

# **READYLIFT**<sup>®</sup>

**SUSPENSIONS**

**43-19642 - 2019-UP RAM 2500 HD 6.0" MAX Lift 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**

**WEBSITE: ReadyLIFT.COM**

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

## **READYLIFT "NO HASSLE" PRODUCT WARRANTY**

This unique "no hassle" product warranty proves out commitment to the quality of every product the ReadyLIFT produces. ReadyLIFT product warranty only extends to the Original Purchaser of any ReadyLIFT product. If it breaks, we will give you a new part.

### **READYLIFT "NO HASSLE" WARRANTY PROCEDURES**

Any ReadyLIFT products containing missing or defective components will be covered under warranty by ReadyLIFT. Please call 800-549-4620 to initiate a warranty claim. Rest assured our customer service team will urgently address the matter and expedite the replacement parts. In the event of a defective product, ReadyLIFT may request a return of the defective product (at ReadyLIFT's expense) so the quality team can analyze the nature of the defect. Returning defective product will not delay the replacement part delivery.

ReadyLIFT leveling kit, block kits, and lift kit products are NOT intended for off-road abuse. Any abuse or damage as a result of off-road use voids the warranty of the ReadyLIFT product. Exception: ReadyLIFT Jeep SST and Terrain Flex Lift Kits are designed for normal off-road use to compliment the Jeep vehicle's off-road capability. All Jeep Lift Kit products are covered under warranty when used in recreational off-road environments.

Warranty does not apply to discontinued, clearance or outlet products. Wearable components including but not limited to, shocks, ball joints, heim joints, bushings, and steering extensions, are covered for up to 1-year. Labor, installation, surcharges or any other applicable fees from the original purchase are non-refundable. ReadyLIFT is not responsible for any consequential damage to the vehicles.

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 aligning headlights.*

This suspension system was developed using a 37" x 13.5" tire with 20" x 9" wheel and a offset of 0. 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 11" 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:**

**Kit not compatible with other aftermarket lift springs or other lift systems. Use of additional lift components may damage vehicle and could result in injury or death.**

# 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

	Driver Before	Driver After	Passenger Before	Passenger After
Front				
Rear				

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

## RECORD HEAD LAMP MEASUREMENTS

Driver Before	Driver After	Passenger Before	Passenger After

## **WARNING**

**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 to find one of our "Pro-Grade" 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.

# BILL OF MATERIALS

COMPONENTS	QTY.	HARDWARE	QTY
6" FRONT LIFT SPRING	2	Front Sway Bar Bracket	
4" REAR LIFT SPRING	2	7/16"-14 x 1.25" HHB Gr. 8 YZ	4
FALCON 3.3 SHOCK, FRONT, LEFT	1	7/16"-14 C-Lock Nut CZ	4
FALCON 3.3 SHOCK, FRONT, RIGHT	1	7/16" Flat Washer	8
FALCON 3.3 SHOCK, REAR	2	Sway Bar End Link	
RETAINER, COIL SPRING ISOLATOR KIT	1	M12-1.75 x 70MM HHB YZ Grade 10.9	2
RADIUS ARM, DRIVER	1	M12-1.75 C-Lock Nut Grade 10.9	2
RADIUS ARM, PASSENGER	1	M12 Flat Washer	2
FRONT TRACK BAR BRACKET	1	M12 Fender Washer	2
REAR TRACK BAR BRACKET	1	Rear Bump Stop Extension	
DRIVER, SWAY BAR DROP BRACKET	1	3/8"-16 x 1" HHB YZ Grade 8	4
PASSENGER, SWAY BAR DROP BRACKET	1	3/8"-16 C-lock Nut Grade 8	4
14.25" SWAY BAR ENDLINK	2	3/8" Flat Washer	8
5" REPLACEMENT FRONT BUMP STOP	2	Rear Track Bar Bracket	
REAR BUMP STOP EXTENSION	2	M14-2.0 x 100MM HHB YZ Grade 10.9	1
PITMAN ARM, DROP, REPLACEMENT	1	M14-2.0 x 35MM HHB YZ Grade 10.9	1
TRANSMISSION CONNECTOR BRACKET	1	M14-2.0 C-Lock Nut Grade 10.9	1
TRANSMISSION CROSSMEMBER	1	M14 Flat Washer	3
TRANSMISSION HARNESS BRACKET	1	Front Brakeline Bracket Hardware	
TRANSMISSION MOUNTING PLATE	1	5/16"-18 x 1" HHB YZ Grade 8	2
TRANSMISSION MOUNT SPACER	2	5/16"-18 C-Lock Nut Grade 8	2
6-BOLT CLOCKING RING	1	5/16" Flat Washer	4
BRAKE LINE BRACKET, FRONT	2	Rear Brake Line Bracket	
REAR BRAKELINE BRACKET	1	M8-1.25 x 20mm HHB Grade 10.9 YZ	2
9/32" X .024" BAND, 2 39/64" TO 2 47/64", PINCH CLAMP	1	M8-1.25 C-Lock Nut CZ	2
HARDWARE PACK	1	M8 Flat Washer CZ or YZ	4
		Front Track Bar Bracket	
		M14-2.0 x 75MM HHB YZ Grade 10.9	2
		M14-2.0 C-Lock Nut Grade 10.9	2
		M14 Flat Washer	4
		6-Bolt Clocking Ring	
		M10-1.5 mm x 30 mm Alloy Steel Hex Drive	6
		3/8"-16 Locking Nut	6
		3/8" SAE Flat Washer	6
		Transmission Crossmember	
		M12-1.75 x 45mm Grade 10.9 HHB	6
		M12-1.75 Grade 10.9 C-Lock Nut	6
		M12 Flat Washer	12
		Transmission Harness & Connector Brackets	
		M6-1.0 x 25mm HHB Gr10.9	1
		M6-1.0 x 20mm HHB Gr10.9	1
		M6-1.0 C-Lock Nut	2
		M6 Flat Washer	4

**\*\*\*Parts shown in red for picture clarification only\*\*\***

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.

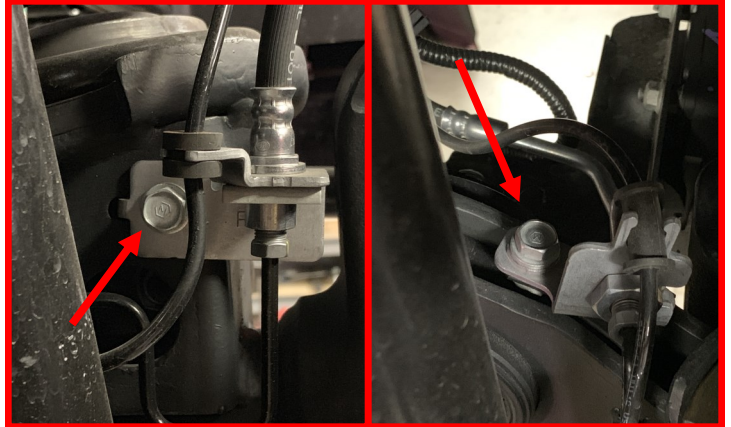
Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands. Remove the front wheels. Starting with the front of the vehicle, all steps are to be completed on both sides of the vehicle unless instructed.

## **Front Suspension Installation**

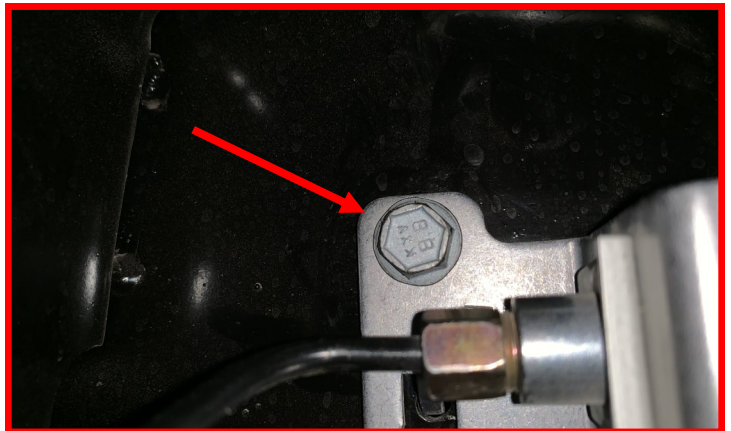
Remove the (2) **brake line/ABS brackets** on both sides of the vehicle attached to the axle and radius arm.

**Retain factory hardware.**



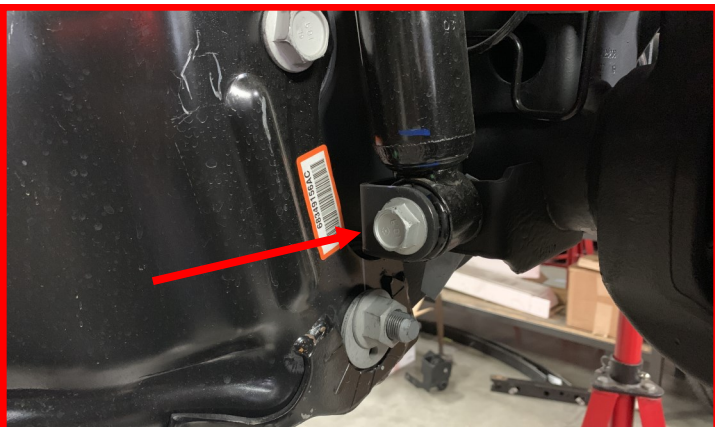
Locate the **brake line/ABS bracket** on the inside of the driver and passenger frame rails and remove.

**Retain factory hardware.**



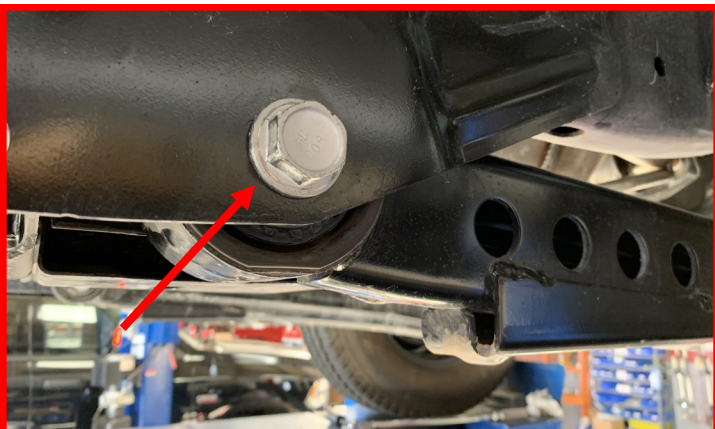


Loosen but do not remove the **lower shock mounting bolts**.



Place a jack under the axle for support.  
Remove the **radius arm bolts**.

**Retain factory hardware.**



Mark the driveshaft to pinion location.

Remove the **(4) front driveshaft bolts**.

Remove the **front driveshaft** from the axle.  
Let hang out of the way.

**Retain factory hardware.**



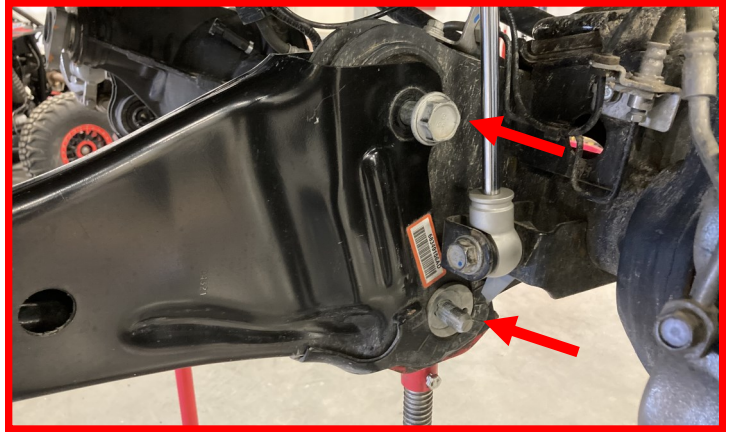
Rotate the axle to release **radius arms**  
from the mounting locations.



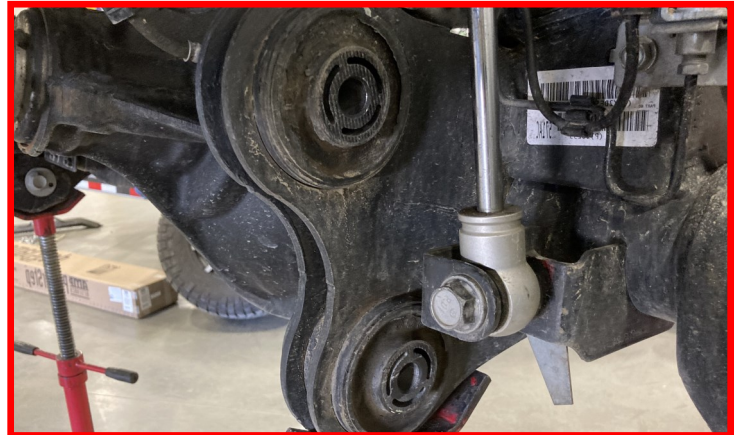
Remove the **radius arm lower cam bolt**.

Remove the **radius arm upper bolt**.

**Retain factory hardware.**



Make sure that the axle is clear of debris before radius arm installation.



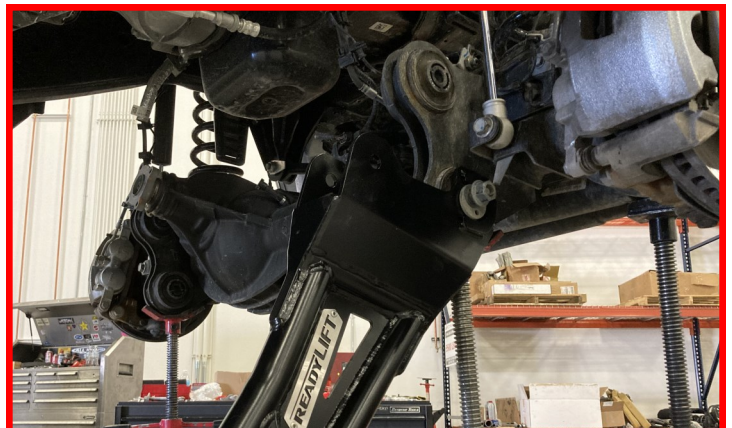
Make sure that the frame is clear of debris before radius arm installation.



Install **provided radius arm** to the axle using the **factory lower cam bolt**.

It may be necessary to have a helper to install the radius arm.

