

# **READYLIFT**<sup>®</sup>

**SUSPENSIONS**

## **66-11150 21-UP RAM 1500 TRX FRONT LEVELING KIT**

**IF your ReadyLIFT<sup>®</sup> 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 ReadyLIFT.**

**(877) 759-9991**

**MON-FRI 7AM-4PM PST**

**OR**

**EMAIL: [support@readylift-ami.COM](mailto:support@readylift-ami.COM)**

**WEBSITE: [ReadyLIFT.COM](http://ReadyLIFT.COM)**

**\*\*Please retain this document in your vehicle at all times.\*\***

### **Limited Lifetime Warranty**

This unique product warranty proves our commitment to the quality and reliability of every product that ReadyLIFT manufactures. The ReadyLIFT product warranty only extends to the original purchaser of any ReadyLIFT 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 ReadyLIFT items; bushings, bump stops, ball joints, tie rod ends, heim 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 ReadyLIFT has a 90 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 ReadyLIFT packaging. Please call **(877) 759-9991** to get an RGA# for any return. Customer is responsible for shipping costs back to ReadyLIFT. **Returns without RGA# will be refused.** Contact ReadyLIFT directly about any potentially defective parts prior to removal from vehicle.

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

**READYLIFT® 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 or vehicle rollover 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. ReadyLIFT Suspension does not recommend the combined use of suspension lifts, body lifts, or other lifting 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 off-road 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 lifting of their vehicle before the purchase and installation of any ReadyLIFT products.

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

All raised vehicles 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 insure 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.

ReadyLIFT 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 lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

### **SAEJ2492 Warning**

By installing this product, you acknowledge that the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory-equipped vehicles. As with any vehicle, extreme 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 that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious 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 and may not be permitted in your state. Consult your owner's manual, the instructions accompanying this product, and state laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

*A lifted vehicle may have different headlight aim performance. ReadyLIFT recommends marking and recording the headlight beam position before kit installation and then adjusting, if necessary, the headlamps to the same height settings after kit installation. Set the vehicle on a level surface 10' to 15' from a solid wall or garage door. (This is a general distance with some manufacturers requiring different distances.) Note the top height of the low beam's bright spot, the top of the most intense part of the beam, for driver and passenger side. Height may vary from side to side. Repeat this procedure and adjust after lift kit is installed. Adjust if the aim is off by turning the adjusters gradually (a quarter of a turn) and looking to see where the new alignment falls. It may be easier to block one headlamp while adjusting the other. Consult the owner operation manual for procedures to adjust headlights - many automakers offer headlight aiming specs. Some states have their own specifications when it comes to headlight aim, so it's best to follow those rules when alighting headlights.*

This suspension system was developed using a **35x12.5R20 tire with 20x9 wheel and a offset of +18**. If wider tires are used, offset wheels may be necessary and trimming may be required. Factory wheels can be used but are not recommended with tires over **\*\*\*"** wide.

The stock spare rim can be run in an emergency - exercise extreme caution under stock spare tire operating conditions. Please note that, if running the spare factory tire, it is done for short distances and a speed not to exceed 45mph or damage to differentials may occur.

## **IMPORTANT NOTE:**

- Measure vehicle height before installing lift kit.
- Kit may not work with aftermarket struts, lift kits, or coilovers.

# **PRE-INSTALLATION MEASUREMENTS:**

It is imperative that you record the following measurements and factory components in the tables below. ReadyLIFT 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 ReadyLIFT calls out will ensure the lift on the vehicle is correct.

These measurements will affect the performance of this lift kit. Failure to ensure proper stock conditions may result in over lifting, causing premature failure of axles, CV boots and drivetrain. Over lifting 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 lifting will also cause a shock top off condition 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 lift or leveling kit and adjust to original factory position after the completion to ensure a safe and enjoyable experience.

## **VEHICLE HEIGHT MEASUREMENTS**

	<b>Driver Before</b>	<b>Driver After</b>	<b>Passenger Before</b>	<b>Passenger After</b>
<b>Front</b>				
<b>Rear</b>				

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

## **RECORD HEAD LAMP MEASUREMENTS**

<b>Driver Before</b>	<b>Driver After</b>	<b>Passenger Before</b>	<b>Passenger After</b>

# **BILL OF MATERIALS**

COMPONENTS	QTY
FRONT STRUT SPACER	2



***Before starting installation:*** ReadyLIFT Suspension highly recommends that the installation of this product be performed by a professional mechanic 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 ReadyLIFT Suspension Customer Service or check out the dealers tab on our Website for authorized installers .

