T2624, T2451, T2620 Installation Instructions
2019-26 Toyota Tundra
6" Front Lift Kit
4.5" Spacer Kit
4.5" & 6" Loaded Strut

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

Live Chat provides instant communication with Zone tech support. Anyone can access live chat through a link on www.zoneoffroad.com .

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. TRD Sports will achieve the same amount of lift but will have a lower stance than other models in the front
9. Will not work with Adaptive Variable Suspension (AVS) System equipped vehicles
10. Will not work with Air Ride models
11. Will not work with TRD Pro models
12. For regular off-road use, it recommended to upgrade Non TRD Off-Road trucks half axles (CVs) to Toyota TRD's (Driver Part# 434100C020, Passenger Part# 434100C020. Not including TRD Pro models.
13. The ADAS system in some vehicles needs to be recalibrated by a certified shop. The vehicle may warn the driver of potential collision from lower bridges, overhead signs/wires, and signs in windy conditions. Most windshield repair shops (Safelite) and dealers are capable of doing this.

Difficulty Level

easy 1 2 3 (4) 5 difficult

Estimated installation: 5 hours

Special Tools Required

•1-9/16" or 40mm 12 point socket
•Reciprocating Saw

Tire/Wheel Fitment

Tires/Wheels

35x12.5, 20" Wheel 9" wide - 5-6" BS - No Trimming

37x12.5, 18" Wheel 9" wide 5" BS - Trimming Required*

37x12.5 20" Wheel 9" wide 5-6" BS - Trimming Required*

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

*37" tires will rub the sway bar during full lock turning with wheel that have 5" & 5.5" BS.

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.*

IMPORTANT NOTES

1. TRD Sports will achieve the same amount of lift but will have a lower stance than other models in the front
2. Will not work with Adaptive Variable Suspension (AVS) System equipped vehicles
3. Will not work with Air Ride models
4. Will not work with TRD Pro models
5. For regular off-road use, it recommended to upgrade Non TRD Off-Road trucks half axles (CVs) to Toyota TRD's (Driver Part# 434200C020, Passenger Part# 434100C020. Not including TRD Pro models.
6. The ADAS system in some vehicles needs to be recalibrated by a certified shop. The vehicle may warn the driver of potential collision from lower bridges, overhead signs/wires, and signs in windy conditions. Most windshield repair shops (Safelite) and dealers are capable of doing this.

INSTALLATION INSTRUCTIONS

Pre-Installation

7. Park vehicle on clean and level surface. Block the rear wheels for safety.
8. Measure the ride height of the vehicle from the center of the wheel to the fender and record.
9. Raise the front of the vehicle with a hydraulic jack. Support the frame rails with jack stands.
10. Remove wheels and tires.
11. Disconnect Battery.

Installation Instructions

1. Remove 2 bolts from the front air valance mechanism. ***See Figure 1***

Figure 1

2. Remove (4) Brake Line and ABS bolts from frame and knuckle. ***See Figures 2, 3, 4***

Kit Contents

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

Qty	Part
3	Bag Kit
6	Bolt Pack
2	6" Top Strut Spacer
1	Front Sway bar drop - Drv
1	Front Sway bar drop - Pass
2	Bump Stop Extension
1	Front Brake Line Brkt -DRV
1	Front Brake Line Brkt - PASS
2	Tie Rod
1	Front Crossmember
1	Rear Crossmember
2	4-5/8" Rear Coil Spring Spacer
1	Shock Stem Eliminator - Drv
1	Shock Stem Eliminator - Pass
1	Rear Track Bar Bracket
2	Sway Bar Link - 7-1/2"
1	Rear Bump Stop -Drv
1	Rear Bump Stop- Pass
2	Rear UCA Bracket Extension
1	6" Skid Plate Box Kit
1	Knuckle Box Kit - Drv
1	Knuckle Box Kit - Pass

Figure 2

Figure 3

Figure 4

3. Remove ABS Bracket bolt located on the upper control arm. ***See Figure 5***

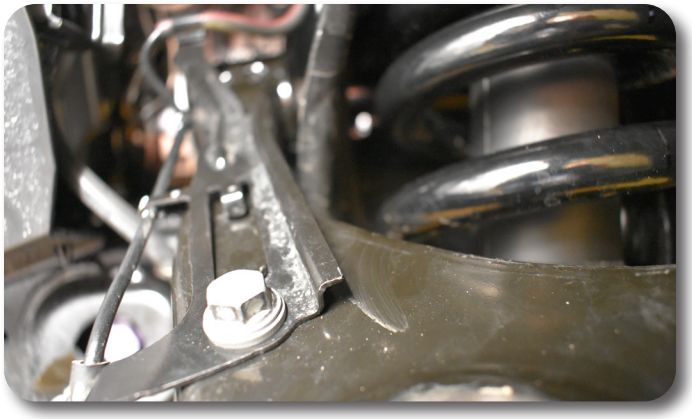

Figure 5

4. Remove cotter key and nut from outer tie rod. Separate tie rod from knuckle. OE Tool SST: 09628-62011 is recommended. ***See Figure 6***

Figure 6

Step 4 TIP: Using a hammer on knuckle can damage knuckle or tie rod.

5. Next remove (2) caliper bolts attaching caliper to knuckle. Hang caliper with bungee, rope etc. to prevent damaging brake lines.
6. Remove Rotor
7. Remove Dust Shield, Tip use a small chisel or screw driver
8. Remove cotter key and CV nut retaining plate and nut. (Specialty tool required: 1-9/16" 12 point axle socket required for removal) ***See Figure 6***

Figure 7

Step 9 TIP: Using a hammer to strike knuckle to separate upper ball joint can damage knuckle and or ball joint. Caution is advised.

