

# INSTALLATION GUIDE



Part#: 014231



**HARDCORE LIMITED LIFETIME WARRANTY**

## **2" Leveling Kit/2" Suspension System**

**Jeep Gladiator JT 4WD | 2020-24**

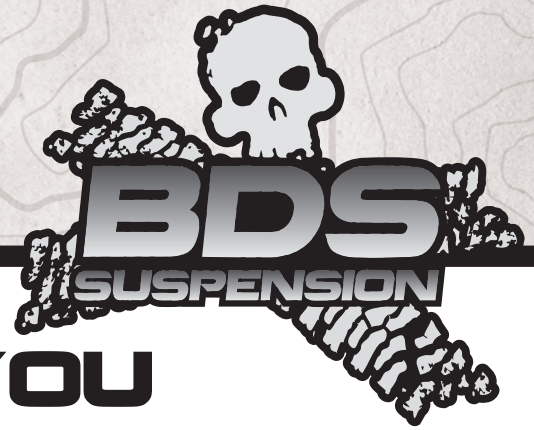
Rev. 091223

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



## THANK YOU

Your jeep 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 after-market products to be compliant with these same standards.



### TIRES AND WHEELS

#### FITMENT GUIDE

##### *Sport, Sport S, Sahara Models*

33x12.50 on 17x9 with 4.5" backspacing

for full bump tire clearance

35x12.50 on 17x9 with 4.5" max backspacing

Rubbing can occur under full articulation

##### *Rubicon Models*

35x12.50 on 17x9 with 4.5" max backspacing

for full bump tire clearance



### 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

## 014231 Box Kit (2" Levelling Kit/2"Suspension System)

Part #	Qty	Description
034340R	2	Front Coil Spring
3296	2	Front Bump Stop Spacer
03315	1	JL Disconnect Retention Brkt - Drv 2.5-6"
03316	1	JL Disconnect Retention Brkt - Pass 2.5-6"
A1024	2	JKS Quicker Disconnect
03005	2	Quick Pin (2001CP)
M03212-BK-01	3	Offset Polyurethane Spacer
A1046	1	03013 Stud w/ nut
A1045	1	03017 Stud w/ nut
01499	1	Rubicon Sway Bar Link Spacer
162	1	.750 x .134 x 1.25 Sleeve
65	3	.750 x .134 x 1.65 Sleeve
03326	4	Alignment Cam
840	1	Bolt Pack - Front Bump
	2	3/8"-16 x 2-3/4" bolt
	2	3/8" SAE flat washer
	2	3/8"-16 Serrated edge flanged nut
J127	1	Bolt Pack - Disconnects
	2	12mm-1.75 x 75mm bolt grade 10.9 - clear zinc
	2	12mm-1.75 prevailing torque nut - clear zinc
	4	12mm flat washer - clear zinc
	2	5/16"-18 x 3/4" bolt grade 5 - clear zinc
	2	5/16"-18 prevailing torque nut - clear zinc
	4	5/16" SAE flat washer - clear zinc
J172	1	Bolt Pack - 2024 JL 14mm Sway Bar Link
	2	14mm-2.00 x 80mm Bolt - Class 8.8
	2	14mm-2.00 Prevailing Torque Nut
	4	14mm Flat Washer - Clear Zinc
149	2	.750 x 0.095 x 1.680 DOM Sleeve

## 014159 Rear Box Kit (2"Suspension System Only)

Part #	Qty	Description
032159R	2	Rear Coil Spring
01473	2	Rear Sway Bar Link
03374	2	JT 2" Bump Stop Block
SB58BK	4	Sway Bar Link Bushings
51792	4	Sway Bar Link Sleeves
839	1	Bolt Pack - Rear Bump
	4	5/16"-18 x 3/4" bolt
	4	5/16"-18 Prevailing torque nut
	8	5/16" SAE flat washer
913	1	Bolt Pack - Sway Bar Link
	2	12mm-1.75 x 65mm bolt
	2	12mm-1.75 prevailing torque nut
	4	7/16 USS flat washer

