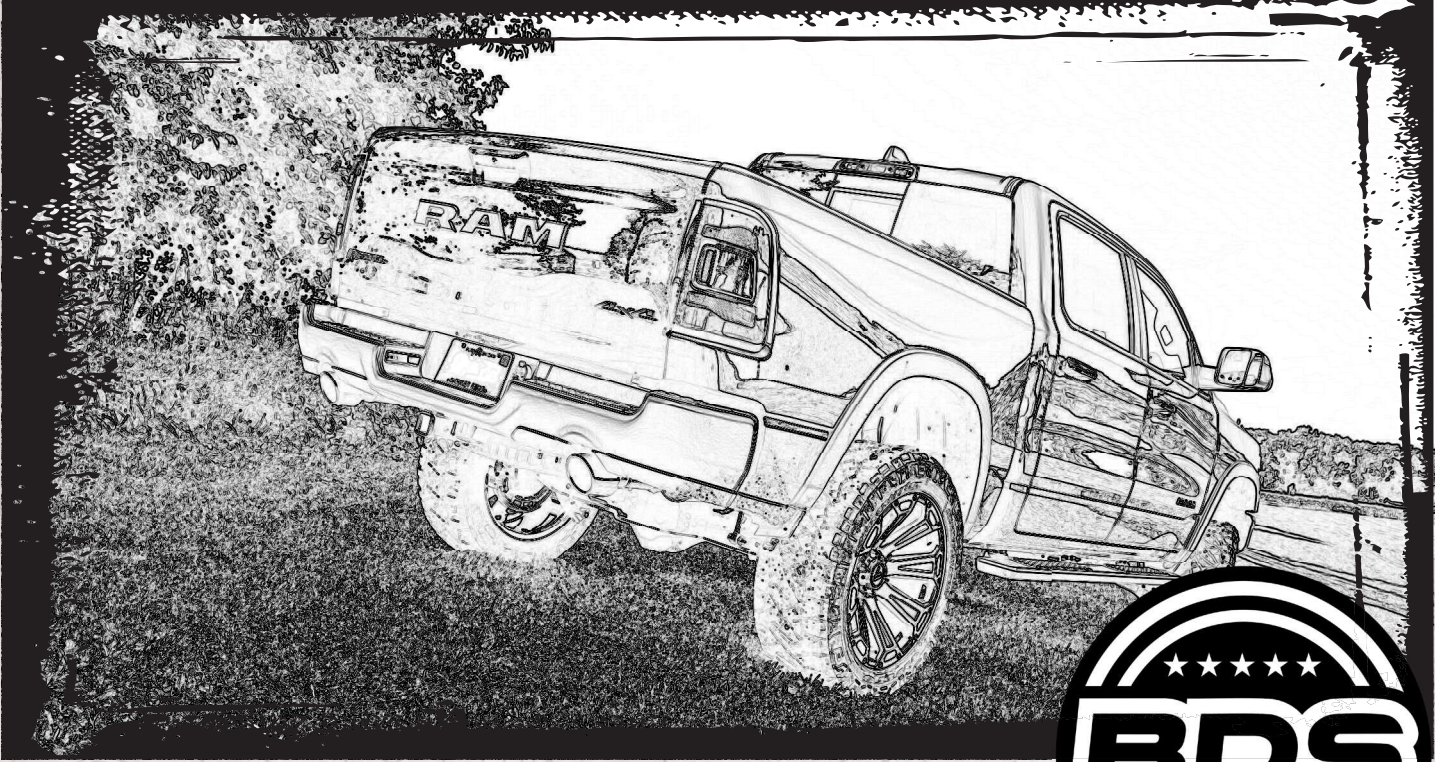


# INSTALLATION GUIDE



Part#: 022508

**HARDCORE LIMITED LIFETIME WARRANTY**

**3" / 5" Rear Lift Kit**

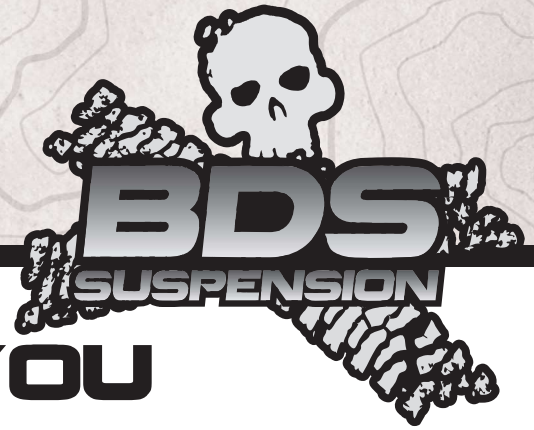
**RAM 1500 4WD | 2019-2024**

Rev. 120123

491 W. Garfield Ave., Coldwater, MI 49036 • Phone: 517-279-2135

E-mail: [tech-bds@ridefox.com](mailto:tech-bds@ridefox.com)

# Read And Understand All Instructions And Warnings Prior To Installation Of System And Operation Of Vehicle.



## THANK YOU

Your truck is about to be fitted with the best suspension system on the market today. That means you will be driving the baddest looking truck in the neighborhood, and you'll have the warranty to ensure that it stays that way for years to come. Thank you for choosing BDS Suspension!

### BEFORE YOU START

BDS Suspension Co. recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known.

### FOR YOUR SAFETY

Certain BDS Suspension products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. BDS Suspension Co. does not recommend the combined use of suspension lifts, body lifts, or other lifting devices. You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

### BEFORE INSTALLATION

Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.

Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.

Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.

Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.

Secure and properly block vehicle prior to installation of BDS Suspension components. Always wear safety glasses when using power tools.

If installation is to be performed without a hoist, BDS Suspension Co. recommends rear alterations first.

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 attitude. Always measure the attitude prior to beginning installation.



Visit [560plus.com](http://560plus.com) for more information.

### TRACTION CONTROL

In an effort to reduce the risk of rollover crashes the National Highway Traffic Safety Administration (NHTSA) established the Federal Motor Vehicle Safety Standard (FMVSS) No. 126 requiring all new passenger vehicles under 10,000 lbs GVWR include an electronic stability control (ESC) system as standard equipment. Effective August 2012 this law requires aftermarket products to be compliant with these same standards.