## **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.

ReadyLIFT 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 straight forward 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.

**PERFORM ALL STEPS IN THESE INSTRUCTIONS ON BOTH SIDES OF THE VEHICLE.**

Record factory ride height measurements before lifting the vehicle off the ground.

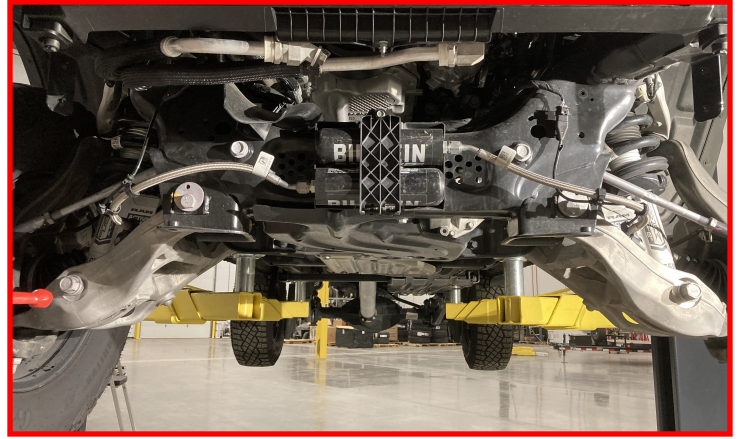


Raise vehicle and support the chassis using the appropriate jack stands or hoist and remove the front tires.

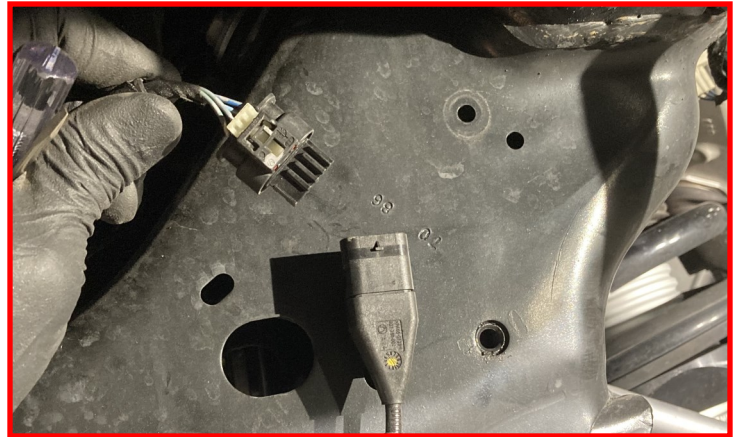


Remove the front skid plate.

Retain factory hardware.



Unplug the Bilstein Active Terrain wire by first releasing the safety clip followed by the plug.



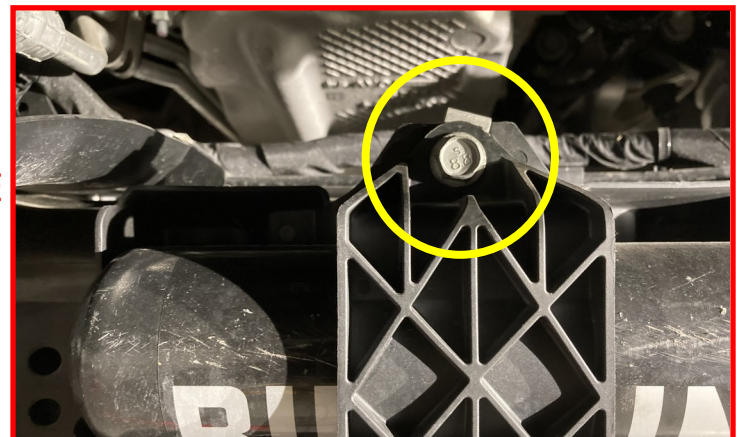
Remove the Active Terrain pigtail from the crossmember.



Remove the bolt securing the shock reservoirs.