9. Remove cotter key and nut from upper ball joint. Separate ball joint from knuckle. Use OE Tool SST: 09628-62011 or equivalent is recommended. ***See Figure 8***

Figure 8

Step 10 TIP: Use of an air hammer or hammer and punch may assist in loosening axle from bearings.

10. Loosen axle from wheel bearing. ***See Figure 9 & 10***

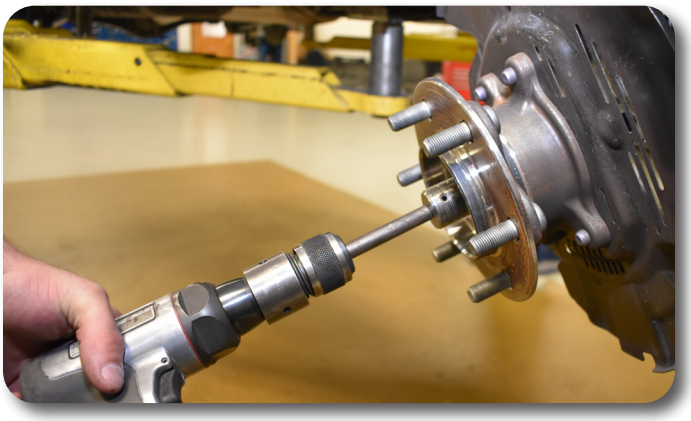

Figure 9

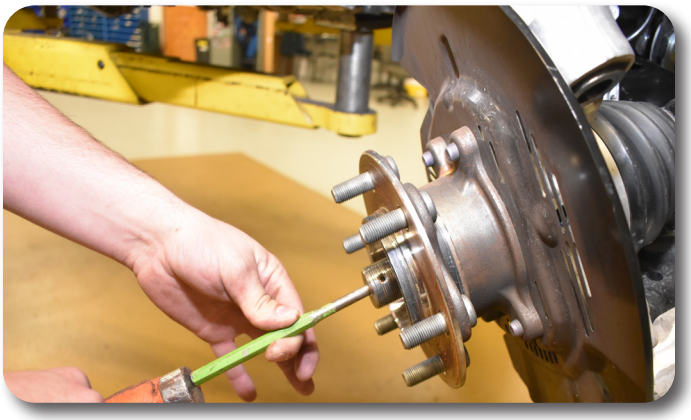

Figure 10

11. Remove 2 lower bolts attaching lower knuckle to main knuckle. With both bolts removed you can now remove the knuckle and wheel bearing assembly. ***See Figure 11***

Figure 11

12. Remove Sway bar link bolts attaching sway bar link to lower control arm.

13. Remove factory skid plate if equipped.

14. Remove 4 bolts attaching sway bar to the frame. ***See Figure 12***

Figure 12

15. Loosen but DO NOT remove lower control arm nuts. ***See Figure 12***

Figure 13

Step 11 TIP: It is recommended to bungee cord the CV shaft up to prevent separation from the transmission.

16. Remove lower strut bolt attaching lower control arm. Once bolt is removed lower control arm will swing down. ***See Figure 14***

Figure 14

17. Remove cam bolts from lower arm and remove lower control arm from vehicle. ***See Figure 15 & 16***

Figure 15

Figure 16

18. Remove (4) strut nuts attaching strut to top of frame. Remove strut from vehicle. ***See figure 17***

NOTE: DO NOT loosen center nut.

Figure 17

19. Locate wire harness located on the passenger side of the differential and unplug harness. ***See Figure 18***

Figure 18

Step 19 TIP: Unbolting wire harness bracket on the steering rack may assist in gaining access to plug/ connector.

20. Remove Front 4 driveshaft nuts and washers. ***See Figures 19, 20***

Figure 19

Step 20 TIP: Use pry bar to dislodge drive shaft from front differential. Use pry bar to wedge drive shaft in place.

Figure 20

21. Remove Allen nut from rear differential mount located on the driver side. Allen nut is tucked up in factory cross member. ***See Figure 21***

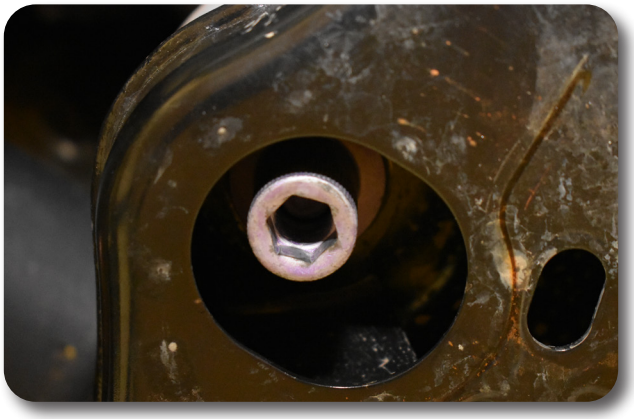

Figure 21

22. Use appropriate jack under front differential. Remove the 2 bolts holding rear of differential to bracket. Do not remove bracket at this time. Remove the 2 front nuts and bolts attaching differentialerential to frame. ***See Figure 22, 23***