### BEFORE YOU DRIVE

Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.

Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure. Longer replacement hoses, if needed can be purchased from a local parts supplier.

Perform head light check and adjustment.

Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

# CONTENTS OF YOUR KIT

## 022508 Rear Box Kit

Part #	Qty	Description
03681	2	Bump Extension
03796	1	UCA Relocation Bracket -DRV
03797	1	UCA Relocation Bracket -PASS
03682	1	Track Bar Bracket
03719	1	Bump Stop Nut Tab
109	1	1.00" x .125" x 1.36" Sleeve
110	2	1.00" x .125" x 2.375" Sleeve
SBLA	2	Brake Adapters
479	1	Bolt Pack
	4	5/16"-18 x 7/8" Bolt
	6	5/16" SAE Washer
	2	5/16"-18 Prevailing Torque Nut
483	1	Bolt Pack
	1	9/16"-12 x 3-1/2" Bolt
	1	9/16" -12 Prevailing Torque Nut
	2	9/16" SAE Washer
	2	5/8"-11 x 4-1/2" Bolt
	2	5/8"-11 Prevailing Torque Nut
	4	5/8" SAE Washer
	6	3/8"-16 x 1-1/4" Bolt
	8	3/8"-16 Prevailing Torque Nut
	16	3/8" SAE Washer
	2	3/8"-16 x 1" Bolt
	2	5/16"-18 x 3/4" Self Tapping Bolt

## 032508 5" Rear Coil Box Kit

Part #	Qty	Description
032508R	2	Rear Coil
911125	2	Rear Sway Bar Links
482	1	Bolt Pack
	2	12mm-1.75 x 60mm bolt
	4	7/16 USS Washer
	2	12mm -1.75 Prevailing Torque Nut
	2	3/8" USS Washer
SB58BK	4	5/8" Hourglass Bushing
62147	2	.625" x .075" x 1.375" Sleeve
45313	2	.625" x .109" x 1.375" Sleeve

## 032308 3" Rear Coil Box Kit

Part #	Qty	Description
032308R	2	Rear Coil
911112	2	Rear Sway Bar Links
482	1	Bolt Pack
	2	12mm-1.75 x 60mm bolt
	4	7/16 USS Washer
	2	12mm -1.75 Prevailing Torque Nut
	2	3/8" USS Washer
SB58BK	4	5/8" Hourglass Bushing
62147	2	.625" x .075" x 1.375" Sleeve
45313	2	.625" x .109" x 1.375" Sleeve

## TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. These trucks vary from 1-3" tail high from the factory. Measure your vehicle before installing.
2. Will not fit adjustable air suspension equipped models.



