

# **READYLIFT**<sup>®</sup>

**SUSPENSIONS**

**49-19620 - 2019-UP RAM 3500 HD 6.0" 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](mailto:support@readylift-ami.COM)**

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

	<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**

<b>Components</b>	
Coil Spring, Front	2
5" Front Bump Stop	2
Performance Front Shock	2
Performance Rear Shock	2
Front Track Bar Bracket	1
Driver Sway Bar Drop	1
Passenger Sway Bar Drop	1
Pitman Arm Drop	1
Radius Arm Drop Bracket	2
Radius Bracket Nut Plate	4
Brake Line Bracket, Front	2
Rear Bump Stop Extension	2
8-Bolt Clocking Ring	1
Transfer Case Spacer	1
4-Inch Tapered Block	2
Transmission Crossmember	1
Transmission Mounting Plate	1
Transmission Mount Spacer	2
Transmission Connector Bracket	1
Transmission Harness Bracket	1
E-Brake Extension	1
Rear Brake Line Bracket	1

<b>Hardware</b>	
5/16 Bolt	2
5/16 Locking Nut	3
5/16 Washer	4
3/8 Bolt	4
3/8 Locking Nut	4
3/8 Washer	8
7/16 Bolt	4
7/16 Locking Nut	4
7/16 Washer	8
1/2 Bolt	4
1/2 Washer	4
M6 Bolt	2
M6 Locking Nut	2
M6 Washer	4
M8 Bolt	3
M8 Locking Nut	3
M8 Washer	6
M10 Flat Head Screw	8
M12 Bolt	6
M12 Locking Nut	6
M12 Washer	12
M14 Bolt	2
M14 Washer	2
M16 Bolt	2
M16 Nut	2
M18 Bolt	2
M18 Locking Nut	2
M18 Washer	4



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

**\*\*\*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.

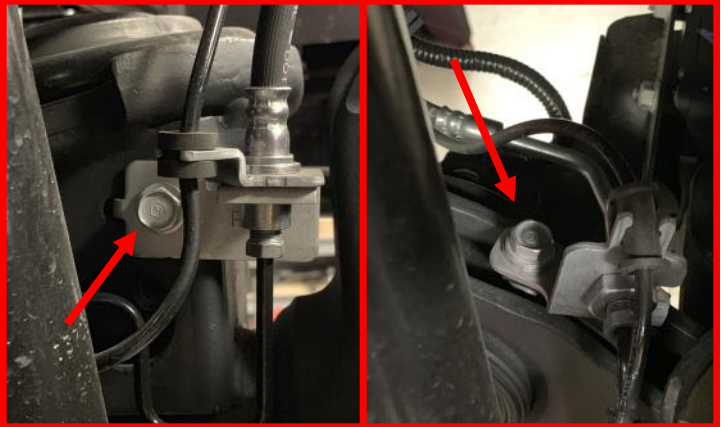
Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

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**

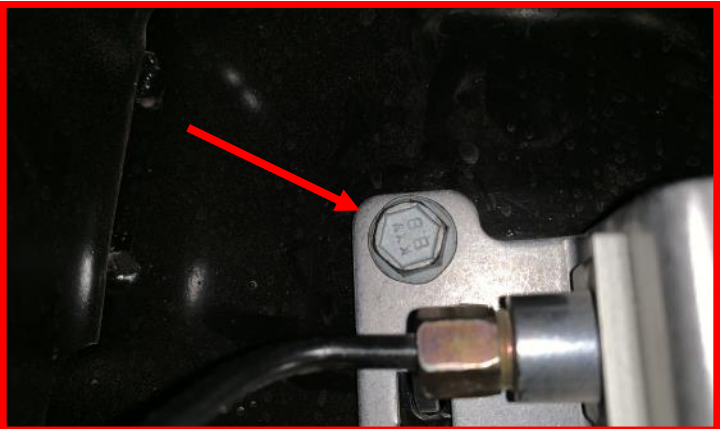
Remove the (2) brake line/ABS brackets on both sides of the vehicle attached to the axle and radius arm.

Retain factory hardware.



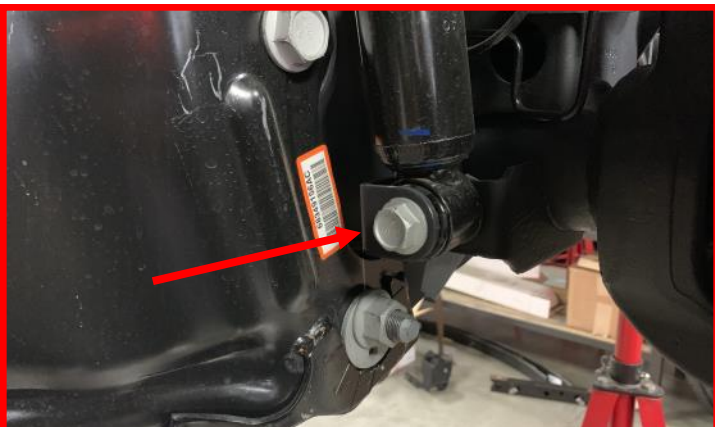
Locate the brake line/ABS bracket on the inside of the driver and passenger frame rails and remove.

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 **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.



Locate and install the **provided radius arm drop brackets** using the **factory hardware** at the main mounting locations.

**Do not tighten at this time.**



Locate the **(4) provided wire flag nuts** and the **(4) holes** on the outside of the frame. Bend the wires to align the tab nut with the **rear mounting holes** in the bracket and frame.



Once lined up with the lower mounting holes, install the **provided 1/2" bolts and washers**.

**Do not tighten at this time.**



Bend the wires to align the tab nut with the **front mounting holes** in the bracket and frame. Install the **provided 1/2" bolts and washers**.

**Do not tighten at this time.**





Tighten the **provided 1/2" bolts** first, ensure the **drop bracket** is resting flush against the frame rail when doing so.

