# T1311 Installation Instructions
# 2010-2023 TOYOTA 4RUNNER
# 3" Suspension Lift Kit

## 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

1. 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*** may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to ***tech-zone@ridefox.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.
8. Other equivalent tire/wheel size options should work - may require minor trimming for some combinations.
9. Will not work on models equipped with the X-REAS shock system. If completely removing X-REAS system from vehicle, kit can be installed/ optioned with front OE replacement struts, front Fox Coilovers, rear Fox Adventure Series shocks, or rear Nitro Series shocks.
10. Will not work with factory KDSS sway bar system

### Difficulty Level

easy 1 2 (3) 4 5 difficult

Estimated installation: 5 hours

### Special Tools Required

- Strut Compressor

### Tire/Wheel Fitment

Tire:

285/70R17

Wheel:

17x8 - 5in Back Spacing

## Front Kit Contents

| Qty | Part |
|---|---|
| 2 | 0.75” ID Spacer |
| 2 | 0.51” ID Spacer |
| 4 | Stem Washer |
| 2 | Sway Bar Link Sleeve |
| 4 | Stem Bushing |
| 2 | Hourglass Bushing |
| 2 | Front Strut Spacer |

| Qty | Part |
|---|---|
| 2 | Rear Sway Bar Link |
| 2 | Rear Spring Spacer |
| 1 | Bolt Pack |

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

## IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.**

**BEFORE:**

*LF*_____ *RF*_____ *LR*_____ *RR*_____

**AFTER:**

*LF*_____ *RF*_____ *LR*_____ *RR*_____


***These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.*

# INSTALLATION INSTRUCTIONS

## Pre-Installation

1. Park vehicle on clean and level surface. Block the rear wheels for safety.
2. Measure the ride height of the vehicle from the center of the wheel to the fender and record on the previous page.
3. Raise the front of the vehicle with a hydraulic jack. Support the frame rails with jack stands.

## Installation Instructions

1. Remove the five skid plate bolts using a 12mm socket. ***Fig.1***

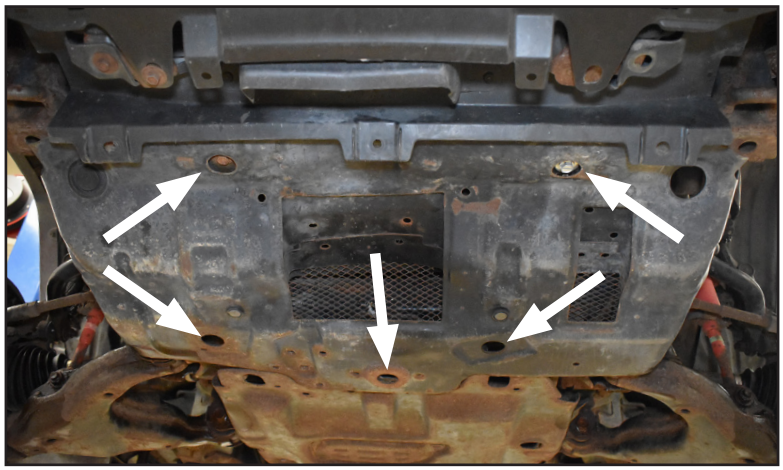

Figure 1

2. Loosen but do not remove the lower shock bolt/nut using 19mm socket/ wrench. ***Fig. 2***

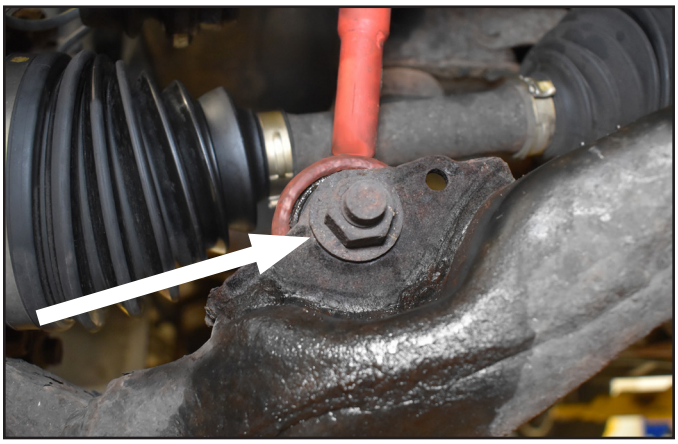

Figure 2

3. Loosen, but do not remove, the front and rear lower control arm bolts/eccentric cams with a 22mm socket and wrench. ***Fig. 3A, 3B***