**TECH  
TIPS**

# PRE INSTALLATION

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## IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.\*\*

### BEFORE

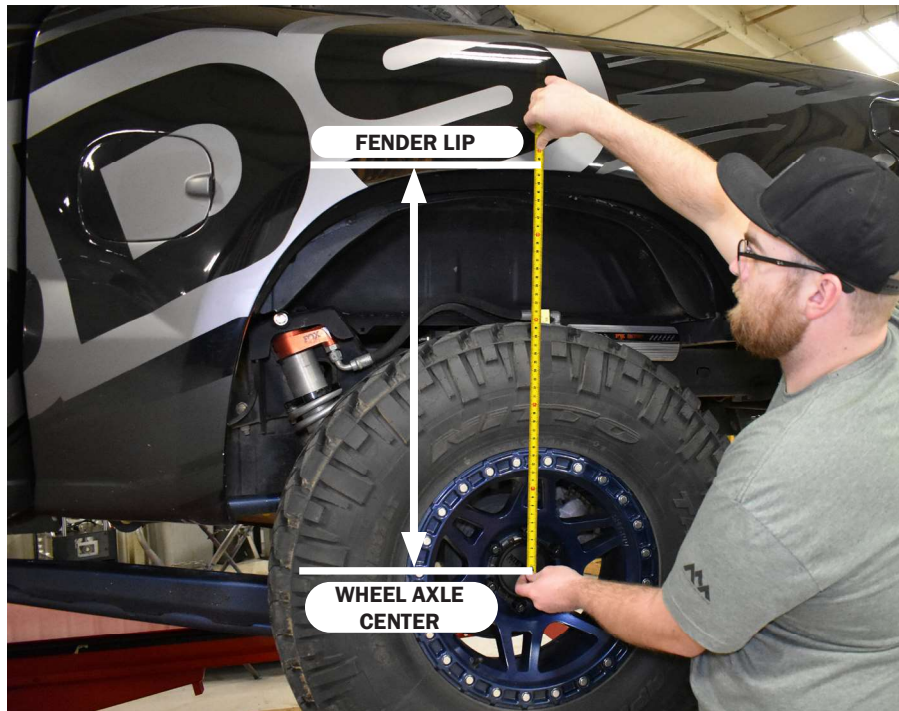
*Left Front* \_\_\_\_\_ *Right Front* \_\_\_\_\_

*Left Rear* \_\_\_\_\_ *Right Rear* \_\_\_\_\_

### AFTER

*Left Front* \_\_\_\_\_ *Right Front* \_\_\_\_\_

*Left Rear* \_\_\_\_\_ *Right Rear* \_\_\_\_\_



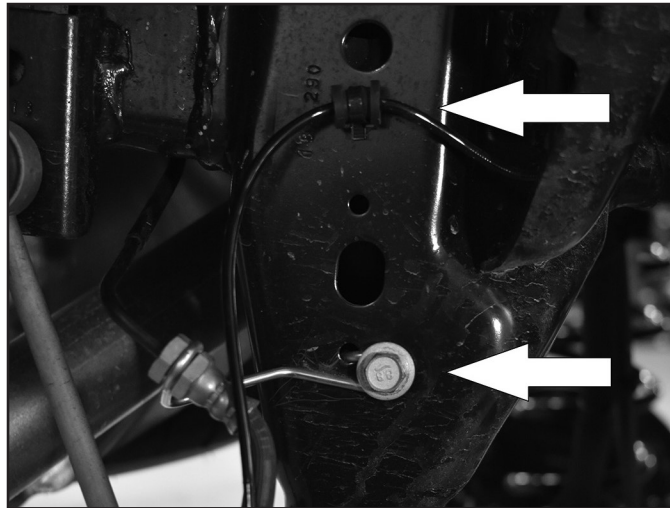
**\*\*These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.**