# INSTALLATION INSTRUCTIONS

## INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Measure from the center of the wheel up to the bottom edge of the wheel opening

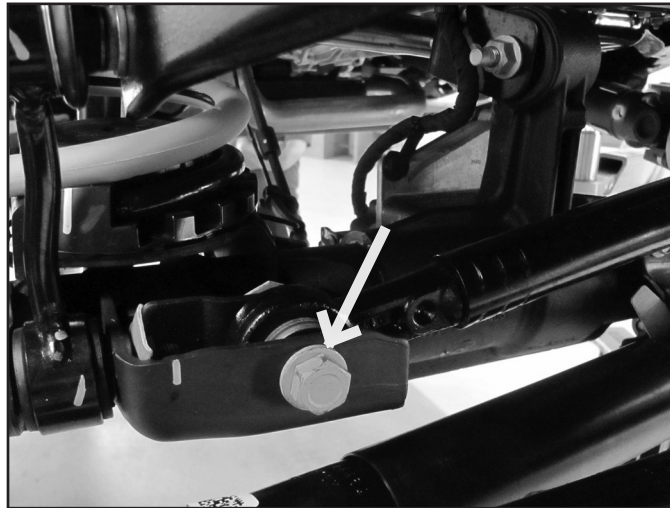
LF \_\_\_\_\_ RF \_\_\_\_\_ LR \_\_\_\_\_ RR \_\_\_\_\_

3. Disconnect the front track bar from the axle. Retain mounting bolt. (Fig 1)

## SPECIAL TOOLS

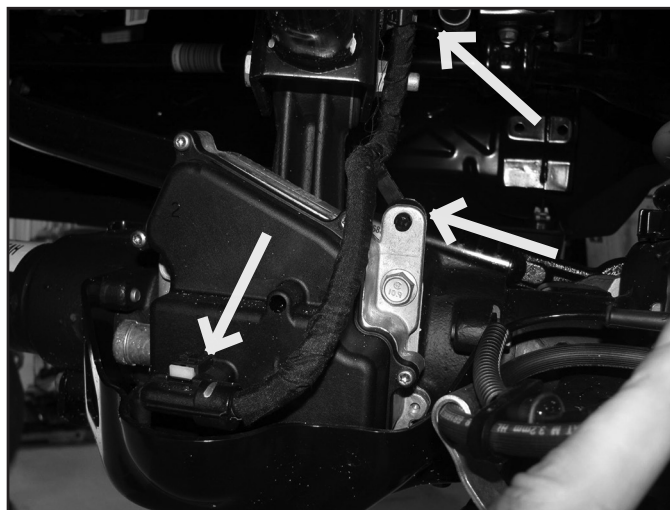
Rotary grinder or carbide burr for alignment cam installation

**FIGURE 1**



4. Raise the front of the vehicle and support the frame with jack stands behind the front lower control arm pockets.
5. Remove the wheels.
6. Disconnect the central axle disconnect (CAD) from the front axle as well as the two clip holding it to the axle. Rubicon models, disconnect the locker wire harness from the axle (Fig 2)

