

INSTALLATION GUIDE



Part#: 028305



HARDCORE LIMITED LIFETIME WARRANTY

3" Coilover Lift System

Toyota Tundra | 2007-2019

Rev. 031523

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

Web: www.bds-suspension.com • E-mail: 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 for more information.

TIRES AND WHEELS

33x12.50 Tire
5" Backspace Wheel



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

028305 Box Kit		
Part #	Qty	Description
A266	1	Tundra UCA Assembly - Drv
A267	1	Tundra UCA Assembly - Pass
02911	2	Ball Joint Cap
9452K145	2	O-Ring
967	1	Bolt Pack - UCA
	2	1/4"-20 x 5/8" Bolt
	2	1/4" SAE Washer
	2	1/4"-20 Serrated Edge Flanged Nut
	2	3/8" Medium Duty Clamp
01426	4	Offset Shackle Plate
342701	1	Thread Locker
01427	2	Shackle Spacer Sleeve
909	1	Bolt Pack - Rear Shackles
	2	14mm-2.00 x 140mm Bolt
	4	14mm-2.00 x 120mm Bolt
	6	14mm-2.00 Prevailing Torque Nut
	12	9/16" SAE Washer
935	1	Bolk Pack- Differential Drop
	2	1/2"-13 x 6" Bolt
	2	1/2"-13 Serrated Edge Flanged Nut
	3	8mm-1.25 x 40mm Bolt
	3	5/16" USS Washer
01413	2	Differential Drop (1" length)
73	3	Skid Plate Spacer (1.25" length)
W58USS	4	5/8" USS Washer

TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Will not work on TRD Pro models.
2. Arms are designed to work with Fox Coilovers that require upper control arms and may not work with all aftermarket spacer lifts / lift kits (Will work with BDS 3" Lift). The ball joint has been reindexed to allow for max range of motion with 2"-3" lifts.
3. Ball joint cap must be removed for maintenance of ball joint. Remove cap to access grease zerk. Grease at regular maintenance intervals
4. For replacement ball joints, order BDS088200. Ball joints are not directional..



**TECH
TIPS**

INSTALLATION INSTRUCTIONS

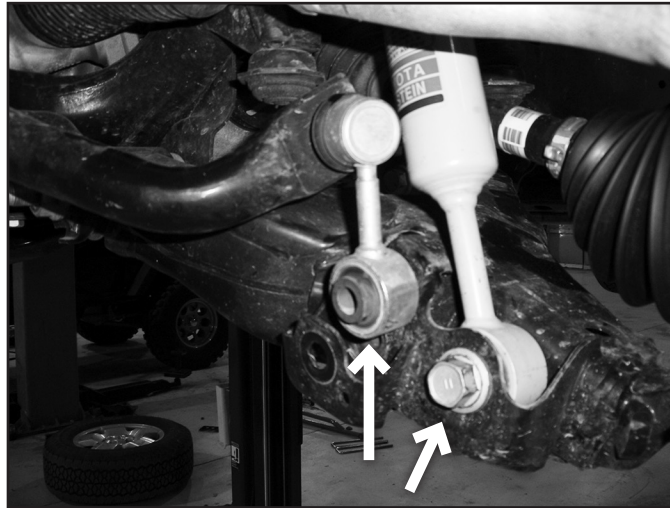
FRONT INSTALLATION

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame with jack stands behind the lower control arms.
3. Remove the front wheels.
4. Disconnect the sway bar links from the lower control arm (Fig 1). Retain hardware.

SPECIAL TOOLS

None

FIGURE 1



5. Support the lower control arm with a hydraulic jack
6. Loosen the lower control arm cam bolts. This will allow the lower control arm to swing out of the way.
Note: The front mount requires that the bolt head be turned not the nut, it will help if you remove the skid plate, but it is not necessary.
7. Remove the 2 bolts that attach the lower control arm to the lower ball joint (Fig 2).