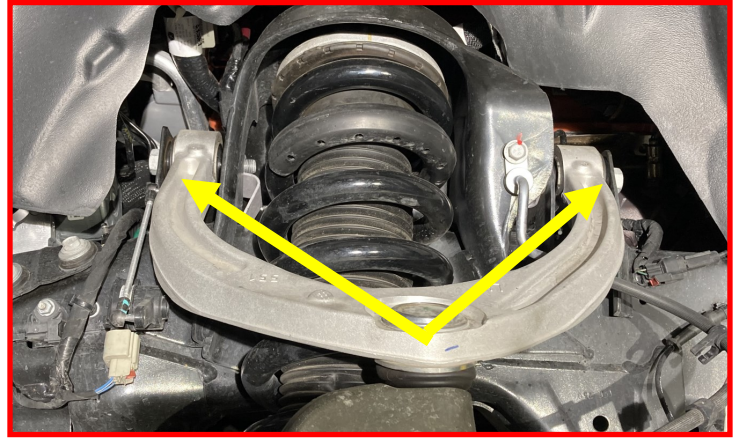
**NOTE: TO AVOID STRESSING THE HOSE BETWEEN RESERVOIR AND SHOCK, LEAVE THE RESERVOIR MOUNTED UNTIL THE SHOCK IS REMOVED.**

Retain factory hardware.



Loosen the upper control arm mounts.

**NOTE:** This will aid in the removal and install of the shock assembly as well as properly preload the bushing at the new ride height.

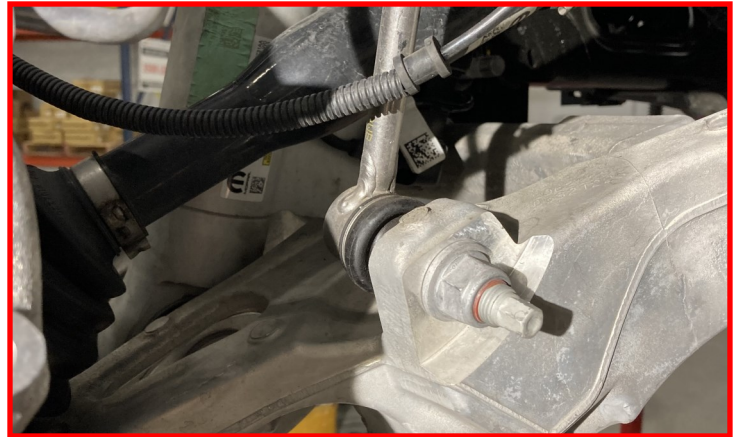


Loosen the nuts retaining the upper shock mount. Do not remove at this time.



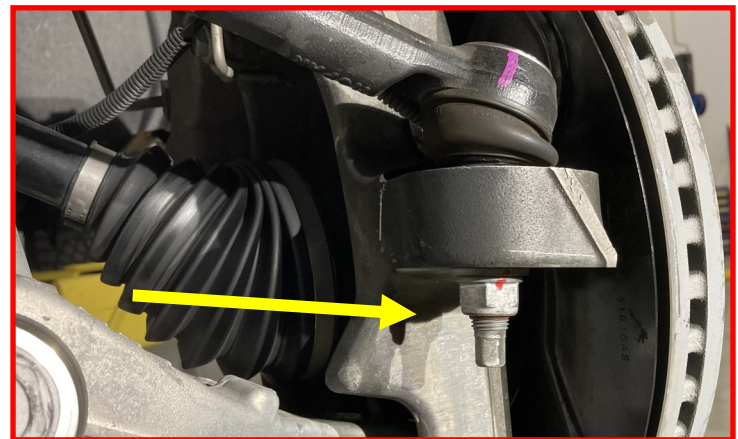
Remove the sway bar link from the control arm.

**Retain factory hardware.**



Remove the tie rod nut.