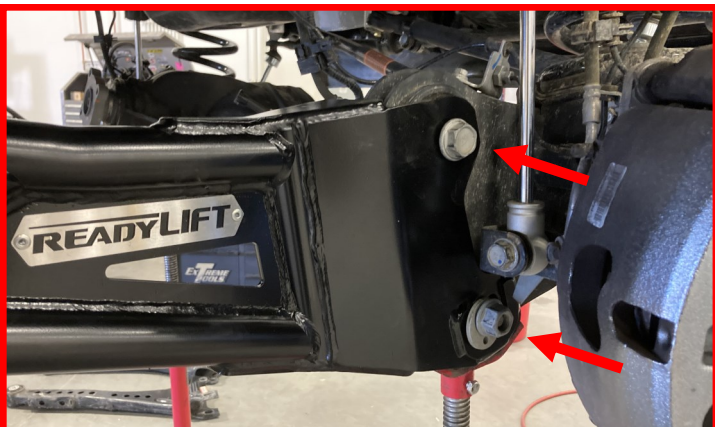
Do not tighten at this time.





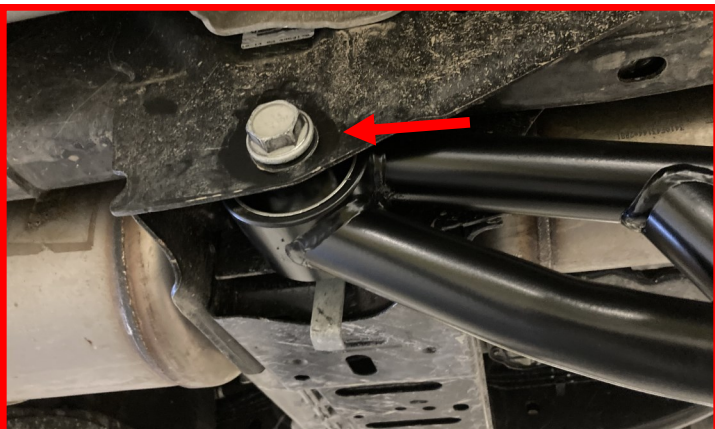
Install **provided radius arm** using the **factory upper bolt**.

Do not tighten at this time.



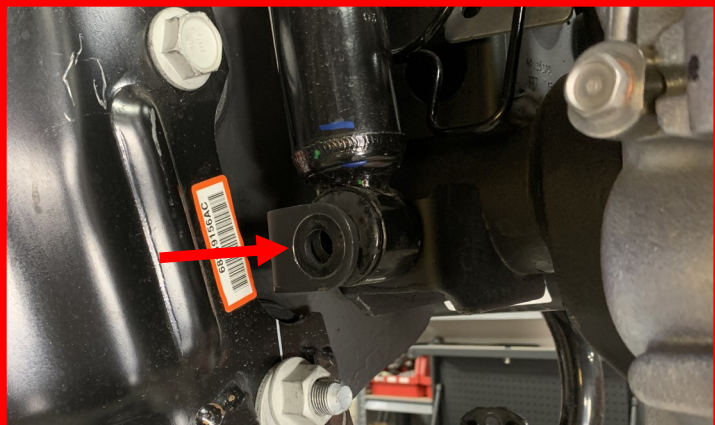
Install the provided radius arm rear mount into the frame using the factory bolt.

Do not tighten at this time.



Make sure the axle is still supported with suitable jacks.

Remove the **(2) lower front shock bolts** and discard properly.



Remove the **(2) brake line bracket bolts** on both sides of the vehicle attached to the inside of the upper frame.

**Retain factory hardware.**

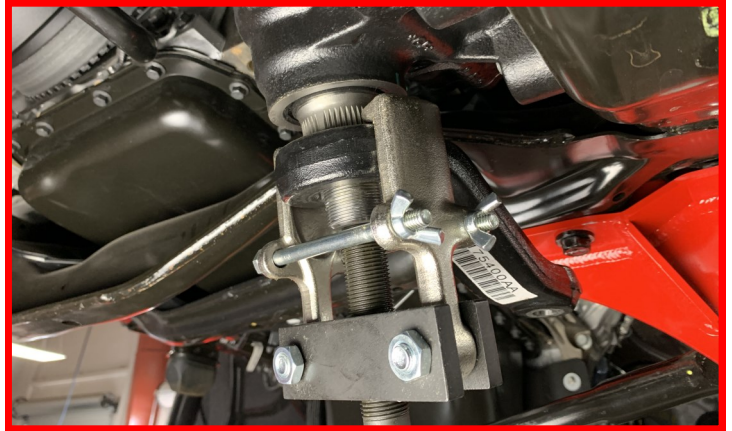




Remove the **tie rod end nut**. Strike the pitman arm tie rod boss with a dead blow hammer to dislodge the taper. Remove the tie rod end from the pitman arm and let hang out of the way.



Remove the **pitman arm nut**. Using a pitman arm puller, remove the pitman arm from the steering box sector shaft.



**Note:** Be sure to thoroughly clean splines prior to installing pitman arm replacement.

Locate and install the **provided drop pitman arm** in the factory orientation using **factory hardware** and **thread locker**.



Loosen **tie rod end adjuster** and rotate tie rod end 180 degrees. Attach tie rod end to pitman arm using **factory hardware**.

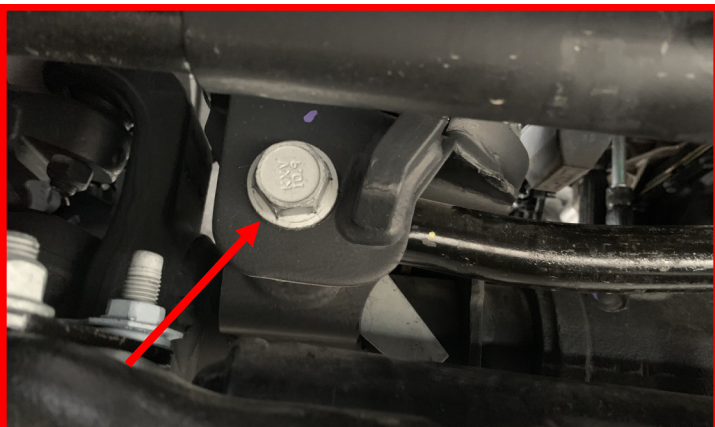
Rotate the steering all the way to the right until hubs are resting on the turn stops.

Torque pitman arm nut to 177 ft-lbs.

Torque the tie rod end to 100 ft-lbs.

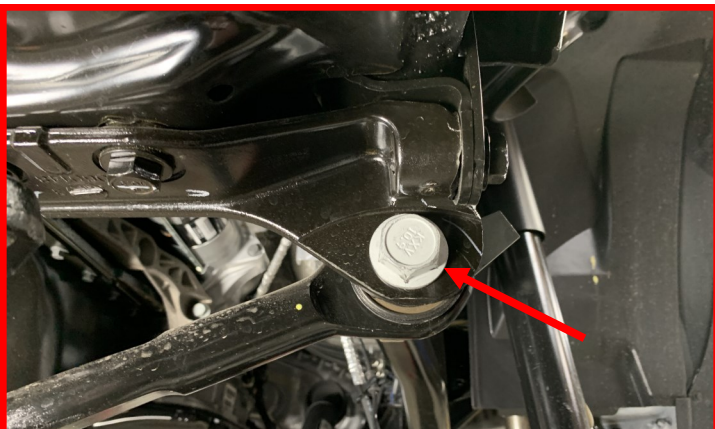


Loosen but do not remove **track bar bolt** at the axle.



Remove **track bar hardware** at the frame and swing track bar out of the way.

**Retain factory hardware.**



Lower the axle enough to remove the **coil springs** from their mounts and discard.

**Be sure to retain the factory spring isolators.**



Remove the **(5) factory mounting bolts** from the factory track bar bracket and remove from vehicle.

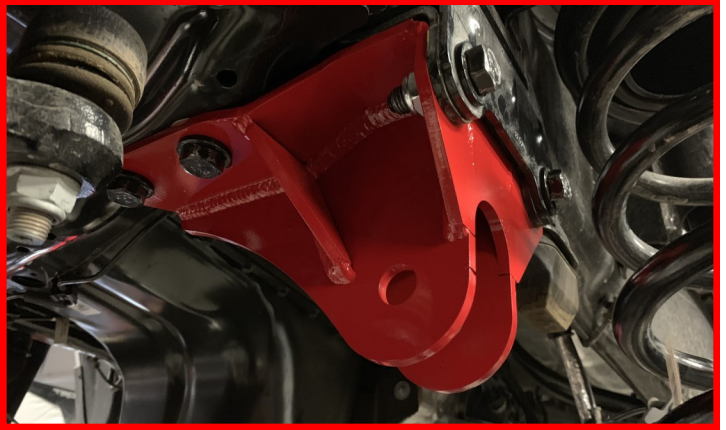
**Retain factory hardware.**





Install provided track bar drop bracket using factory hardware and provided M14 hardware.

Torque to 110 ft-lbs.

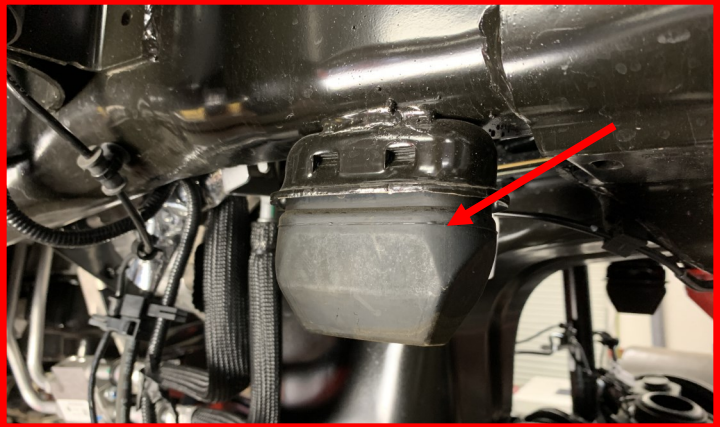


Install track bar using factory hardware.

Do not tighten at this time.



Remove the factory bump stops.



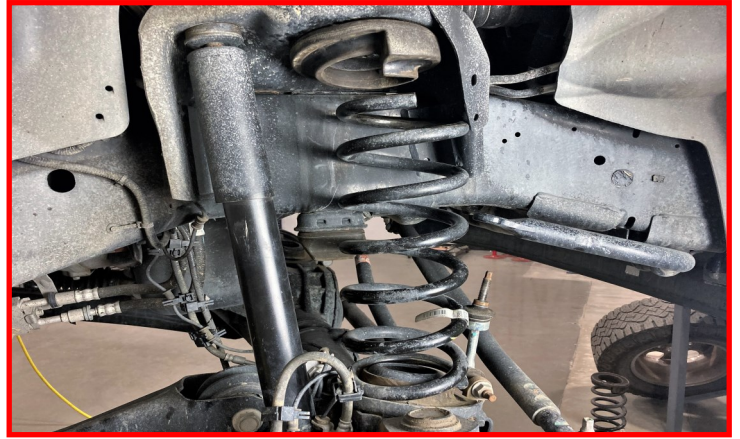
Install the provided extended bump stops.

To aid in install, lube the mounting end with a soap and water mix.



The axle should now lower freely.

Lower the axle enough to remove the factory spring.



Remove the **factory spring isolator**.

It will be held into the frame by a locating tab on the isolator.



Using the supplied drill template, align the corresponding hole with the correct side. "D" will line up with the factory driver side hole and the "P" will line up with the passenger side hole.



Using a marker or paint marker, Mark the location of the small hole. This is to be where you will drill the new mounting hole.





Center punch the marks and using an appropriate tool, drill the 1/2" holes through the spring tower.

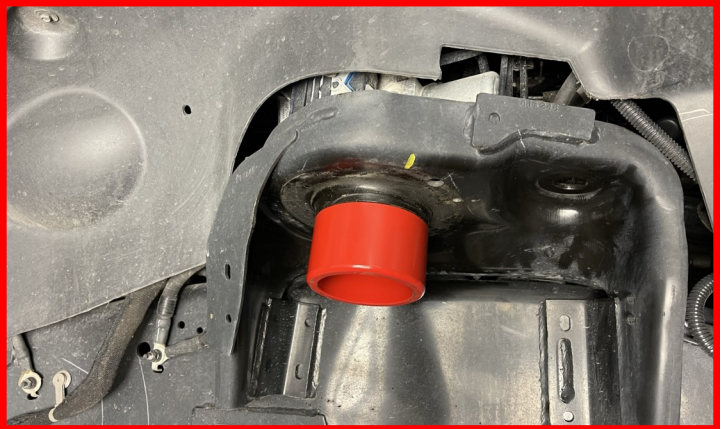
Paint the cut surface to prevent any corrosion.

**NOTE: USE CAUTION WHEN DRILLING THROUGH AS THERE ARE VITAL SAFETY SYSTEMS ON THE OTHER SIDE THAT CAN BE DAMAGED IF CARE ISN'T TAKEN WHILE DRILLING.**



Using thread locker install the (3) supplied 5/16" bolt from the inside out on the supplied spring isolator retainer.

Install the supplied spring isolator retainer into the factory isolator boss.



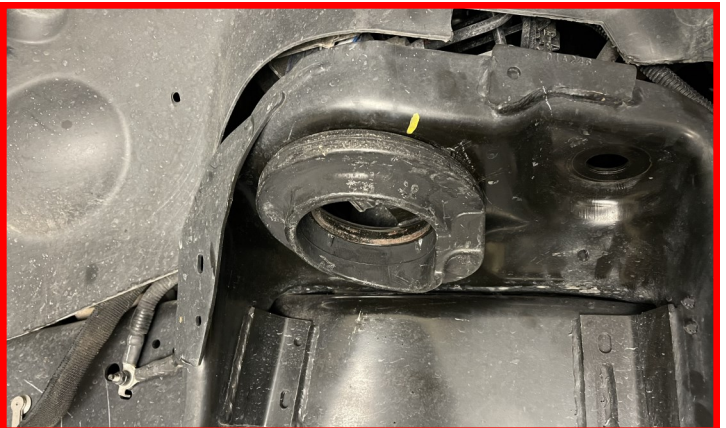
Tighten the (3) 5/16" bolts until tight.

Torque the bolts to **35 ft-lbs.**



Install spring isolator over the retainer, ensure the alignment tab is installed into new clocking hole.

**NOTE: FOR CLARIFICATION PURPOSES THE SPRING ISOLATOR RETAINER IS NOT SHOWN IN PHOTO.**



Install the **provided coil springs** with factory isolators on top. Make sure the isolator is positioned on the flat end of the coil spring. Lower the axle low enough to set both springs in place.



Remove upper mounting hardware from the front Falcon shock.



Install the anti-rotation bracket onto the body cap.



Install the bottom stem bushing, this will ensure the anti-rotation bracket stays in place.





Install damper assembly into the vehicle.