# INSTALLATION INSTRUCTIONS

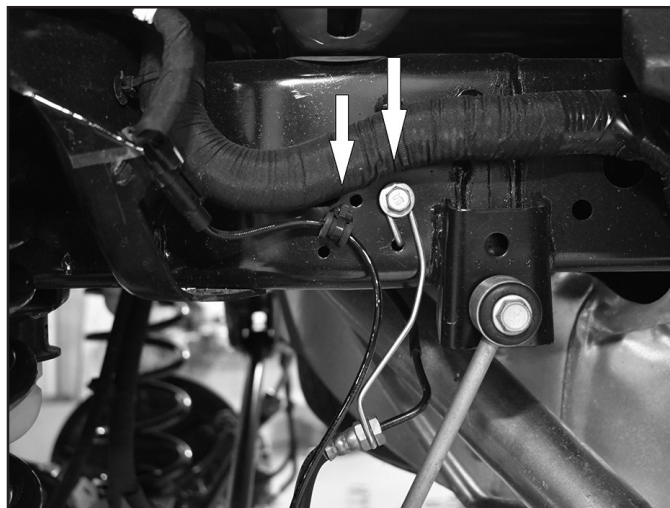
## INSTALLATION INSTRUCTIONS

1. Park the vehicle on clean, flat, and level surface. Block the front wheels for safety.
2. Disconnect the rear trackbar from the axle, retain hardware.
3. Raise the rear of the vehicle and support the frame rails with jackstands.
4. Remove the wheels.
5. Support the axle with a hydraulic jack.
6. Remove frontmost inner fender.
7. Remove the OE shocks. Retain the mounting hardware.
8. Disconnect brake line brackets from the outside of the frame rails. Remove the ABS wires from the retaining clips. (Figure 1 & 2)

**FIGURE 1**



**FIGURE 2**



9. Remove rear sway bar links, retain hardware.
10. Lower the rear axle and remove the coils, retain the rubber isolators.
11. **Steps 11-18 are for models with factory fuel tank skid plates only, if your vehicle does not have a skid plate under the fuel tank,**

**skip to step 19.** The factory fuel tank skid plate requires trimming to remain clear of the driveshaft and axle housing through articulation of the axle at a lifted height.

12. To remove the skid plate you must first support the weight of the skid plate with a jack or an assistant while you remove the mounting hardware as shown below (Figure 3a, 3b, 3c). Retain hardware.