**FIGURE 2**



7. Disconnect the OE front sway bar links from the sway bar and the axle (Fig 3). Save lower hardware.

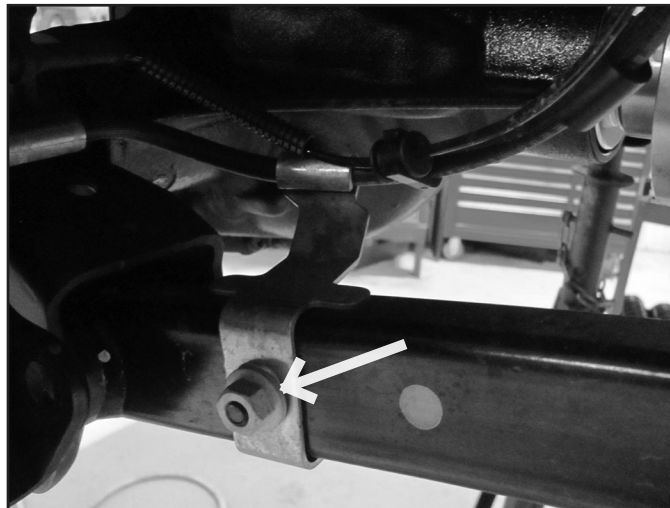


**FIGURE 3**



8. Disconnect the brake lines from the control arms to allow enough slack for coil removal (Fig 4). Support the front axle with a hydraulic jack. Remove the front shocks from the vehicle. Retain upper and lower mounting hardware.

**FIGURE 4**



9. Lower the front axle and remove the coil springs from the vehicle. Use care not to over extend the brake lines, or driveshaft.
10. Place a provided bump stop extension inside one of the new front coil springs and install the spring in the vehicle. Rotate the spring until it is seated properly in the axle mount. Ensure the upper coil seat pin aligns with the hole in the frame.
11. Attach the bump stop extension to the axle through the hole that was drilled earlier using a 3/8" x 2-3/4" bolt, nut, and 3/8" USS washers (BP 840). Torque bolt to 30 ft-lbs. Repeat the spring/bump stop installation of the other side of the vehicle.



**Tip** *On the passenger side it may be easiest to remove the brake line bracket from behind the coil mount to gain better access to get the nut started on the bolt for the bump stop.*

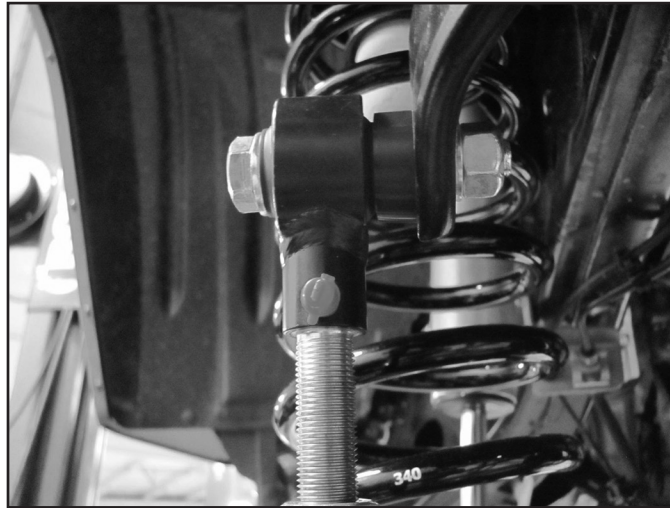
12. Install the hourglass bushings in the shocks. Shorter ones for the front with the sleeve on the lower mount and the stepped spacers on each side of the upper mount. Fox shocks install with the body up, NX<sup>2</sup> shocks install with the body down. Using the factory hardware, torque the upper and lower bolts to 60 ft-lbs.
13. Adjust both quicker disconnects to the minimum length approximately 8" and tighten the jam nuts. Insert the longer sleeves into the upper bushing (male end) and slide the polyurethane spacer onto the upper sleeve so it will mount towards the swaybar. The links will be installed with the grease fittings forward.

**IMPORTANT: Bushing cradles at both ends of quicker disconnect must remain parallel with each other when Jam Nut is tightened.**

14. 2024 Models: Use the larger ID sleeves that will accommodate 14mm hardware

15. Using the provided 12mm x 75mm bolts, washers, and nuts loosely fasten the sway bar links to the sway bar with the bolts going from the outside towards the frame (Fig 5).
16. 2024 Models: Use the larger 14mm hardware found in bolt pack J172

**FIGURE 5**



*Rubicon models have a factory electronic disconnect system. Follow these steps 15-20 to solid mount your sway bar links.*

17. Set the sway bar into disconnect mode for ease of installation of the links to the axle.
18. Locate the 1-1/4" sleeve and insert it into the passenger side disconnect bushing.
19. Insert the 1/4" thick spacer and disconnect into the original sway bar link location. It may be necessary to slightly open up the link opening for ease of assembly.
20. Adjust the length of the quicker disconnect to 8". Fasten the link to the axle with the original hardware.