Torque 1/2" hardware to 80 ft-lbs.



Rotate the axle until the radius arms are lined back up into the **drop brackets**. Install using the **provided M18 hardware**.

Do not tighten at this time.

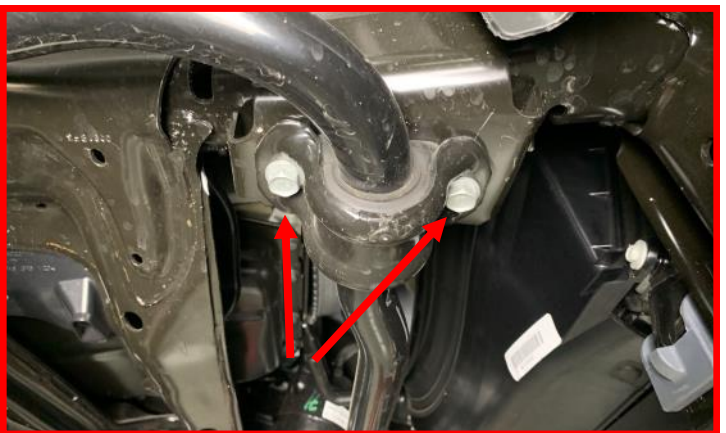


Supporting the axle with a suitable jack, remove the front shocks and discard properly.



Remove the **sway bar mounting bolts** from the frame. Let sway bar hang out of the way.

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.



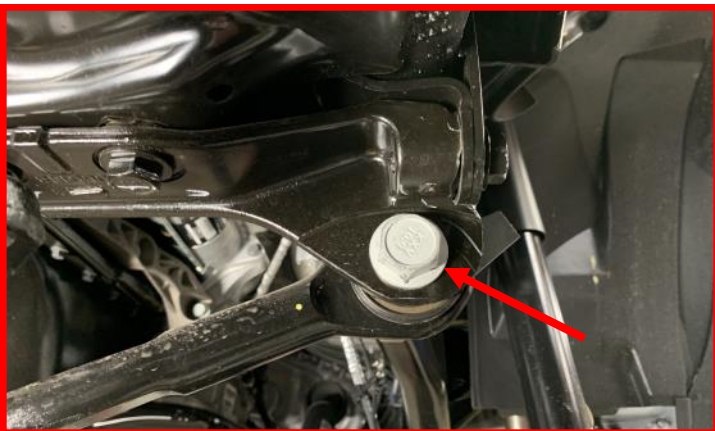


Loosen but do not remove **track bar bolt** at the axle.



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.

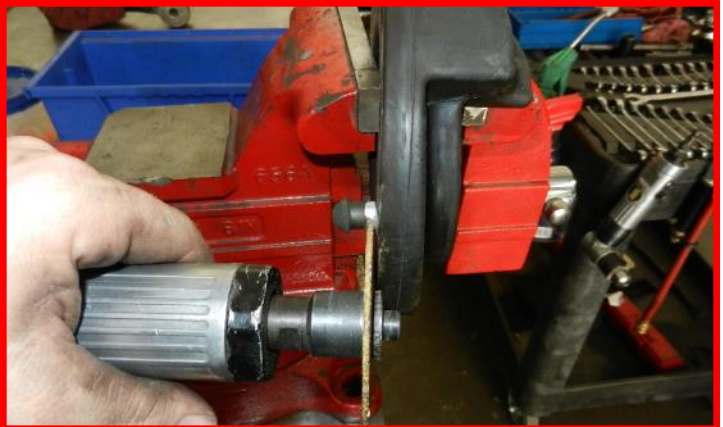
To aid in install, lube the mounting end with a soap and water mix.





Using an appropriate cutting tool, remove the alignment tab on the **coil spring isolator**.

It is necessary to trim the tab off the coil spring isolator for install.



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. Make sure that the lower portion of the spring is sitting as shown in the pictures.

**Driver side spring lines up with the end of the weld on the lower cup to axle.**



**Passenger side ends up with end of the weld on the lower cup to axle/track bar mount.**

This is necessary to keep the springs matched to the angle of the mounting cups on the axle.

Failure to do so will cause the springs to bow out at inappropriate angles.



Install front shocks using **factory lower hardware** and **provided upper hardware**.

Do not tighten factory hardware at this time.

**Torque upper hardware to 30 ft-lbs.**

**Torque lower hardware to 90 ft-lbs.**



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



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 60 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 all hardware to 10 ft-lbs.





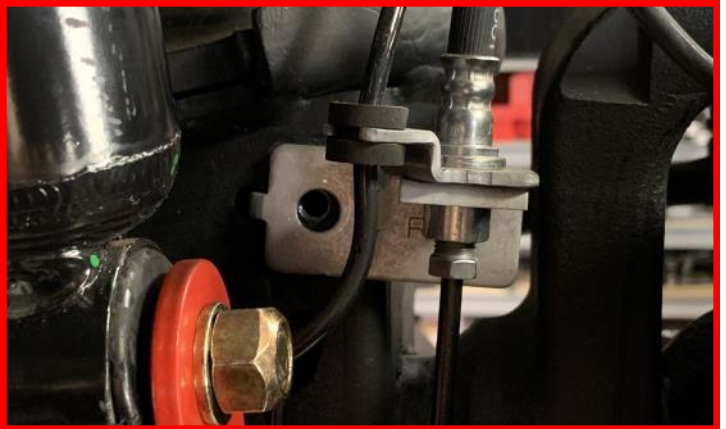
Install the **ABS sensor harness and brake line bracket** to the radius arm using factory hardware.

Torque hardware to 10 ft-lbs.



Install the **ABS bracket** to the axle using factory hardware.

Torque all hardware to 10 ft-lbs.