Ensure the damper face straight out toward the wheel well.



Install the **Falcon front shock** into the upper frame mount using the **provided hardware**.

Torque to 60 ft-lbs



You will now be able to reinstall the sway bar end link while lifting the axle into place.

Make sure to align the springs with each spring perch as you go up.

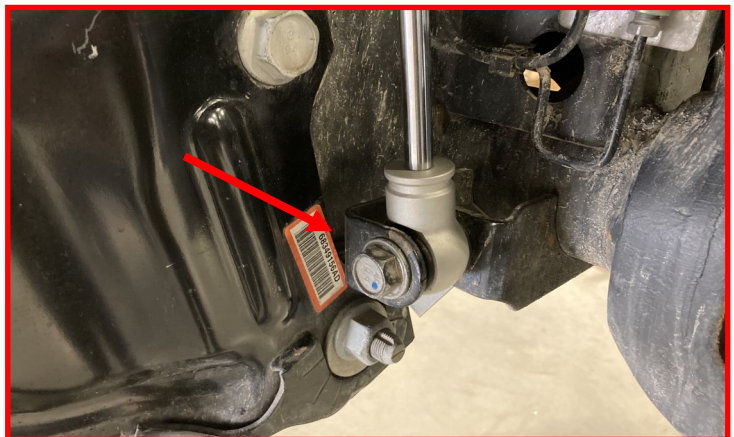
Install the **(2) 18mm sway bar end link nut**.

Torque to 50 ft-lbs.



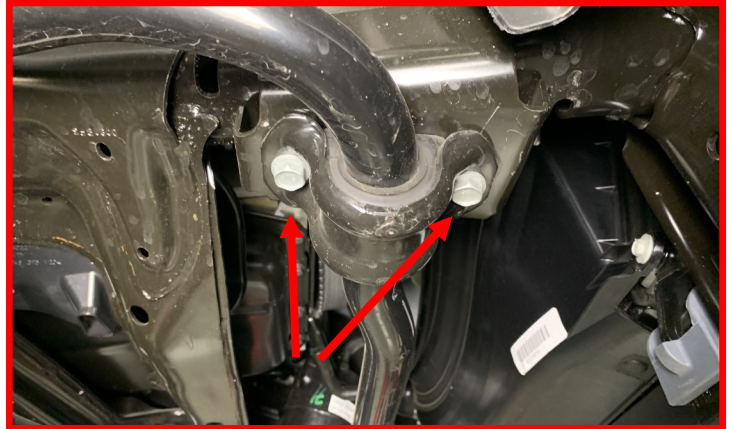
Install the **Falcon front shock** lower mount to the axle mount using the **factory hardware**.

Do not tighten at this time.



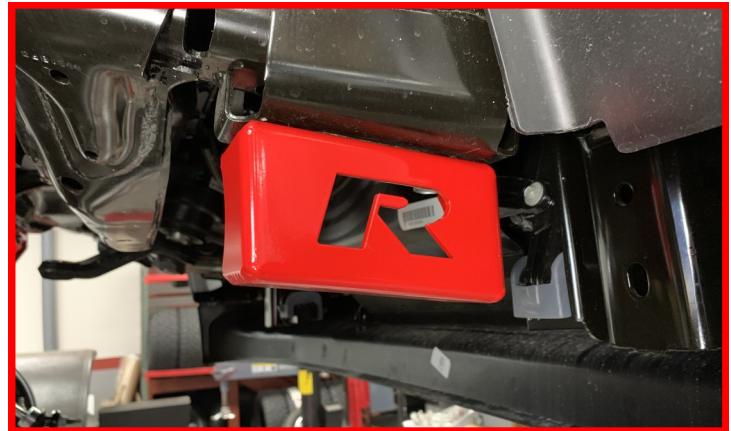


Remove the (4) sway bar bracket bolts and let the sway bar hang out of the way.



Install the sway bar drop brackets to the frame using the factory hardware.

Note: You should be able to read the ReadyLift R from either side of the vehicle normally.



Install the sway bar to the drop brackets using the provided 7/16" hardware.

Torque factory hardware to 50 ft-lbs.

Torque the 7/16" hardware to 50 ft-lbs.



Install provided brake line extensions to the frame brake line brackets using the provided 5/16" hardware. Do not tighten at this time.

Attach provided extension bracket to the inside frame rail using the factory hardware. It will be necessary to gently pull down and bend the metal brake line on the driver side to gain the slack needed.



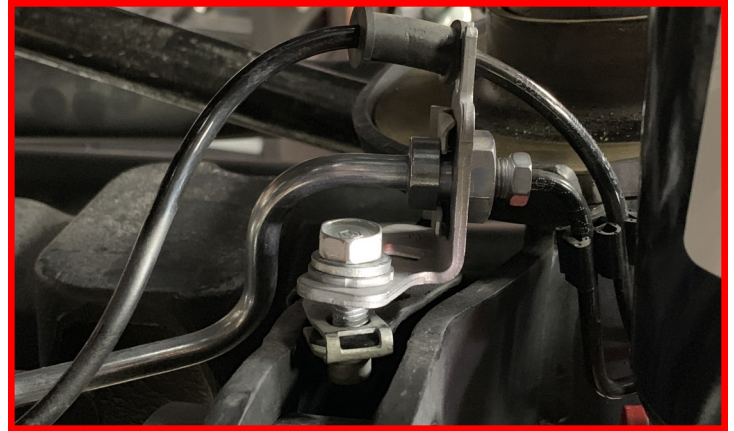
The passenger side bracket will angle around the frame gusset.

Torque to 15 ft-lbs.



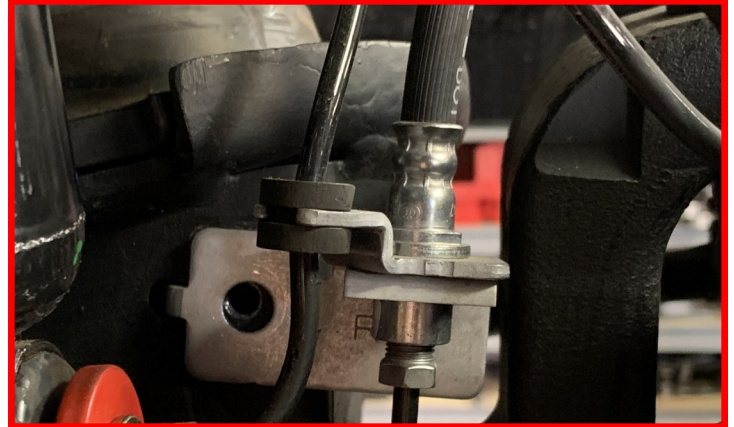
Install the (2) ABS sensor harness and brake line brackets to the radius arm using factory hardware.

Torque 10 ft-lbs.



Install the (2) ABS brackets to the axle using factory hardware.

Torque 10 ft-lbs.





**\*\*\*Parts shown in red for picture clarification only\*\*\***

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.

Disconnect the vehicle power source at the ground terminal on the battery.

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

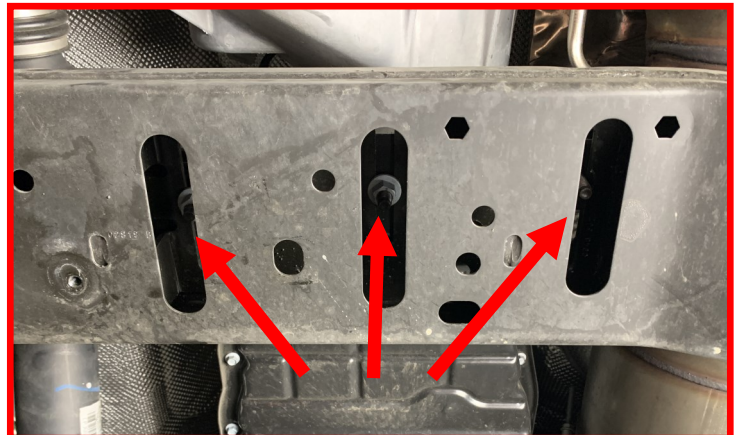
Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

## **Clocking Ring and Transmission Crossmember Installation**

Using a suitable jack, support the transfer case. Allow yourself ample room around the front of the transfer case to ensure you have room to access hardware and harnesses.



With the transfer case supported, locate the (3) **transmission mounting nuts**.



Remove the (3) transmission mounting nuts.

**Retain factory hardware.**

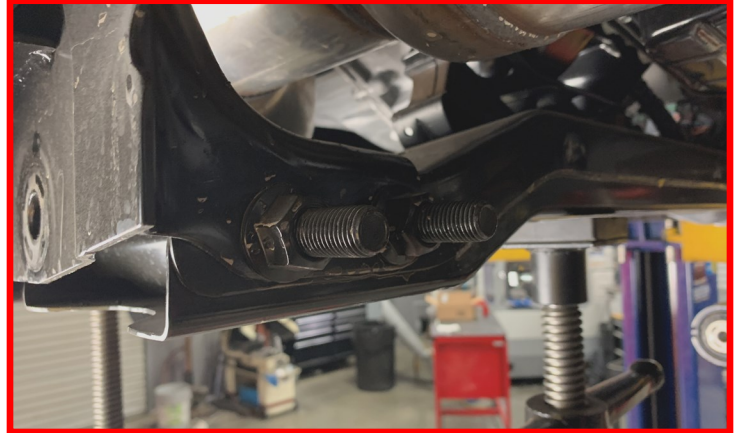


Remove the harness mounting clips attached to the front of the transmission crossmember.



Support the transmission crossmember with a suitable jack stand. Working on one side at a time, Loosen and remove two transmission crossmember bolts.

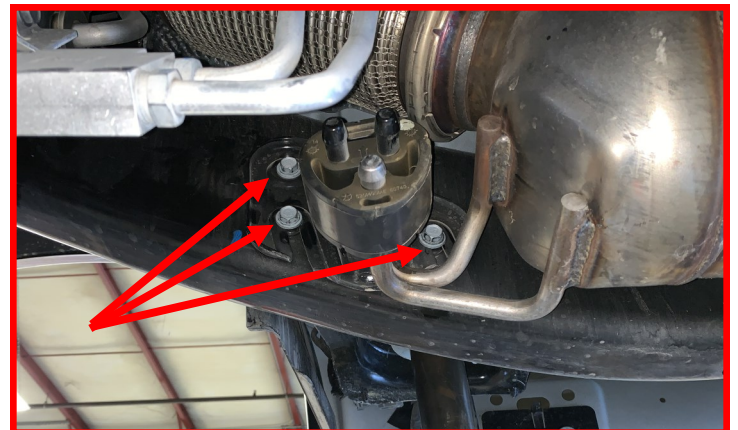
**Retain factory hardware.**



Note: For the vehicles that have their passenger crossmember bolts facing the wrong way from factory follow the next seven steps. If not then skip the next few steps.

Remove the (3) front exhaust hanger mounting bolts.

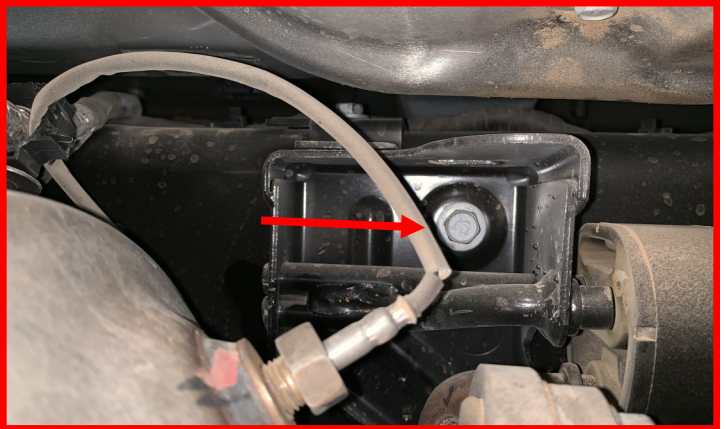
**Retain factory hardware.**





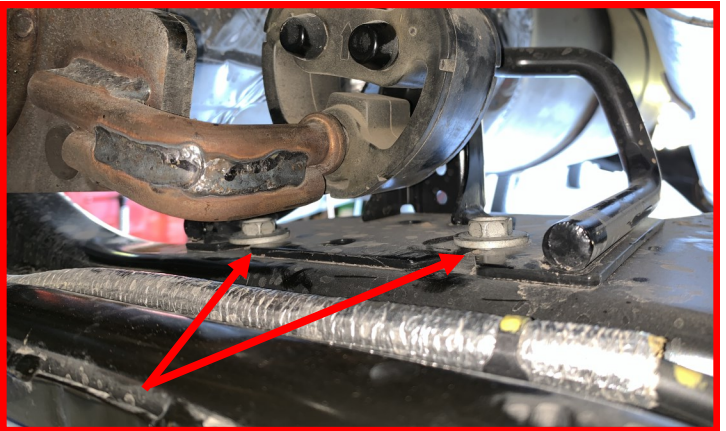
Remove the (2) center exhaust hanger mounting bolts.

**Retain factory hardware.**



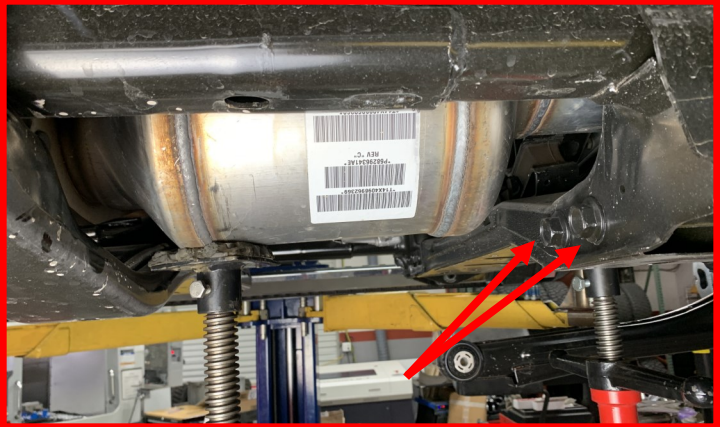
Remove the (2) Diesel Exhaust Fluid (DEF) tank crossmember exhaust hanger mounting bolts.