**FIGURE 3A**



**FIGURE 3B**

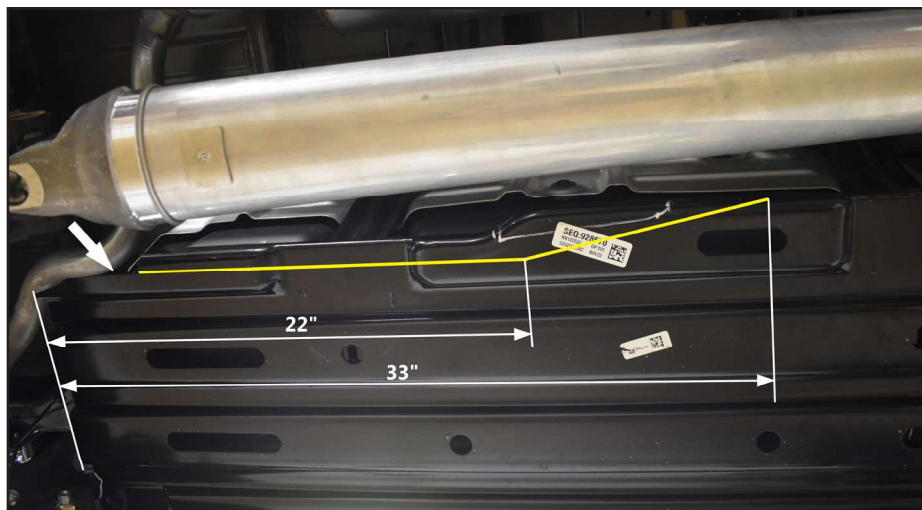


**FIGURE 3C**



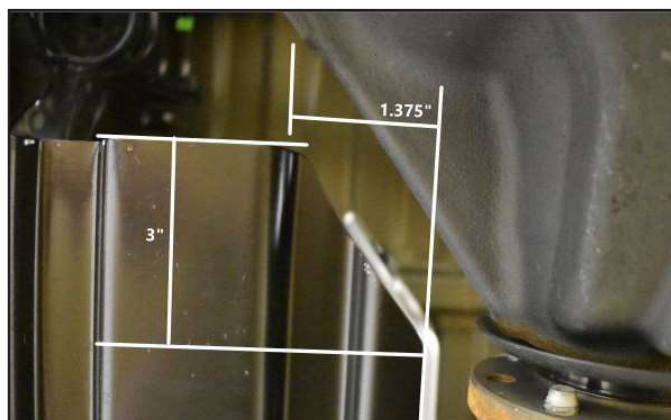
13. Trim the inside edge of the skid plate closest to the drive shaft. Cut as shown below (Figure 4) along the yellow lines. First cut will be a continuation of a factory edge pointed out with the arrow in the image, cut parallel to the factory edge to a distance of 22" from the furthest back edge of the skid plate. From that point you will cut towards the inner edge of the skid plate at an angle to meet with a point at 33" from the rear edge of the skid.

**FIGURE 4**



14. The second trim will be for clearance to the differential housing. On the rear inside corner of the skid plate, mark a point on the inside edge 3" from the back edge of the skid plate, and another point on the back edge 1-3/8" from the inside edge of the skid plate. Cut a straight line connecting these two points to create the clearance as shown below (Figure 5).

**FIGURE 5**



15. Finished inside edge trimming shown below (Figure 6).

**FIGURE 6**



16. Locate the rear outside corner of the skid plate. Notch this area of the skid plate 1/2" in from the rear edge and 3" from the outer edge cutting around the mounting hole as shown below. (Figure 7).

**FIGURE 7**



17. Once the skid plate has been trimmed paint the exposed metal to prevent corrosion.
18. Install fuel tank skid plate using factory hardware tighten all the skid plate nuts and bolts to 15 ft-lbs
19. Disconnect the upper control arm from the axle. Loosen the upper control arm bolt at the frame rail, but do not remove (Figure 3). Retain hardware.



**FIGURE 8**



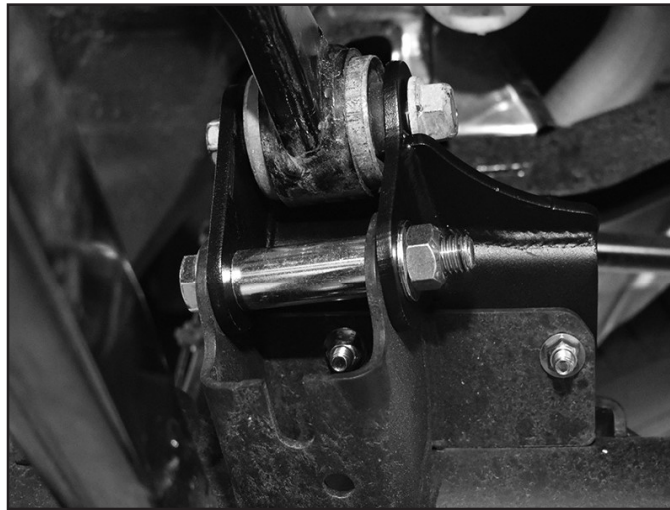
20. Place the upper control arm relocation bracket over the pocket. The bracket will offset towards the inside of the vehicle from the factory control arm mount. Use the 5/8"-11 x 4-1/2" bolt, lock nuts, flat washers, and 1" x 2-3/8" long sleeve (110) between bracket tabs at stock control arm mount location (BP483). Use the 3/8-16 x 1-1/4" bolts (BP483) to attach the bracket to the top of the axle. Use 1" x 2-3/8" long sleeve (110) between bracket tabs at stock mounting location. See Figure 9 and 10.