Install the front wheels. Lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturers specs. Torque the lower shock hardware to **90 ft-lbs.**, the radius arms and track bar hardware to **200 ft-lbs.**

With everything tightened and torqued to specifications, set the wheels straight. Do so by loosening the tie rod pinch bolt. Rotate the adjuster until the steering wheel is straight with the wheels and tighten. If the steering wheel is not centered properly, the ABS/traction control lights may activate. Turn the wheels from lock to lock and make sure the brake lines and ABS routing clears all suspension components adequately. Reposition if necessary.

**\*\*\*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.

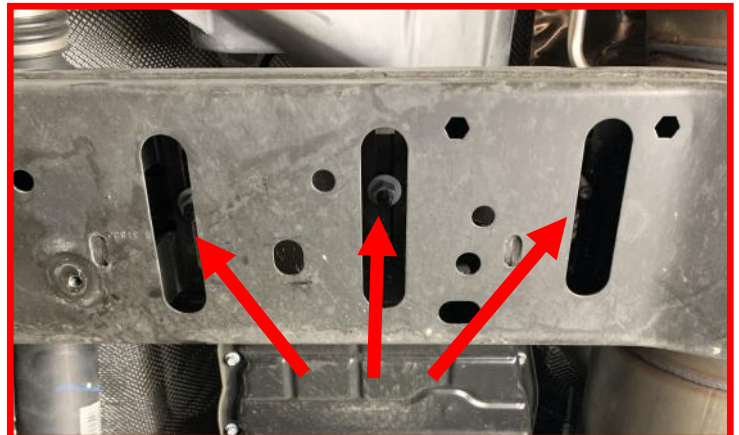
Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

## **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.



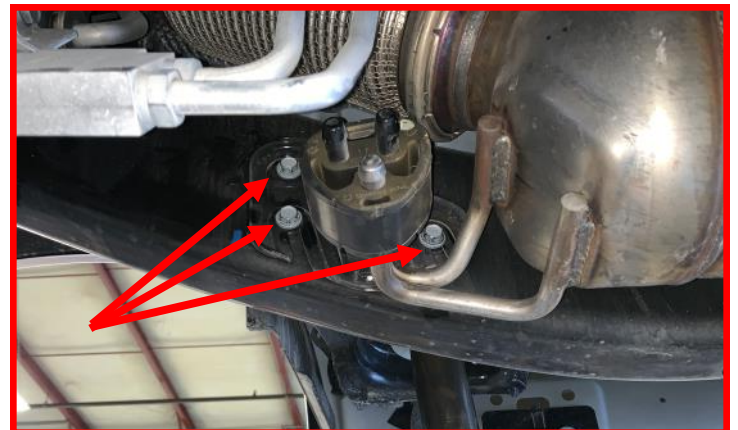
Support the transmission crossmember with a suitable jack stand. Working on one side at a time, Loosen and remove two transmission crossmember bolts.

Retain factory hardware.



Note: Vehicles that are equipped with optional diesel engines, It will be necessary to raise the DPF (Diesel Particulate Filter) to remove passenger side transmission crossmember bolts. The following steps will instruct you on how to proceed.

Remove the (3) front exhaust hanger mounting bolts. Retain factory hardware.



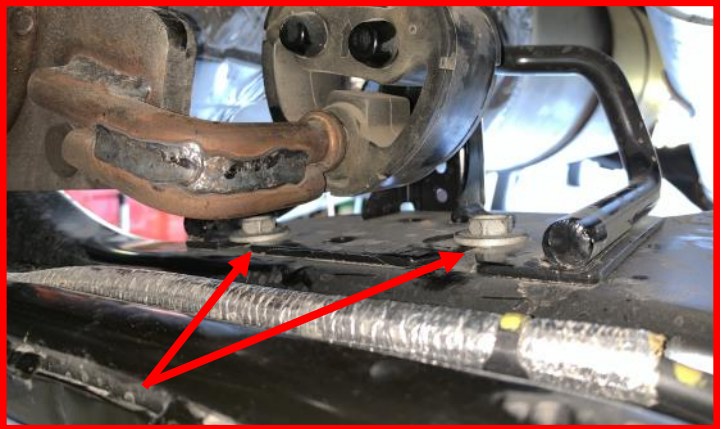
Remove the (2) center exhaust hanger mounting bolts.

Retain factory hardware.



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

Retain factory hardware.



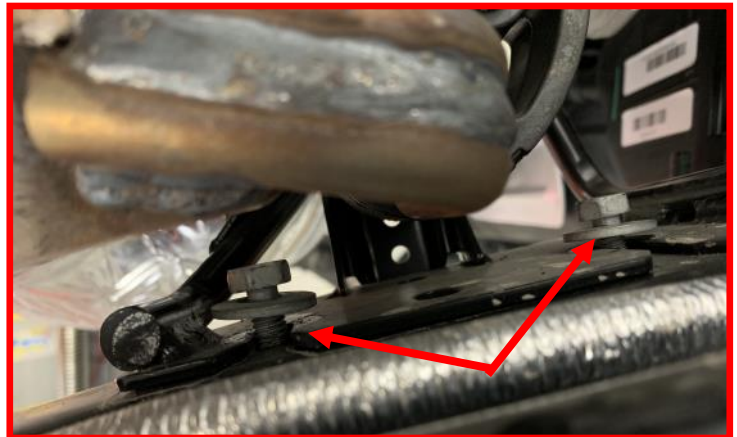
Raise the DPF with a suitable jack and remove the (2) passenger transmission crossmember bolts.

Retain factory hardware.