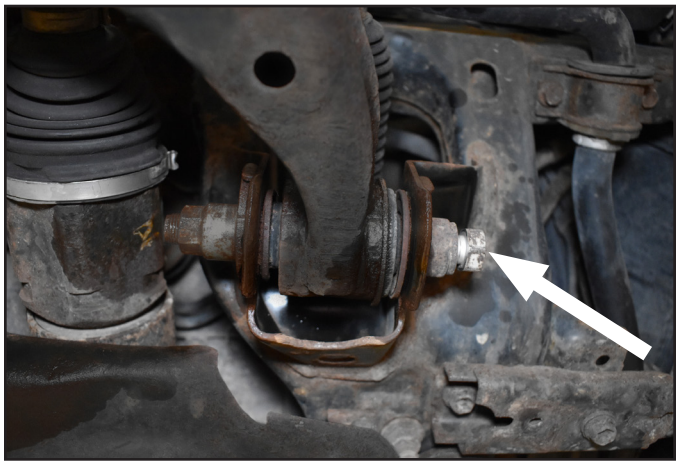

Figure 3A

Figure 3B

4. Remove the lower control arm to knuckle attachment bolts using a 19mm socket. ***Fig. 4***

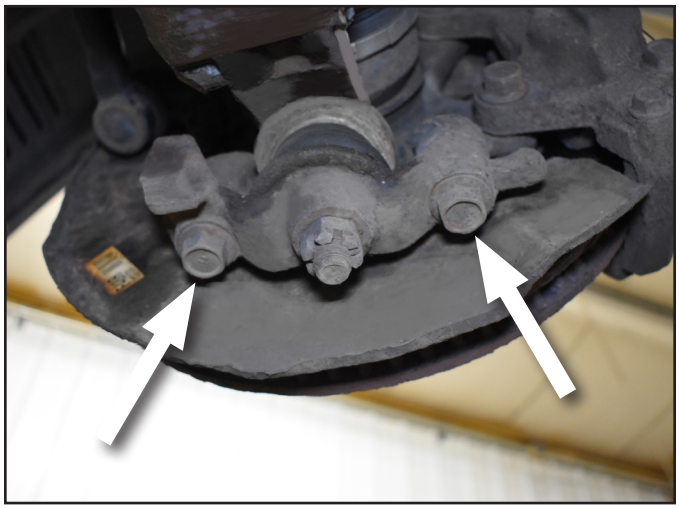

Figure 4

5. Remove lower strut bolt. ***Fig. 5***

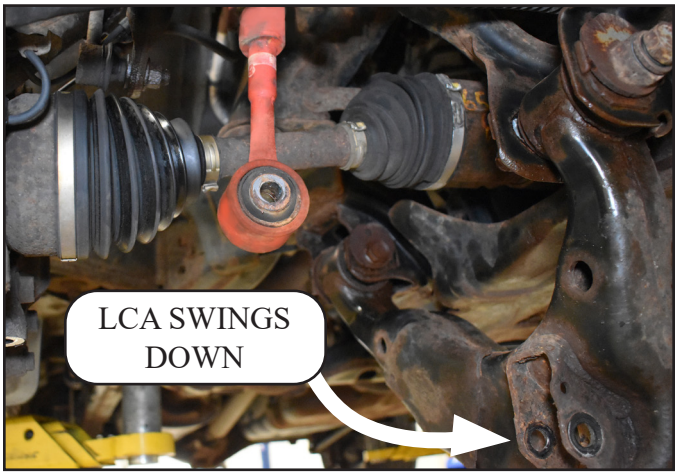


Figure 5

**Step 5 Note:**
Lower control arm may swing down when bolt is removed. Use caution and support arm as necessary.

6. Loosen and remove the three top strut bolts using a 14mm wrench. DO NOT LOOSEN THE CENTER STRUT ROD NUT. ***Fig. 6***

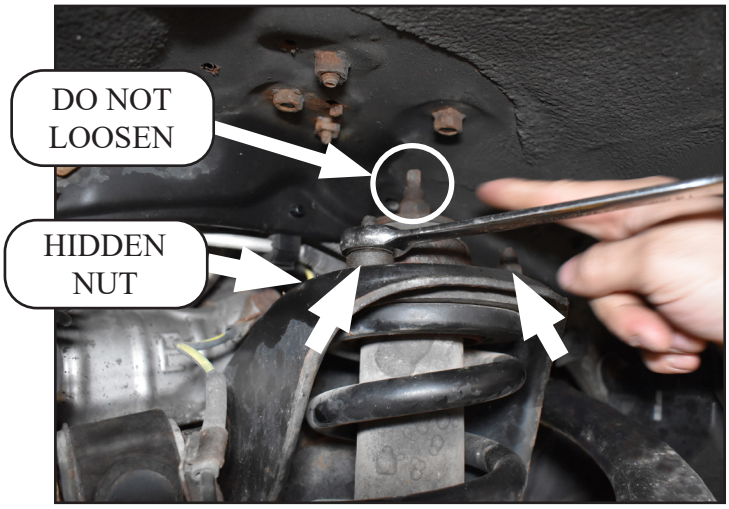


Figure 6

**Step 6 Note:**
***DO NOT LOOSEN THE CENTER STRUT NUT. DOING SO COULD RESULT IN INJURY OR DEATH.***

7. With all three mounting nuts removed, remove strut from the vehicle.

8. Mark the coil spring and top hat for alignment during re-assembly. ***Fig. 7***

Figure 7