**Retain factory hardware.**



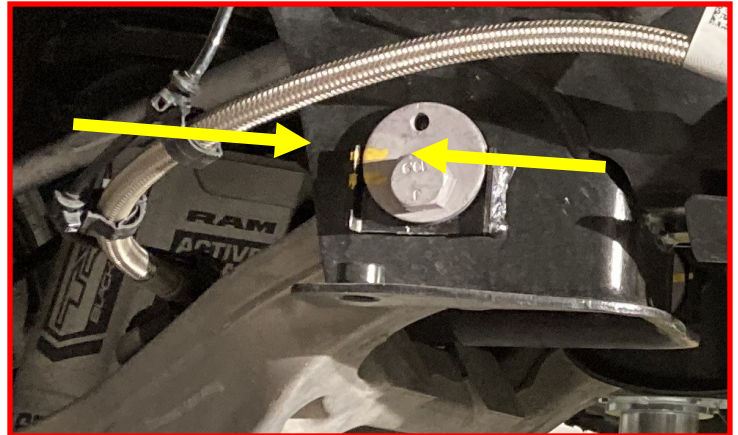


Strike the knuckle with a dead blow hammer or similar to dislodge the taper from the knuckle.



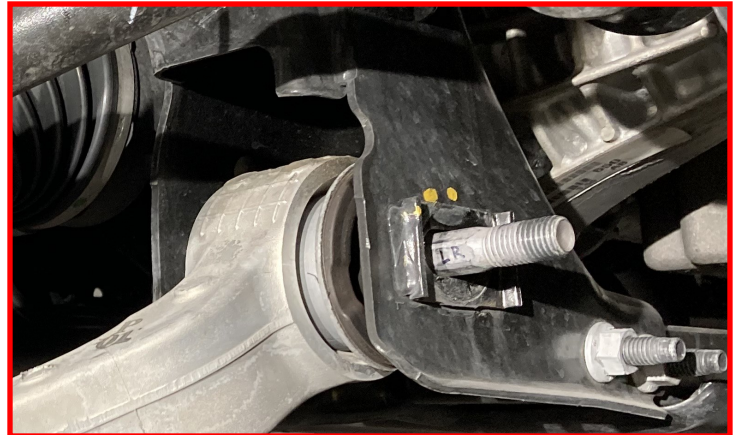
Mark the orientation of the lower control arm alignment cams.

This will give a good starting point during installation of the new components.



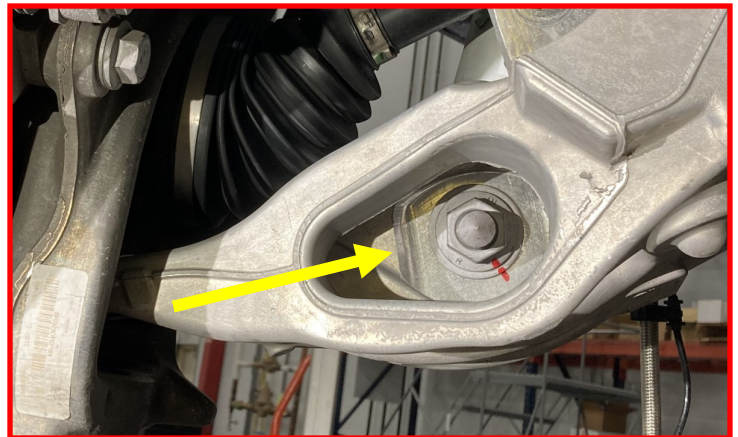
Remove the lower control arm nuts.

Retain factory hardware.



Remove the lower shock mount nut.

Retain factory hardware.



At this point, support the knuckle/lower control arm at or near the ball joint and remove the lower control arm bolts.

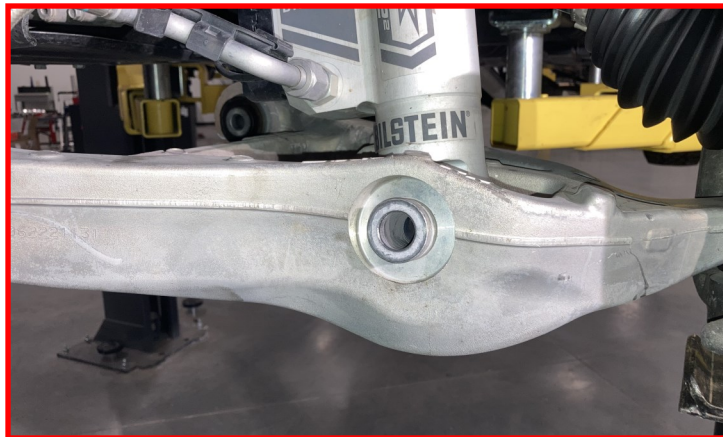
Retain factory hardware.