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

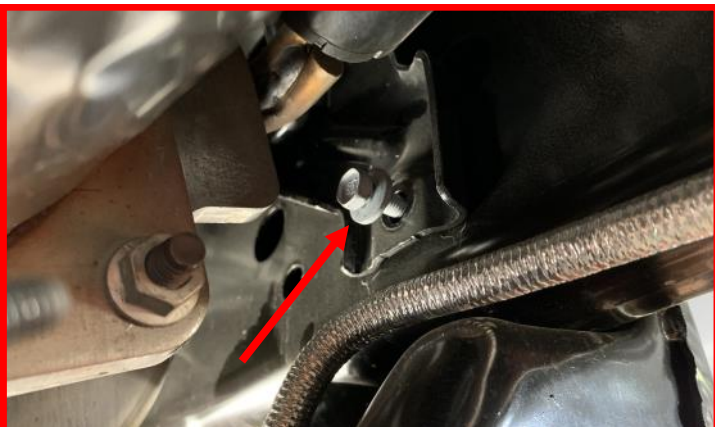
Torque the mounting bolts to 15 ft-lbs.





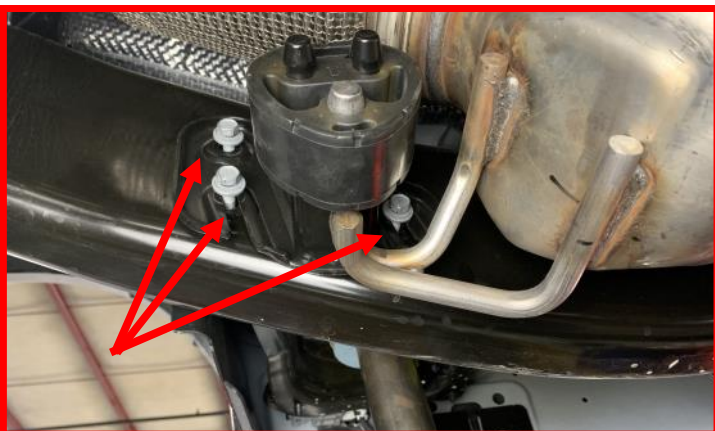
Install the (2) center exhaust hanger mounting bolts.

Torque the mounting bolts to 15 ft-lbs.



Install the (3) front exhaust hanger mounting bolts.

Torque the mounting bolts to 15 ft-lbs.



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



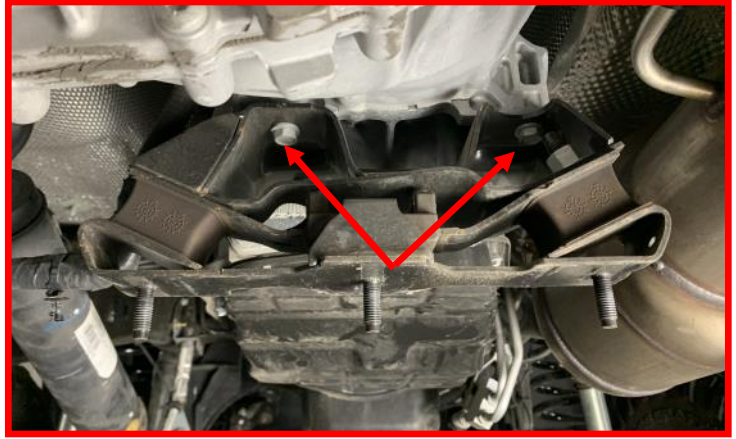
Remove the driver side transmission crossmember bolts and retain factory hardware.

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 the factory hardware.



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

Retain the factory hardware.

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



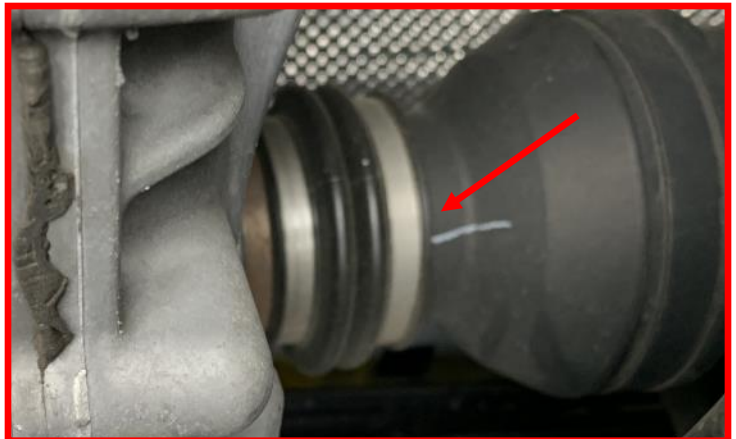
Mark the driveshaft to pinion flange location. Remove the **front driveshaft hardware from the flange**. Let hang out of the way.

Retain the 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 the 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 the 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.

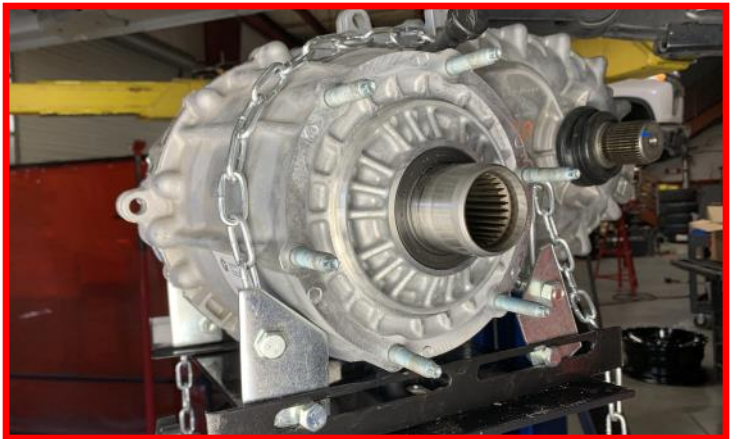


Remove the (8) transfer case mounting nuts.