9. Using a strut compressor, compress the spring and remove the strut rod nut with a 17mm socket. Retain nut for re-installation. Decompress the spring and remove from the spring compressor. ***Fig. 8, 9***

Figure 8

Figure 9

10. Remove strut cylinder from spring and install the provided stem washer and bushing. ***Fig. 10***

Figure 10

11. Re-install the spring and rubber strut cap insulator. Align the coil spring and strut cap marks made previously. ***Fig. 11***

Figure 11

12. Rotate the coil spring until the bottom coil winding is fully indexed into the lower seat as shown. ***Fig. 12***

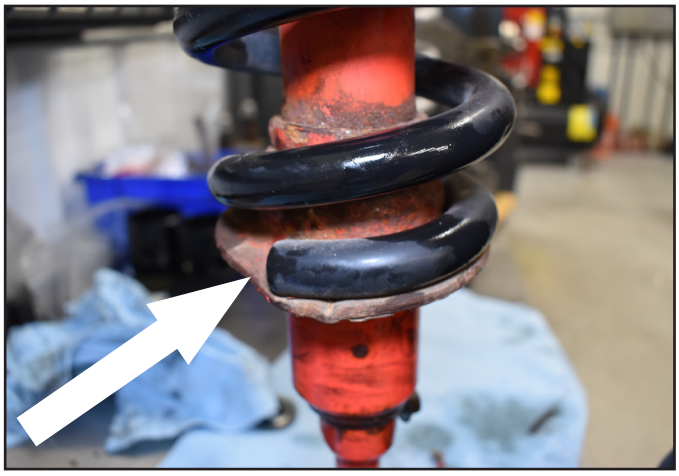

Figure 12

13. Install the strut spacer with the threaded stud oriented to the rear of the strut assembly ***Fig. 13A***. The lower strut mounting sleeve should be parallel to the front two strut spacer mounting holes, when viewed from above. ***Fig. 13B***