**FIGURE 6**



21. Install the remaining longer sleeve on the driver side and slide the polyurethane spacer onto the sleeve so it will mount towards the axle mount tab. Install the quicker disconnect to the inboard side of the axle tab with the original sway bar link hardware.

*Note: If the link length was adjusted for the passenger side, match the length on the driver side link.*

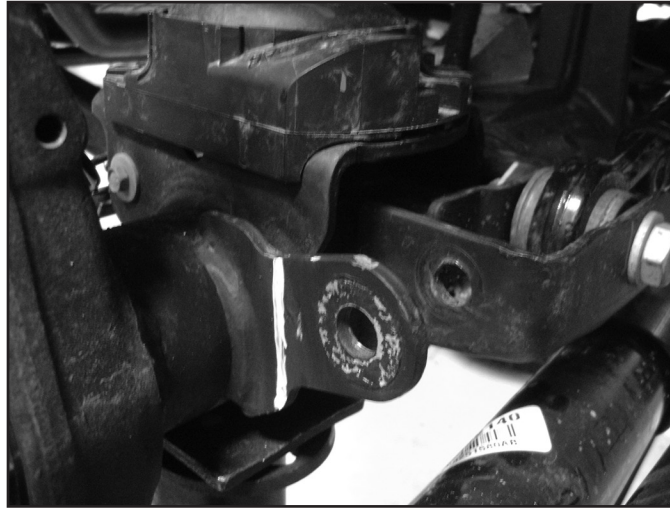
22. Torque the upper and lower hardware to 65 ft-lbs

**Non-Rubicon models follow steps 21-26**



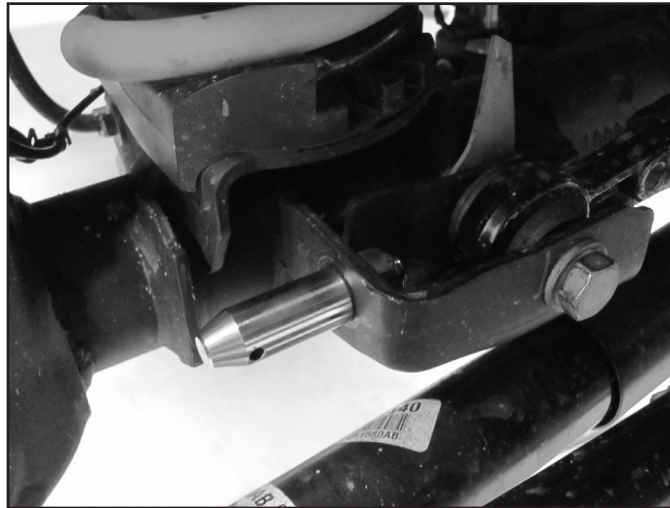
23. Non-Rubicon Models Only: Measure back 1-1/4" from the center of the sway bar link hole or just past the weld at the axle and make a vertical cut line. Cut off the tab at the mark and paint exposed metal.