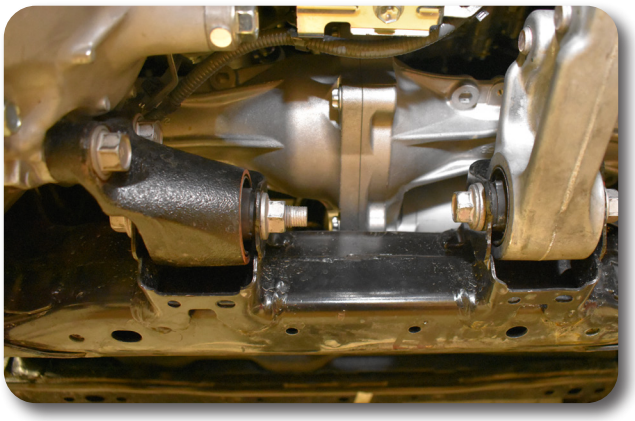

Figure 22

Figure 23

23. Remove differential from vehicle. CAUTION: Differential IS HEAVY.

24. Remove differential breather hose. This will not be reused. **Save clamps for re-use.**

25. It is required that the rear cross member be cut to allow clearance for the front differential drive shaft. It recommended to use a Reciprocating Saw or Plasma cutter. Cutting is as follows: See ***Figures 24, 25, 26, 27***

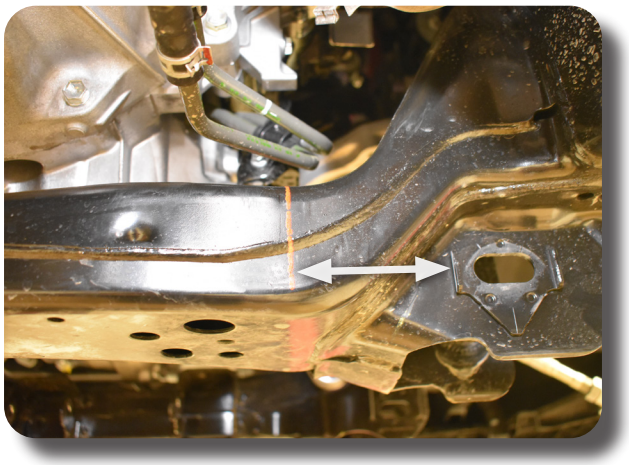

Figure 24

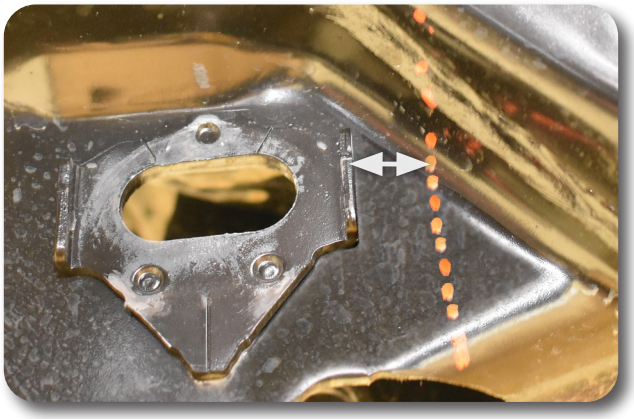

Figure 25

Step 25 Notes:

Cut Passenger side as shown in Figures 24 and 26

Front and Back - 3 3/4" from the Tab

Cut Drivers side as shown in Figures 25 and 27

Front and Back - 9/16" From the Tab.

Figure 26 CAUTION:
Caution is needed when cutting passenger side crossmember due to the close proximity of the transmission line.

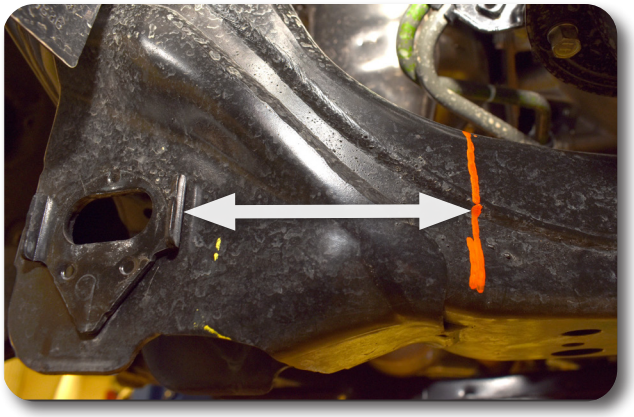

Figure 26

Figure 27

26. Use flap disc or grinding disc to clean up any rough edges.
27. Spray paint raw edges to protect against rust.
28. Install front cross member using short provided bolts, nuts and square washers. "DO NOT TIGHTEN." ***Figure 28, 29***

Step 28 NOTE:
Hardware for cross member located in BP393. 2 Shorter bolts are for front cross member.