Remove the lower shock bolt.

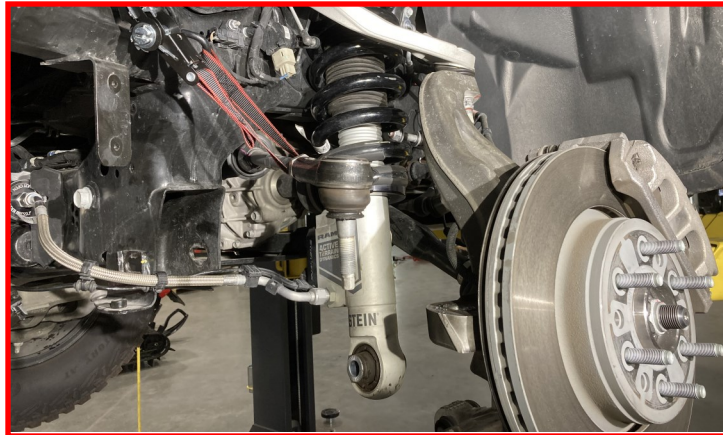
**NOTE: A PRYBAR OR SIMILAR MAY BE NEEDED TO REMOVE THE SHOCK FROM THE CONTROL ARM.**

Retain factory hardware.



Swing the control arm toward the rear of the vehicle.

Support the shock and remove the upper nuts.



Remove the reservoir and shock assembly from the vehicle.

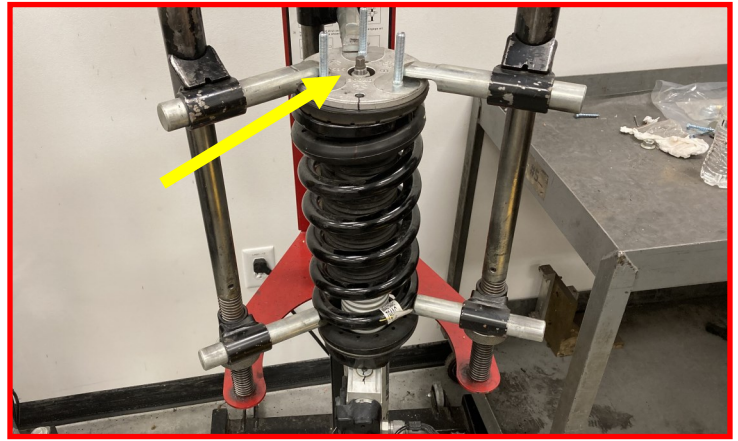


Mark the orientation of the top hat and spring.

**CAUTION: THE SPRING IS UNDER EXTREME PRESSURE AND CAN CAUSE BODILY INJURY AND/OR DEATH IF HANDLED IMPROPERLY.**

Use a spring compressor to remove the shock shaft nut. **Do not use an impact gun.**

Retain factory hardware.



**CAUTION: TAKE SPECIAL CARE WHEN DISASSEMBLING AND ASSEMBLING THE STRUT ASSEMBLIES. DAMAGE TO THE STRUT CAN OCCUR IF DONE INCORRECTLY.**

Separate the shock and spring assembly.



Gently pry the dust boot from the top hat.



Install the ReadyLIFT leveling spacer between the top hat and spring isolator.

**Note the orientation of the pin on the spacer and the pin on the isolator.**



Install the dust boot

**NOTE: TRIMMING THE TOP EDGE OF THE DUST BOOT WILL AID IN ASSEMBLY BUT IS NOT NECESSARY.**



Reassemble the shock and spring assembly using factory hardware.