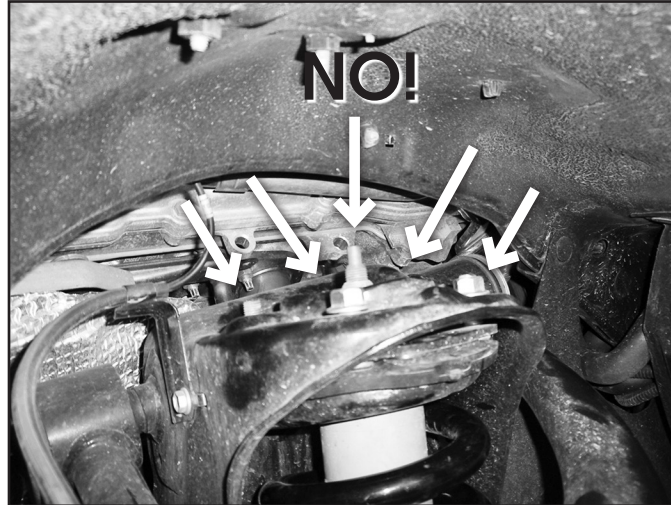
FIGURE 2



8. Remove the lower strut bolt (Fig 1).
Do not discard bolts, as they will be used with your new FOX coil-over assembly, depending on model.

9. Lower the jack and allow the lower control arm to swing down.
10. Locate the driver's and passenger's top strut mounting nuts (Fig 3). Remove the four nuts that hold each strut to the frame. Remove the strut from the vehicle.
⚠ CAUTION: DO NOT remove the center strut nut. It is under extreme pressure. Remove the strut from the vehicle by lowering it straight down.

FIGURE 3



COILOVER INSTALLATION

Perform the following steps one side at a time, starting with the passenger's side.

11. Install the new coil-over assembly. With remote reservoir models make sure that the hoses are facing outward and towards the front of the vehicle. Connect the top shock hat to the vehicle using the (3/8" x 7/8") bolts and washers provided or with Performance Series models connect the top shock hat to the vehicle using the nuts provided. Leave hardware loose.
12. Connect the shock to the lower control arm with the longer spacers toward the front of the vehicle with the 5/8" bolts, nuts and washers provided or with Performance Series models reuse the factory lower bolt and nut. Torque to 144 ft-lbs.
13. Tighten all four bolts or nuts top shock hat hardware to 24 ft- lbs.
14. On external reservoir models, reusing the factory sway bar bolts and thread locker, install the reservoir bracket between the sway bar and vehicle frame; orient the bracket so that the longer edge is toward the rear of the vehicle (Fig. 4). Slide the bracket against the vehicle frame and torque to factory specifications.

FIGURE 4



15. Mount the reservoir to the brackets using the supplied clamps. Utilize the slots in the bracket to locate the clamps. Do not feed the clamps through the slots in the bracket (Fig. 5)