Figure 28

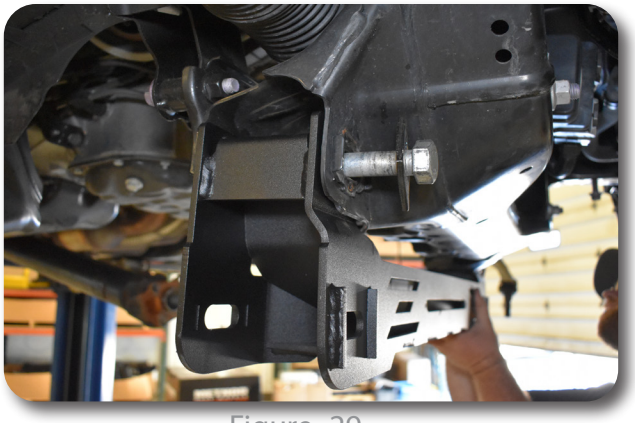

Figure 29

29. Using a jack re-install differential with factory hardware to front cross member. DO NOT TIGHTEN. ***Figure 30,31***

Figure 30

Figure 31

30. Attach badge using rivets found in Bolt Pack 886.

31. Install provided differential breather hose. ***See Figure 32***

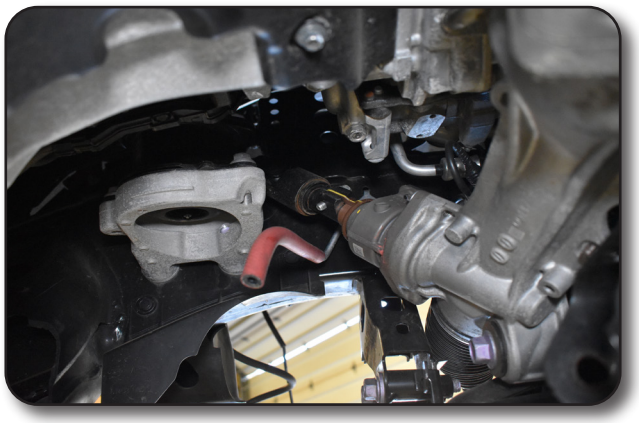

Figure 32

32. Re-Attach breather hose. ***See Figure 33***

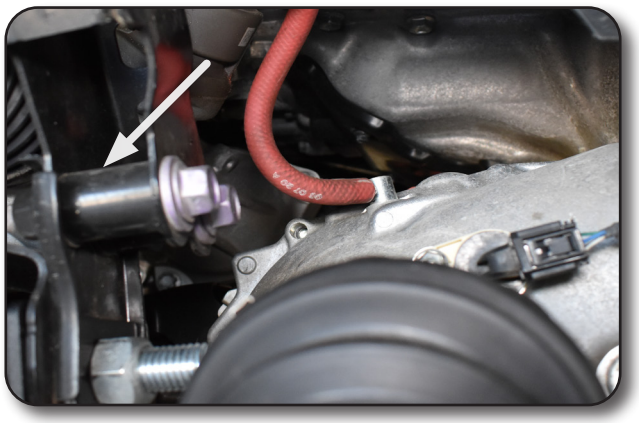

Figure 33

33. Reconnect drive shaft using factory hardware. Torque to 55 ft-lbs. **NOTE: Use Thread locker on the 4 drive shaft bolts.** ***Figure 34, 35***

Figure 34

Figure 35

34. Install rear cross member using the longer provided 18mm Bolts, Nuts and square washers. Install bolts from front to back. ***Figure 36, 37***

Step 34 NOTE:
Hardware is located in BP393

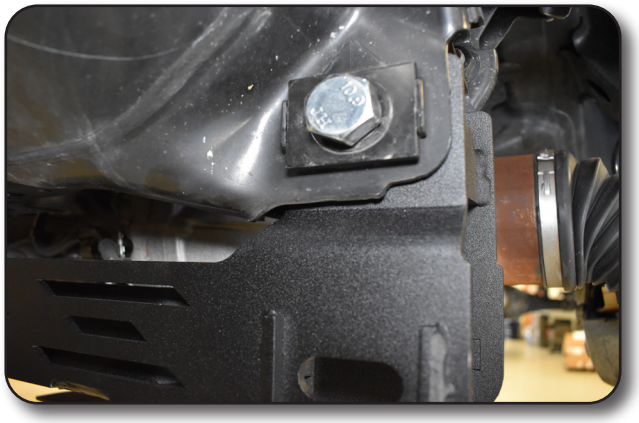

Figure 36

Figure 37

35. The differential can be lowered into place and the differential jack can be removed at this time.

36. Re-attach Allen nut from rear differential mount located on the driver side. Allen nut is tucked up in factory cross member. ***See Figure 21***

37. Install factory lower control arms using factory cam bolts. NOTE: Rear bolt is longer than the front bolt.

38. Tighten cross member bolts in factory cam bolt spot. Torque the 18mm hardware to 207 ft-lbs.

39. Tighten all differential mount bolts. Torque the front 2 to 92 ft-lbs, Rear allen nut to 74 ft-lbs. Torque the 2 rear differential mount bolts to 133 ft-lbs.

40. Re-Attach differential plug. ***Figure 38***

Figure 38

» STRUT SPACER INSTALLATION – FOR LOADED STRUT INSTALL SKIP TO STEP 4

Step 1 NOTE:

Hardware for top spacer located in BP1085

1. Install provided carriage bolts into strut spacer using provided push on washers. ***Figure 39***

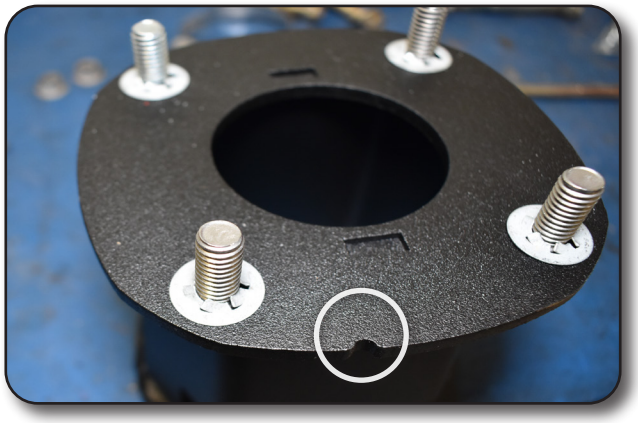

Figure 39

2. Find arrow indication on the top of strut. 89 Align arrow with notch on the strut spacer. Attach strut spacer with factory nuts. Torque to 33 ft-lbs. ***Figure 40, 41***

Figure 40

Figure 41

3. Install the loaded strut or the strut with strut spacer into the frame strut bucket. Use hardware found in Bolt Pack 1085.

