

INSTALLATION GUIDE



Part#: 028201

HARDCORE LIMITED LIFETIME WARRANTY

2" Suspension System

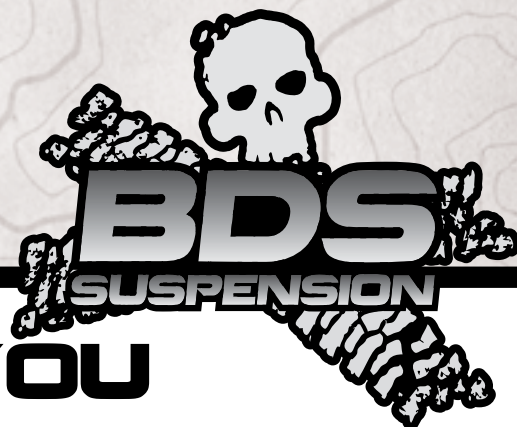
Toyota Tundra 4WD | 2022

Rev. 10202022

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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.



Visit 560plus.com for more information.

- 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.

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

028201 Box Kit

Part #	Qty	Description
05211	2	Strut Spacer
73	4	1.25" OD x 7/8" Sway Bar Spacer
75	2	1.25" OD x 1/2" Skid Plate Spacer
02866	2	1/4" Thick Bumpstop Extension Spacer
384	1	Bolt Pack - Top Hat
	8	10mm-1.50 x 40mm Bolt
	8	10mm-1.50 Prevailing Torque Nut
	8	7/16" SAE Washer
385	1	Bolt Pack - Sway Bar/Skid/Rear Shock
	2	8mm-1.25 x 30mm bolt
	2	5/16" SAE Washer
	4	12mm-1.25 x 50mm bolt
	4	1/2" SAE Washer
	2	18mm Washer

TIRES AND WHEELS

No Trimming*

285/65 R20 Tire or 285/75 R18 w/9" Wide 6-1/8" BS Wheel
 295/60 R20 Tire or 295/70 R18 w/9" Wide 5-1/2" BS Wheel
 305/55 R20 Tire or 305/65 R18 w/9" Wide 5" BS Wheel

Trimming**

325/60 R20 Tire w/9" Wide 6-1/8" BS Wheel
 35/12.50 R20 Tire or 35/12.50 R18 w/9" Wide 5-1/2" BS Wheel
 295/65 R20 Tire or 305/70 R18 or 285/75 R18w/9" Wide 5" BS Wheel

* Wheel and Tire combination was tested through normal driving conditions within alignment specs with no rubbing or trimming needed.

**Wheel and Tire combination was tested through normal driving conditions within alignment specs and some or all the following were required, removal of mud flap, fender liner being trimmed or fastened further back, body mount bump being cut off or ground down.



TROUBLESHOOTING INFORMATION FOR YOUR VEHICLE

1. Does Not fit TRD Pro Models
2. Does not fit Models with Adaptive Variable Suspension (AVS)
3. Does not fit XSP-X models

**TECH
TIPS**

INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Measure the stock height of the vehicle from the center of the wheel to the bottom edge of the fender.
LF ____ RF ____ LR ____ RR ____
3. Raise the front of the vehicle with a jack and support each side with a jack stand under the frame rail
4. Remove the front wheels
5. If equipped remove the two bolts holding up the automatic air damn. This will allow you access to the skid plate bolts. (Figure 1)

SPECIAL TOOLS

Spring Compressor
Cut off wheel or Grinder

FIGURE 1



6. If installed remove the 4 bolts holding on the front splash guard for the steering rack. Set the splash guard to the side and it can be reinstalled later. (Figure 2)