FIGURE 5



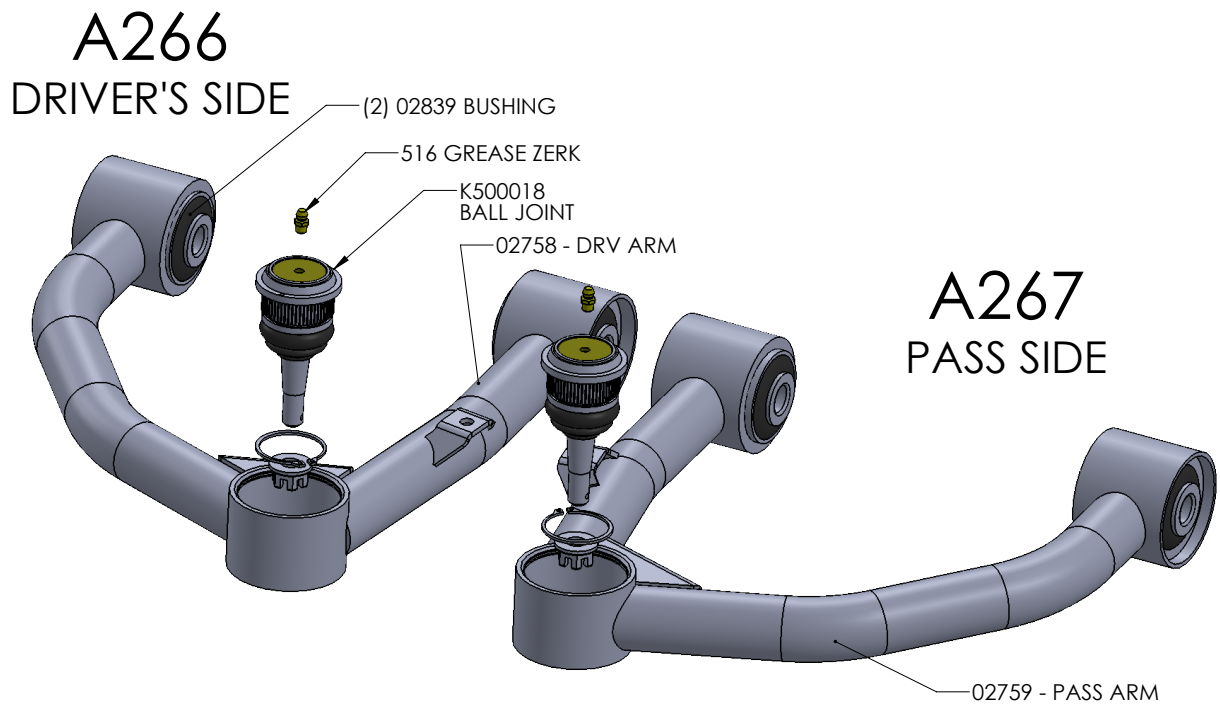
16. Attach the lower control arm to the lower ball joint with the OE bolts. Use thread locker on the threads. Torque hardware to 221 ft-lbs.

Note: Use a jack to slightly compress the coilover if necessary.

17. Repeat procedure on the driver's side.

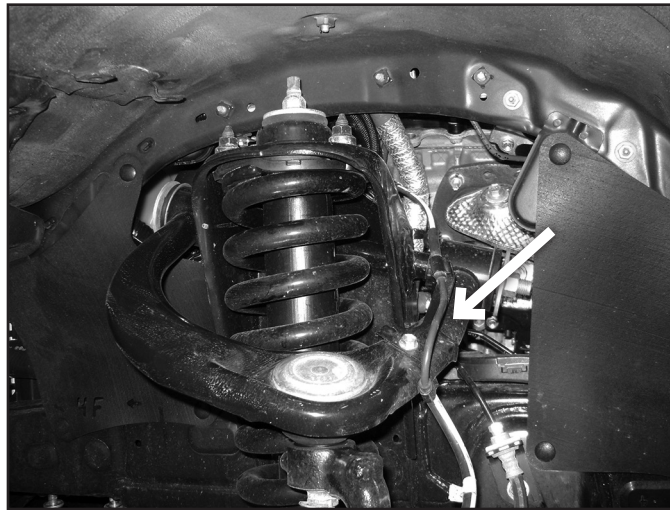
UPPER CONTROL ARM INSALLATION

FIGURE 6



18. Disconnect the ABS wire from the upper control arm on the passenger's side (Fig 7).

FIGURE 7



19. It is recommended to disconnect the ABS wire from the clips on the inside of the fender well to prevent over-extending of the ABS wire. Do not allow the brake line to hold the steering knuckle assembly in place.
20. Disconnect the upper ball joint from the steering knuckle.
21. Remove the upper control arm from vehicle. The inner fender well sheet metal may need to be slightly formed to get the bolt to be removed easily. Reference the factory service manual if needed.
22. Remove the factory washers from the upper control arm bolt, new washers are provided with the kit.
23. Install new upper control arm with factory hardware and new washers. Snug, but do not torque bolts. Attach to the steering knuckle at this time with new hardware. Tighten ball joint hardware to 81 ft-lbs. Install cotter pin, do not loosen the nut to install the cotter pin.
24. GREASE BALL JOINT at this time! Install the O-ring (9452K145) on cap with grease from the included grease packet to aid installation. Install cap (02911). Cap must be removed to access grease fitting for future maintenance (Fig 8)

Note: Grease ball joint before installation of cap.

