

# ROUGH COUNTRY

## SUSPENSION SYSTEMS®

### 24 Tacoma SR Rear Leaf Spring Drop 3.5 Kit

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read instructions before beginning installation. Check the kit hardware. Be sure you have all needed parts and know where they go.

#### PRODUCT USE INFORMATION

**WARNING** As a general rule, the taller a vehicle is, the easier it will roll. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered. We will be happy to answer any questions concerning the design, function, and correct use of our products.

Due to differences in manufacturing, dimension and inflated measurements, tire and wheel combinations should be test fit prior to installation.

If questions exist we will be happy to answer any questions concerning the design, function, and correct use of our products.

This suspension system was developed using a Maximum tire size of 33x12.50 on a 17"x8.5" wheel with +0 offset. For other wheel and tire combinations consult your tire and wheel specialist.

#### ▲ NOTICE NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

INSTALLING DEALER - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

#### Tools Needed:

T10 Torx Bit  
T30 Torx Bit  
8mm Allen Socket  
10mm socket/wrench  
11mm socket/wrench  
13mm socket/wrench  
15mm socket/ wrench  
17mm socket/wrench  
18mm socket/wrench  
19mm socket/wrench  
21mm socket/wrench  
22mm socket/wrench  
24mm socket/wrench  
36mm socket

9/16" socket/wrench  
5/8" socket/wrench  
11/16" socket/wrench  
3/4" socket/wrench  
13/16" socket/wrench  
15/16" socket/wrench  
1 1/16" socket/wrench  
Floor Jack /Jack Stands  
Torsion bar Tool  
Reciprocating Saw  
Drill  
11/16" Drill Bit  
Hand Grinder  
Thread Locker

#### Torque Specs:

Size	Grade 5	Grade 8
5/16"	15 ft/lbs	20 ft/lbs
3/8"	30 ft/lbs	35 ft/lbs
7/16"	45 ft/lbs	60 ft/lbs
1/2"	65 ft/lbs	90 ft/lbs
9/16"	95 ft/lbs	130 ft/lbs
5/8"	135 ft/lbs	175 ft/lbs
3/4"	185 ft/lbs	280 ft/lbs
	Class 8.8	Class 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18ft/lbs	23 ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	55ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs
18MM	170ft/lbs	240ft/lbs





## Kit Components

2 - 6540BAG (Balljoint Hardware)  
1 - 72900BAG2  
1 - 74330BAG1  
1 - 75601BAG1  
1 - 76931BAG1  
1 - 81168BAG2 (Balljoint Caps)  
2 - Strut Spacer Shims  
2 - Front Preload Spacers  
2 - Front Strut Spacers  
1 - Dr. Rear Bump Stop Extension  
1 - Pass. Rear Bump Stop Extension  
1 - Dr Diff Drop Bracket  
1 - Pass Diff Drop Bracket  
1 - Rear Diff Drop Bracket  
1 - Dr Forged UCA  
1 - Pass Forged UCA  
2 - Bump Stops  
2 - Rr Shackle Inside Plates  
2 - Rr Shackle Outside Plates  
1 - Dr Leaf Spring Drop - Outside  
1 - Dr Leaf Spring Drop - Inside  
1 - Pass Leaf Spring Drop - Outside  
1 - Pass Leaf Spring Drop - Inside  
N3 Rear Shocks

## Tools Needed

*Strut Compressor*  
*Hammer*  
*Pliers*  
*Jack*  
*Jack Stands*  
*10mm Wrench or Socket*  
*12mm Wrench or Socket*  
*14mm Wrench or Socket*  
*15mm Wrench or Socket*  
*16mm Wrench or Socket*  
*17mm Wrench or Socket*  
*18mm Wrench or Socket*  
*19mm Wrench or Socket*  
*22mm Wrench or Socket*  
*24mm Wrench or Socket*  
*36mm Wrench or Socket*  
*1/2" Wrench or Socket*  
*9/16" Wrench or Socket*

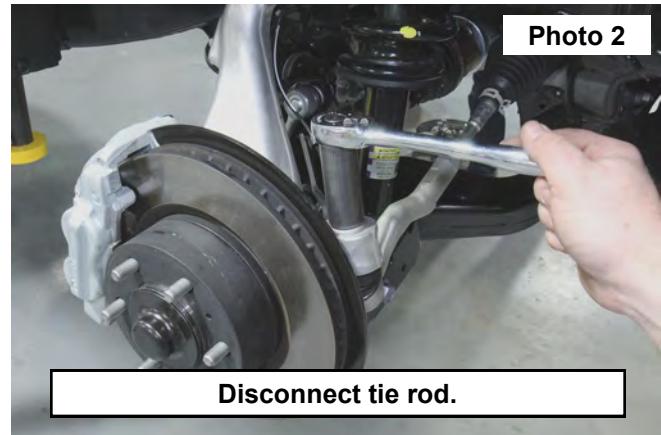
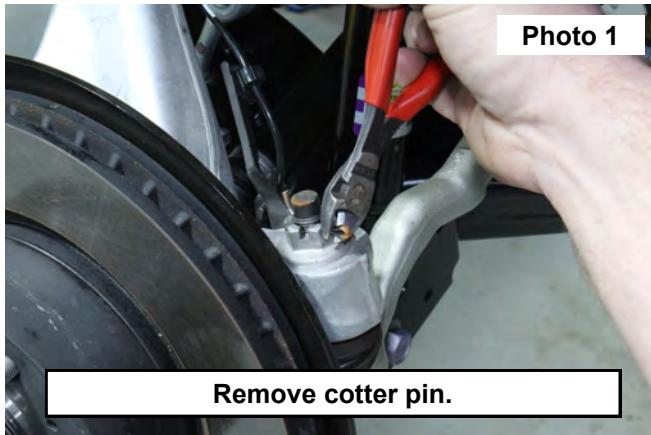
## Supplied Hardware