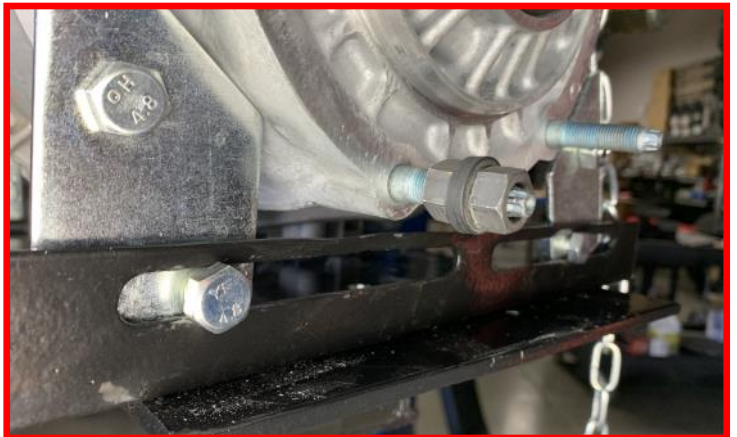
Carefully remove the transfer case.

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

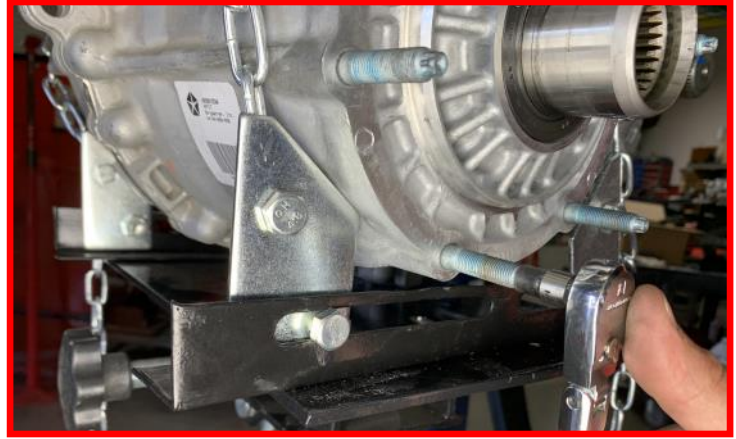


Once the transfer case is removed from vehicle, remove the factory mounting studs. There are two ways to remove the studs.

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 **provided transfer clocking ring**. It may be necessary to rotate the ring until all the mounting holes align. Install the **provided M10 flat head bolts** using **thread locker**.

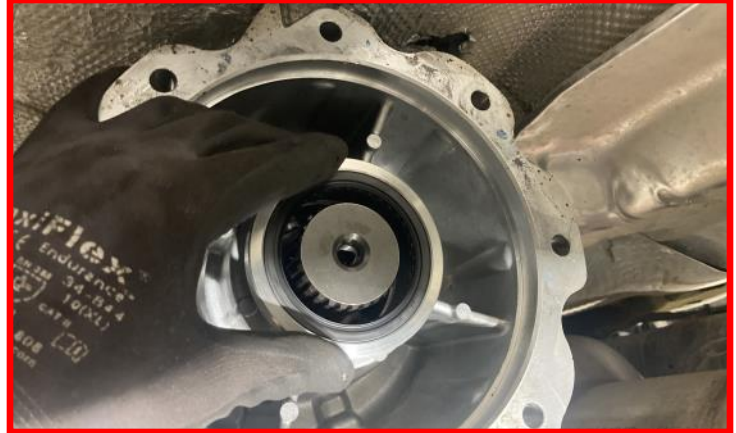


Torque to the bolts 40 ft-lbs.

Install the **provided transfer case spacer**.

This will require light tapping in an even pattern around the front lip until fully seated.

**Note: Be careful to not damage the seal.**



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.**



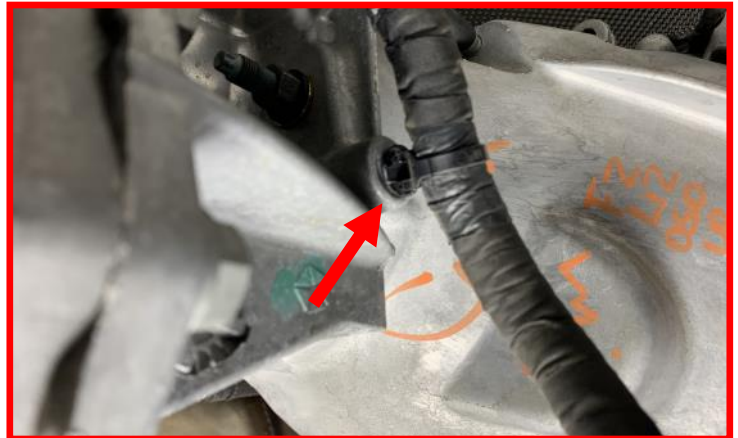


With the transfer case installed and mated back to the transmission, install the (8) **provided nuts and washers**.

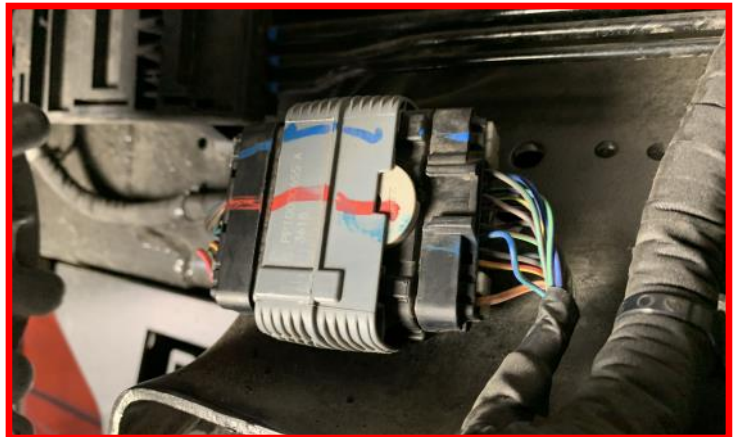
Torque the nuts to 40 ft-lbs.



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.