**FIGURE 7**



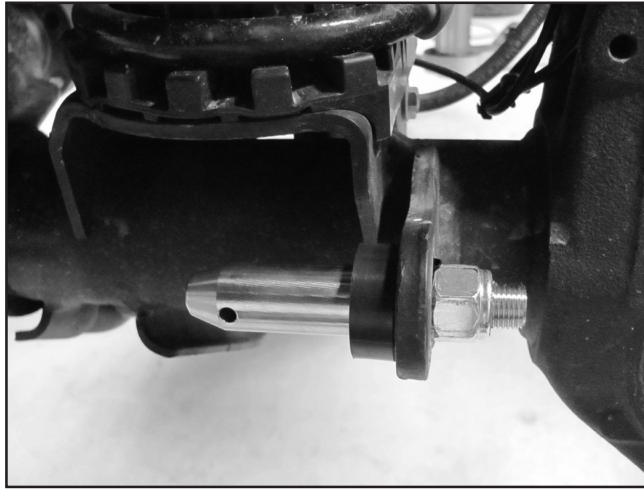
24. Attach the short mounting post into the original sway bar link mount hole on the track bar bracket. Tighten the post ensuring the click pin hole is horizontal or parallel with the ground. Tighten to 65 ft-lbs.
25. Note: A small screwdriver or punch inserted into the pin hole will keep the post from turning as you tighten it.

**FIGURE 8**



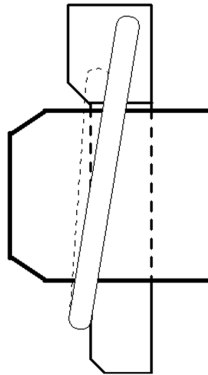
26. Attach the long mounting post with polyurethane spacer into the factory sway bar link mount. The stud should point towards the center of the vehicle. Tighten the post ensuring the click pin hole is horizontal or parallel with the ground. Tighten to 65 ft-lbs.

**FIGURE 9**

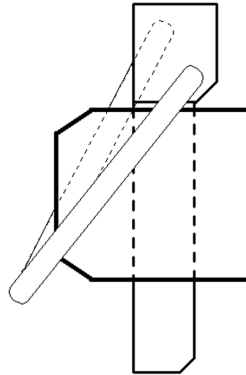


27. Torque the quicker disconnect to sway bar mounting bolts to 65 ft-lbs.
28. Insert click pins as illustrated to secure.

**CORRECT**



**WRONG**

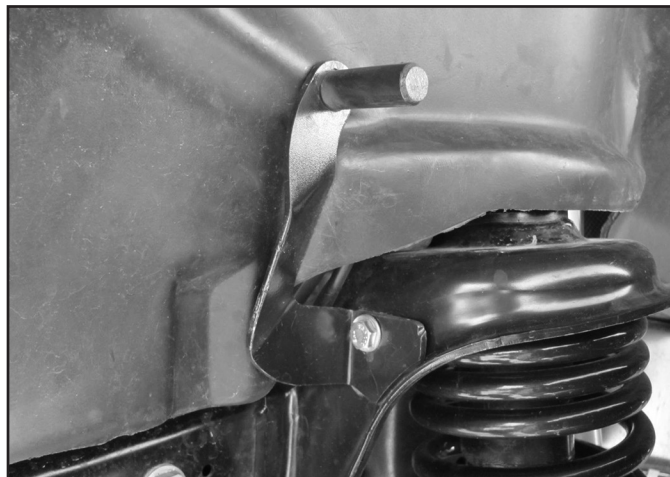


*When properly installed, the ring on the Click Pin will “snap” against the shaft of pin. When installed backwards, the ring does not fit snugly against shaft.*

**All Models**

29. Install the retention brackets using the provided 5/16” bolts into the factory hole in the front of the coil bucket as shown. These are designed to slightly form to the edge of the coil bucket to hold them in place.

**FIGURE 10**





30. This kit comes with optional alignment cams to regain the caster that was lost from the lift. With the front axle still support with a jack, loosen all 4 lower control arm bolts and remove the driver's side lower control arm bolt at the axle. The OE lower control arm mounts designed for alignment cams. The section behind the bolt must be removed to use the cam washers supplied in this kit. Special tools are made to perform this operation but are not necessary. The perforated sections can be removed most easily with a carbide burr or rotary grinding tool. Only the rear portion of the cam slot must be removed (Fig 3). Hint: Position the alignment cam between the slots and in line with the original hole to mark area that needs to be removed.