*NOTE: Due to some axle variances, it may be necessary to slot the factory holes on the top of the axle in order to install 3/8" hardware. To do so, hold the bracket in place and mark the center of the slots of the bracket onto the top axle mount. Use a die grinder to open up existing holes or drill new holes in the axle mount to 7/16".*

**FIGURE 9**



**FIGURE 10**



21. Install the upper arm with the OE bolt. Leave control arm hardware loose at this time. Tighten 3/8" hardware to 35 ft-lbs, and 5/8" hardware to 95 ft-lbs.
22. Slowly lower the axle. It may be necessary to unclip the hard brakline mounts as well as the wiring harness clips on the rear diff. As you lower the axle ensure that all wiring/hoses have adequate slack and are not at risk of breaking.
23. Remove the two pieces of rubber coil wrap from the upper windings of the factory spring and transfer them to the new coil spring upper windings starting the first piece on the second winding lined up with the end of the coil and the second piece one winding down from where the first piece ends to ensure there is no metal to metal contact when the spring compresses. See Figure 11.

**FIGURE 11**



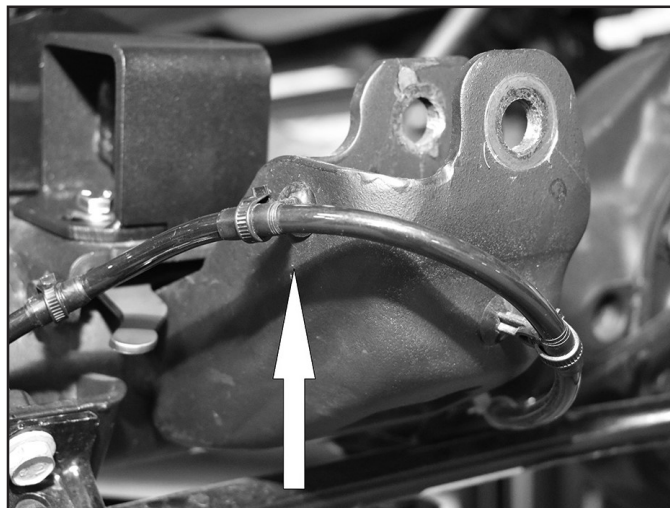
24. Install the new coilspring with the OE rubber isolator..

**FIGURE 12**



25. Install the new rear shocks. Tighten upper hardware so the bushing starts to swell. Tighten lower shock hardware to 75 ft-lbs.
26. Refer to the OE track bar bracket, Remove the ABS clip as shown in Figure 13 and drill hole so that it fits a 3/8" bolt,  
*Note: Due to OEM ABS clip hole variation, drilled hole may need to be filed out into a slot in order to align with bracket.*

**FIGURE 13**



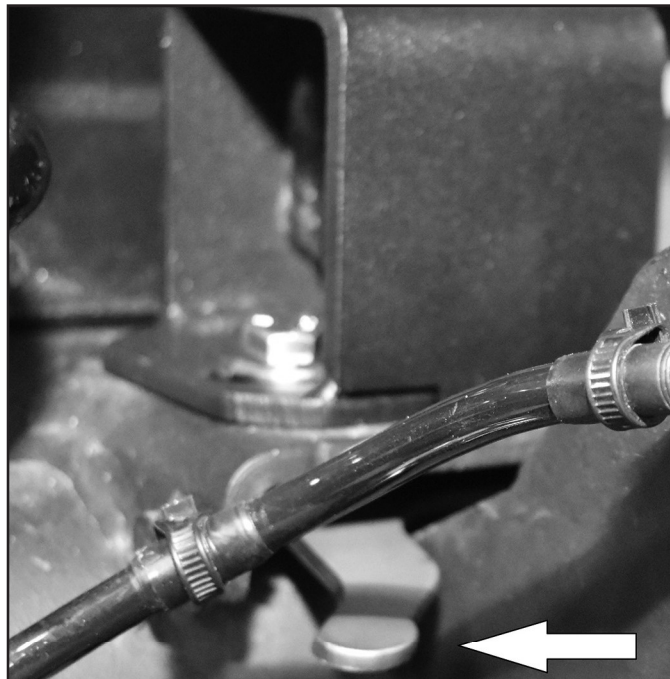
27. Install the track bar bracket back on the factory mount. Fasten with the provided 9/16" hardware through the original track bar hole. Place the provided crush sleeve (109) in the factory bracket when installing the hardware. Attach bracket with 3/8" x 1-1/4" bolt, nuts and washers (BP483) through the hole drilled in the previous step. Tighten 3/8" hardware to 35 ft-lbs and 9/16" to 95 ft-lbs. See Figure 14.