FIGURE 8



25. Remove the factory ABS mounting bracket from the ABS line. Attach the ABS wire to the control arm with new 1/4" hardware with new wire clip in Bolt Pack 967. Tighten to 15 ft-lbs.
26. Repeat procedure on the driver's side. The upper control arm bushings bolt / nut will be torqued on the ground with the weight of the vehicle.

DIFFERENTIAL DROP

27. Remove the front lower skid plate (if equipped).
28. Support the front differential with a hydraulic jack.
29. Remove the 2 front bolts attaching the differential to the front cross member.

30. Lower the differential with the hydraulic jack.
31. Install the provided spacers (01413) in the gap. Install original cup washer on the new 1/2" x 6" bolts from Bolt Pack 935. (Fig 9)

FIGURE 9



32. Install serrated edge flanged nut on top of the factory cross member. Tighten to 65 ft-lbs.
33. Reinstall the factory skid plate (if equipped) with factory hardware to the cross member under the radiator. Attach with (3) 8mm x 40mm bolts and 5/16" USS washers from Bolt Pack 935 with three spacers (73) to the differential mounting cross member. Tighten to 25 ft-lbs.

FINAL FRONT INSTALLATION

34. Install the wheels and lower the vehicle to the ground. Torque lug nuts to factory specifications.
35. With both sides complete, reattach the sway bar links to the control arm with the OE hardware. Tighten lower sway bar bolt to 89 ft-lbs.
36. Bounce the front of the vehicle to settle the suspension.
37. Torque the upper control arm bushing hardware to 173 ft-lbs.
38. Torque the lower control arm cam bolts to 207 ft-lbs. Adjust and tighten the lower cam bolts. Have an assistant help adjust the toe before driving the vehicle to an alignment shop. A front end alignment **MUST** be performed.

REAR SHACKLE INSTALLATION

39. Park the vehicle on a clean, flat surface and block the front wheels for safety.
40. Raise the rear of the vehicle and support with jack stands under the frame rails, just ahead of the front leaf spring hangers.
41. Lower the spare tire from under the vehicle enough to allow the rear shackles to be removed.
42. Remove the rear shocks from the vehicle.
43. Support the rear axle under the differential with a hydraulic jack. Remove the driver's and passenger's rear shackles.
44. Install the provided shackle plates (01426) on each frame rail using a 14mm x 140mm bolt, nut and washers from Bolt Pack 909. The short end of the shackle plate goes to the frame and the plates will offset in toward each other. Run the bolt from the inside of the frame outward. Leave hardware loose.
45. With both shackles in place, attach the spring eyes to the bottom holes of the shackle plates with a 14mm x 120mm bolt, nut and washers from Bolt Pack 909. Run the bolt from the inside out. Adjust the position of the spring eyes relative to the shackles by raising or lowering the axle with the jack. Leave hardware loose.
46. Position the provided spacer sleeve (01427) between the shackle plates at the center hole and fasten with a 14mm x 120mm bolt, nut and washers from Bolt Pack 909. Run the bolt from the inside out. Leave hardware loose.
47. With both sides complete, install the new shocks with the provided bushings, sleeves and hardware. New upper hardware is supplied and the factory axle hardware will be reused. Torque the upper shock stud nut to 21 ft-lbs. Torque axle mount bolt to 66 ft-lbs.
48. With the shackles loosely assembled, remove the jack stands and lower the vehicle to the ground. Bounce the rear of the vehicle to settle the suspension and torque all 6 shackle bolts to 77 ft-lbs.
49. Raise the spare tire back to its stowed position.

POST INSTALLATION

50. Check all hardware (front and rear) for proper torque.
51. Reconnect the battery (if disconnected).
52. Vehicle will need a complete front end alignment.
53. Adjust headlights

54. Recheck all fasteners after 500 miles and at regular 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 and post them on the BDS Fan Page on Facebook at 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.

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.