**Retain factory hardware.**



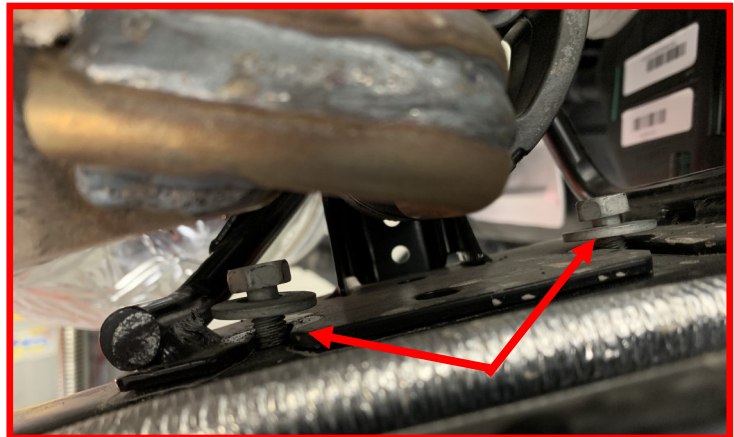
Raise the DPF with a suitable jack and remove the (2) passenger transmission crossmember bolts.

**Retain factory hardware.**



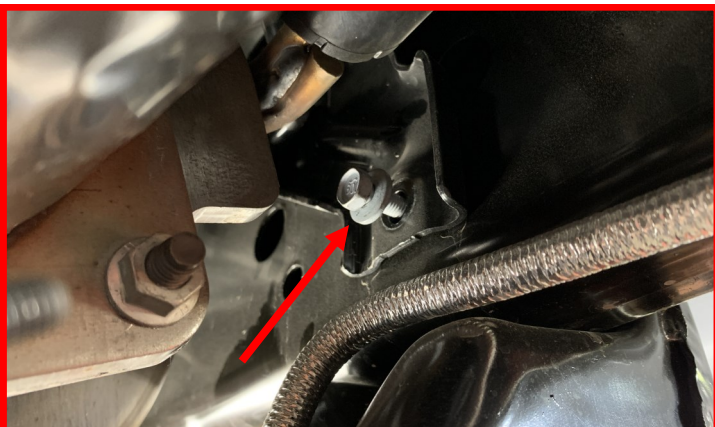
Lower jack and install the (2) Diesel Exhaust Fluid (DEF) tank crossmember exhaust hanger bolts.

Torque to 15 ft-lbs.



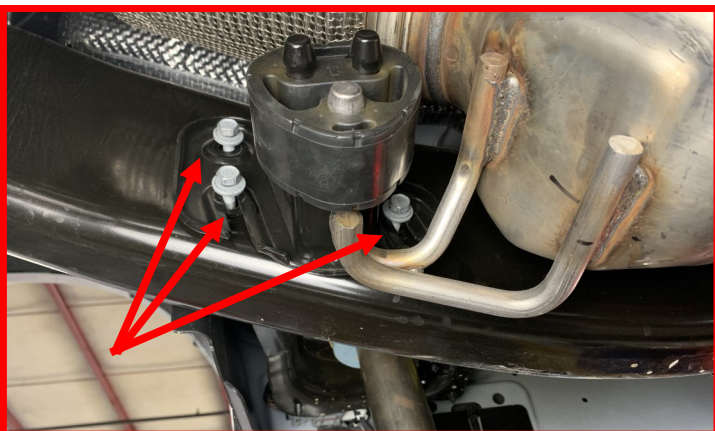
Install the (2) center exhaust hanger mounting bolts.

Torque to 20 ft-lbs.



Install the (3) front exhaust hanger mounting bolts.

Torque to 20 ft-lbs.



Make sure that the factory radius arm bolt is still loose to aid in the removal of the transmission crossmember.



Remove the (4) transmission crossmember bolts and retain factory hardware.

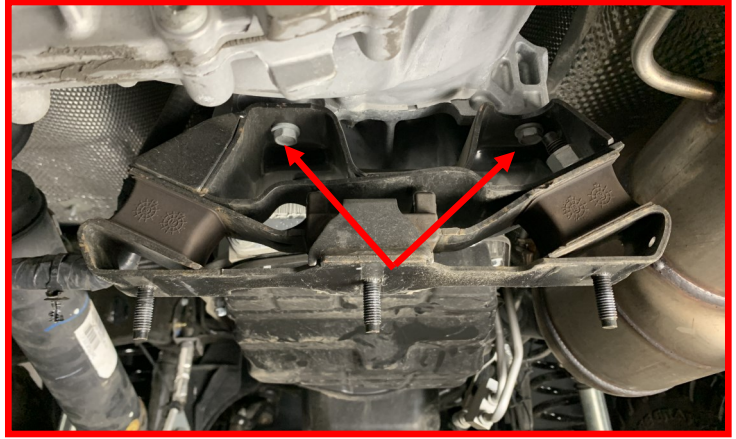
Ensure all transmission crossmember hardware or harnesses are clear and remove the transmission crossmember.





The transmission mount is attached with **(4) bolts**. Remove the **(2) bolts** located at the rear of the mount.

**Retain factory hardware.**



The remaining **(2) bolts** are located at the front of the mount. Remove the **(2) bolts** and remove the mount.

**Retain factory hardware.**

**Note:** Removing the transmission mount isn't necessary but it will allow additional room to access other components.



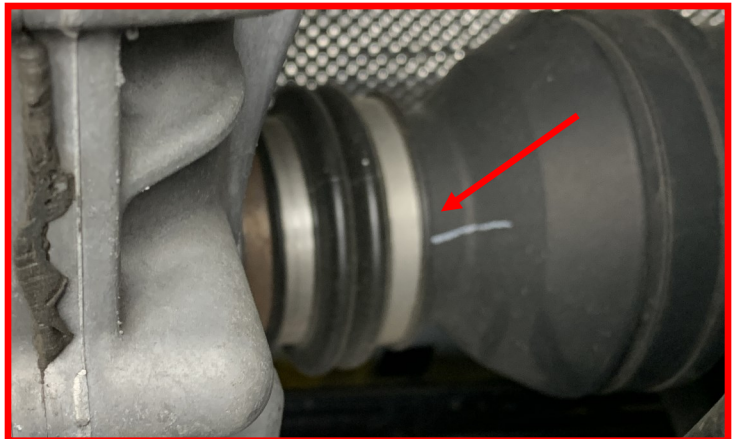
Mark the driveshaft to pinion flange location. Remove the **front driveshaft hardware from the flange**. Let hang out of the way.

**Retain factory hardware.**



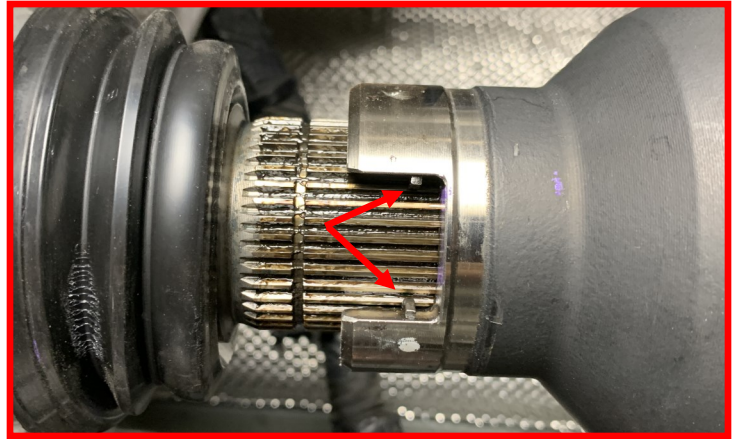
Carefully remove the **larger clamp on the front driveline dust boot**. Slide the boot back to gain access to the retaining clip.

**Retain factory hardware.**



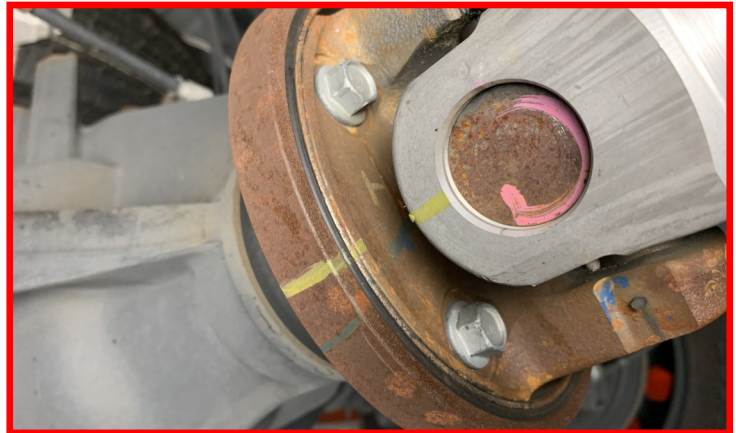


Using the appropriate pliers, spread open the retaining clip and slide the front driveline off the splines.



Mark the rear driveshaft to pinion flange location. Remove the **rear driveshaft hardware from the flange**. Let hang out of the way.

**Retain factory hardware.**



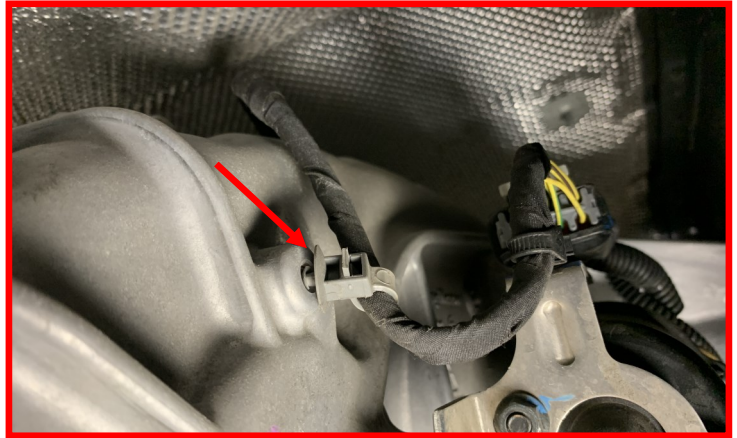
To remove the rear driveshaft, carefully slide the slip yoke out of the tail shaft housing on the transfer case. Take care not to damage the slip yoke or tail shaft boot when handling the driveshaft.



Remove the **connector** on the transfer case shift solenoid.



Remove the **transfer case harness retaining clip** on the rear of the transfer case.



Remove the **transfer case harness retaining clip** located on the top of the transfer case.



Using a suitable jack, support the transmission.

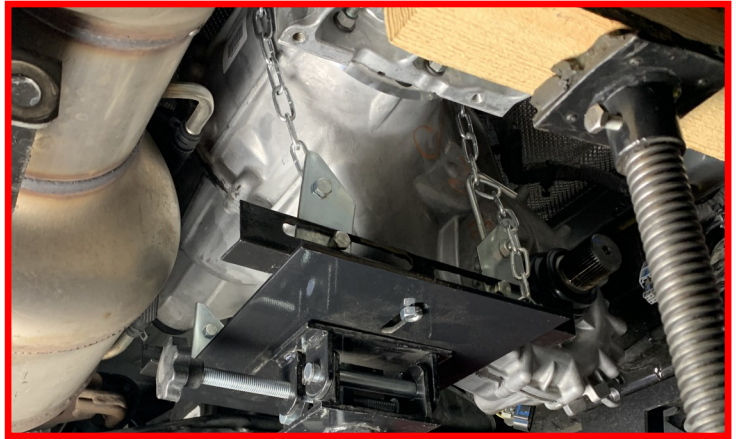


Ensure the transfer case is free of any other harness clips and the harnesses are not wrapped, hung on or caught on any part of the transfer case.



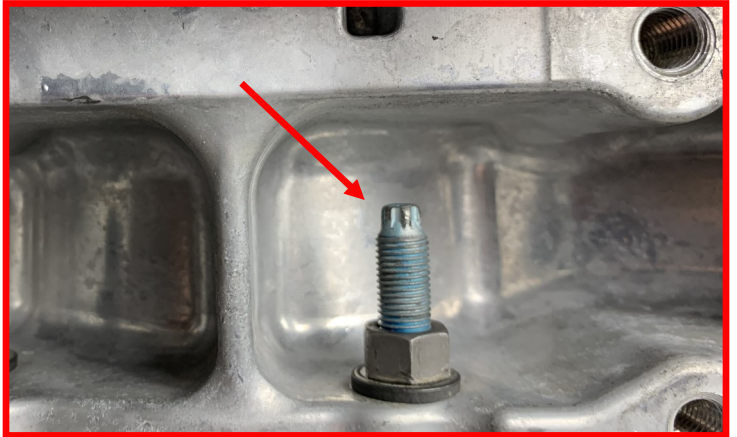


Using a suitable jack, support the transfer case.



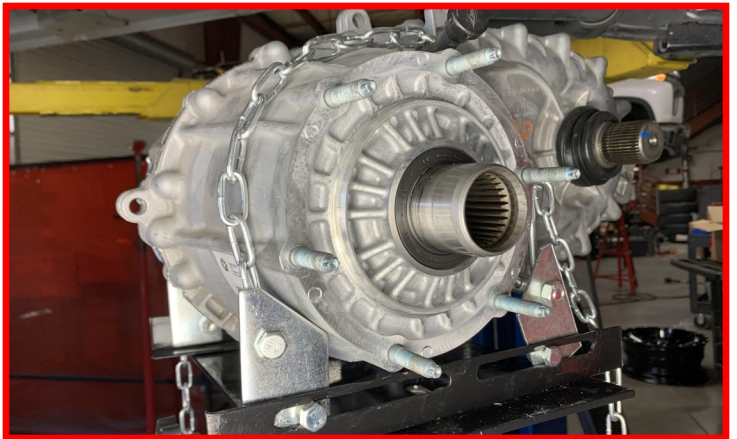
Remove the (8) transfer case mounting nuts.

**Retain factory hardware.**



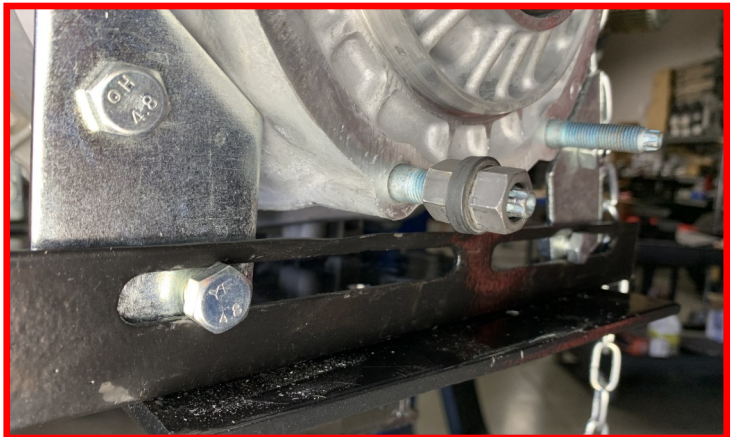
Carefully remove the transfer case.

If a transmission jack isn't present it is highly suggested that helpers are available to help remove the transfer case from the vehicle.