4. Tighten the upper 4 nuts to 23 ft-lbs. Leave the LCA bolt loose. ***Figure 42***

Figure 42

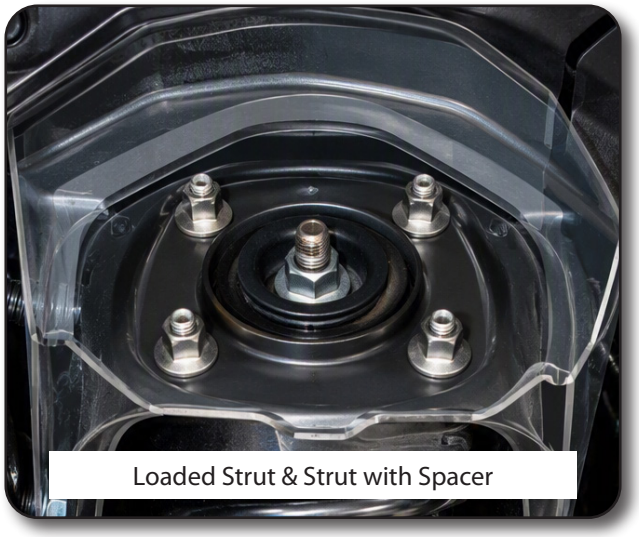

Figure 43

5. Attach strut to lower control arm using factory hardware. Do not tighten. ***Figure 43***

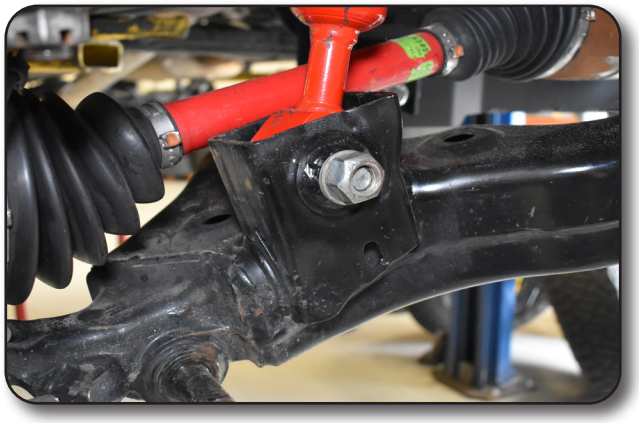

Figure 44

KNUCKLE INSTALLATION

6. Remove the 4 wheel bearing bolts and the bearing from the OE knuckle. Remove the steering knuckle oil seal from the OE knuckle. Using a flat head screwdriver tap around the edge to release the seal. ***Figure 44***

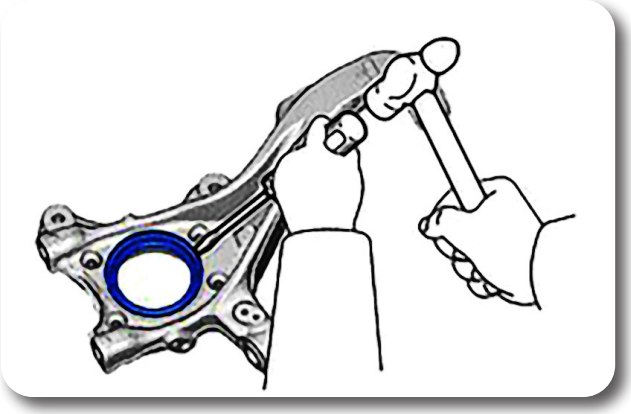

Figure 45

7. Install the steering knuckle oil seal into the new knuckle by carefully tapping it into place with a large piece of wood. ***Figure 45, 46***

8.

Figure 46

Figure 47

9. Prep the 4 bearing bolts for installation with Loctite. ***Figure 47***

Figure 48

10. Install the OE wheel bearing and dust shield to the new knuckle. Make sure the o-ring remains on the bearing when installing the bearing into the new knuckle. ***Figure 48, 49***

Figure 49

Figure 50

11. Loctite the 2 lower knuckle bolts prior to connecting the lower ball joint attachment to the knuckle. Torque to 192 ft. lbs. ***Figure 50***

TIP: *You may need the help of a friend to hold the knuckle assembly in place while you thread in the bolts.*

Figure 51

12. Push the knuckle inward inserting the CV axle into the wheel bearing, Thread on axle nut by hand. Not not tighten. ***Figure 51***

Figure 52

13. Align UCA ball joint stud with knuckle head. ***Figure 52***

Figure 53

14. It may be necessary to apply downward pressure on the UCA to fully insert the ball joint stud into the knuckle. ***Figure 53***

Figure 54

15. Install provided nylock nut. Torque to 92 ft-lb ***Figure 54***

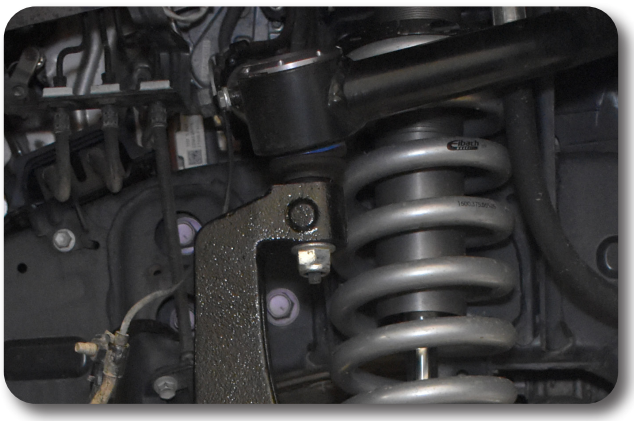

Figure 55

16. Tighten then torque the CV axle nut using a 1-9/16" 12 point axle socket. Torque to 251 ft-lb. ***Figure 55***

Figure 56

17. Replace nut retainer and cotter key. It may be necessary to grind out the nut retainer slot to fit the cotter key. ***Figure 56***

