



## T2301 Installation Instructions 2007-2017 Toyota Tundra 3.5" Adventure Series Lift

### Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products 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. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

#### » PRODUCT SAFETY WARNING

Certain Zone 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. Zone Offroad Products 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.

#### » TECHNICAL SUPPORT

[www.zoneoffroad.com](http://www.zoneoffroad.com) may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to [tech-zone@sporttruckusainc.com](mailto:tech-zone@sporttruckusainc.com) detailing your issue for a quick response.

**888.998.ZONE** Call to speak directly with Zone tech support.

#### » PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. 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.
4. 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.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. 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.

#### Difficulty Level

easy 1 2 **3** 4 5 difficult

Estimated installation: 4 hours

#### Special Tools Required

Strut Compressor

#### Tire/Wheel Fitment

305/70R18 on 18x9  
with 6-6.25" backspace  
295/65R20 on 20x9  
with 6-6.25" backspace

Modifications include removing mudflaps and possibly trimming the front skid plate. Using wheels with less backspacing will increase trimming required and include possible body mount modification.

**\*Important\* Verify you have all of the kit components before beginning installation.**

## T2300 Box Kit Contents

### Qty Part

|   |                                   |
|---|-----------------------------------|
| 1 | Drv - Upper Control Arm Assembly  |
| 1 | Pass - Upper Control Arm Assembly |
| 4 | 5/8" USS Washer                   |
| 1 | Bolt Pack 688                     |
| 2 | 1/4"-20 x 5/8" bolt               |
| 2 | 1/4"-20 serrated flange nut       |
| 4 | 1/4" USS flat washer              |

## T2301 Box Kit Contents

### Qty Part

|    |                                              |
|----|----------------------------------------------|
| 2  | 3.5" Strut Spacer                            |
| 4  | Strut Stem Bushings                          |
| 4  | Strut Stem Washers                           |
| 1  | Bolt Pack 461 - Strut Spacer                 |
| 4  | 10mm-1.50 x 30mm bolt                        |
| 8  | 10mm-1.50 nylock nut                         |
| 12 | 3/8" USS flat washer                         |
| 2  | Differential Drop Spacer                     |
| 1  | Bolt Pack 935 - 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                             |
| 1  | Loctite                                      |
| 3  | 1.25 x 5/16 x 7/8 Sleeve                     |
| 4  | Bump Stop Extension                          |
| 2  | Sway Bar Drop                                |
| 1  | Bolt Pack 463 - Sway Bar Drop                |
| 4  | 12mm-1.25 x 70mm bolt grade 8.8 - clear zinc |
| 4  | 12mm flat washer - clear zinc                |
| 4  | Shackle Plate                                |
| 2  | Shackle Sleeve                               |
| 1  | Bolt Pack - 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 flat washer                        |

# Installation Instructions

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## » **FRONT DISASSEMBLY**

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 with jack stands under the frame rails.
3. Remove the front wheels.
4. Disconnect the sway bar links from the lower control arms. **Figure 1** Save hardware.



Figure 1

5. Mark the position of the lower control arm cam washers. **Figure 2** These marks will be used for reference during assembly.

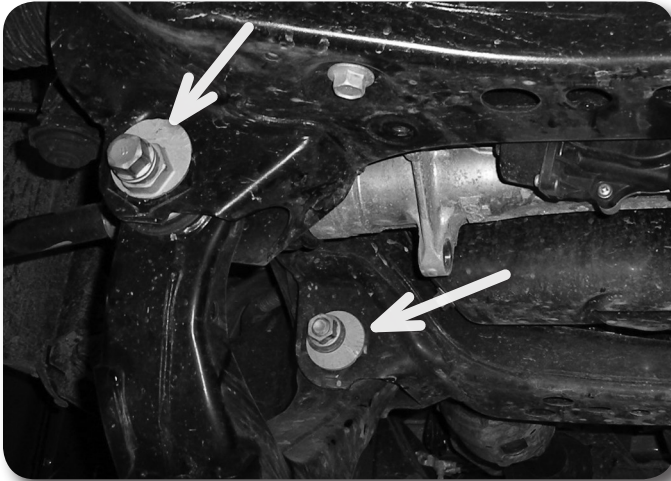


Figure 2

6. Loosen the lower control arm cam bolts (2 per side).

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## » **UPPER CONTROL ARM INSTALLATION**