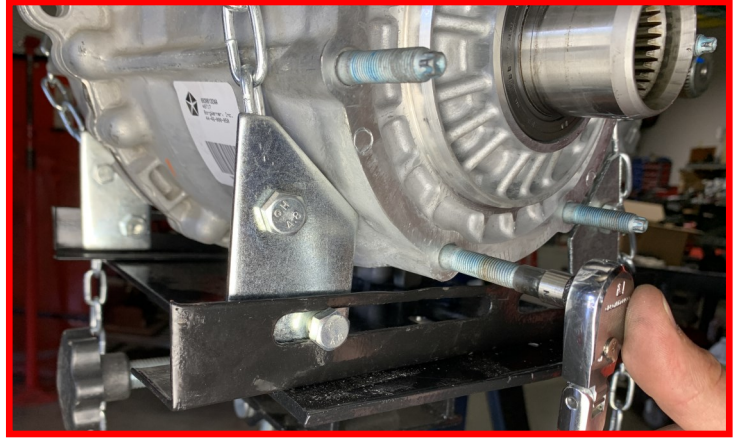


Once the transfer case is removed from vehicle, remove the factory mounting studs. There are two ways to remove the studs.

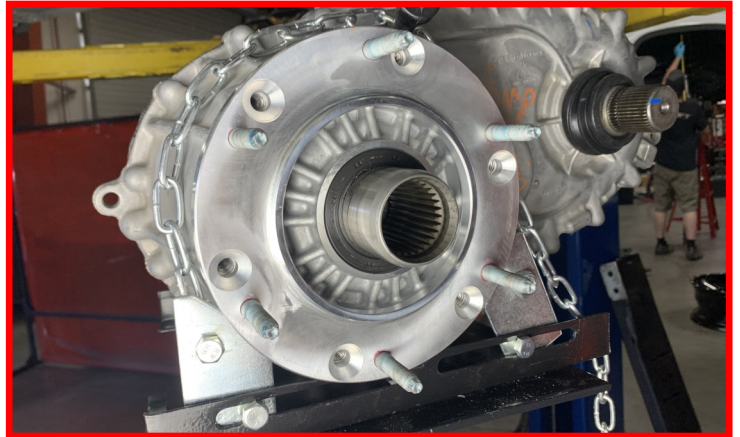
Option 1: Double nut the stud by tightening the nuts together and backing the inner nut out. This will unthread the stud.



Option 2: Using the splines and an appropriate socket, unthread the stud.

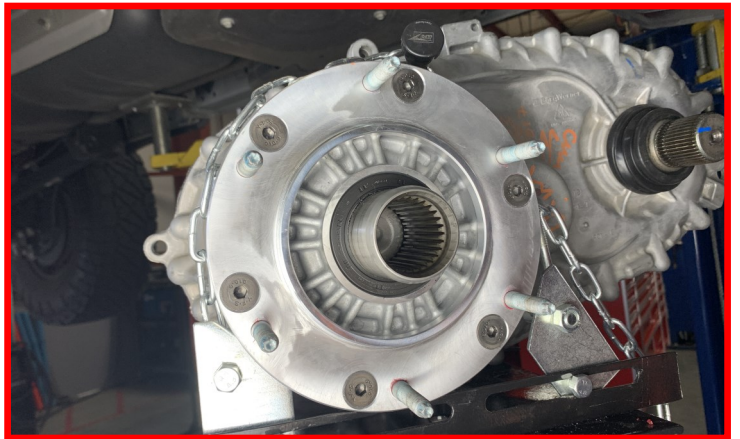


Install the **supplied transfer clocking ring**. It may be necessary to rotate the ring until all the mounting holes align.



Install the supplied **M10 flat head bolts** using thread locker.

Torque to the bolts **40 ft-lbs.**



Install the **transfer case**.

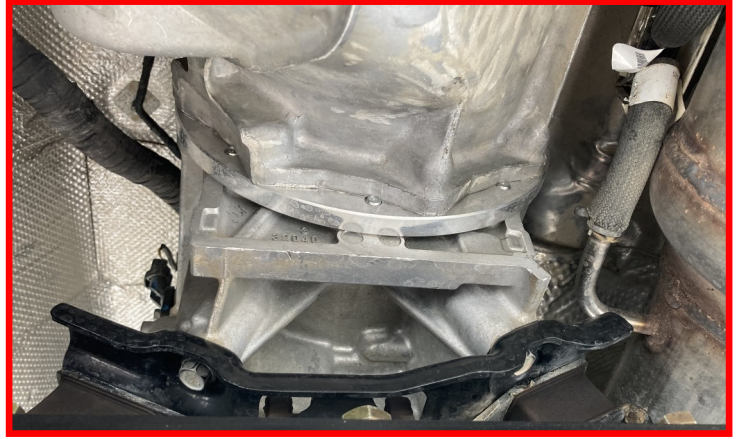
**Note:** Ensure the mounting surfaces are clear of dirt/debris and there isn't any harnesses hanging between the transmission and the transfer case.





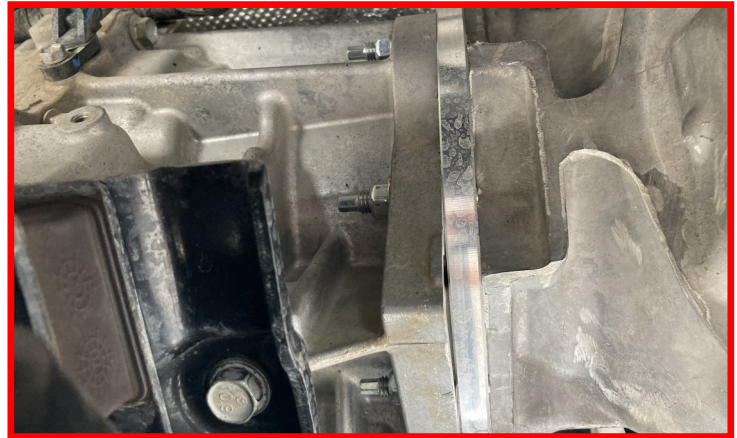
Install the **transfer case**. It may be necessary to rotate the shaft on the front of the transfer case to match the spline pattern for the back of the transmission.

**Note:** Ensure the mounting surfaces are clear of dirt/debris and there isn't any harnesses hanging between the transmission and the transfer case.

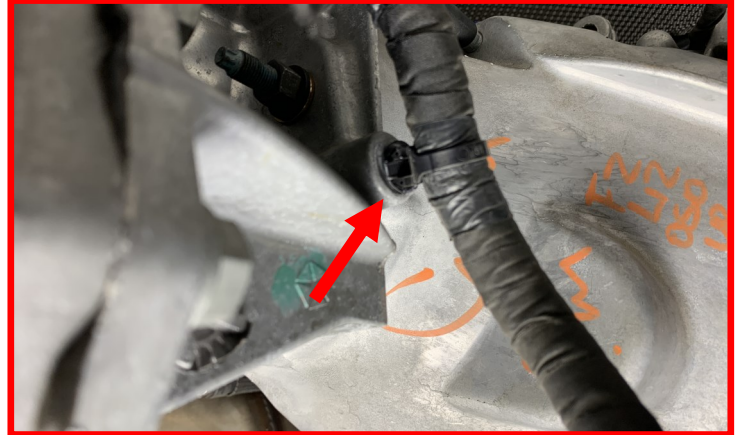


With the transfer case installed and mated back to the transmission, install the **(8) provided nuts and washers**.

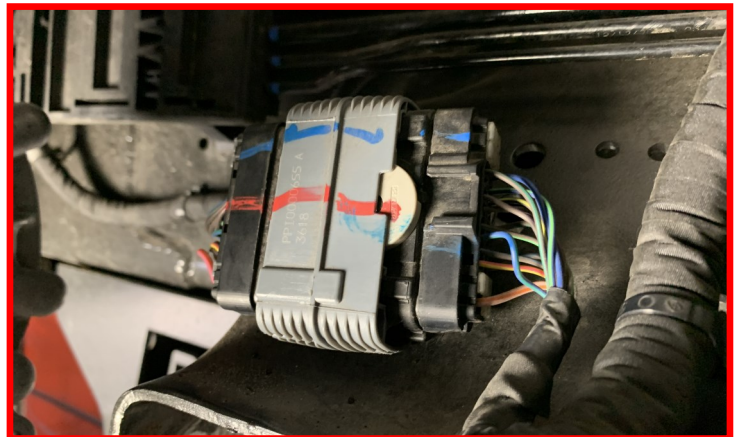
Torque the nuts to 40 ft-lbs.



Remove the **transfer case harness clip** that is located on the driver side of the transmission.

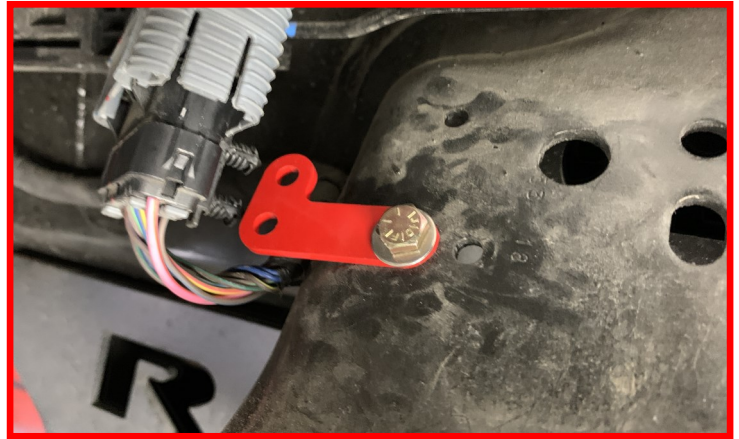


Remove the **harness connection** from the driver side transmission crossmember mounting.



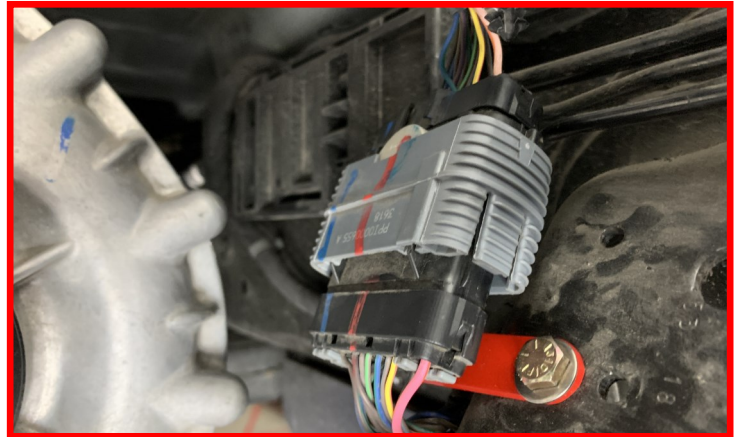
With the connector out of the way, install the **connector relocation bracket** using the provided **M6 hardware**.

Do not fully tighten at this time.



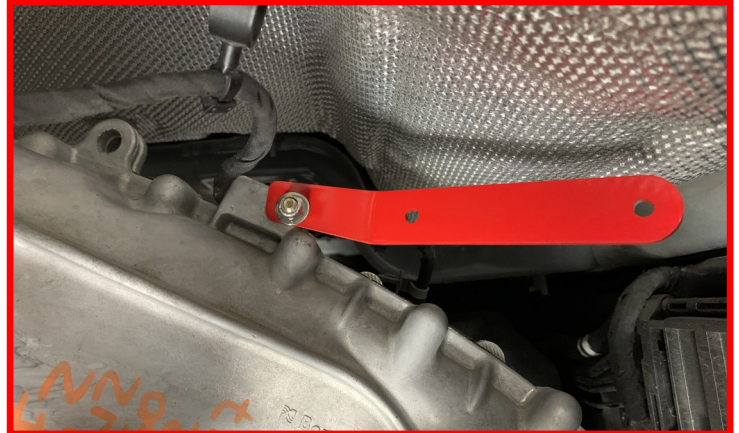
Install the **harness connector** onto the relocation bracket.

Torque to 15 ft-lbs.



Install the **harness relocation bracket** using the provided **M6 hardware** into the hole that the retaining clip was removed from.

Do not fully tighten at this time.



Install the harness that was attached to the top of the transmission crossmember onto the harness relocation bracket.

Torque to 15 ft-lbs.

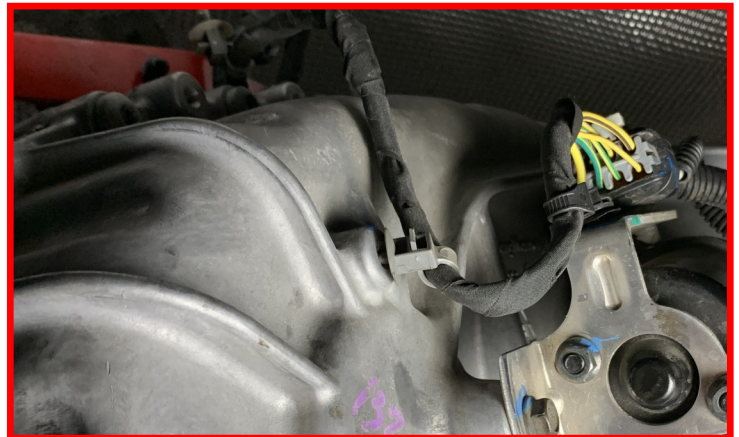




Install the transfer case shift solenoid connector.



Install the transfer case harness retaining clip on the rear of the transfer case.

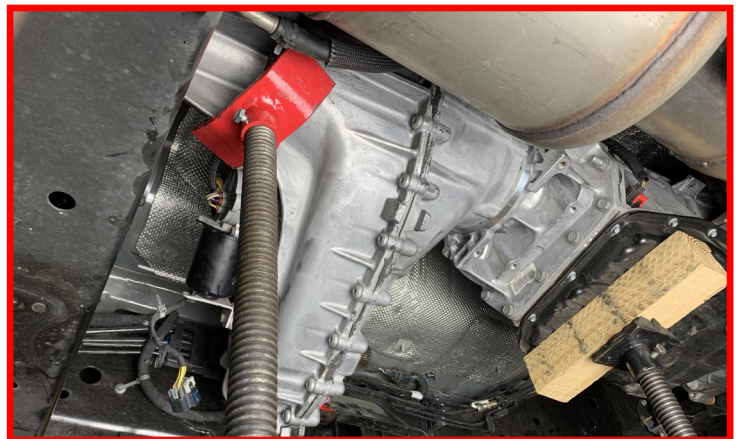


Install the transfer case harness retaining clip located on the top of the transfer case.