Figure 57

18. Re-Install brake rotors
19. Re-install brake calipers to the knuckle. Torque to 151ft-lb.
20. Install ABS sensor part way and start the holding bolt into the knuckle. Use factory hardware. Tighten down bolt drawing in the sensor to the knuckle. torque to 75 in-lbs. ***Figure 57***

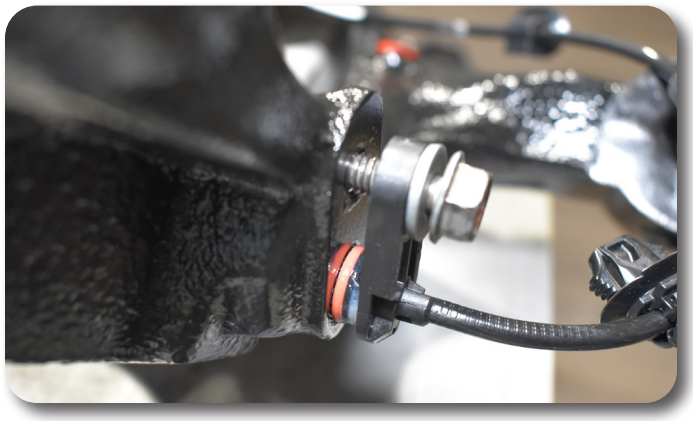

Figure 58

21. Attach the abs line to the backside of the knuckle using factory hardware and provided wire clamp provided in B1626 or B1621. Do not use wire clamp provided in bolt pack 393. And reattach factory brakeline bracket and abs bracket to the side of the knuckle with factory hardware. ***Figures 58, 59***

Figure 59

Figure 60

BUMP STOP INSTALLATION

1. Mount bump stop to bump stop bracket using provided bump stop flange nut. Note: Use of a vice may be necessary to tighten bump stop to bracket. ***Figure 60***

Figure 61

2. Mount provided bump stop to frame bracket into existing threaded hole using provided hardware. Use thread locker on hardware. ***Figure 61***

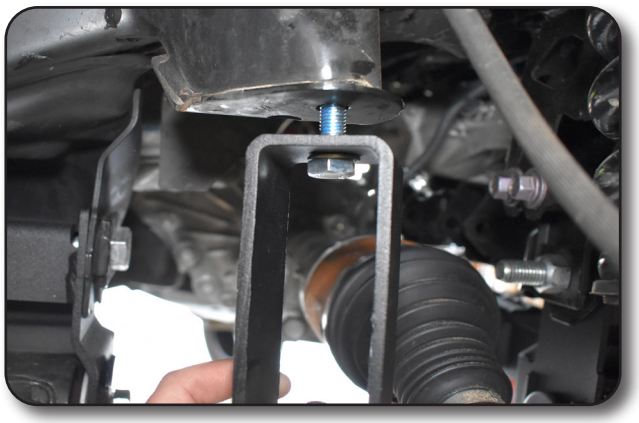

Figure 62

Step 1 NOTE:

Bump stop hardware located in bolt pack 393

Step 2 NOTE:

Torque all bump stop hardware to 28 ft-lbs

» TIE ROD END INSTALLATION

1. Remove OE Tie rod end and replace with the provided tie rod end. ***Figure 62***

Do not use the nut provided with the tie rod, Use the nut M14-1.5 Nylock nut found on bolt pack B1621. Torque to 89 ft-lbs.

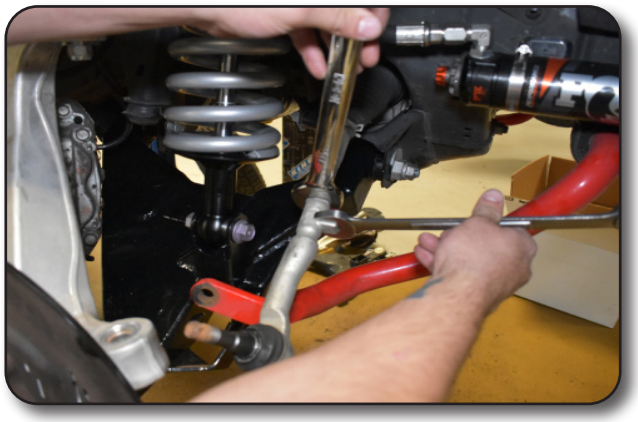

Figure 63

2. Install provided grease zerk and grease tie rod.

» AIR VALANCE TRIMMING AND SWAY BAR INSTALLATION

1. To provide clearance for sway bar drop bracket, test fit provided drop brackets and trim valance as needed using adequate saw or hot knife. ***Figure 63, 64***