1 - 72900BAG2  
8 - 10mm Flange Nuts  
8 - 10mm x 45mm Bolts  
  
1 - 74330BAG1  
2 - 3/8" Lock Washers  
2 - 3/8" Nuts  
2 - 5/16" Flange Lock Nuts  
2 - 1/2" Nylock Nuts  
2 - 1/2" x 1 1/4" Bolts  
4 - 3/8" Flat Washers  
2 - 5/16" x 3/4" Bolts  
4 - 14mm x 110mm Bolts  
6 - 14mm Nylock Nuts  
12 - 14mm Flat Washers  
2 - 14mm x 150mm Bolts  
2 - Brake Line Brackets  
2 - Leaf Spring Hanger Sleeves  
4 - Spacers  
2 - 5/16" Flat Washers  
6 - 1/2" Flat Washers  
  
1 - 75601BAG1  
2 - 1/4" Nylock Nuts  
2 - 1/2" Flat Washers  
  
1 - 76931BAG1  
2 - Bushings  
1 - 1/2" Flat Washer  
2 - 16mm Flat Washers  
2 - 14mm x 60mm Bolts  
1 - 12mm x 80mm Bolt  
2 - 14mm Flat Washers  
2 - 12mm Flat Washers  
2 - 12mm Nylock Nuts  
1 - 12mm x 70mm Bolt  
1 - 12mm x 35mm Bolt  
2 - 16mm Nuts  
4 - Bushings  
2 - Sleeves  
1 - Diff Drop Spacer  
  
1 - 81168BAG2  
2 - Balljoint Caps

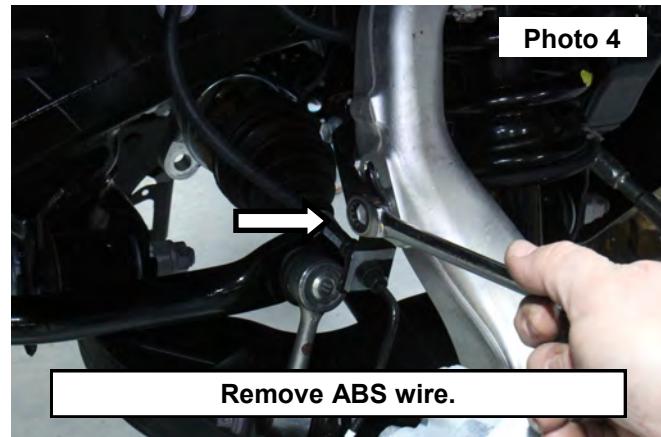
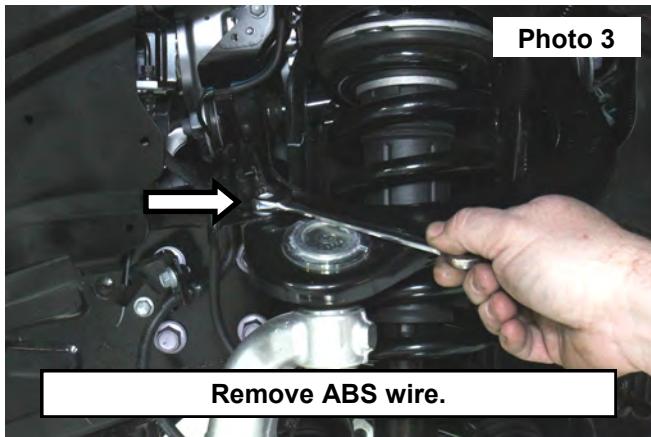


## FRONT INSTALLATION

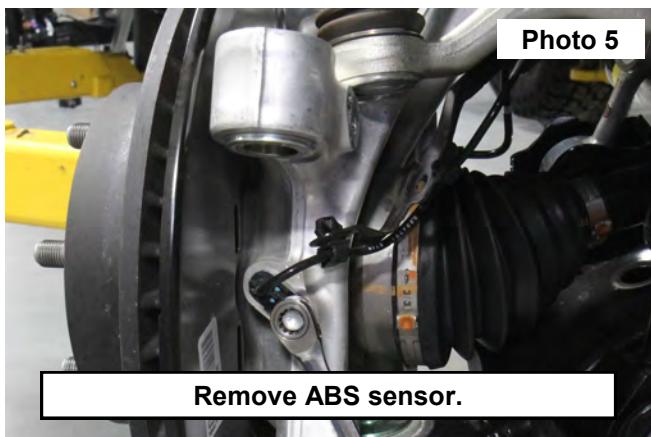
1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground
2. Remove the front tires/wheels using a 21mm deep well socket.
3. Remove the cotter pin from the tie-rod end with a pair of pliers. Retain hardware for reuse. **See Photo 1.**
4. Loosen, but do not fully remove the castle nut with a 24mm socket. Strike the steering knuckle where the tie-rod end is with a hammer to release the taper. Finish removing the castle nut. Retain hardware for reuse. **See Photo 2.**



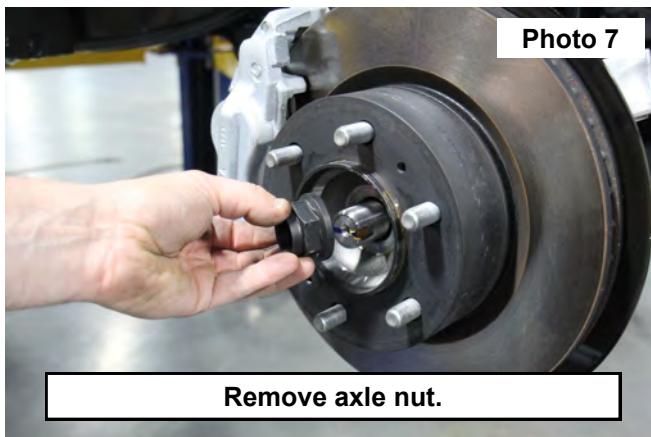
5. Remove the ABS wires from the upper control arm and steering knuckle using a 12mm wrench. Retain hardware for reuse. **See Photo 3 and Photo 4.**