Figure 13A

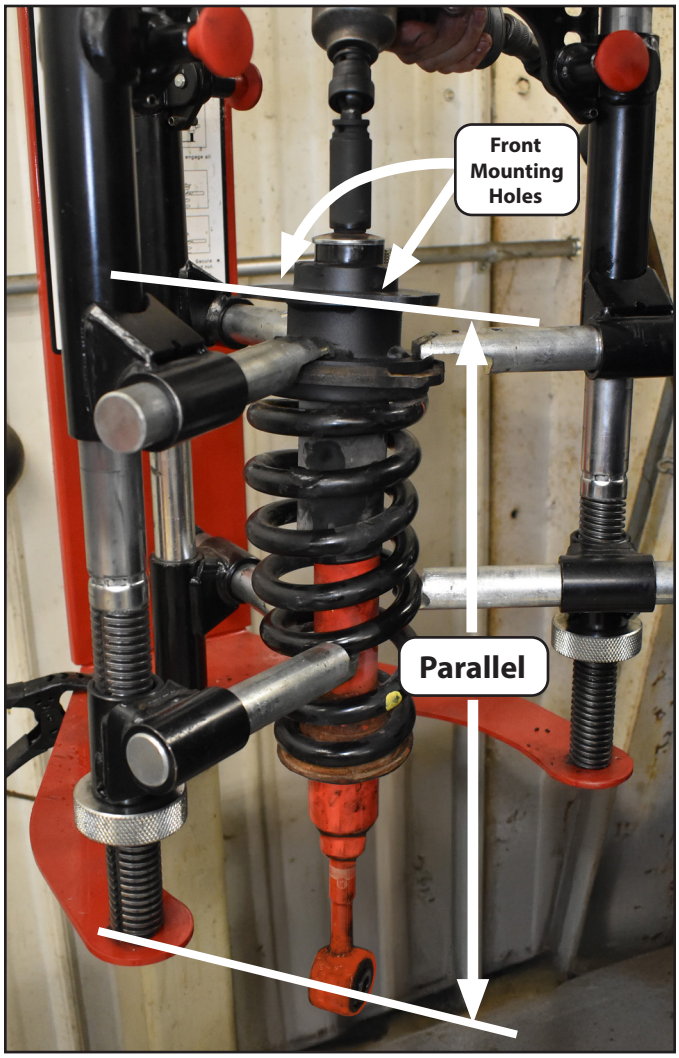


Figure 14B

14. Compress spring in strut compressor and install another stem bushing, stem washer, and the OE nut. Torque OE strut rod nut to 18 ft-lbs. ***Fig. 14***

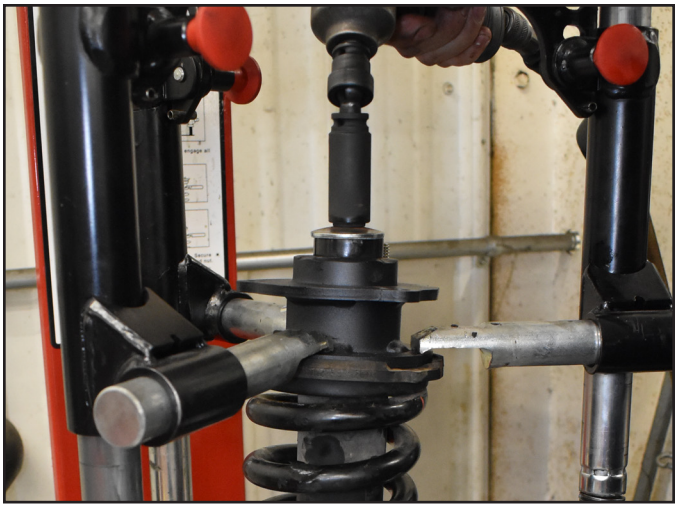

Figure 14

15. Install strut with the stud in the rear strut tower hole using the provided 7/16" prevailing nut and 7/16" washer. Leave hardware loose. Install the two front 7/16 x 1-1/4" bolts, washers and nuts. Finger tighten hardware. ***Fig. 15, 16***