Figure 64

Figure 65

2. Install provided sway bar drop brackets using factory hardware. NOTE: Brackets are side specific. ***Figure 62***

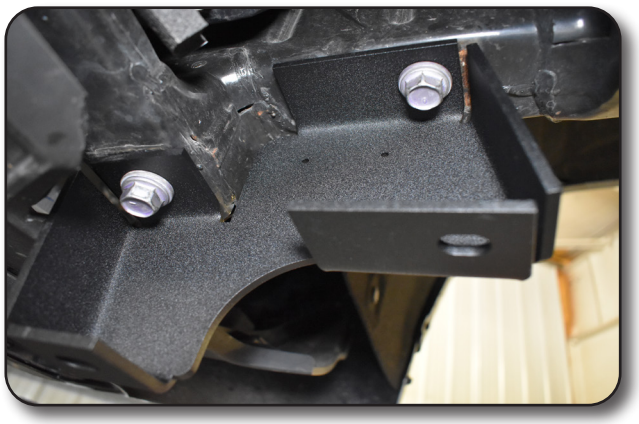

Figure 66

3. Install factory sway bar at the provided drop brackets and LCA using provided 1/2" hardware. DO NOT TIGHTEN. Torque factory hardware to 55 ft-lbs and provided hardware to 57 ft-lbs. ***Figure 63, 64***

Step 3 NOTE:

Sway bar hardware is located in bolt pack 393

Figure 67

Figure 68

4. Attach included badge found in Bolt Pack 360 using provided rivets.

» BRAKE LINE BRACKETS INSTALLATION

Step 1 NOTE:

Hardware is located in bolt pack 393

Step 1 TIP:

It may be necessary to bend brake lines down to fit new bracket. Be careful not to kink brake lines.

1. Brake line drop bracket need to be installed to give adequate slack to the brake lines. Use factory hardware to install provided bracket to inner fender. Use provided hardware to attach brake line factory bracket to provided bracket. ***Figure 65, 66***

Figure 69

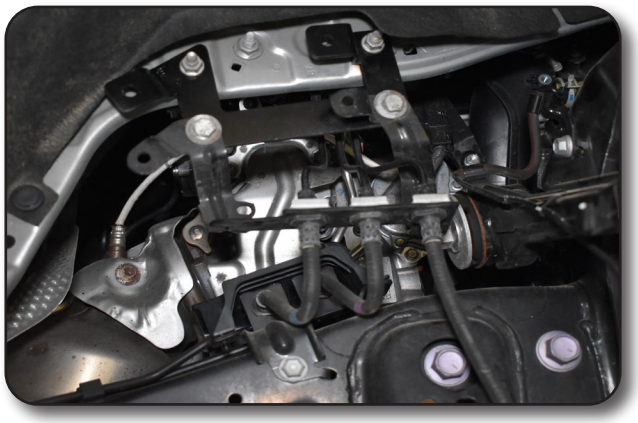

Figure 70

2. Re-attach factory plastic brakeline shield. ***See Figure 67***

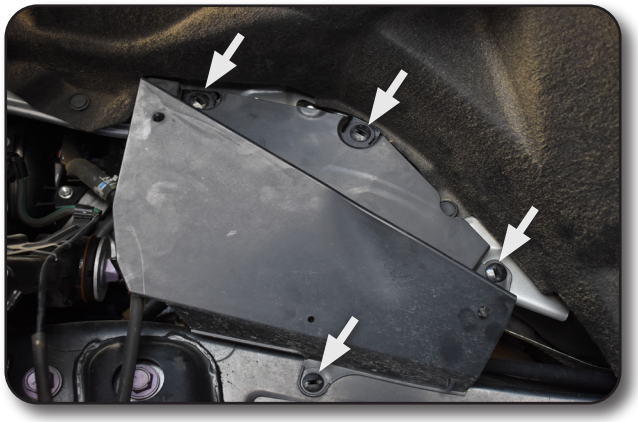

Figure 71

3. Front brake line bracket relocation is required to provide slack. Remove bracket from location and move down to align with frame hole in ***Figure 68, 69, 70***. Mark hole and use provided self tapping screw found in Bolt Pack 393 to re-install bracket in it's new location.

Figure 72

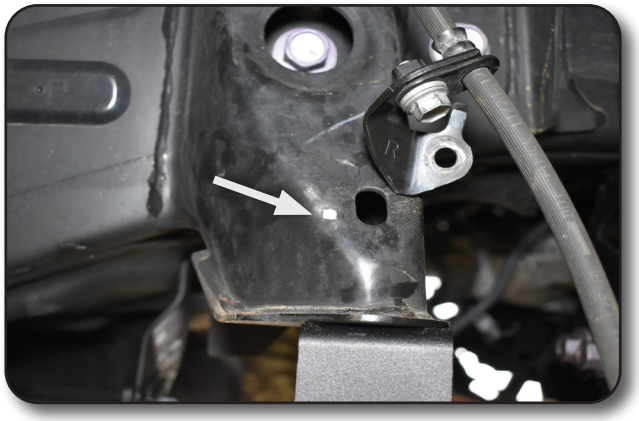

Figure 73

Figure 74

4. Repeat steps on other side.
5. Install front skid plate between the crossmembers. Fig. 71, 72

Step 5 NOTE:

Hardware in BP1055

Torque to 26ft-lbs

Figure 75

Figure 76

6. Re-install 2 bolts into the air valance.
7. Re-install front wheels and lower vehicle to the ground.

» REAR SUSPENSION DISASSEMBLY AND INSTALLATION

1. Block front wheels.
2. Lift rear of vehicle and place frame rails on jack stands
3. Remove rear drive shaft hoop. ***Figure 73***

Figure 77

4. Disconnect track bar and retain hardware. ***Figure 74***

Figure 78

5. Support rear ale with jack.
6. Disconnect brake lines and ABS lines from frame.
7. Disconnect E-lock if equipped.
8. Disconnect shocks and remove.
9. Lower axle and remove the OE springs
10. Remove factory control arm bolt from passenger side. ***Figure 75***

Figure 79

11. Install control arm extension bracket using provided bolt, washers sleeve and nut. ***Figure 79***

Figure 80

Step 11 NOTE:

Rear control arm Hardware can be found in Bolt Pack 1053

12. Install bolt, washers and nut into hole at the bottom of the control extension bracket by feed washer and nut up through hole on the control arm frame horn hole. ***Figure 80***

Figure 81

Step 13 TIP:

Use a jack to lift rear differential to help align control arm and bracket.