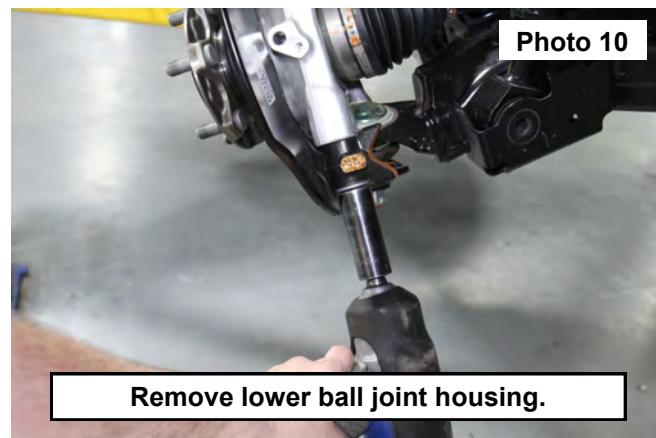
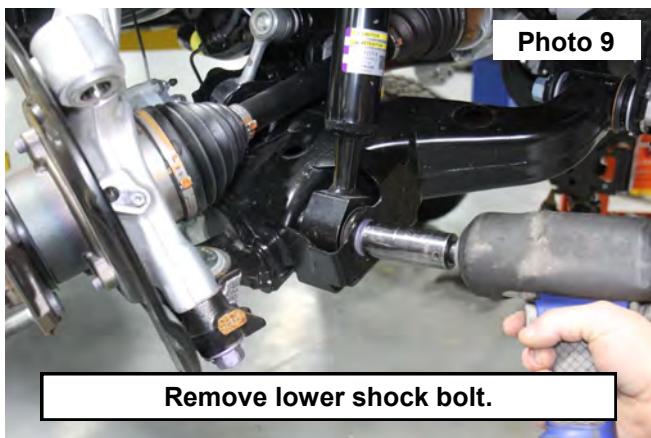
6. Remove ABS sensor from knuckle using a 10mm wrench. Retain hardware for reuse. **See Photo 5.**
7. Use a 19mm socket to remove the bolts holding the brake caliper to the knuckle. Hang brake caliper out of the way. Retain hardware for reuse. **See Photo 6.**



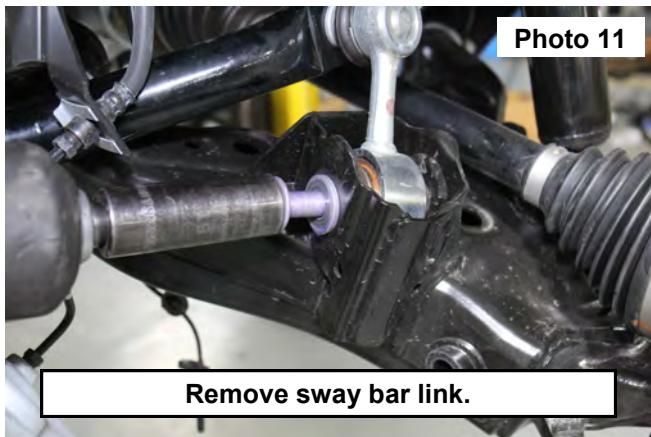
8. Remove the dust cover from the hub bearing with a pry tool and use a 36mm socket to remove the axle nut. Retain hardware for reuse. **See Photo 7.**
9. Remove the cotter pin from the upper ball joint nut and use a 19mm socket to loosen, but not remove the nut. Use a hammer to release the taper of the upper ball joint. Remove the nut. Retain hardware for reuse. **See Photo 8.**



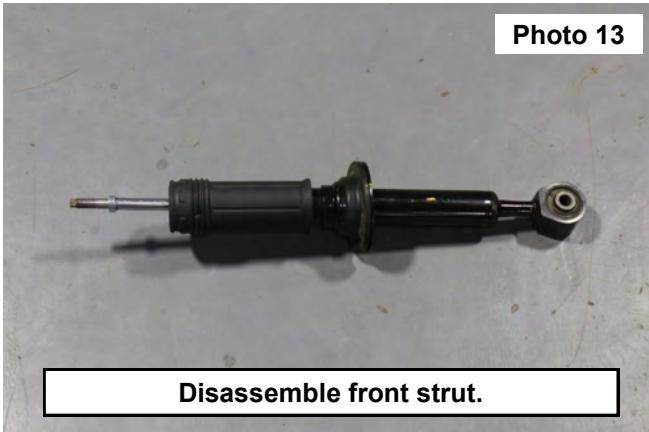
10. Remove lower strut bolt using a 22mm socket. Retain hardware for reuse. **See Photo 9.**
11. Use a 22mm socket to remove the factory bolts holding the lower ball joint housing to the steering knuckle. Retain hardware for reuse. **See Photo 10.**



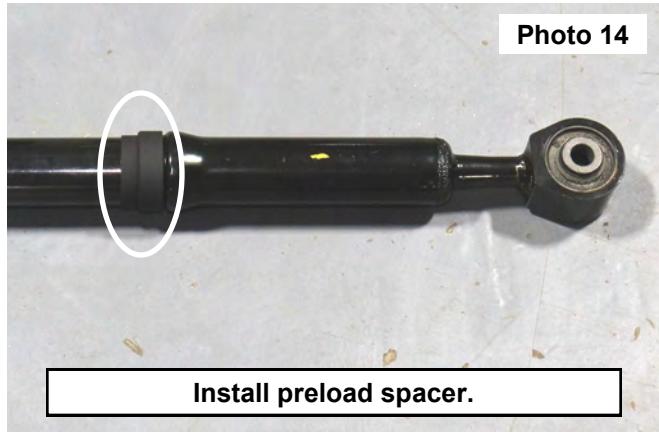
12. Remove sway bar link from the lower control arm with a 19mm socket. Retain hardware for reuse. **See Photo 11.**
13. Loosen, but do not remove, the lower control arm bolts using a 24mm wrench. Swing lower control arm out of the way.
14. Remove upper strut nuts using a 14mm wrench. Retain hardware for reuse. **See Photo 12.**
15. Remove strut from vehicle.
16. Remove factory upper control arms and install upper control arms per pages 9-11 in this instruction sheet.