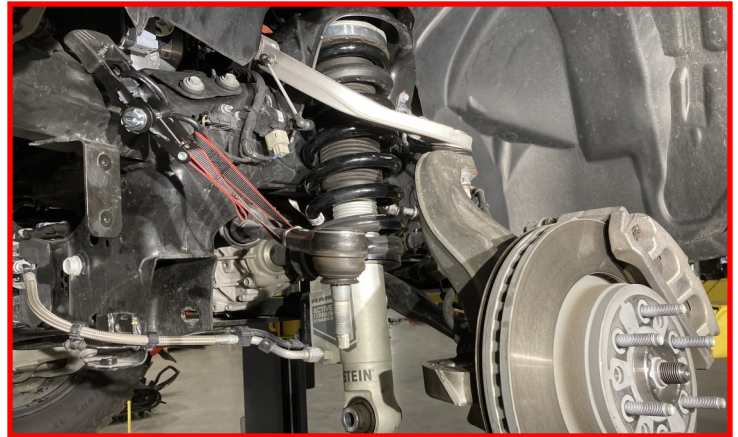
Torque the shock shaft nut to **88 lb ft.**



Install the shock assembly.

Replace the factory nuts.

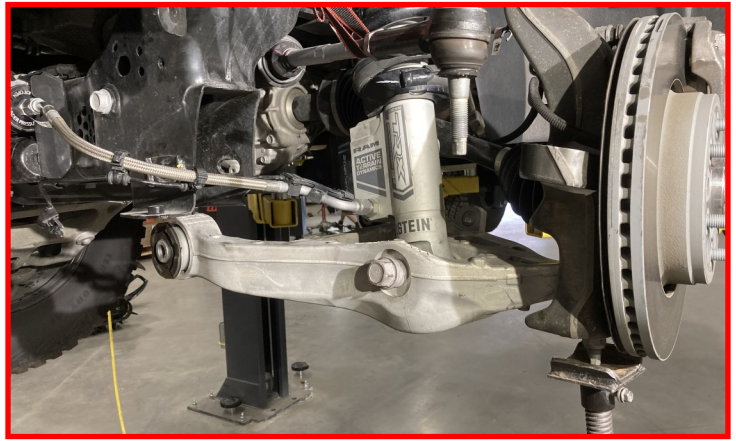
**NOTE: DO NOT TIGHTEN AT THIS TIME.**



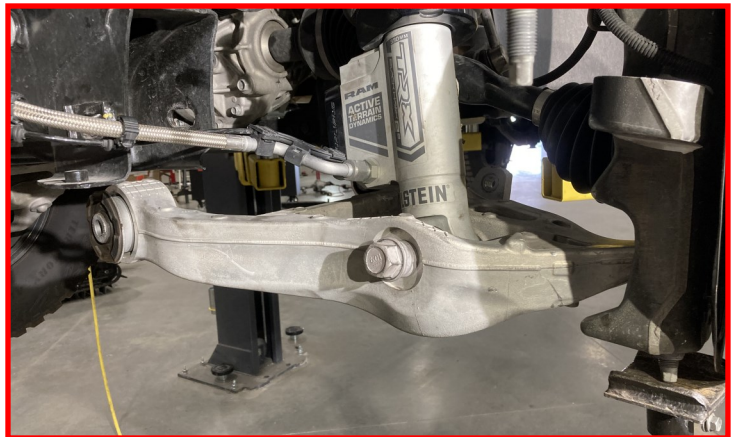
Snap the reservoir back into the plastic frame mount and replace factory bolt.



Install the factory lower shock bolt and nut. **Do not tighten at this time.**



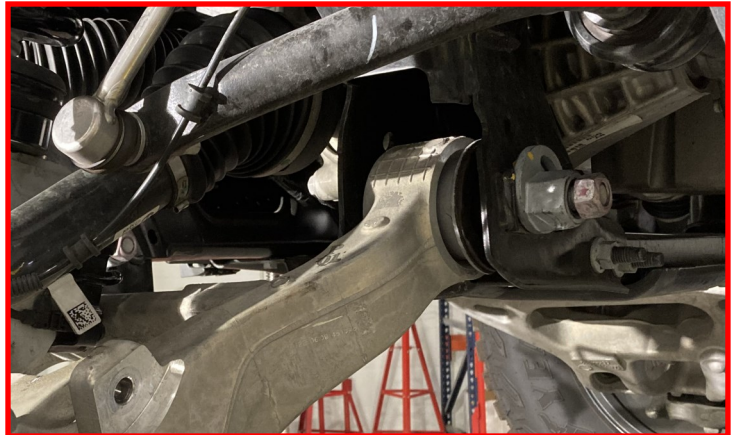
Install the factory lower control arm bolts.



Install the factory lower control arm cam spacer and nut.