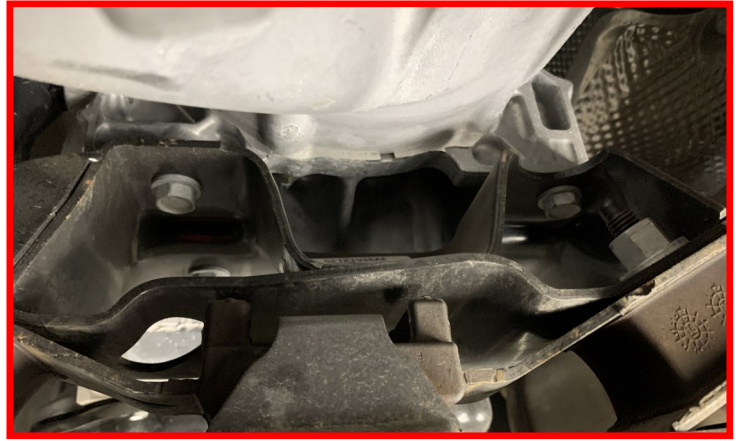
Using a suitable jack, support the transfer case again. Be sure to allow yourself ample room around the transfer case.

With the transfer case supported, remove the transmission support.



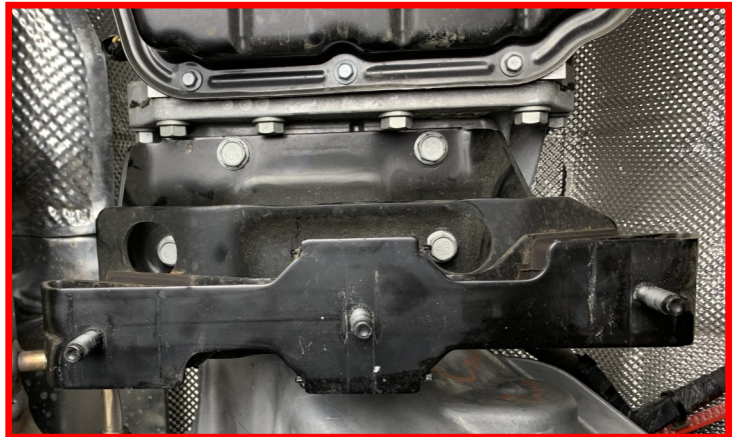


Install the **transmission mount** using the **(4) factory bolts**.



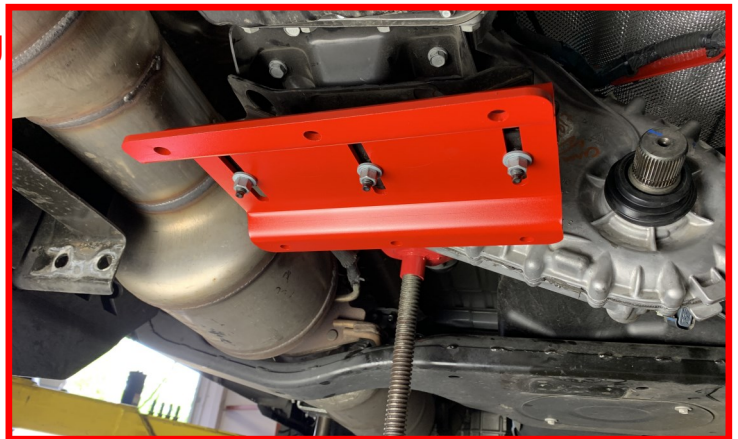
Tighten the **transmission mount bolts**.

Torque the hardware to 40 ft-lbs.



Install the **provided transmission mounting plate** using the **(3) factory transmission mount nuts**.

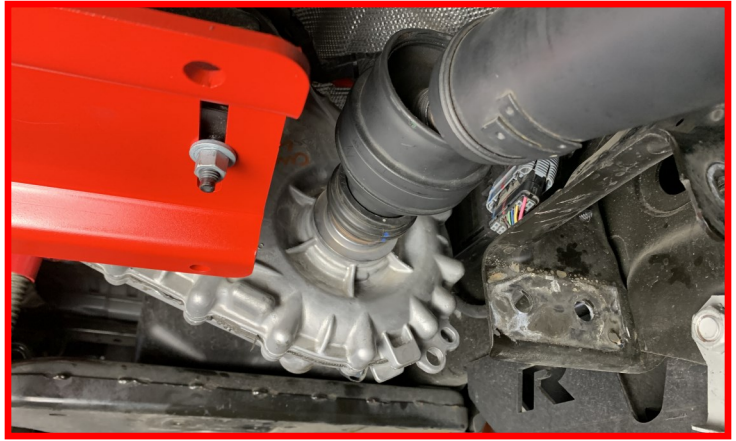
Do not tighten at this time.



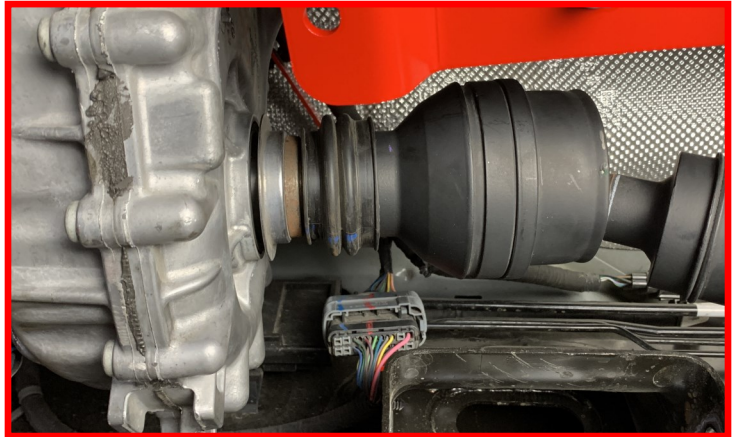
Ensure that the **provided crossmember mount** is installed with the slope facing towards the rear of the vehicle.



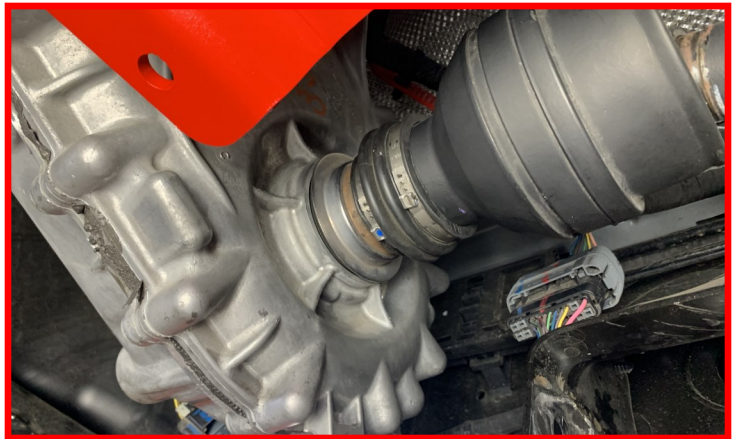
Install the **front driveline** onto the transfer case. Ensure the retaining clip is fully seated.



Slide the **dust boot** back over the front output splines.



Install the **provided clamp** onto the dust boot and joint housing.

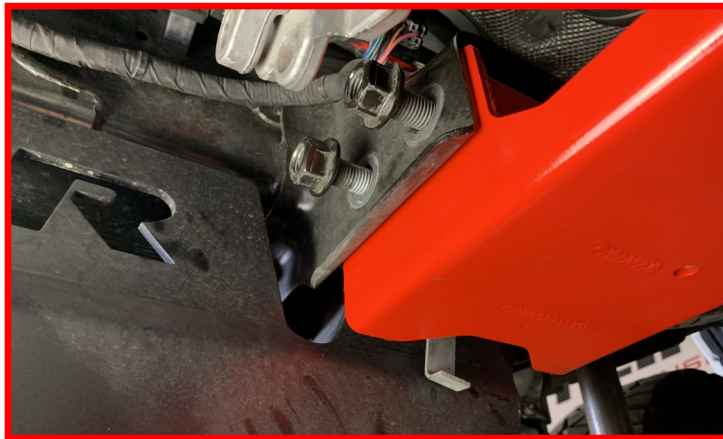


Install the **provided transmission crossmember**.

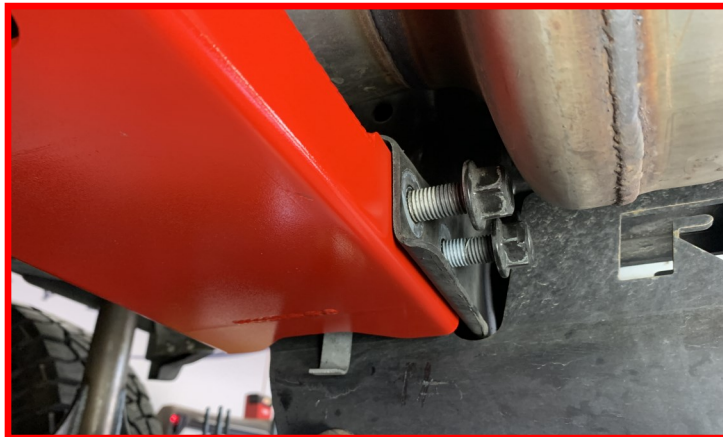




Using the **factory transmission crossmember hardware**, install the driver side bolts from front to rear.

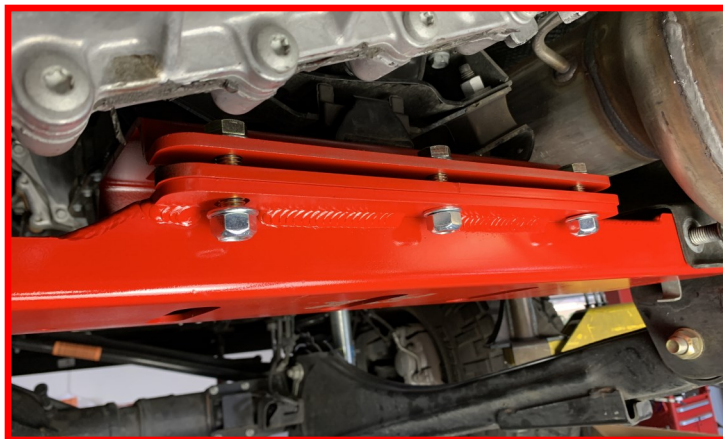


Using the **factory hardware bolts** install the passenger side bolts from front to rear to avoid hitting the DPF. This will also aid in removal if service needs to be performed.



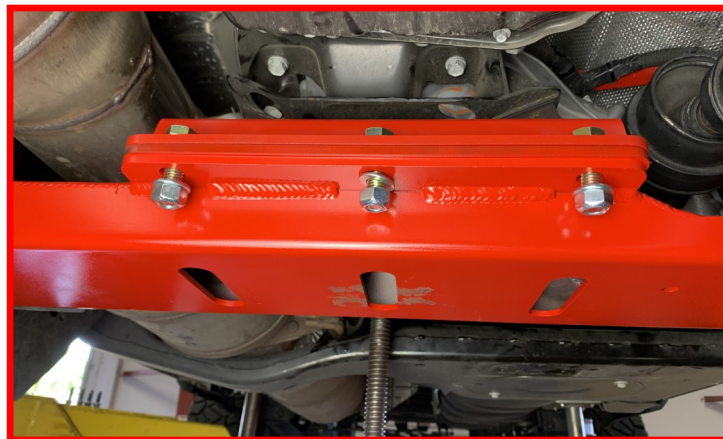
Torque the crossmember bolts to 130 ft-lbs.

Install (3) provided **M12 bolts**, (3) **locking nuts** and, (6) **flat washers** through the rear holes on the **transmission mounting plate**, **mounting plate spacer** and the **transmission crossmember**.



Do not tighten at this time.

Install (3) provided **M12 bolts**, (3) **locking nuts** and, (6) **flat washers** through the front holes on the **transmission mounting plate**, **mounting plate spacer** and the **transmission crossmember**. Lower the transmission down on top of the mount.



Torque the M12 hardware to 80 ft-lbs.

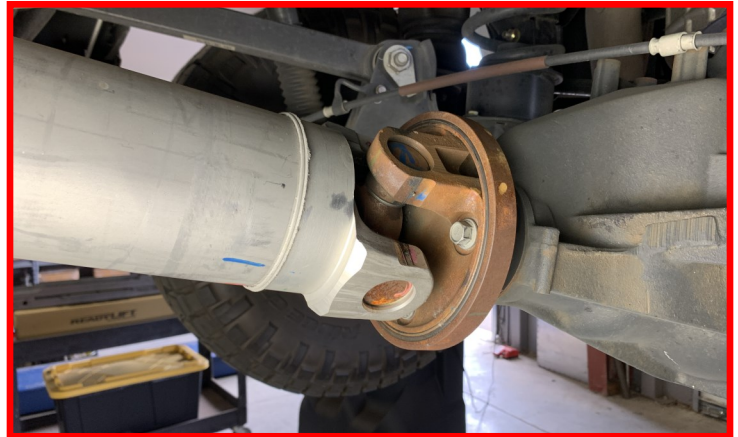
Torque the (3) transmission mounting nuts to 35 ft-lbs.

Install the **rear driveshaft** into the tail shaft housing in the transfer case.



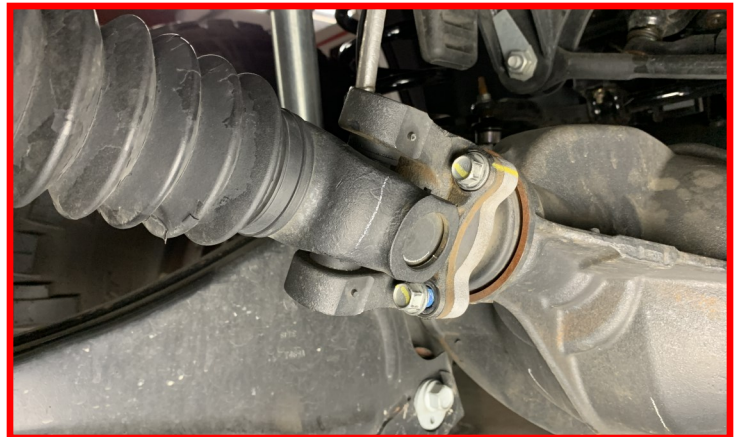
Install the **rear driveshaft to the pinion flange** lining up the previous marks using the **factory hardware and thread locker**.

Torque the bolts to 35 ft-lbs.



Using the **factory hardware and thread locker**, install the **drive shaft to the pinion flange** lining up the previous marks.

Torque the bolts to 35 ft-lbs.