**FIGURE 11**



31. When the perforated sections are removed from the lower control arm mount, reinstall the control arm to the axle with cams on factory bolt. Rotate the cams so that the bolt is as far towards the 'rear' of the slot as possible. Just snug the cam hardware so that the cam washers are retained within the stops. Final cam bolt torque will be completed with the weight of the vehicle on the suspension. (Fig 4)

**FIGURE 12**



32. Repeat cam washer installation on the passenger side.
33. Reattach the brake lines to the control arms, and any axle wire harness disconnected during the install.
34. Install the wheels and torque lug nuts to manufacturer's specifications.
35. Lower the vehicle to the ground and bounce the front to settle the suspension. Torque the front control arm bolts to 207 ft-lbs.
36. Reattach the front track bar to the axle with the OE hardware. Have an assistant turn the steering wheel to aid in aligning the track bar bolt. Torque the track bar bolt to 115 ft-lbs.
37. Double check all hardware for proper torque.
38. Lubricate all grease zerk fittings on the Quicker Disconnects using common wheel bearing grease or equivalent.
39. Check all fasteners after 500 miles and at regularly scheduled maintenance intervals.

## REAR INSTALLATION (FOLLOWING STEPS ONLY APPLY TO THE 2" SUSPENSION SYSTEM)

40. Disconnect the track bar at the axle with the vehicle still on the ground. Retain factory hardware and nut tab.
41. Raise and support the vehicle with jack stands positioned in front of the lower suspension arm brackets. Remove the tires.
42. Remove the sway bar links from the axle and sway bar (Figure 16)

**FIGURE 16**



43. Remove the rear inner fender liners by removing the 3 bolts to gain access to the upper shock bolt .
44. Support the axle with a jack under the center of the differential and remove the shocks from the frame and axle, Retain factory hardware.
45. Lower the axle enough to remove the factory springs. Note the orientation of the upper spring isolators. Make sure there is adequate slack on all brake lines.

*Note: Before installation be sure to transfer the coil wrap from the factory coils onto the upper windings of the new coils.*

46. Install the shorter pair of coil springs with the larger windings on top into the rear of the vehicle with the orientation similar to stock. The upper isolators have a locating pin that fits into a hole in the frame. Raise the axle to compress the springs enough to hold them in place.
47. Install bushings and sleeves into the rear sway bar links, Install links to the frame with factory hardware, Install links to sway bar using included hardware (BP913). (Figure 17) Torque M12 hardware to 60 ft-lbs, torque factory hardware to 55 ft-lbs

**FIGURE 17**



48. Install the rear bump stop blocks using 5/16" hardware (BP 839) (Figure 18) Torque to 20 ft-lbs



**FIGURE 18**



49. Install the hourglass bushings and sleeves into the shocks. Fox shocks install with the body up, NX<sup>2</sup> shocks install with the body down. Install using the factory hardware, torque the upper and lower bolts to 89 ft-lbs

*Note: The bushings will have to compress slightly to get the shock in the mount, try walking the shock into place by tilting the shock back and forth against the spacers while pushing the shock up into place..*

50. Re-install inner fender.
51. Install the wheels and torque lug nuts to manufacturer's specifications.
52. Lower the vehicle to the ground and bounce the front to settle the suspension. Torque the front control arm bolts to 103 ft-lbs plus 145 degrees.
53. Attach Front track bar to axle and tighten front trackbar mounting hardware to the proper torque specifications, 52 ft-lbs plus 115 degrees on the frame end and 52 ft-lbs plus 155 degrees on the axle end.
54. Reattach the rear track bar to the axle with factory hardware. Torque the track bar bolt to 100 ft-lbs.
55. Double check all hardware for proper torque.
56. Lubricate all grease zerk fittings on the Quicker Disconnects using common wheel bearing grease or equivalent.
57. Check all fasteners after 500 miles and at regularly scheduled maintenance 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.