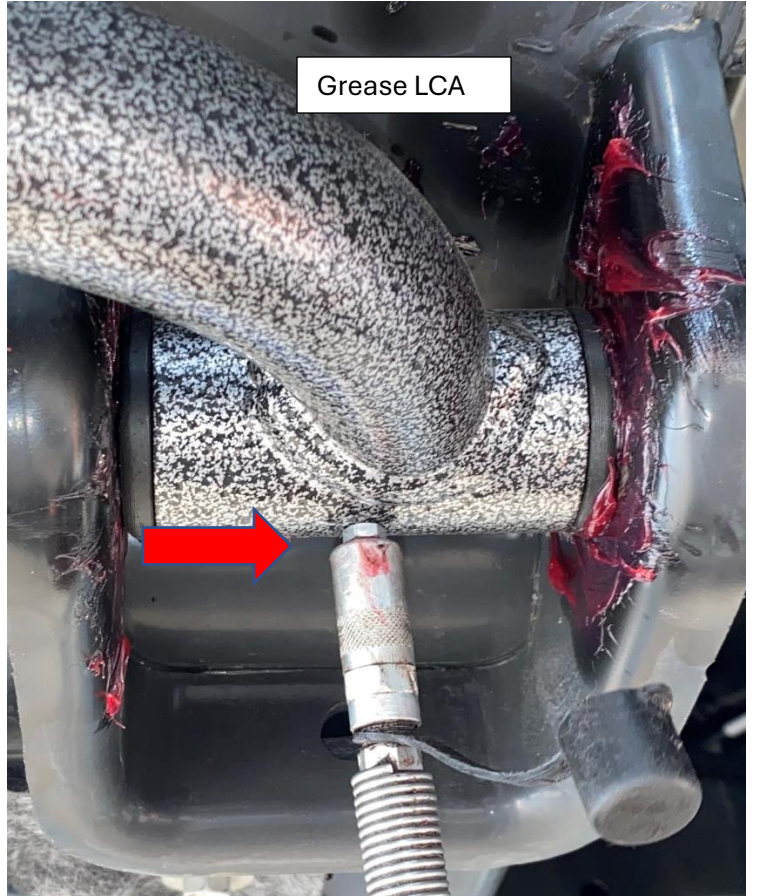
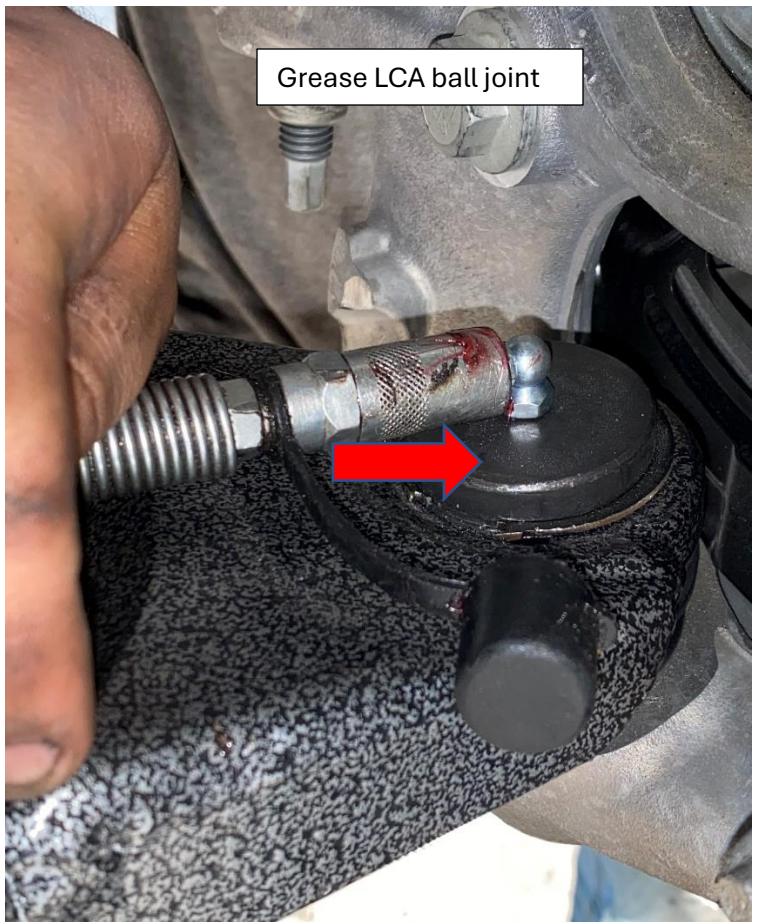
35. OEM spindle has a steering stopper that needs to be trimmed flush. Failure to skip this step turning radius will be limited. Refer to pic.