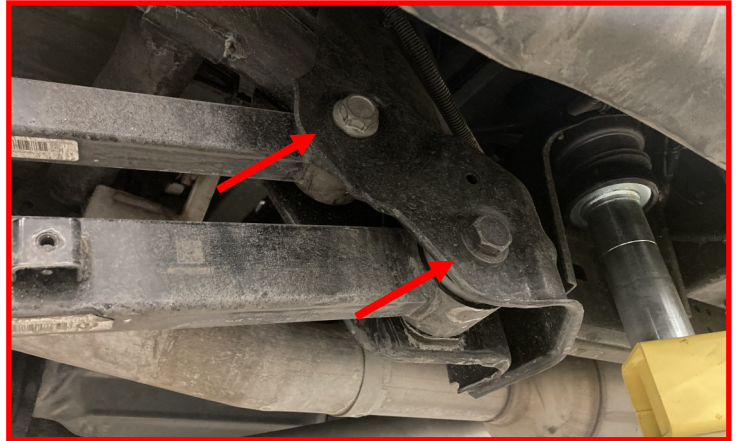


## Rear Installation

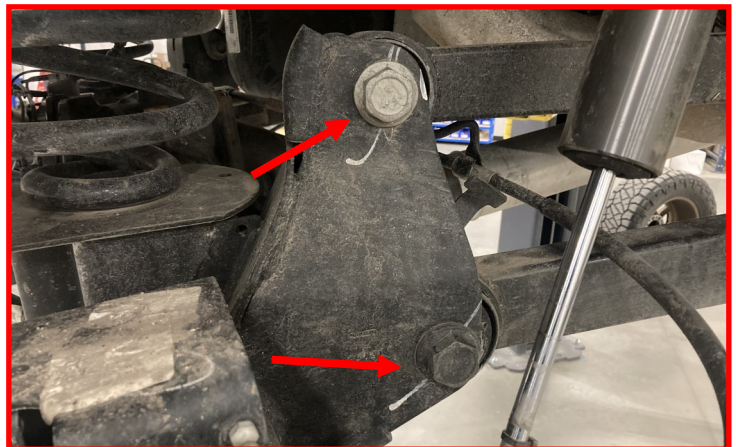
If the vehicle is not on a lift and already in the air then choke the front wheels for safety and raise the rear of the vehicle. Place jack stand under the frame rails in front of the rear lower control arm links.

Place a jack under the axle for support. Remove the rear wheels.

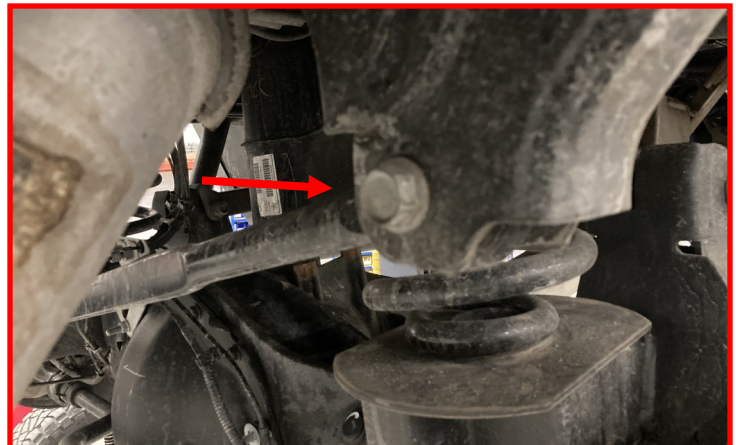
Support the rear axle and loosen the (4) **frame side control arm bolts**.



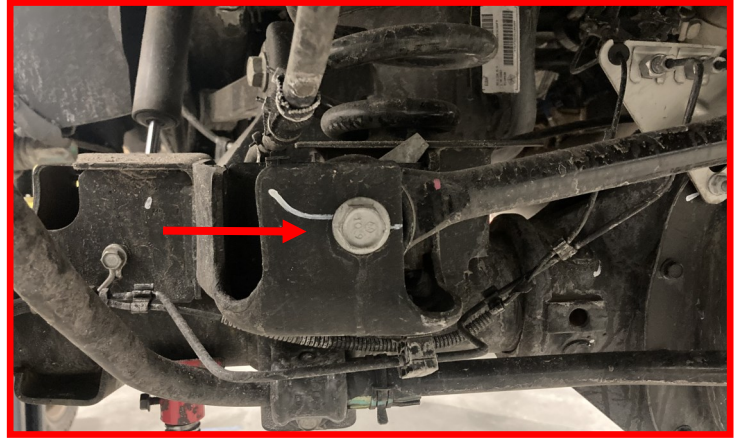
Loosen the (4) **axle side control arm bolts**.



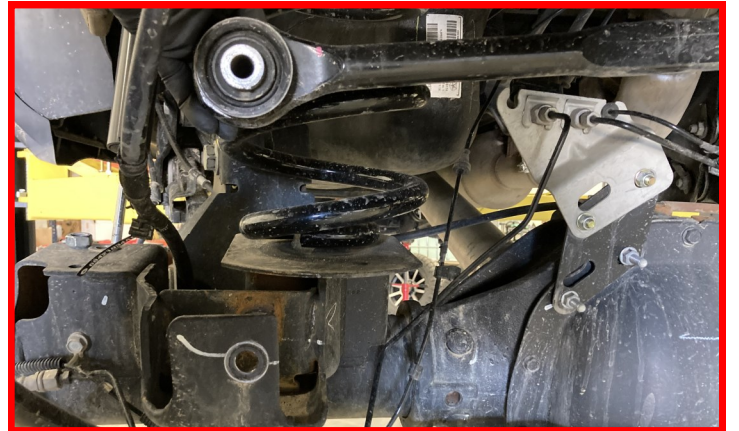
Loosen the **rear track bar bolt** at the frame side.



Remove the **rear track bar bolt** at the axle side.

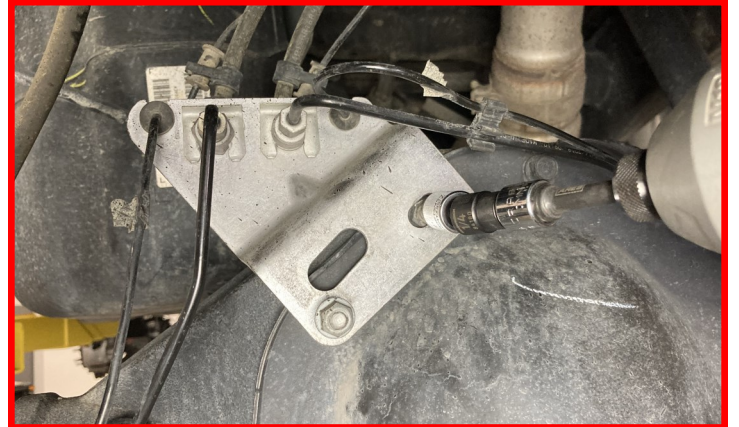


Remove the **rear track bar** from factory bracket.



Remove the rear brake line/ wheel speed sensor bracket.

**Retain factory hardware.**



Remove the **(2) brake line clips** on the back side of the axle.

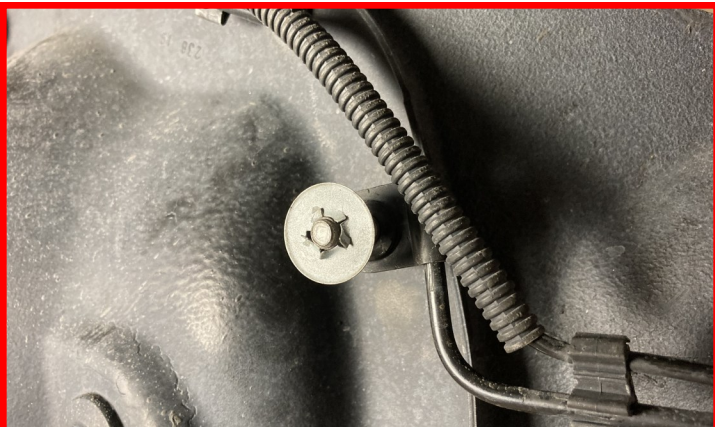
There is one clip on either side of the differential.





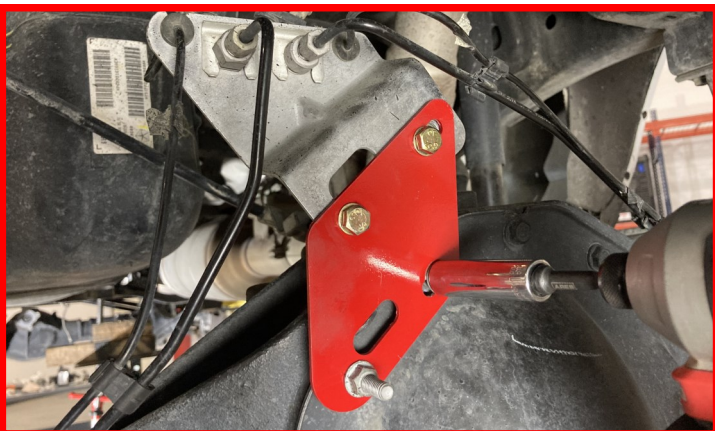
Remove the **brake line twist retainer** on the backside of the differential cover.

It will be necessary to gently pull up and bend the metal brake line side to gain the slack needed to install the provided brake bracket.



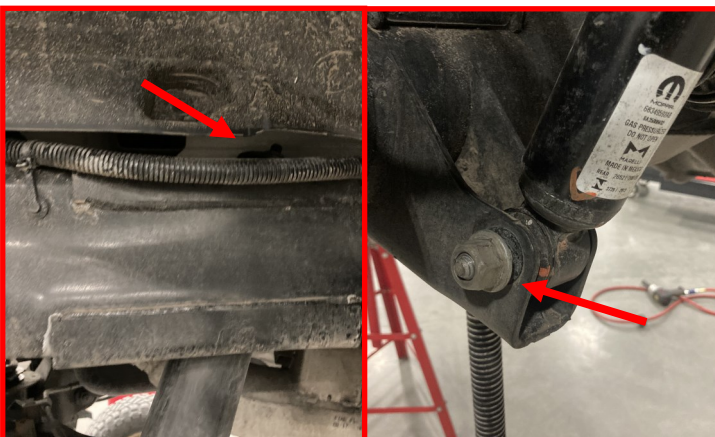
Install the **provided rear brake line bracket extension** using the upper slots to the factory bracket using the **provided M8 hardware**. Torque provided hardware to 20 ft-lbs.

Install the **rear brake line bracket extension** to the differential using the remaining lower slots using the **factory hardware**. Torque factory hardware to 20 ft-lbs.



Remove the **factory rear shocks** upper and lower mounting hardware.

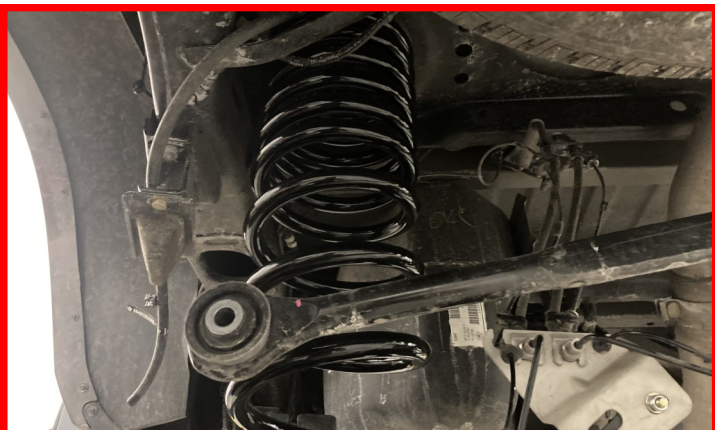
**Retain factory lower hardware.**



Lower the axle down until you have enough room to install the **provided spring**.

Raise the axle seating the isolator and spring to position it for the shock install.

The next step has the correct lower spring orientation.



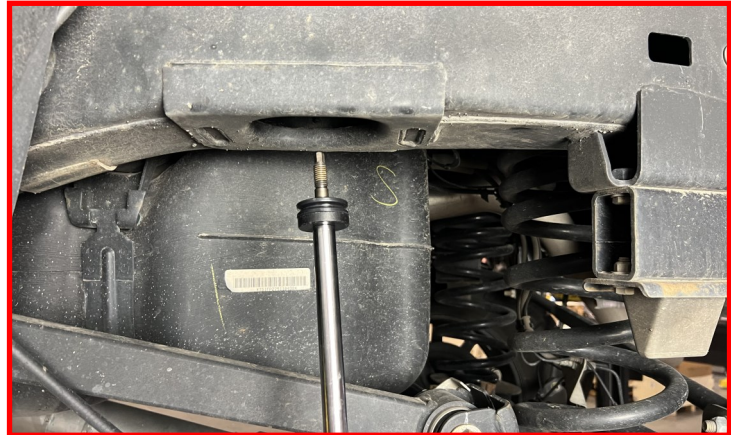


When installing the provided springs orient the flat end of the coil parallel with the sides of the vehicle.



Using the supplied hardware install the provided **Falcon rear shocks** into the upper mounts.

Torque to 60 ft-lbs.



Install the **rear Falcon shocks** into the axle mounts using the factory bolt.



Install the factory nut.

Do not tighten at this time.





Remove the (4) factory bump stop bolts.

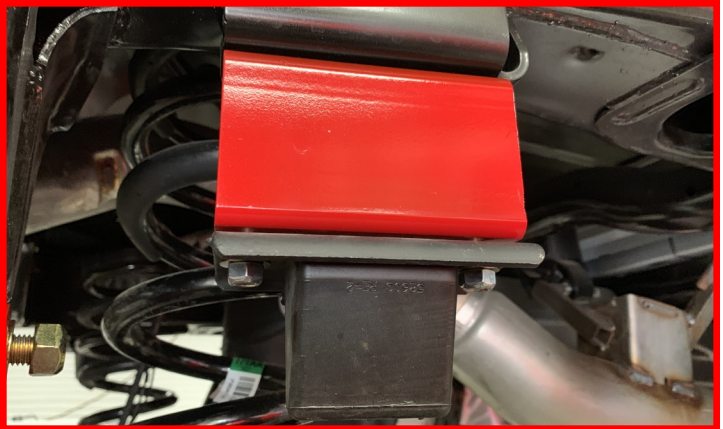
**Retain factory hardware.**



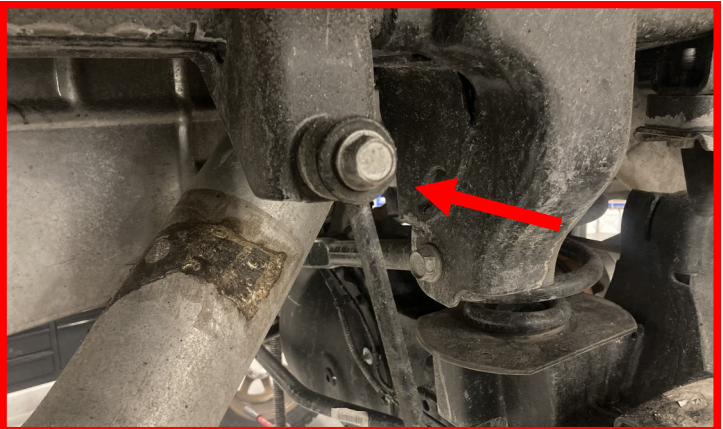
Install the provided bump stop extensions onto the frame using the **factory hardware**.