Align the previously made marks on the cams.

Snug the bolts but **do not tighten at this time.**

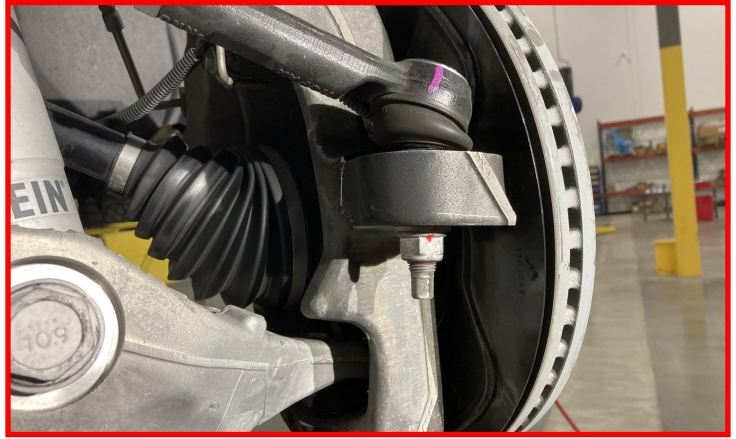


Press the Active Terrain pigtail into the crossmember and plug in the Bilstein Active Terrain wire. Reinsert the safety clip.



Install the tie rod end using factory hardware.

Torque to **41 lb ft.**



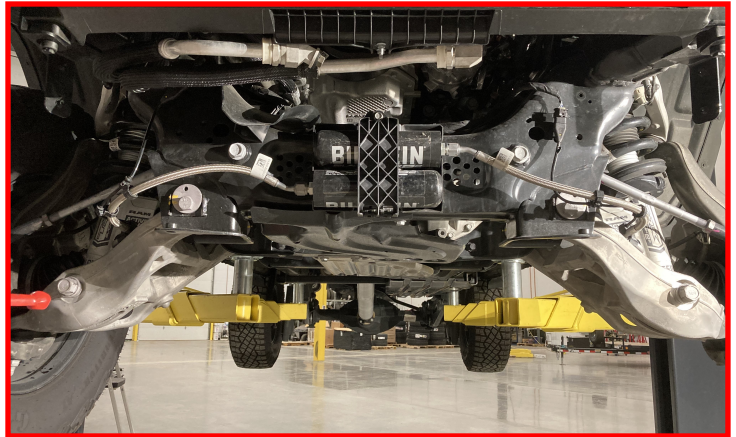
Install the sway bar link in the control arm using the factory hardware.

Torque to **85 lb ft.**



**NOTE: This step is best performed after the alignment is complete**

Install the front skid plate using factory hardware. (Picture shows vehicle without skid plate)



Install the wheels and tires.

Torque to manufacturer's specification.

Factory wheel torque is **130 lb ft.**

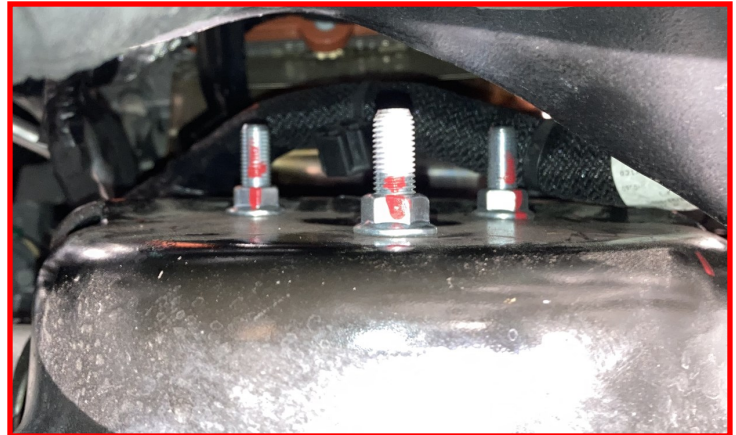


Lower the vehicle and move the steering wheel side to side to settle the front suspension. Then, begin tightening the following bolts:



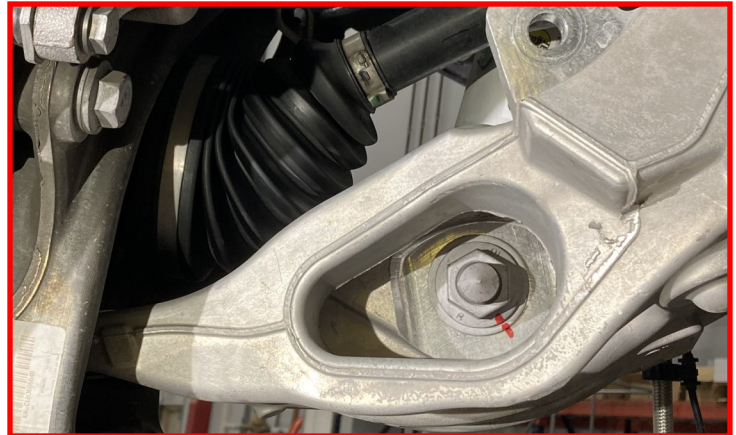
Upper shock mount nuts

Torque to **52 lb ft.**



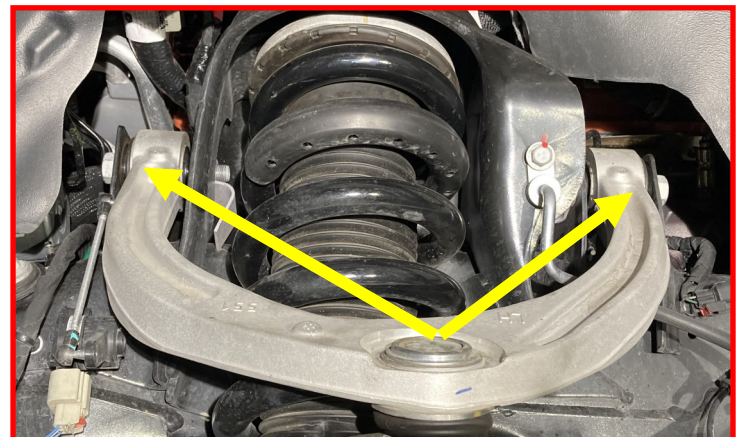
Lower shocker mount bolt

Torque to **102 lb ft.**



Upper control arm bolts

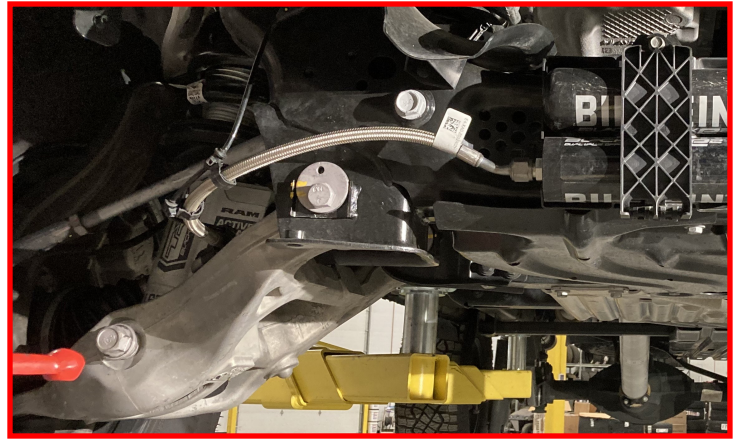
Torque to **128 lb ft.**



Tighten the lower control arm nuts.

Torque to **74 lb ft.**

**NOTE: THIS STEP IS BEST PERFORMED AFTER ALIGNING THE VEHICLE.**



With the steering wheel centered, turn the tie rod ends until the tires are straight. If the steering wheel is not centered properly, the ABS/traction control lights may activate. 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.

Have wheel alignment performed by qualified alignment technician. Have the alignment set to the recommended specs at the end of these instructions.





**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 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.

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

### **Vehicle Handling Warning**

Increasing the height of your vehicle raises 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 factory specifications. It is recommended that your vehicle alignment be checked after any off-road 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.

## **RECOMMENDED ALIGNMENT SPECS**

Front	Driver	Passenger	Tolerance	Total / Split
Camber	-0.5°	-0.5°	+/- 0.5	+0.0
Caster	+4.5°	+4.5°	+/- 0.5	+0.0
Toe	+.05°	+.05°	+/-0.05	+.10