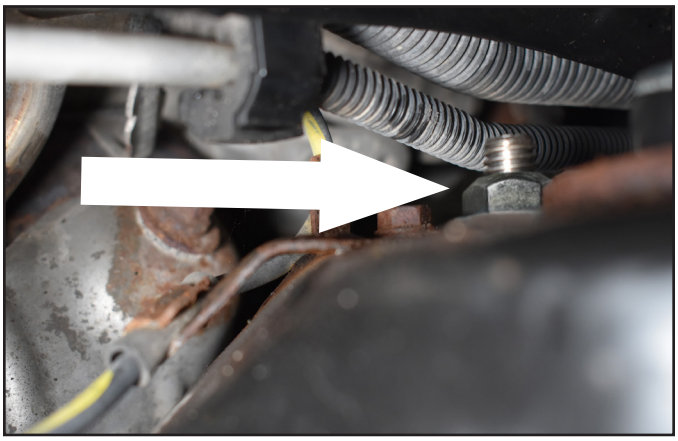

Figure 15

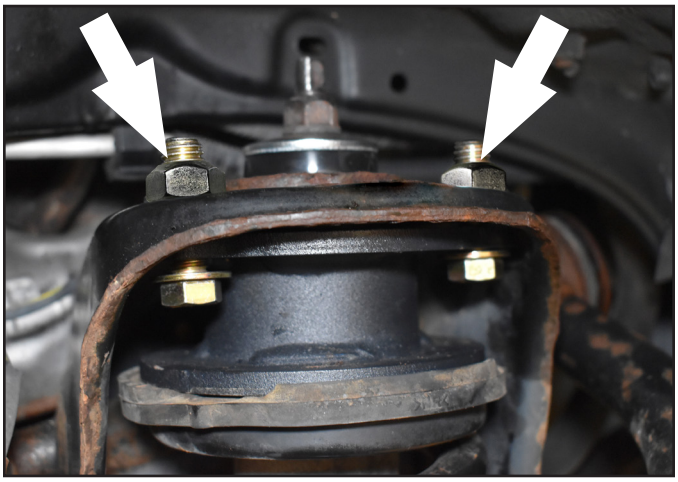

Figure 16

16. Swing the lower control arm up and reconnect the strut lower using OE hardware. ***Fig. 17*** Tighten hardware but do not torque: final torque will be completed in later step.

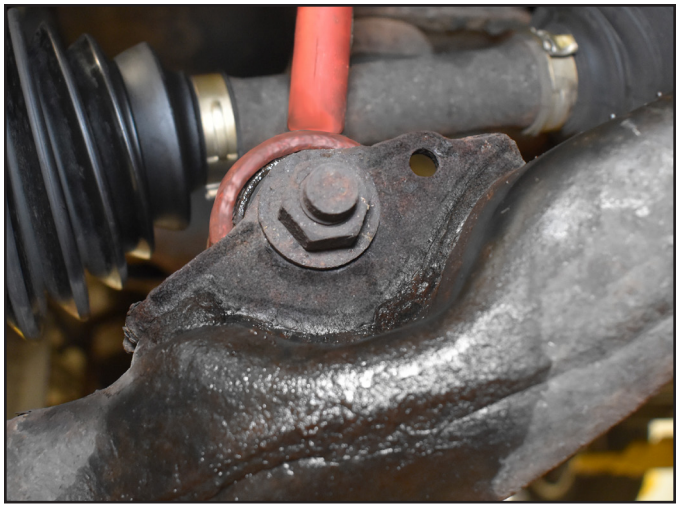

Figure 17

17. Apply thread locker to the lower control arm-to-knuckle attachment bolts. Re-attach lower control arm-to-knuckle and torque bolts to 118 ft-lbs ***Fig. 18, 19***