17. Place strut in a strut compressor and mark the placement of the lower spring seat in relation to the shock with a paint pen. Compress the strut and use a 19mm socket to remove the top strut hat. Disassemble strut. **See Photo 13.**
18. Install the front preload spacer onto the strut body with the wider part of the spacer going towards the lower strut mount. **See Photo 14.**
19. Rest the spring seat and spring isolator on the preload spacer. Reassemble the rest of the strut with the strut compressor and 19mm socket. Be sure to keep the previous paint marks aligned.

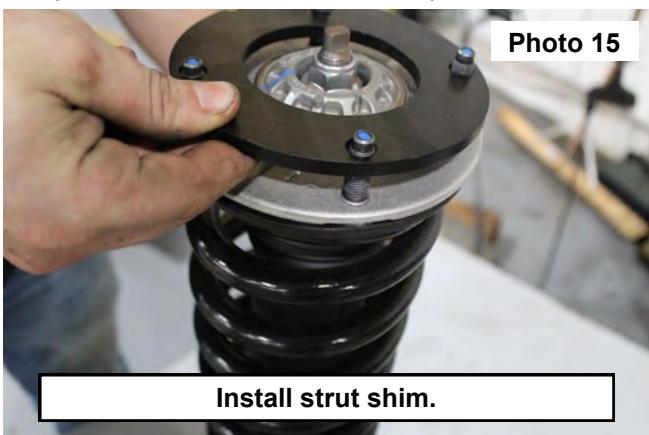


**Photo 13**

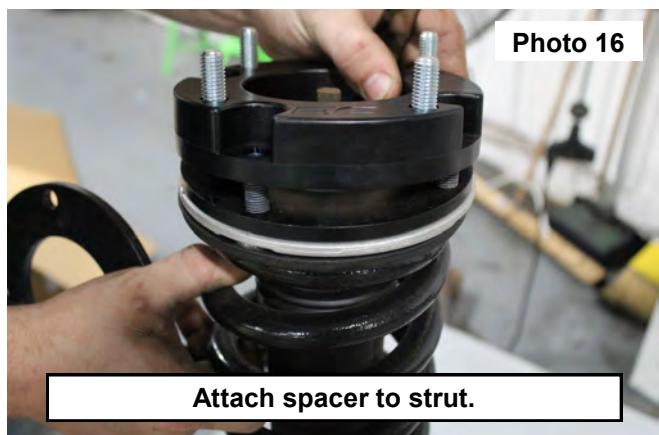


**Photo 14**

20. Place one of the strut shims on the top hat of the strut. **See Photo 15.**
21. Install the supplied 10mm bolts into the nylon strut spacer and place strut spacer on front strut. Use the factory strut nuts to secure spacer to strut. Tighten with a 14mm socket. Place the strut spacer on top of the strut. Use the factory top strut hardware to secure the spacer to the strut. Tighten with a 14mm wrench. **See Photo 16.**

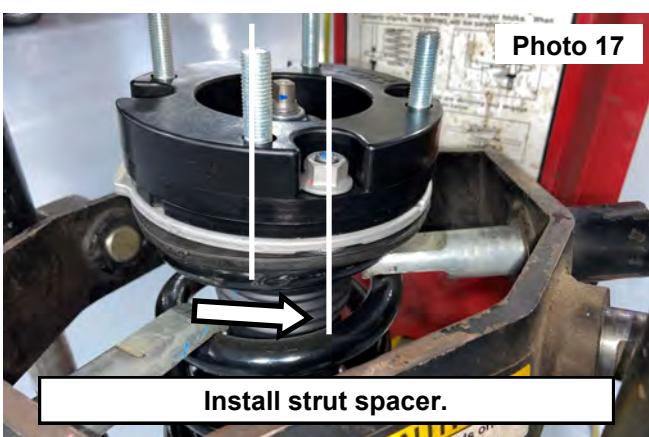


**Photo 15**

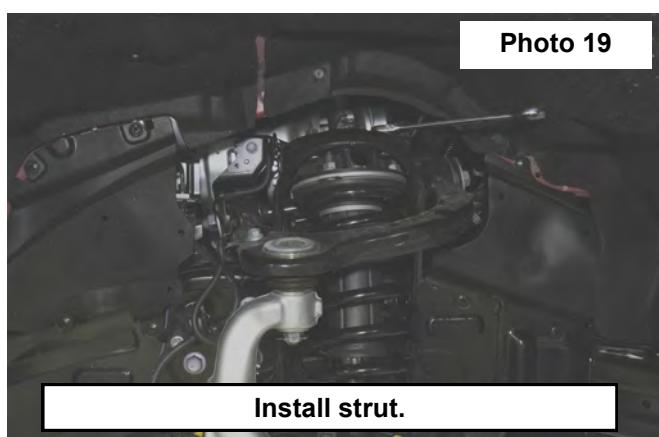


**Photo 16**

22. Place strut back into a strut compressor. Compress strut enough so the top hat can spin. Clock the top hat so the stud in the strut spacer is in the same location as the factory stud was. **See Photo 17.**
23. Reinstall the strut using the supplied 10mm flange nuts. Tighten with a 15mm wrench. Torque to 45ft-lbs. **See Photo 18.**
24. Repeat for other side of vehicle.
25. Reinstall factory lower strut hardware using a 22mm socket and wrench. Torque to 61ft-lbs
26. Reinstall the lower ball joint housing to the knuckle using the factory hardware. Tighten with a 22mm socket. Torque to 118ft-lbs.