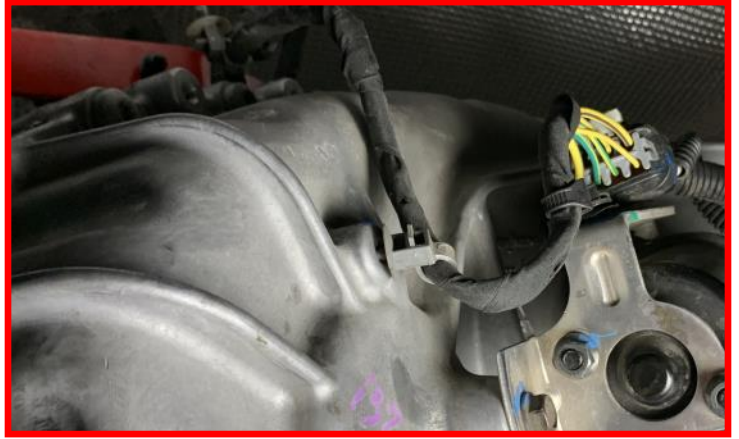


Install the **transfer case shift solenoid connector**.





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.



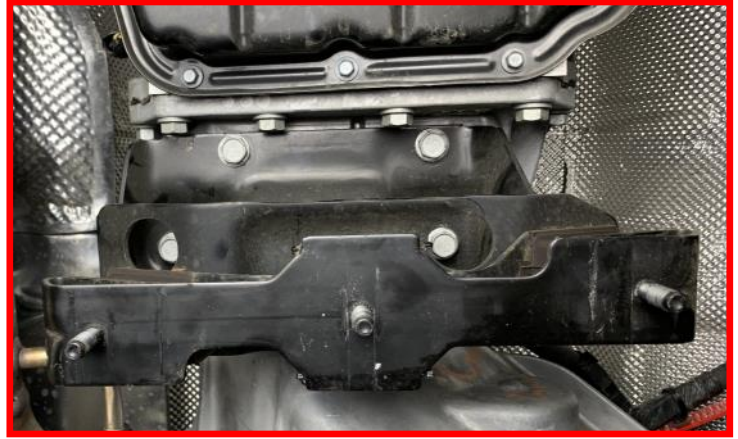
Install the **transmission mount** using the **(4) factory bolts**.





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.



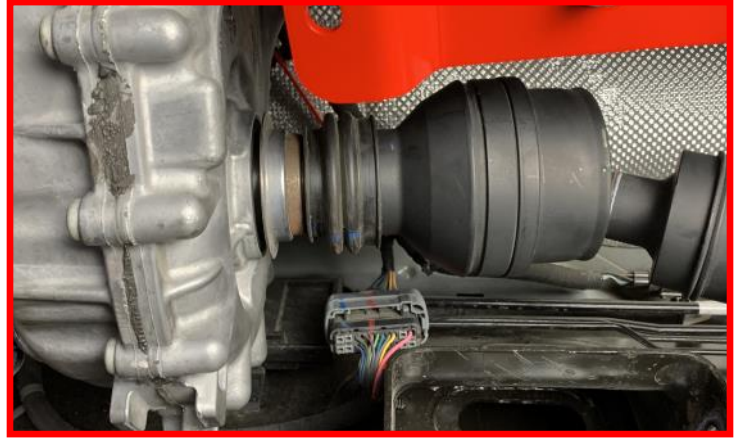
Ensure that the mount is installed with the slope facing towards the rear of the vehicle.



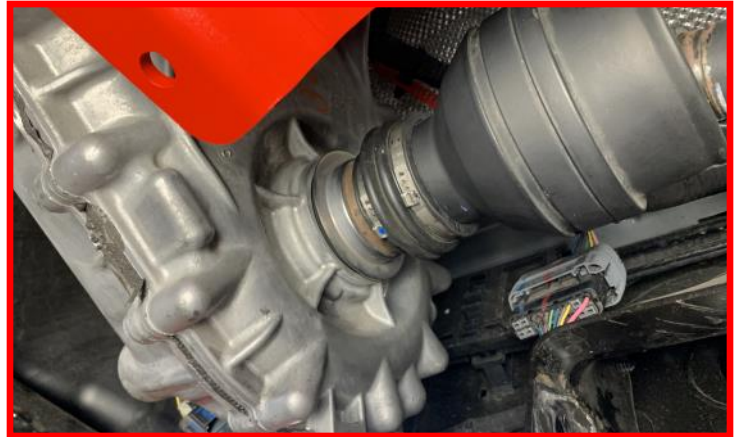
Install the front driveline onto the transfer case. Ensure the retaining clip is fully seated.



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**.



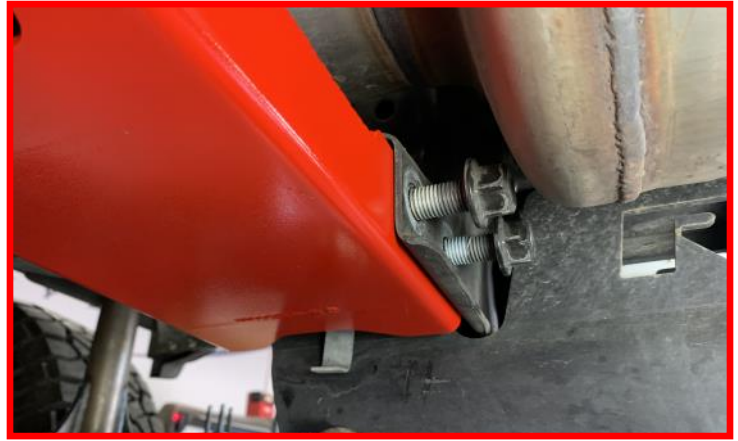
Using the **factory transmission crossmember hardware**, install the driver side bolts from front to rear.





Using the (2) provided hardware bolts install the passenger side bolts from front to rear. This will 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.