Figure 18

Figure 19

18. It may be necessary to loosen upper control arm to reconnect the arm to the knuckle. ***Fig. 20***

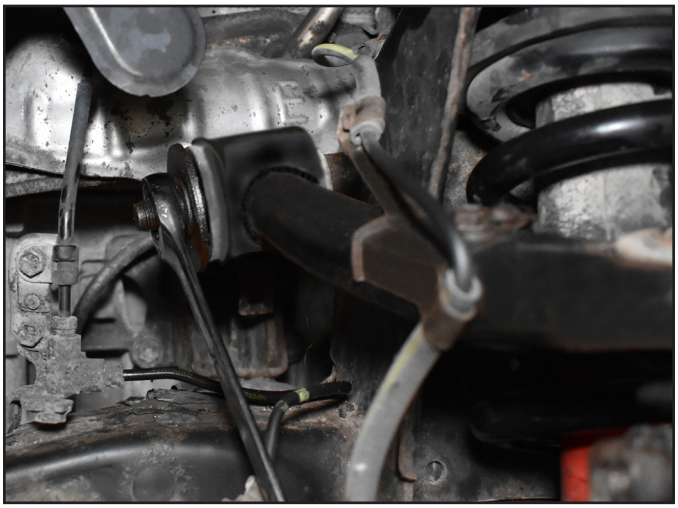

Figure 20

19. Torque strut spacer to frame hardware to 52 ft-lbs. ***Fig. 21***

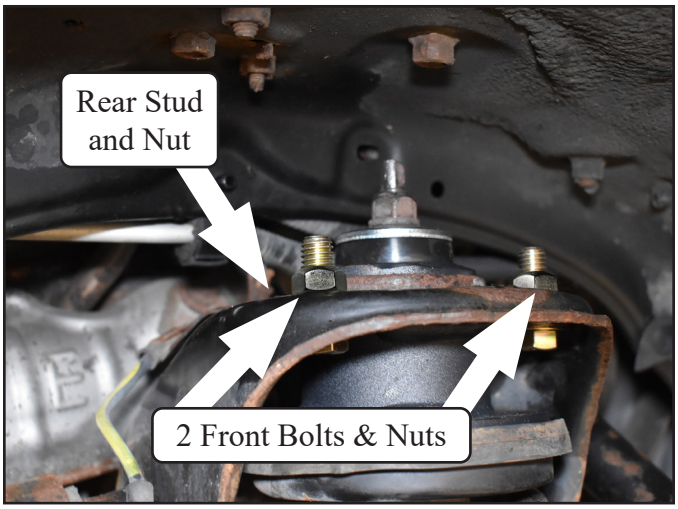


Figure 21

20. Repeat Steps 2-19 on opposite side of vehicle. Once complete, lower vehicle to the ground and settle the suspension. Torque upper control arm bolts to 85 ft-lbs and the lower control arm bolts to 129 ft-lbs. Torque the lower strut to control arm bolts to 70 ft-lbs.

## » Rear spacer and shock installation

1. Raise the rear of the vehicle. If working on the ground, use a hydraulic floor jack to lift the vehicle. Support the frame rails with jack stands.
2. Remove track bar bolt using a 19mm socket, it may be necessary to use a pry bar to remove the track bar from bracket. ***Fig. 22***

Figure 22

1. Remove parking brake bracket bolt using a 12mm socket on both driver and passenger sides. ***Fig. 23***

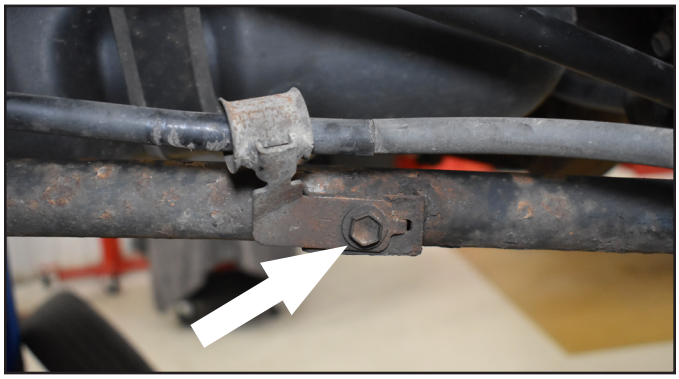

Figure 23

2. Remove bolts from the brake line/ABS brackets on both driver and passenger sides of the axle housing using a 12mm socket. ***Fig. 24, 25***