FIGURE 2



7. Disconnect the sway bar link from the LCA on both sides. (Figure 3)

FIGURE 3



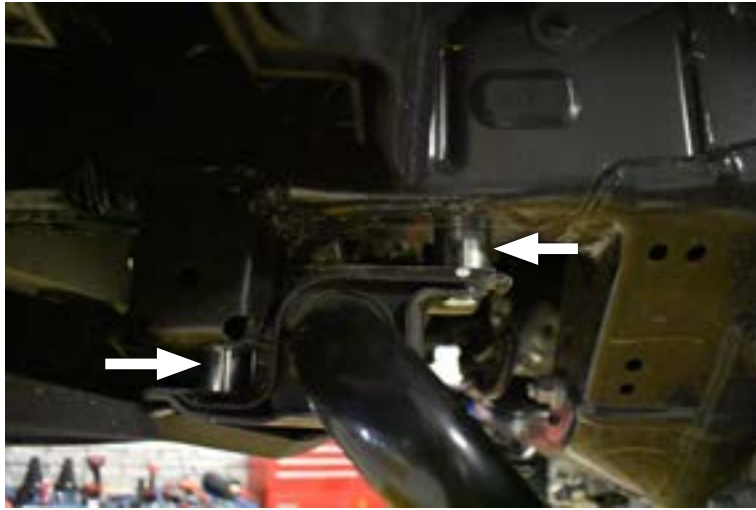
8. Unbolt the sway bar from the frame on the driver side. (Figure 4)

FIGURE 4



9. Slide in the provided spacers 7/8" long spacer (73) between the frame and sway bar bracket. Fasten to the frame with the 12mm x 50mm bolt and 1/2" washer in bolt pack 385. It may be necessary to loosen up the passenger side bolts. (Figure 5)

FIGURE 5



10. Repeat steps 8 & 9 for the Passenger side. Torque all four of the 12mm bolts to 55 ft-lbs
11. Remove the Tie rod from the knuckle, take care not to damage the knuckle or boot. (Figure 6)

FIGURE 6



12. Remove the abs line bracket from the UCA to allow more slack for additional travel. Will be reinstalled later. (Figure 7)

FIGURE 7



13. Remove the brake line bracket from the frame. Will be reinstalled later (Figure 8)

FIGURE 8



14. Remove the dust shield covering the axle nut. A small flat head screw driver or a thin chisel works well. Remove the retaining clip and loosen the axle nut. Figure 9

FIGURE 9



15. Separate the UCA from the knuckle. Take care not to damage the boot or aluminum knuckle. (Figure 10)

FIGURE 10



16. Support the driver side LCA. Remove the lower strut bolt and Upper Strut bolts (4x). Don't loosen the center one on top. (Figure 11 & 12)

FIGURE 11

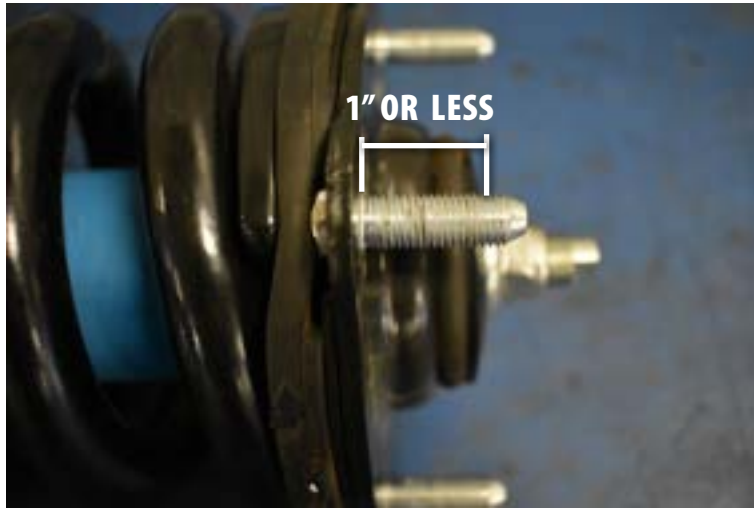


FIGURE 12



17. Pry down on the LCA and remove the strut, take care not to pull the cv out.
18. The factory strut studs 4x need to be trimmed to be shorter than the strut spacer. Grind down the end of the 4 factory studs. So they don't stick up past the top hat spacer. You will need to remove about 1/4" of material. The stud should be no longer than 1" from the mounting surface. (Figure 13)

FIGURE 13



19. Mark the lower eye in accordance to the upper top hat where it says "OUT". (Figure 14) Insert four 10mm x 40 bolts from bolt pack 384 into the provided top spacer. Mount the provided top hat onto the strut. It will only go on one way. Fasten it down using the OE nuts and torque to 48 ft-lbs (Figure 15)