13. Re-install control arm into bracket using OE bolt, nut and washers. *DO NOT TIGHTEN*. ***Figure 81***

Figure 82

Step 14 NOTE:

Hardware in Bolt Pack 407

Step 14 TIP:

Use an open end wrench at the top and impact with long extension up through the bottom of the spring spacer.

14. Install upper spring spacer using supplied bolt, nut and washers. Through the factory hole, mark the 2nd hole and drill out to 1/2".: Torque to 52 ft-lbs. ***Figure 82***

Figure 83

Step 15 Note:

Transfer the rubber spring covers from the factory springs to provided springs.

15. Install spring with OE bump stop into upper spring spacer and the lower axle housing. ***Figure 83, 84***

Figure 84

Figure 85

16. Install provided shock stem eliminator bracket with provided nut and washer and spacer. Brackets are side specific and have a tab that fits into alignment hole on the frame. NOTE: Ensure that the washer fits into hole and is aligned before tightening. Torque 120 ft-lbs. ***Figure 85, 86, 87***

Step 16 NOTE:

3/16" x 1"OD Spacers found in Bag Kit B1623. Hardware found in Bolt Pack 391

Figure 86

Figure 87

Figure 88

Step 17 NOTE:

Shock to shock adapter hardware located in BP391(19mm) Torque to 90ft-lbs

17. Install shock bushings. Use small bushing and sleeve at the top of the shock and the large bushing at the bottom. Place the 18mm washer provided in BP1053 on the lower shock stem at the axle as a spacer. Re-use lower shock OE hardware, Torque to 72 ft-lbs. Use provided hardware for upper shock to shock adapter mount. ***Figure 88, 89***

Figure 89

Figure 90

18. Remove OE bump stop.
19. Install bump stop onto bump stop bracket. Mount bracket to frame using factory hardware. Torque to 23 ft-lbs. Hardware can be found in BP1053. ***Figure 90, 91 , 92***

Figure 91

Figure 92

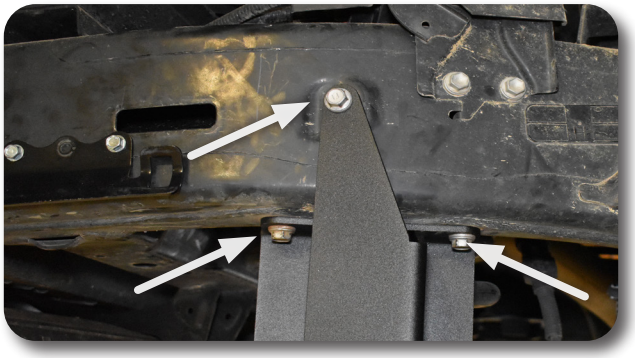

Figure 93

20. Lubricate bushings and install bushings and sleeves into sway bar. Install Sway bar Links, Bolt Pack 404, torque 45 ft-lbs. ***Figure 93***

Figure 94

Step 21 NOTE:

Rear track bar bracket hardware located in bolt pack BP1053

21. Install rear track bar bracket. Install the 2 bottom bolts and washers from the top down through the provided bracket, the factory bracket and into the flange nuts. Tighten from the top. ***Figure 94, 95***

Figure 95

Figure 96

Step 22 NOTE:

Torque all hardware as follows, Torque 14mm - 111 ft-lbs, 7/16" HW - 52 ft-lbs, OE bolt 103 ft-lbs

22. Install OE bolt, provided 1.25"OD x 1.55" long sleeve, nut and washers. ***Figure 96***

Figure 97

23. Attach trackbar to the bracket using provided 14mm Bolt, nut and washers. Found in BP1053

24. Identify the straight brake line bracket. Install in the lower location at the axle. ***Figure 97***

Figure 98

25. Identify the bent brake line bracket. Install in the upper location at the frame. ***Figure 98***

Figure 99

26. Find the driver and passenger side ABS line bracket. Use bent bracket to re-install ABS line. ***Figure 99***

Step 23 NOTE:

Install track bar bolt front to back to allow for spring clearance.

Step 24 NOTE:

All brake line hardware located in BP1053, Torque all brake line hardware to 75 in-lbs

Figure 100

27. Re-install drive shaft safety loop using OE hardware and the provided 1-1/4" OD x 7/8" long sleeve. ***Figure 100, 101***

Figure 101

Figure 102

» Post Installation Instructions

28. Replace wheels/tires and torque to OE spec.
29. Lower vehicle to the ground.
30. Torque front LCA to 207 ft-lbs
31. Torque strut lower bolt to 122 ft-lbs
32. Torque Rear track bar 111 ft-lbs
33. Torque Rear UCA at axle 103 ft-lbs
34. Check all hardware for proper torque.
35. Check hardware again after 500 miles and at regularly scheduled maintenance intervals.
36. The vehicle will need a complete front end alignment.
37. Adjust headlights.

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.