

# INSTALLATION GUIDE



Part#: 028300



**HARDCORE LIMITED LIFETIME WARRANTY**

## 3" Front Strut Spacers

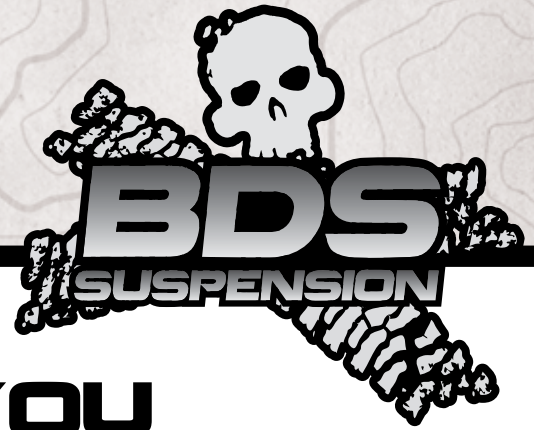
Toyota Tundra | 2007-2016

Rev. 100616

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

Web/live chat: [www.bds-suspension.com](http://www.bds-suspension.com) • E-mail: [tech-bds@sporttruckusainc.com](mailto:tech-bds@sporttruckusainc.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.

### 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

## 028300 Box Kit

Part #	Qty	Description
02215	2	Strut Spacer
519	1	Bolt Pack
	8	10mm-1.50 prevailing torque nut
	8	7/16" SAE flat washer
342701	1	Loctite



## TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Will not work on TRD Pro models.

**TECH  
TIPS**

# INSTALLATION INSTRUCTIONS

## INSTALLATION INSTRUCTIONS

## SPECIAL TOOLS

None

### 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.

**FIGURE 1**



5. Support the lower control arm with a hydraulic jack
6. Loosen the lower control arm 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)
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.

**⚠ CAUTION: DO NOT remove the center strut nut. It is under extreme pressure. Remove the strut from the vehicle by lowering it straight down.**

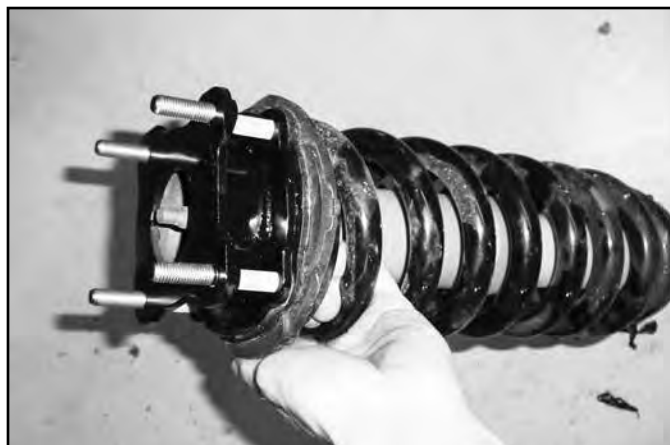
**FIGURE 3**



**PERFORM THE FOLLOWING STEPS ONE SIDE AT A TIME, STARTING WITH THE PASSENGER'S SIDE.**

11. Install new spacers on top of strut with OE nuts, tighten to 35 ft-lbs. Note: the new bracket will only fit onto the strut assembly one way. 'OUT' will be located in the same position as the OE assembly and will face towards the outside of the vehicle when it is reinstalled. (Fig 4)

**FIGURE 4**



12. Install the modified strut assembly in the vehicle by aligning the welded studs in the top plate with inside mounting hole. Fasten the strut to the frame with new 10mm nuts with 7/16" washers. Leave hardware loose. Note: It may be necessary to slightly clear the mounting holes with a die grinder or 7/16" drill bit.
13. Attach the strut to the lower control arm with the OE hardware. Snug nut but do not tighten. Final torque will be done with weight of the vehicle on the suspension.
14. Attach the lower control arm to the lower ball joint with the OE bolts. Use Loc-tite on the threads. Torque hardware to 220 ft-lbs. Note: Use a jack to slightly compress the strut if necessary.
15. The upper control arm will be very close to the coil at full droop. An alignment is required and will generally help the clearance issues. If there is contact between the upper control arm and coil, the coil and lower coil seat will need to be indexed (rotated) slightly to gain adequate clearance.
16. Torque the upper 10mm hardware to 35 ft-lbs.
17. Repeat procedure on the driver's side.
18. With both sides complete, reattach the sway bar links to the control arm with the OE hardware. Tighten lower sway bar bolt to 80 ft-lbs.
19. Install the wheels and lower the vehicle to the ground.

20. Bounce the front of the vehicle to settle the suspension. Torque the lower strut mount hardware to 175 ft-lbs.
21. 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.
22. Check all hardware for proper torque.
23. 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](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.