Install the bump stop to the bump stop extension using **provided 3/8" hardware**.

Torque all hardware to 30 ft-lbs.



Remove the **factory sway bar end link upper hardware**.



Remove the **factory sway bar end link lower hardware**.



Install the **provided sway bar end link** upper using the **provided hardware**.

Torque to 50 ft-lbs.

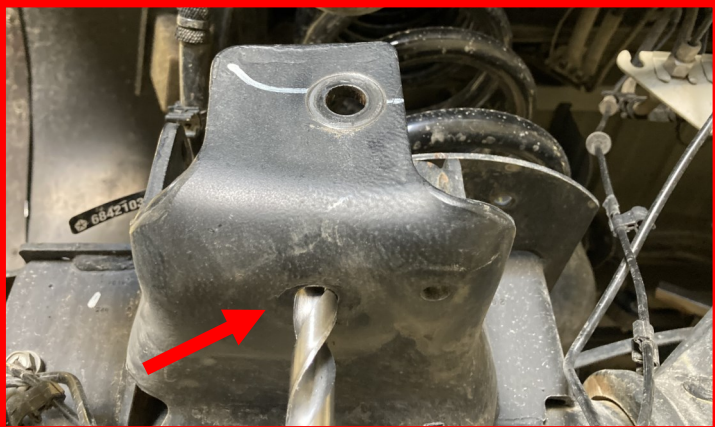


Install the **provided sway bar end link** lower using the **provided hardware**.



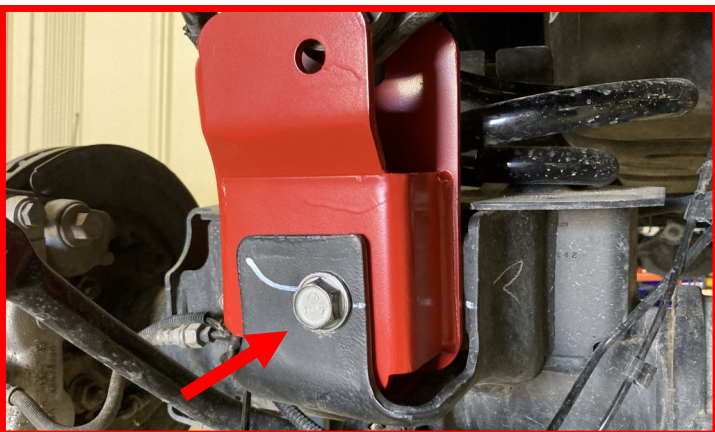
Drill out existing **factory track bar bracket** lower left hole using a 9/16" drill bit.

Paint inside the hole you drilled out as you see fit.



Install the **provided rear track bar bracket** into the factory rear track bar location using the **factory hardware**.

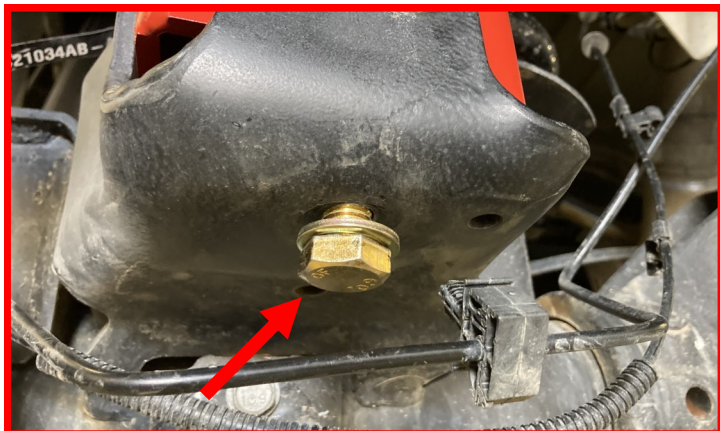
Do not tighten at this time.





Install **provided M14 bolt** into the bottom of the rear track bar bracket.

Do not tighten at this time.

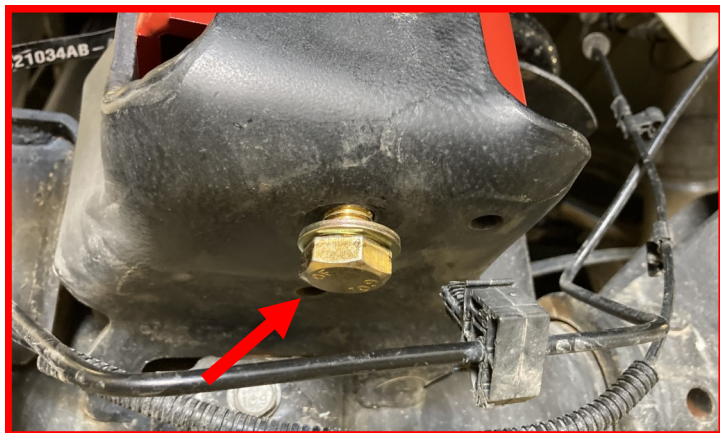


Install the **track bar** into the top hole on the track bar bracket using the **provided M14 bolt**.

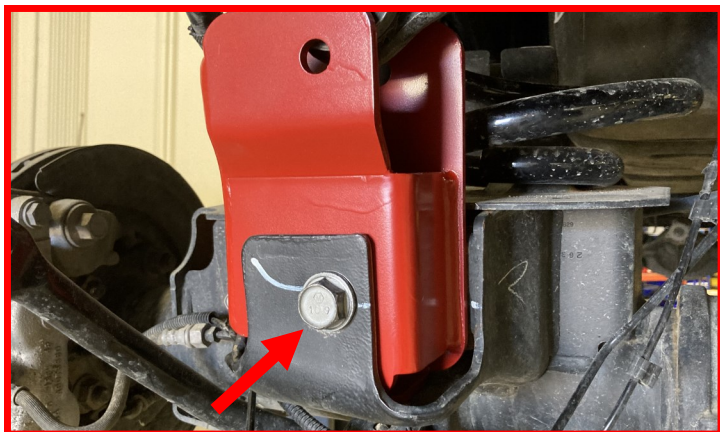
Do not tighten at this time.



Torque lower bolt to 130 ft-lbs.



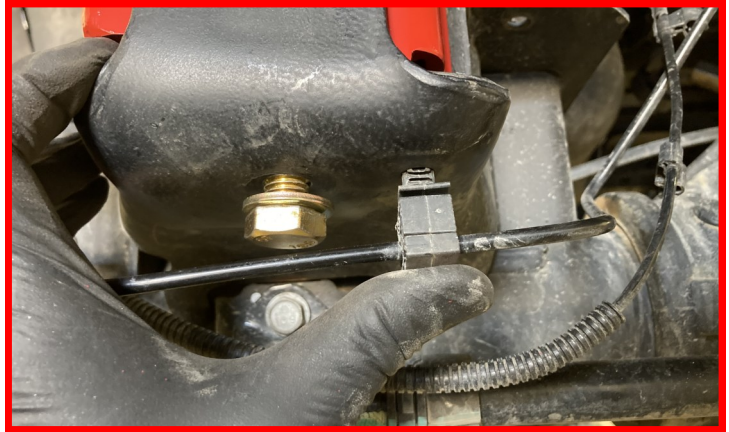
Torque factory bolt to 130 ft-lbs.





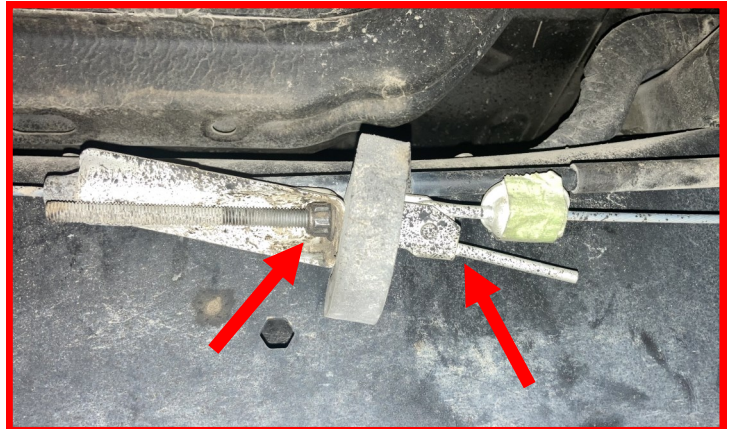
Plug factory brake line retaining plug back in.

You may need to trim the retaining plug slightly to fit in the hole.



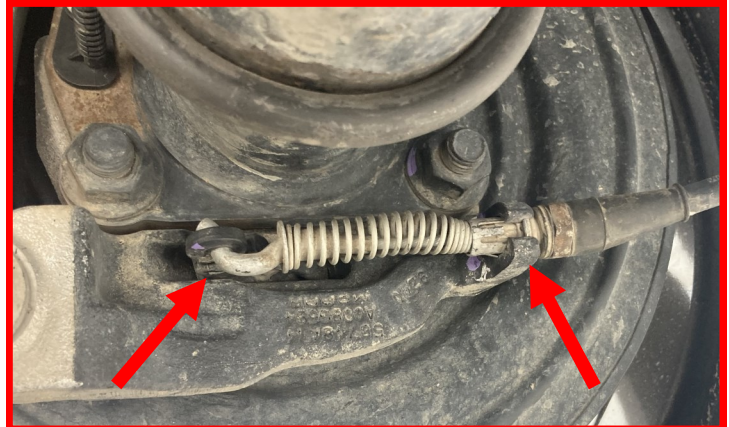
Loosen the e-brake cable nut located on the drivers side frame rail towards the rear of the vehicle.

Use the closed end of a 13 mm wrench and twist the cable attachment point to loosen.



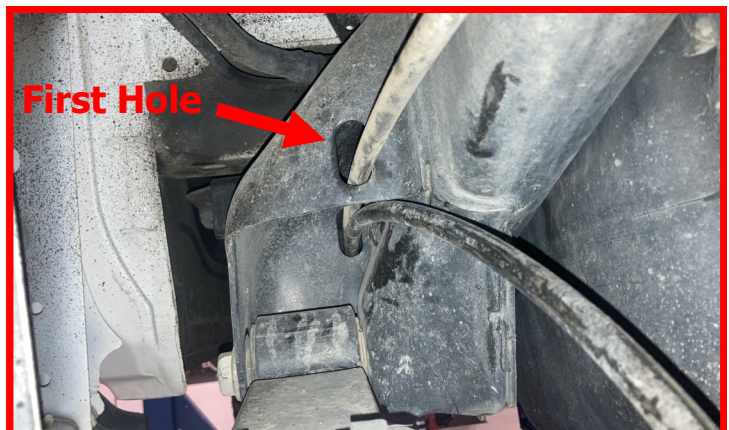
Remove the e-brake cable setup from the back of the rear driver side hub. You will need to unhook the cable hook attachment and also undo the clip that retains the cable housing itself.

You may need to loosen the cable at the tensioner to be able to unhook the cable.



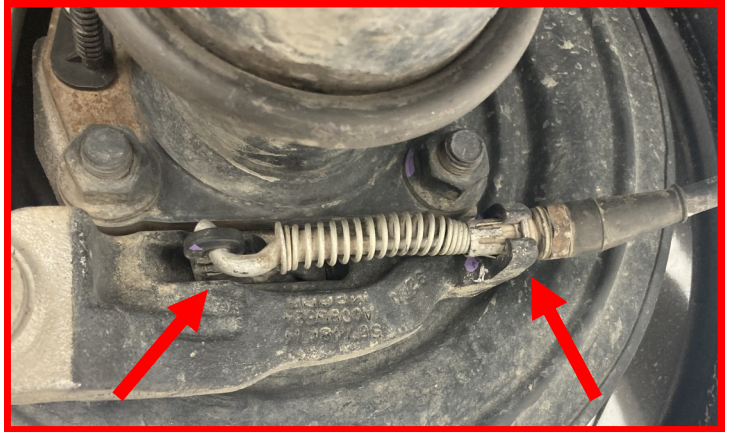
Once the cable is loose you will be able to back-feed the cable through the first frame rail hole you see.

Once through that hole, route the cable underneath the existing hole as shown in the photo to allow the axle to articulate without putting too much tension on the e-brake cable.





Reinstall the **cable housing connector** and then re-attach the **cable hook**.



Tighten the **e-brake adjustment bolt** until you have the correct tension on the cable.



Install the rear wheels.

Lower the vehicle to the ground.

Torque the lug nuts to the wheel manufacturers specs.

Check to make sure that your e-brake functions properly.

Roll the vehicle back and forth a couple of times to let everything settle.

Proceed to Torque Specifications page to tighten all loose components.

## **Final Torque Specifications**

### **Front Installation:**

- (1) Pitman Arm Nut to 250 ft-lbs.      (1) Front Tie Rod to 100 ft-lbs.
- (2) Front track bar bolts to 150 ft-lbs.      (5) Front track bar bracket bolts to 110 ft-lbs.
- (2) Front upper shock bolts to 60 ft-lbs.      (2) Front lower shock bolts to 90 ft-lbs.
- (2) Front sway bar end link nuts to 50 ft-lbs.
- (4) Front sway bar end link drop bolts to 50 ft-lbs.
- (2) Radius arm bolts to 250 ft-lbs.      (4) Brake line extension bolts to 15 ft-lbs.
- (4) ABS/Brake line bolts to 10 ft-lbs.

### **Clocking Ring and Transmission Crossmember Installation:**

- (6) Clocking ring bolts to 40 ft-lbs.      (6) Transfer case stud nuts to 40 ft-lbs.
- (7) Transmission mount bolts to 40 ft-lbs.
- (4) Transmission crossmember bolts to 130 ft-lbs.
- (6) Transmission mounting plate bolts to 80 ft-lbs.
- (4) Harness connector bracket bolts to 15 ft-lbs.
- (8) Front and rear driveshaft bolts to 35 ft-lbs.
- (8) Exhaust hanger bracket bolts to 15 ft-lbs.

### **Rear Installation:**

- (2) Upper shock stem nut to 60 ft-lbs.      (8) Bump stop extension to 30 ft-lbs.
- (2) Lower shock bolts to 90 ft-lbs.      (2) Rear brake extension bolts to 20 ft-lbs.
- (8) Lower Control Arm Bolts to 250 ft-lbs.      (2) Rear track bar bolts to 150 ft-lbs.
- (3) Rear track bar bracket bolts to 130 ft-lbs.





**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.