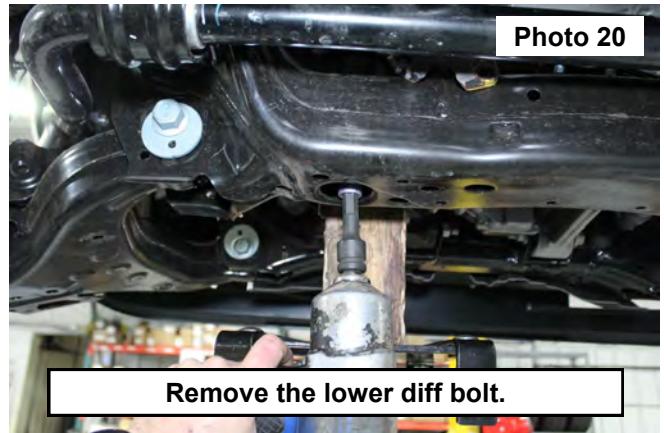


**Photo 17**



**Photo 19**

27. Support the front diff. Mark the drive shaft and remove front drive shaft from diff 14mm socket and wrench. **See Photos 19.**
28. Remove the lower diff bolt from the cross member using a 12mm Allen wrench. **See Photo 20.**



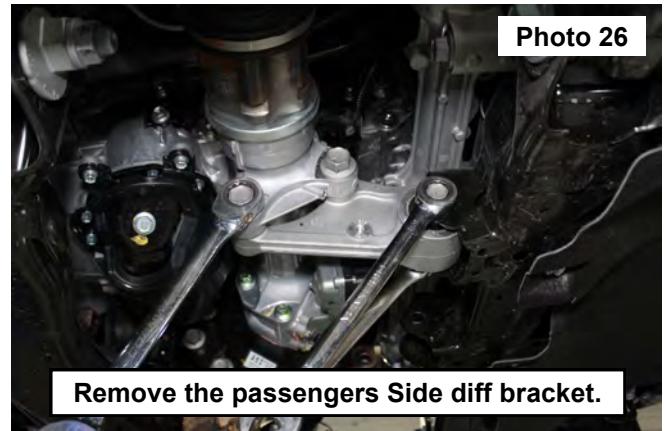
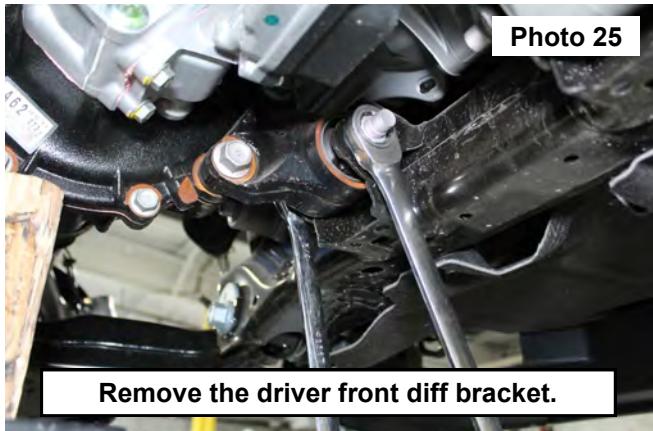
29. Remove the (2) rear diff mount bolts using a 17mm socket. Then remove the bracket. **See Photo 21.**
30. Install the new diff bracket using the supplied hardware. (1) 12mm x 70mm center rear diff bolt, uses (2) 12mm flat washers and (1) 12mm lock nut. (1) sleeve. (1) Flat bracket. 14mm x 60mm diff bolt. And 1) 12mm x 80mm diff bolt, uses (2) 12mm flat washers and (1) 12mm lock nut. Placing (1) rubber stem bushing on the center bolt. Tighten using a 19mm socket. **See Photo 22.**



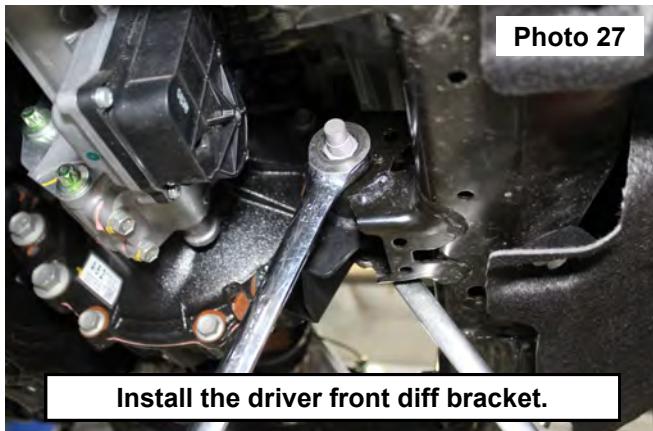
31. Lower the rear diff into the rear crossmember. Secure using (1) thick 12mm washer (1) stem bushing and (1) 12mm nylock nut. **See Photos 23 and 24.**



32. Remove the driver and passengers sides front diff brackets. Using 19mm and 22mm wrenches. **See Photo. 25 and 26.**



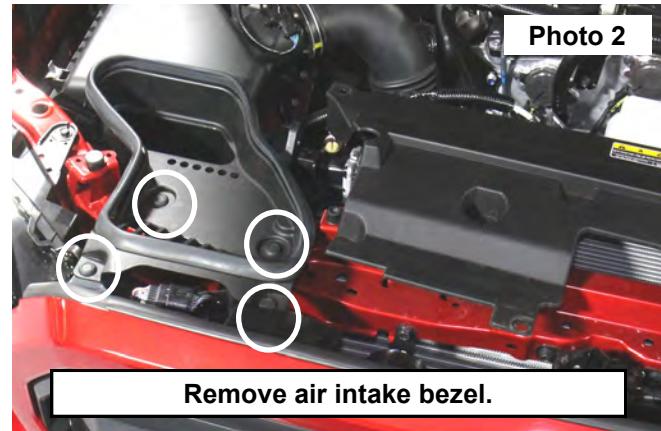
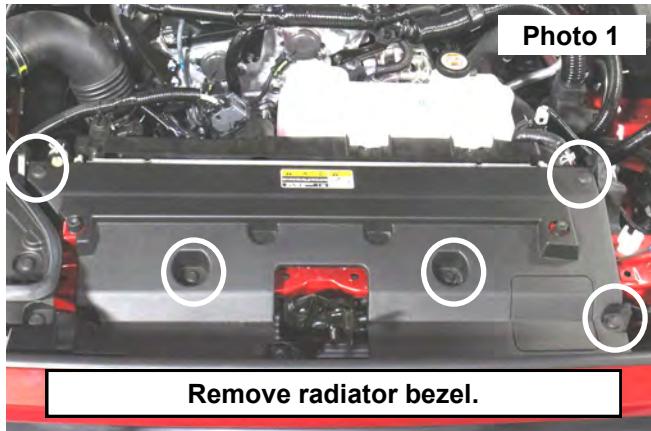
33. Install the bushings and sleeve into the bracket then install the drivers side diff bracket using (1) 16mm bolt (2) washers and (1) 16mm nylock nut. (2) 12mm bolts and (2) 12mm washers. **See Photo 27.**  
34. Install the bushings and sleeve into the bracket then install the Passengers side diff bracket using (1) 16mm bolt (2) washers and (1) 16mm nylock nut. (2) 12mm bolts and (2) 12mm washers and (1) 12mm nuts. **See Photo 28.**  
35. Tighten using 19 and 22mm wrenches.