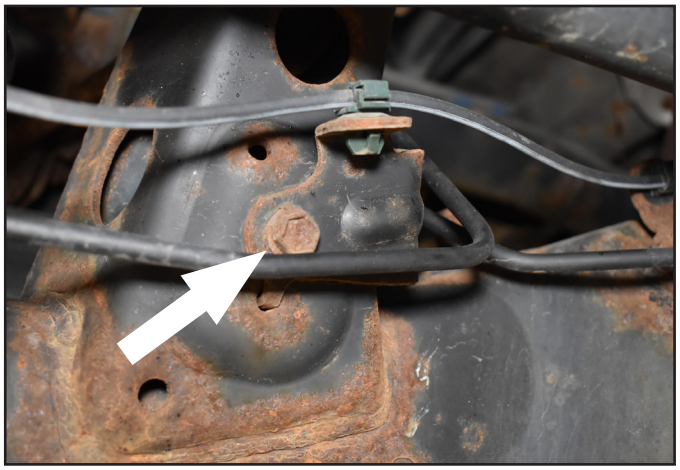

Figure 24

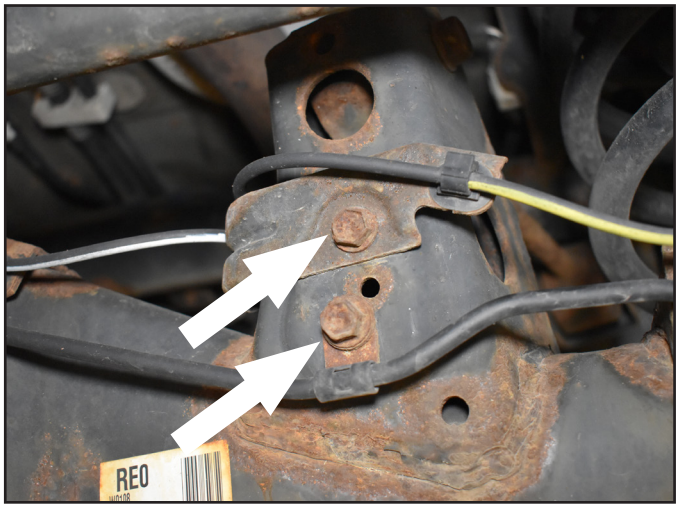


Figure 25

3. Remove brake line bracket bolts from the driver side upper and lower frame and axle housing bracket. Use a 12mm socket (Driver side) ***Fig. 26, 27***

Figure 26

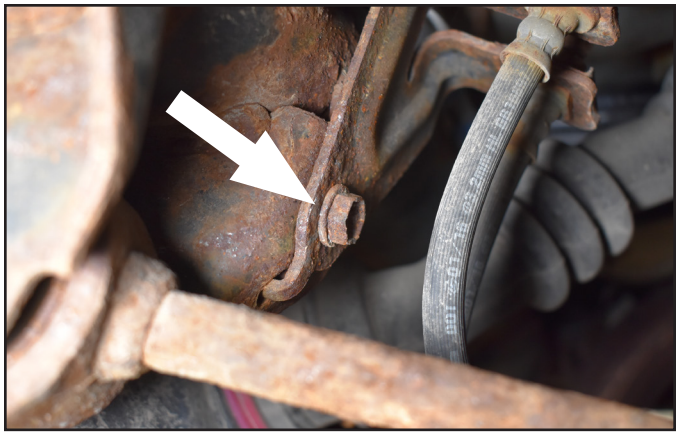

Figure 27

**Step 4 Note:**

***Inspect sway bar link bushings, washers, and nuts for wear or damage. Replace as needed.***

4. Remove sway bar link bracket nut with a 12mm socket/wrench. Save hardware including bushings and cup washers. ***Fig. 28***

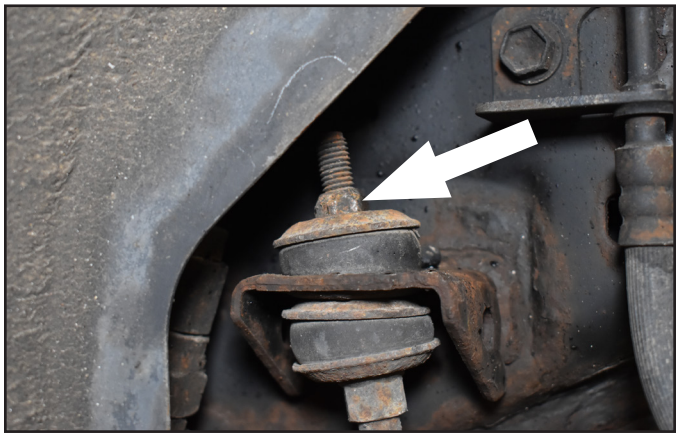

Figure 28

5. Remove lower sway bar link nut using a 17mm socket and remove the link from sway bar. Repeat on opposite side. ***Fig. 29***