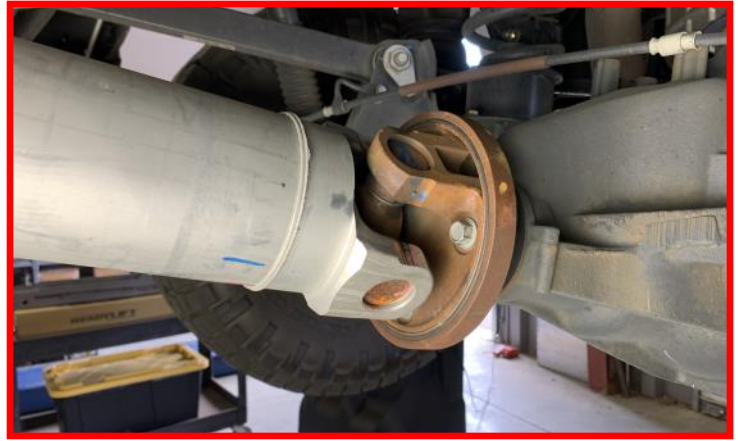
Install the rear driveshaft into the tail shaft housing in the transfer case.





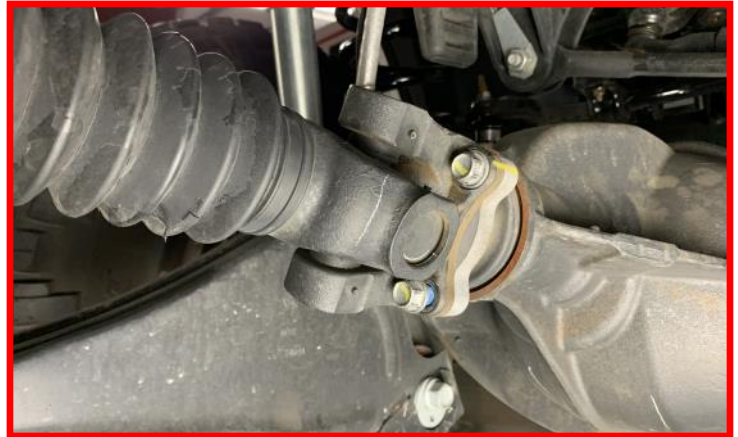
Install the rear driveshaft to the pinion flange lining up the previous marks using the factory hardware and thread locker.

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.



With everything tightened and torqued to specifications, move onto the rear installation instructions.

### Torque Settings:

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

## Rear Installation

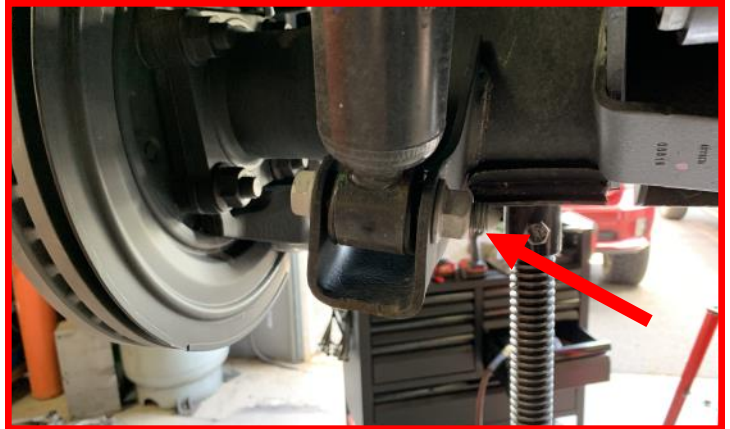
If the vehicle is not on a lift and already in the air then choke the front wheels for safety and raise the rear of the vehicle. Place jack stand under the frame rails in front of the rear lower control arm links.

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

**Note:** Ensure the axle is supported properly.

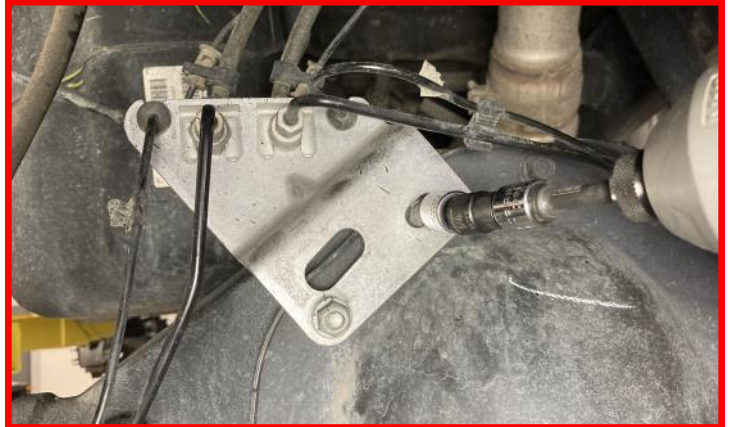
Remove both frame and axle **shock mounting bolts**. Remove shock from vehicle and discard properly.

**Retain factory hardware.**



Remove the rear brake line/ wheel speed sensor bracket.

**Retain factory hardware.**



Remove the clips on the back side of the axle that secure the brake lines.

There is one clip on either side of the differential.



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



Remove the **axle breather tube**.

**Retain factory hardware.**



Remove the **brake line brackets** under each leaf spring.

**Retain factory hardware.**



Remove the **e-brake cable stud** located on top of the differential housing. Once the cable is free re-install the stud.

**Torque to 15 ft-lbs.**





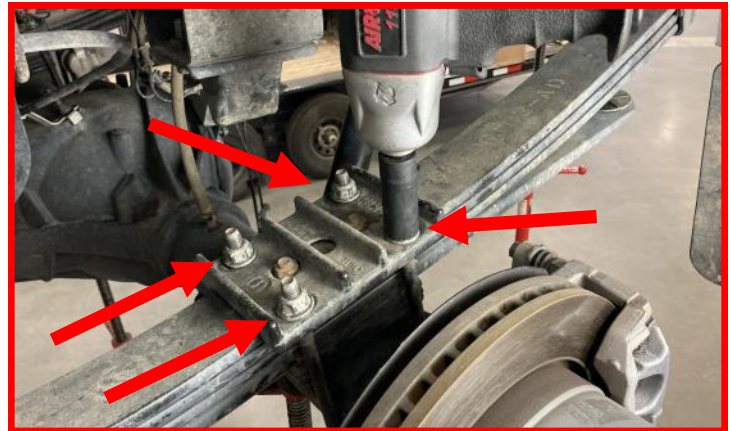
Remove the **e-brake cable bracket** near the passenger lower shock mount.