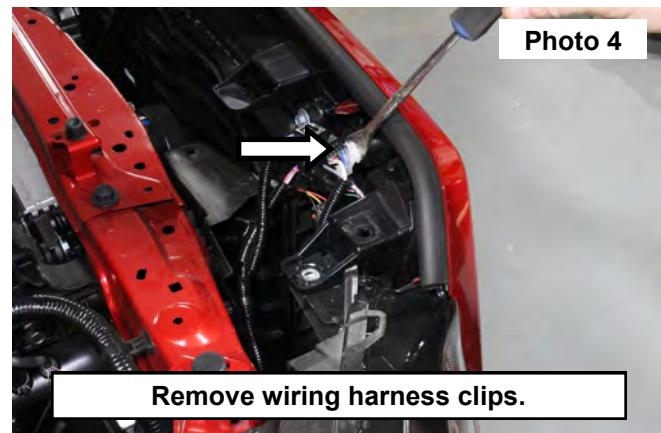
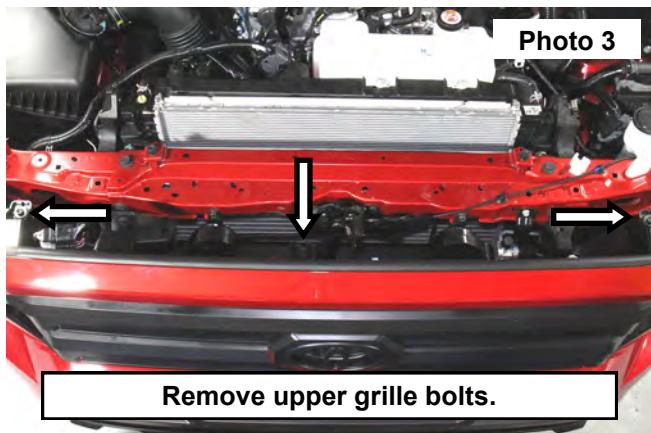
36. Reinstall wheels and tires and lower vehicle to the ground. Torque to 83ft-lbs  
37. Reinstall lower sway bar link with factory hardware once the vehicle is on the ground. Tighten with a 19mm wrench. Torque to 52ft-lbs.  
38. Retighten lower control arm bolts with a 24mm wrench. Torque to 100ft-lbs

## UCA INSTALLATION

1. Remove the five clips securing the radiator bezel and remove the radiator bezel. Retain hardware for reuse. **See Photo 1.**
2. Remove the four clips securing the air intake bezel and remove the bezel. Retain hardware for reuse. **See Photo 2.**
3. Remove the three bolts holding the upper part of the grille with a 10mm wrench. Retain hardware for reuse. **See Photo 3.**
4. Remove the five wiring harness clips from the grille using a flat pry tool. **See Photo 4.**

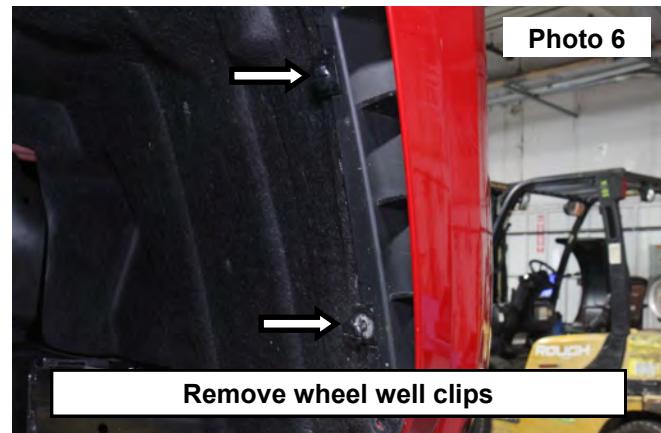
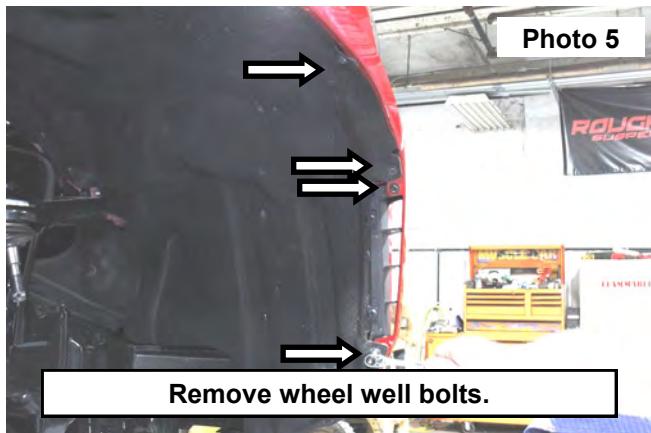


5. Remove the four bolts holding the wheel well to the bumper with a 10mm socket. Retain hardware for reuse. **See Photo 5.**
6. Remove the two plastic clips holding the wheel well to the bumper with a flat head screwdriver. Retain hardware for