FIGURE 14

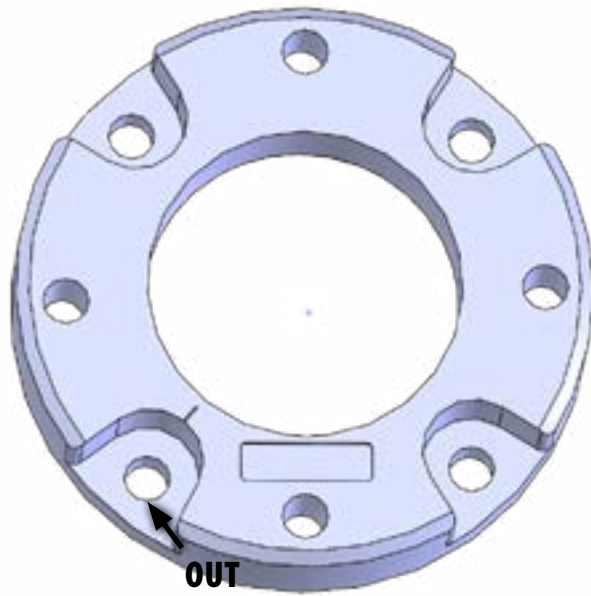


FIGURE 15



20. Use a spring compressor to remove some of the load on the strut top hat and rotate it so the "I" line faces outward for the driver & Passenger side (45deg counter clockwise). Ensure the spring is seated in the rubber spring retainer before releasing tension. (Figure 16)

FIGURE 16



21. Reinstall the strut with top spacer into the vehicle. Fasten the lower mount with the OE bolt, it will be torqued later. Use the 10mm nuts and 7/16" washer from bolt 384 to secure the top of the strut to the frame. Torque 10mm nuts to 37 ft-lbs. Repeat strut top had installation procedure for the other side.
22. Remove the factory front bump stops. Install the 1/4" thick spacer on the bump stop studs and reinstall. Driver and Passenger side (Figure 17)

FIGURE 17



23. Reconnect the UCA to the knuckle with OE hardware. Torque to 92 ft-lbs. Reinstall the retainer clip. (Figure 18)

FIGURE 18



24. Reconnect the Tie rod to the knuckle with OE hardware. Torque to 89 ft-lbs. Reinstall the retainer clip. (Figure 19)

FIGURE 19



25. Reconnect the sway bar links to the lower control arm. Torque to 111 ft-lbs (Figure 20)

FIGURE 20



- 26. Reconnect the ABS line to the UCA with OE hardware,, torque to 110 in-lbs. Reconnect the brake line bracket to the frame with OE hardware, torque to 21 ft-lbs.
- 27. If equipped reattach the factory splash guard, use the two 1-1/4" x 1/2" spacers to space down the front side, fasten with the two 8mm x 30mm bolts and two 5/16" washers from bolt pack 385. Torque to 16 ft-lbs

FIGURE 21



- 28. If equipped reattach the auto front spoiler to its mount with OE hardware, Torque to 12 ft-lbs, Some trimming of the front spoiler may be necessary around the sway bar bracket.
- 29. With both sides fully reassembled, Reinstall the wheels and lower vehicle to the ground.
- 30. Torque the wheels according to OE specs
- 31. If Installing rear shocks the 18mm Washer in Bolt Pack 385 is a spacer on the axle mount. (Figure 22

FIGURE 22



- 32. Roll vehicle back and forth to get it to settle. Torque the Front strut LCA hardware too 122 ft-lbs
- 33. Check all hardware for proper torque.
- 34. Vehicle will need an alignment done.
- 35. Recheck all fasteners after 500 miles and at regular scheduled maintenance intervals.

LOCATION	TORQUE (FT-LBS)
Sway Bar to Frame Mount	55
OE Strut Top Hat Nut	48

LOCATION	TORQUE (FT-LBS)
Top Spacer Nut	37
UCA Ball Joint Nut	92
Outer Tie Rod Nut	89
Sway bar Link to LCA	111
ABS UCA Bracket	9
Front Brake line Frame Bracket	21
Strut LCA Nut/Bolt	122



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.