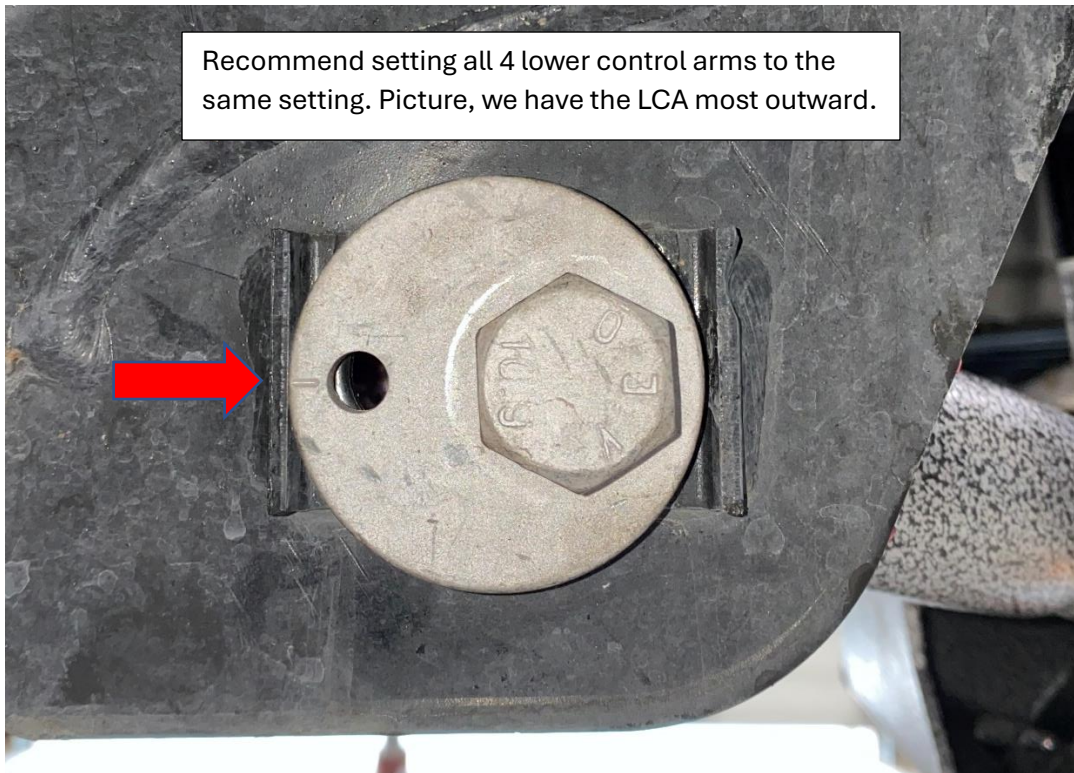
36. Install outer tie rod end to spindle **TORQUE TO 110 FT-LBS**



37. Lubricate all ball joints and control arm bushing. Refer to pics below.



38. Jounce the front of the vehicle to settle the front suspension. Move the lower control arm to middle. **Initial torque to 120 ft-lbs. (Final torque to be set by alignment technician)**
39. Set LCA alignment to most NEG camber setting. Refer to pic.



40. Prior to installing wheels, complete all installation steps on the opposite side. Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturers specs. Jounce the vehicle to settle the suspension to the new ride height. **Torque upper control arms 60ft-lbs and the lower control arm hardware to 120 ft-lbs. Final torque to be done by the alignment technician. Reconnect the battery ground terminal.** Start the vehicle and turn the steering wheel lock to lock and verify all clearances between tire, body, and suspension components. Adjust as necessary.