7. Disconnect the ABS line from the upper control arm. **Figure 3**

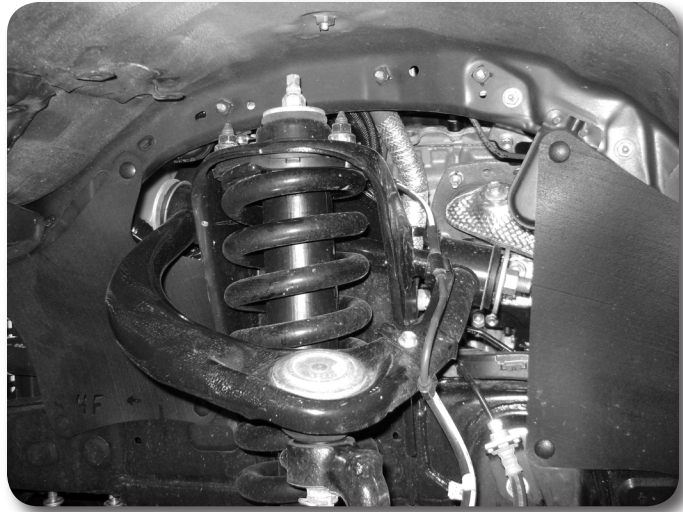


Figure 3

8. Loosen the upper ball joint nut, do not completely remove the nut. Unseat the tapered ball joint from the steering knuckle by striking the knuckle with a hammer to get the ball joint to 'pop' and unseat the taper. **Figure 4**



Figure 4

9. Remove the upper control arm bolt and remove the control arm from the vehicle. On the passenger's side, there are 2 clips that must be popped out from the body to allow the factory bolt to be removed. Keep the large washer near the arm (not bolt head) to allow the bolt to be removed.
10. Remove the factory washers from the upper control arm bolt, new washers are provided with the kit.
11. Install new upper control arms with factory bolt, nuts, and new washers. Do not tighten at this time. These will be tightened with the weight of the vehicle on the suspension.
12. Attach the ball joint to the steering knuckle with included hardware. Tighten the ball joint nut to 80 ft-lbs. Do not loosen the ball joint nut to get the cotter pin to line up.

13. Attach the ABS bracket to the upper control arm with ¼" hardware. Tighten to 15 ft-lbs



Figure 5

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## » STRUT SPACER INSTALLATION

*Perform the following steps on one side at a time.*

14. Support the lower control arm with a jack.
15. Remove the two lower bolts mounting the steering knuckle to the lower ball joint mount. **Figure 6** Save bolts.



Figure 6

16. Remove the bolt mounting the strut to the lower control arm. Save hardware.
17. Lower the lower control arm away from the strut.
18. Locate and remove the 4 upper strut mounting bolts at the frame. **Figure 7** Remove the strut from the vehicle. **DO NOT** remove the center strut rod nut. It is under extreme pressure.





Figure 7

19. Make an alignment mark on the top of the strut to align it with the bottom facing out. Using a high quality strut compressor, compress the coil spring and remove the center nut. Remove the strut spacer top cap.
20. Replace the strut top cap with the new provided strut spacer. Line up the spacer so the holes with no studs face out.