**Retain factory hardware.**



**Make sure the axle is properly supported before removing U-bolt nuts.**

Remove the **U-bolt nuts** from the U-bolts.  
Uninstall one side at a time.



Lower the axle carefully to be able to install the **included taper block**.

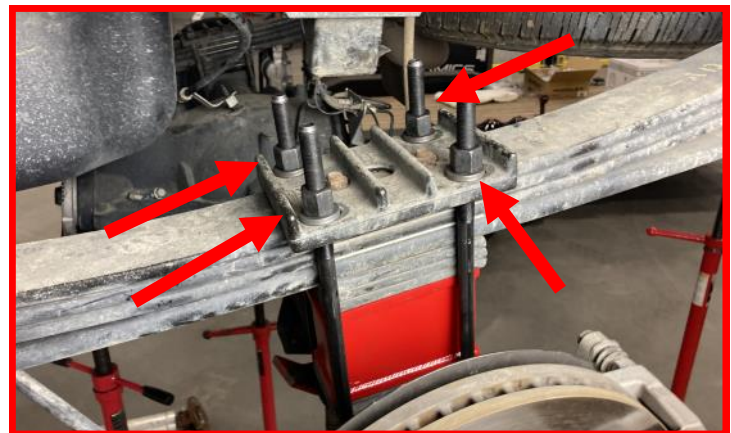
Install one side at a time making sure the rear face with the tapped hole and locating hole are facing toward the rear of the vehicle.

We recommend having assistance while lowering and installing each spacer.

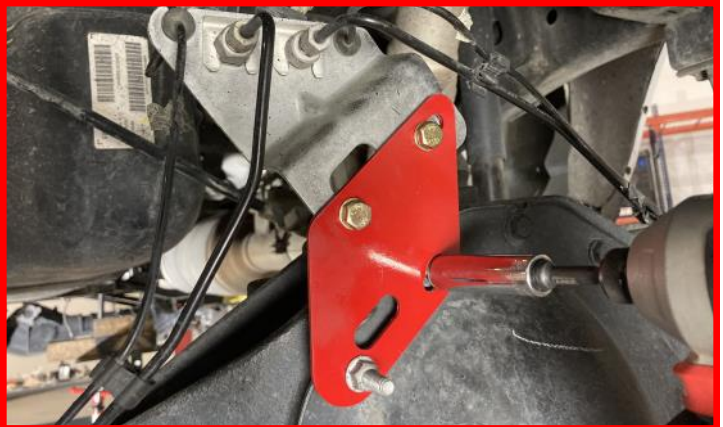


**Tighten the U-bolt nuts until they are snug.**

**Do not torque at this time.**



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.

Install the **brake line brackets** into the back of the **tapered block** using the **factory hardware**.

Torque to 15 ft-lbs.



Install the **e-brake bracket** on top of the differential stud using the **provided hardware** to secure it down.

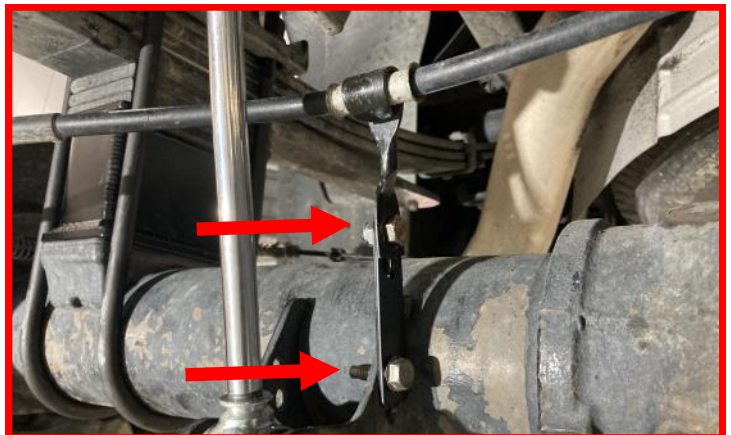
Torque to 15 ft-lbs.



Install the **provided e-brake bracket extension** to the factory bracket with the **provided hardware**.

Torque to 15 ft-lbs.

Install the now extended bracket to the factory location using the factory hardware.  
Torque to 15 ft-lbs.





Remove the **tree connector** holding the top of the axle breather tube and secure it in a lower position using the factory connector and the **provided hardware**.



Re-install the **breather hose** to the axle.



Install the **provided rear shocks** upper and lower mounting locations on both driver and passenger side using the factory hardware.

**Do not tighten at this time.**

\*Shock brand may vary depending on kit.



Remove the **factory bump stops**.

**Retain factory hardware.**





Install the **bump stop extension** onto the frame using **factory hardware**.

Torque hardware to 30 ft-lbs.



Install the bump stops using the **provided hardware**.

Torque hardware to 30 ft-lbs.



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. Torque the upper and lower rear shock hardware and the U-bolt nuts to **90 ft-lbs**. Check to make sure that your e-brake functions properly.

#### Torque Settings:

- (2) Upper shock stem to **90 ft-lbs**. (8) Bump stop extension to **30 ft-lbs**.
- (2) Lower shock bolts to **90 ft-lbs**. (2) Rear brake extension to **25 ft-lbs**.
- (8) U-bolt nuts to **90 ft-lbs**. (1) E-brake bracket nut and extension to **15 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.