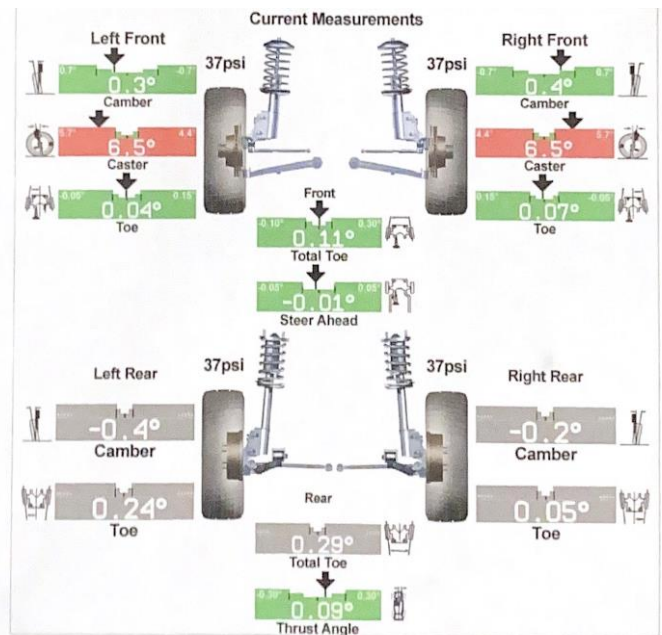
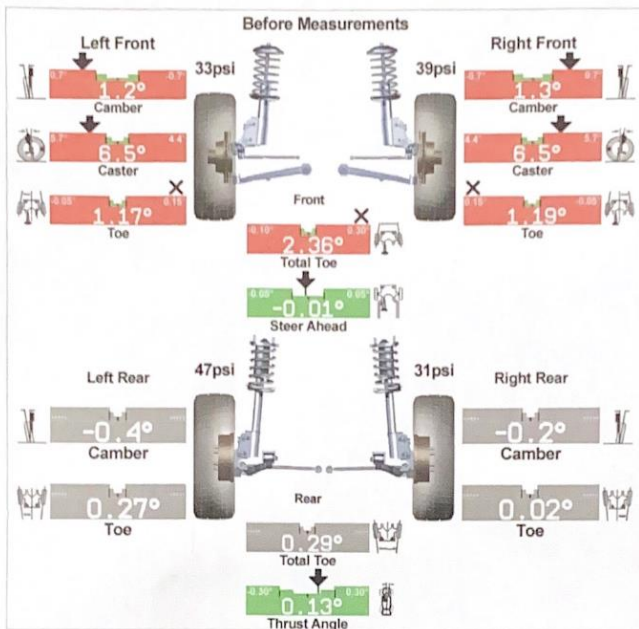
**NOTE:** The camber and toe are the most important alignment angles that need to be in green. **Caster will be in RED due to the vehicle coming down** and the wheel staying centered to fender wheel. Caster needs to be set relatively close to each other. Attached is a sheet as reference for actual alignment that was performed on the truck.

**NOTE:** Have a reputable alignment shop set alignment to the recommended specs. **If driving a vehicle to an alignment shop, adjust toe prior to vehicle operation.** Recheck that all hardware is of proper torque values and all electrical connections are hooked up. Start vehicle and verify that all dash warning lights are off. Cycle the steering wheel from lock to lock to check for any interference of wheels, tires, brake lines, hoses, wires, etc. and ensure adequate clearance throughout the suspension cycle. Adjust as necessary.

# RECOMMENDED ALIGNMENT SPECIFICATION

	DRIVER	PASSENGER	TOLORANCE	SPLIT
<b>CAMBER</b>	0.0	0.0	+/- 0.5	0.0
<b>CASTER</b>	6.5	6.5	+/- 0.5	0.0
<b>TOE</b>	0.10	0.10	+/- 0.05	+.20

Attached is a sheet as reference for alignment that was performed on the vehicle.





# WARNING

FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS.

## **Final Checks & Adjustments**

Once the vehicle is lowered to the ground, check all parts which have rubber, Delrin or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust, as necessary.

## **MAINTANCE**

**RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.**

**RECOMMENDED TO PERFORM MAINTANCE ON ALL BALL JOINTS AND CONTROL ARMS. ADD GREASE EVERY 6 MONTHS OR EVERY 5K MILES. FAILURE TO PERFORM MAINTANCE WILL CAUSE PREMATURE WEAR ON BALL JOINTS AND BUSHING.**

## **Vehicle Handling Warning**

Lowering the height of your vehicle lowers the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections. Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

## **Wheel Alignment/Headlamp Adjustment**

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to IHC Recommended specifications. It is recommended that your vehicle alignment be checked after any race/drag race driving. In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

**IMPORTANT NOTE: Due to the nature of vehicle lane keeping/lane departure features, it may be necessary to have the vehicle's camera and sensors recalibrated to ensure these systems function as they did prior to installation. Please contact your local dealership to set up an appointment.**

**Questions/Concerns please call 956-424-6901 or email Tech Support at [tech@ihcsuspension.com](mailto:tech@ihcsuspension.com) from M-F between 8am-5pm CST**