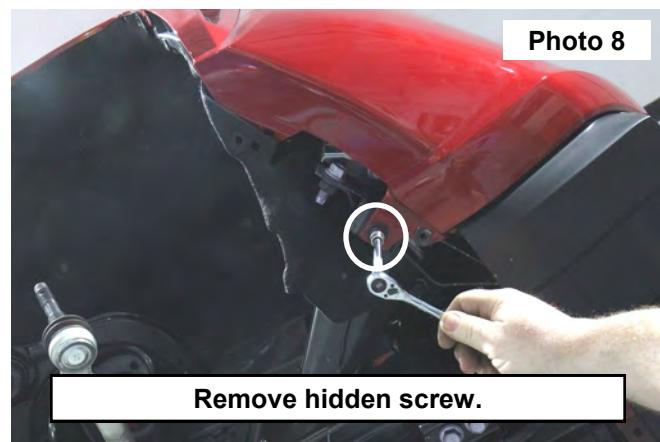
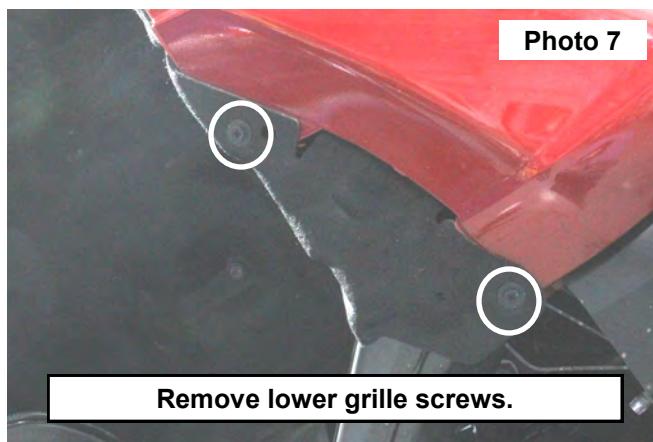


reuse. **See Photo 6.**

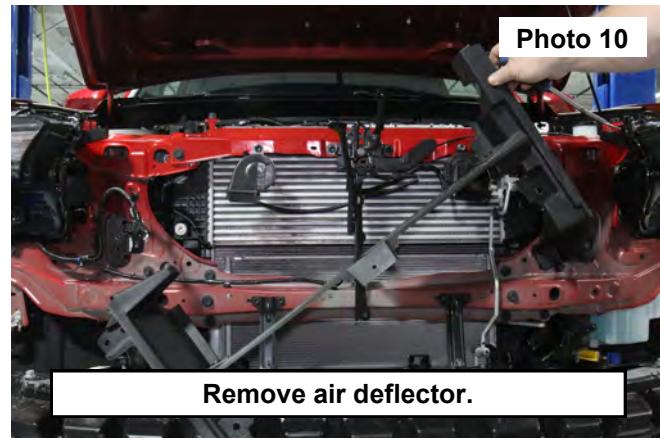
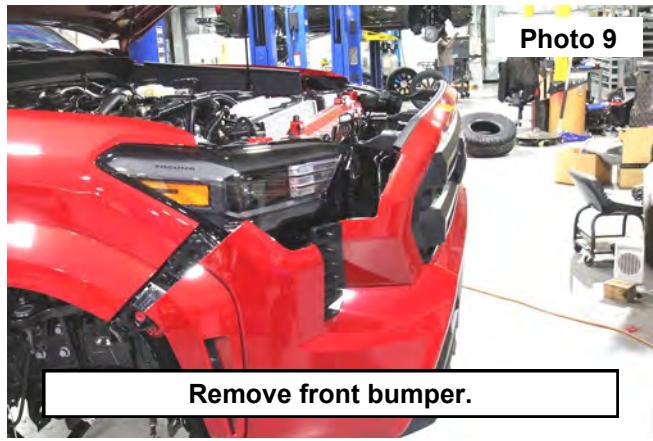
7. Use a phillips screwdriver to remove the two screws holding the fender liner to the bottom of the grille. Retain hardware for reuse. **See Photo 7.**
8. Remove the final screw under the fender liner. Retain hardware for reuse. **See Photo 8.**



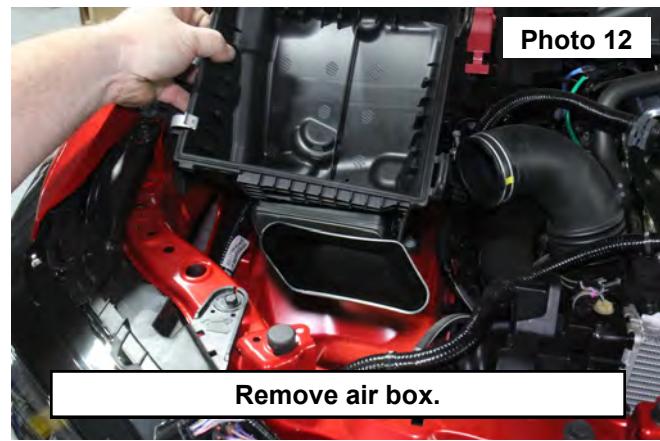
9. Repeat for other side.
10. Use a plastic pry tool to release the clips holding the bumper to the vehicle. Remove the front bumper. **See Photo 9.**
11. Remove the plastic clips from the air deflector. There are three per side and one in the middle to remove air deflector. **See Photo 10.**



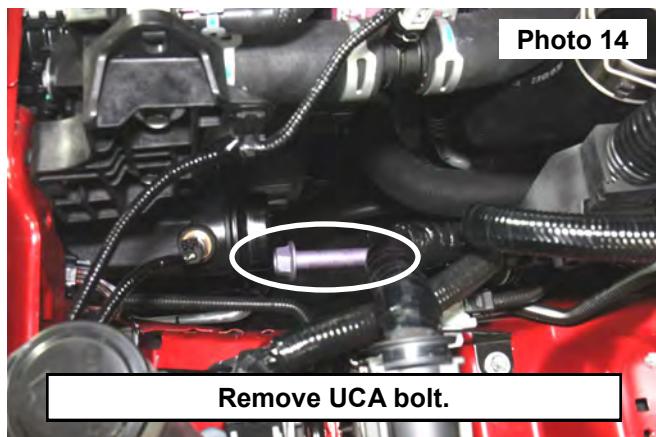
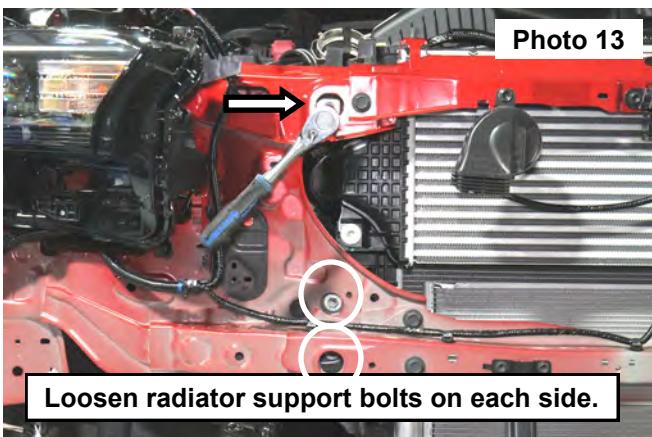
12. Undo the metal retaining clips for the intercooler hose. Do this for both sides. **See Photo 11.**
13. Unplug the mass airflow sensor and pull the wire harness from the airbox.
14. Loosen the air intake hose clamp at the airbox with a 10mm socket. Disconnect air intake hose from the air box.