**FIGURE 14**



28. Attach bump stop extensions (03681) to driver's and passenger's side with 5/16" x 7/8" bolts with prevailing torque nuts and washers (BP 479)) For the drivers side, use nut tab (03719) by sliding it behind OE track bar bracket hardware, under the bump stop plate. See Figure 15. Both bump stop extensions are positioned towards the Drivers side of the vehicle with the two holes in the bottom plate facing the passenger side. Tighten to 18 ft-lbs.

**FIGURE 15**



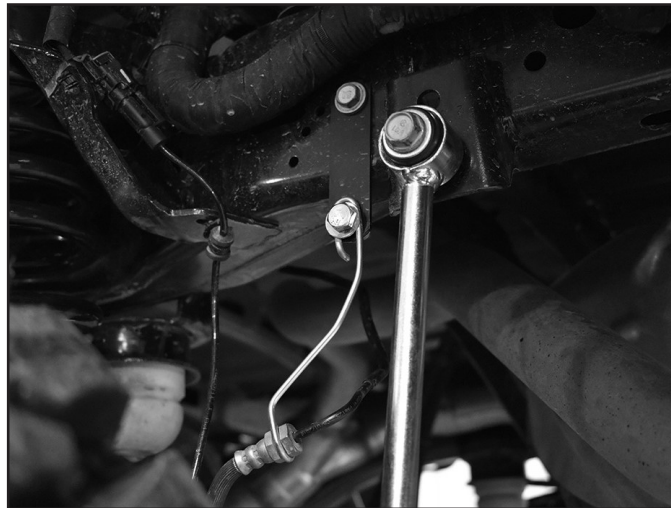
29. Install hourglass bushings (SB58BK) into sway bar links. Install one 62147 sleeve into on end of the sway bar and one 45313 sleeve into the other end.
30. Install sway bar links putting the 45313 sleeves to the top mount, fasten using OE hardware and and 3/8" USS washer (BP482). Attach lower sway bar link to sway bar using 12mm bolt, prevailing torque nut and washers (BP482) Tighten to 55 ft-lbs. (Figure 16). Sway bar links mount to the inside of the bracket, same as the factory sway bar links.

**FIGURE 16**



31. Install brakeline drop brackets on the side of the frame rail using OE hardware. Attach brakeline to bracket with 3/8"-16 x 1-1/4" bolt, washers, and nut (BP483). Tighten to 20 ft-lbs. (Figure 17) you may need to reform stock brake line wire mounts to allow adequate slack at full droop.

**FIGURE 17**



32. Reattach ABS wire to clips on brakeline.
33. Install wheels and lower vehicle to the ground.
34. Tighten upper control arm hardware to 120 ft-lbs.
35. Install rear trackbar into relocation bracket in the uppermost hole with OE bolt and nut. Tighten to 95 ft-lbs.
36. Recheck all fasteners for proper torque. Check again after 500 miles and at regularly scheduled intervals.



## **WE WANT TO SEE YOUR RIDE!**

Grab photos of your BDS-equipped truck in action and send them in for a chance to be featured. Send it in to our Bad Ass Rides customer gallery at [bds-suspension.com/bar](http://bds-suspension.com/bar) and post them on the BDS Fan Page on Facebook at [facebook.com/BDSSuspensions](https://facebook.com/BDSSuspensions). Don't forget about your BDS swag! BDS offers t-shirts, hoodies, decals and more available on the BDS website or through your local BDS distributor.

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## **TIME TO HAVE SOME FUN**

### **Thank you for choosing BDS Suspension.**

For questions, technical support and warranty issues relating to this BDS Suspension product, please contact your distributor/installer before contacting BDS Suspension directly.