Figure 8

21. Resassemble the strut with the provided stem bushings and washers. Torque center nut to 30 ft-lbs.

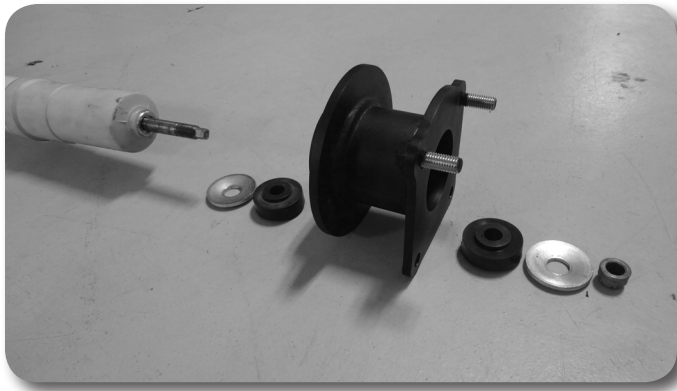


Figure 9

22. Install the strut assembly in the vehicle by attaching to the frame mount first. Fasten the new mount to the frame with the provided 10mm hardware. Leave nuts loose.
23. Swing the lower control arm up to the strut and reattach in the original mount with the factory hardware. Leave hardware loose. The lower strut bolt will be tightened with the weight of the vehicle on the suspension.
24. Torque the new upper strut mount nuts to 35 ft-lbs.
25. Reattach the lower control arm to the steering knuckle with the original bolts. Apply Loctite to the bolt threads before installing. Torque bolts to 175 ft-lbs.
26. Repeat installation on the opposite side of the vehicle.

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## » SWAY BAR DROP INSTALLATION

27. Using the provided 12mm x 70mm fine thread bolts, place the sway bar drop between the frame and the sway bar and tighten bolts to 50 ft-lbs.



Figure 10

28. With both sides complete, reattach the sway bar links to the lower control arms with the factory hardware. Torque bolts to 90 ft-lbs.

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## » DIFFERENTIAL DROP INSTALLATION

29. Remove the factory skid plate.
30. Support the front differential with a hydraulic jack.
31. Remove the 2 front bolts from the vehicle with 19mm wrenches.

32. Lower the differential with the hydraulic jack.
33. Install the provided spacers in the gap. Install original cup washer on the new  $\frac{1}{2}$ " x 6" bolts. **Figure 10**



Figure. 11

34. Install serrated edge flanged nut on top of the factory crossmember. Tighten to 65 ft-lbs.
35. Reinstall the factory skid plate (if equipped) with factory hardware to the crossmember under the radiator. Attach with (3) 8mm x 40mm bolts and 5/16" USS washers with (3) spacers to the differential mounting crossmember. Tighten to 25 ft-lbs.

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### » **FRONT BUMP INSTALLATION**

36. Using a pipe wrench, remove the factory bump stops from the mounts (4 places).
37. Measure up the threads  $\frac{1}{2}$ " and cut off the threads

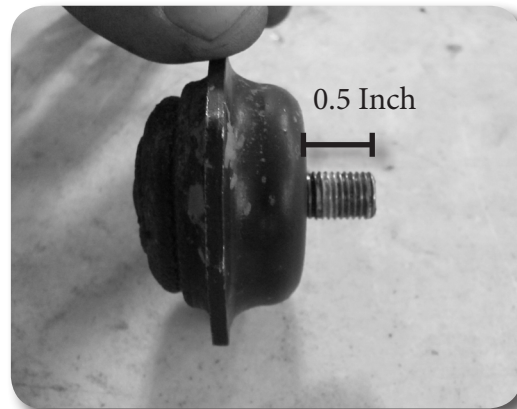


Figure 12

38. Apply loctite to the threads of the spacer and bump stop and attach them to the frame.





Figure 13

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## » REAR 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. Support the rear axle under the differential with a hydraulic jack. Remove the driver's and passenger's rear shackles.
43. Install the provided shackle plates on each frame rail using a 14mm x 140mm bolt, nut and washers. 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.
44. 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. 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.
45. Position the provided spacer sleeve between the shackle plates at the center hole and fasten with a 14mm x 120mm bolt, nut and washers. Run the bolt from the inside out. Leave hardware loose.
46. 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 95 ft-lbs.
47. Raise the spare tire back to its stowed position.

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## » FINAL INSTALLATION STEPS

48. Install the wheels and lower the vehicle to the ground. Torque lug nuts to 100 ft-lbs (aluminum wheels) or 150 ft-lbs (steel wheels).
49. With the weight of the vehicle on the suspension, torque the factory lower strut bolts to 140 ft-lbs.
50. Align the lower control arm cam bolt marks made earlier and torque the lower control arm bolts to 200 ft-lbs.
51. Torque the upper control arm bolts to 173 ft-lbs.

## Post-Installation Warnings

1. 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.
2. 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.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.

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## »» POST INSTALLATION

52. Check all hardware for proper torque. Recheck hardware after 500 miles.
53. The vehicle will need a complete front end alignment.