Figure 29

6. If working on a hoist, place screw jacks under both sides of axle housing. If working on the ground, support the axle with a hydraulic floor jack.
7. Remove lower shock bolt with a 17mm socket. Use a pry bar to pry the shock from the lower shock mount. Do this on driver and passenger sides ***Fig. 30***

Figure 30

8. Allow axle to droop enough for removal of the coil springs. Remove coil springs and isolator/bump stops from both sides. ***Fig. 31, 32***

Figure 31

Figure 32

9. (**Bolt-in spacer OPTION**) Fasten the spacer using provided 7/16”x1-1/4” bolt, nut and two washers ***Fig. 33***. Torque hardware to 52 ft-lbs. Install the OE isolator/bump stop onto the OE spring and install spring on vehicle ***Fig. 35***. Repeat for opposite side. Ensure springs index into lower spring seat. ***Fig. 36***

Figure 33

10. (**Without bolt-in OPTION**) Install spacer to top of the OE spring and install into the spring bucket and axle seat ***Fig. 34, 35***. Align bottom spring winding with the indexing of the lower spring seat. ***Fig. 36***

Figure 34

Figure 35

Figure 36

### » If installing new shocks

11. Disconnect the shock by removing the upper shock rod nut. ***Fig. 37***

Figure 37

12. Install shock at the upper mount using included stem washers and bushings as shown. Leave hardware loose, finally tightening will be completed before putting vehicle back on the ground. ***Fig. 38***

Figure 38

13. Install the larger bushing spacer onto the shock pin, then install shock onto pin. The smaller metal bushing installs into the rubber bushing on the shock. Attach the lower shock to the pin re-using the stock bolt. Torque mounting bolt to 72 ft-lbs. ***Fig. 39, 40, 41***

Figure 39

Figure 40

Figure 41

14. Install new sway bar link at the top bracket using OE top bushings and cup washers and use the 7/16" nylock nut. ***Fig. 42, 43***

Figure 42

Figure 43

15. Install sway bar at the bottom using provided 12mm bolt, two washers and nut using a 19mm socket. Torque hardware to 70 ft-lbs ***Fig. 44 .*** Repeat on opposite side.

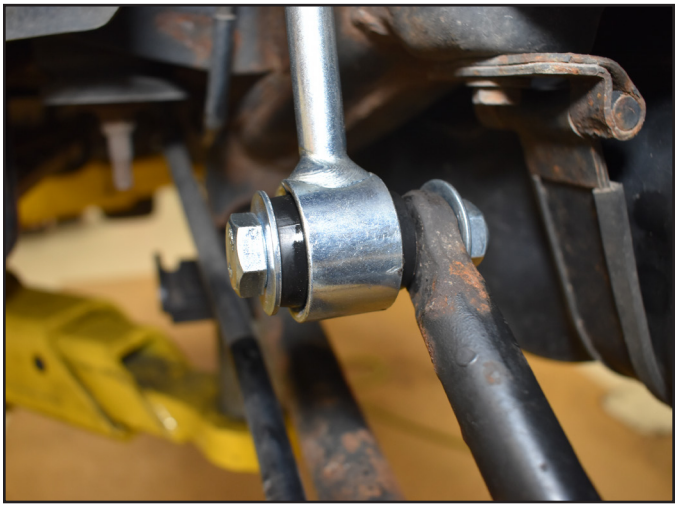

Figure 44

**Step 14 Note:**

***Inspect sway bar link bushings, washers, and nuts for wear or damage. Replace as needed.***

16. Re-Connect all brake line brackets disconnected in Step 2 through Step 4 and torque to factory specifications. Ensure parking brake cable is clear of pinch points and tied out of the way.
17. Re-install wheels and tires and set vehicle on the ground. Torque lugnuts to manufacturer specification.
18. Tighten the upper shock stem nuts until the stem bushings begin to expand. Bushings should be compressed a maximum of 1/8”
19. Re-connect the rear track bar at the axle with OE bolt. Torque track bar bolt at the axle to 96 ft-lbs. Verify upper track bar bolt-to-frame mount is torqued to 96 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.

### » Final Installation Steps

1. A complete front end alignment is required.
2. Recheck all fasteners for proper torque.  Check again after 500 miles and at regularly scheduled intervals.