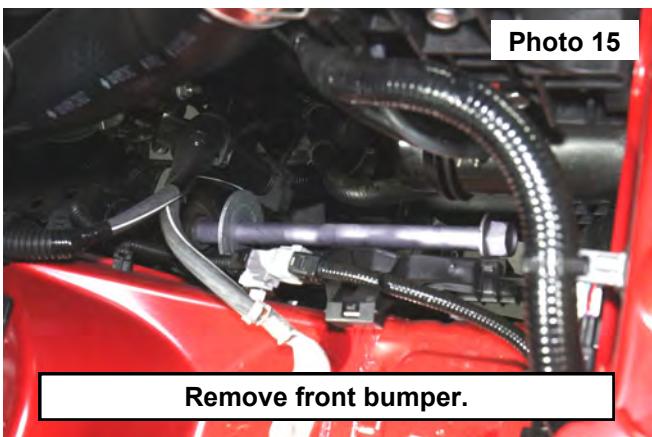
15. Undo the air box clamps and remove the air filter. Set the top half of the air box aside. Wiggle the lower half of the air box off the rubber retaining posts and set aside. **See Photo 12.**



16. Remove the bottom passenger side radiator support bolts (shown with circles) with a 12mm socket. Loosen the top passenger side radiator support bolt (shown with an arrow) using a 12mm socket. Repeat for other side. **See Photo 13.**
17. Support the radiator on the driver side and remove the top bolt on radiator then remove the upper control arm bolt .  
**NOTE:** You will have to raise the radiator on drive side some to remove bolt. This may require two people.
18. Using a 22mm wrench remove driver side upper control arm bolt. **See Photo 14.**



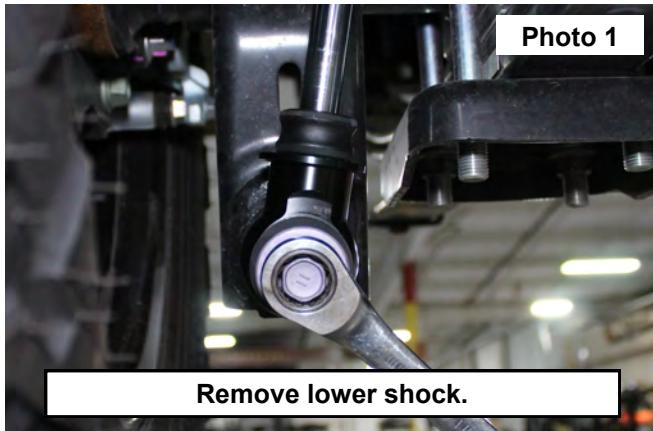
19. Install the driver side upper control arm using the factory hardware. Tighten with a 22mm wrench.
20. On the passenger side, push the wiring harness out of the way and remove the factory upper control arm bolt with a 22mm wrench. **See Photo 15.**



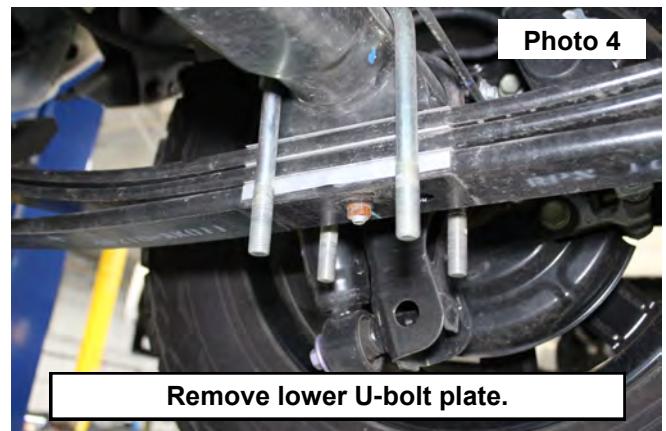
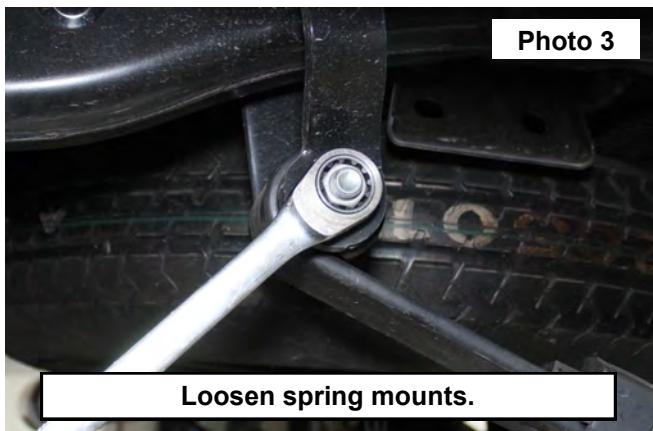
21. Install passenger side upper control arm using the factory hardware.
22. Reinstall remaining radiator and bumper components in reverse order of disassembly.
23. **NOTE:** Factory hardware will be used to attach the factory ABS wire to the new UCA.
24. **NOTE:** Use supplied 1/2" flat washer when connecting the new UCA to the steering knuckle.

## INSTALLATION INSTRUCTIONS

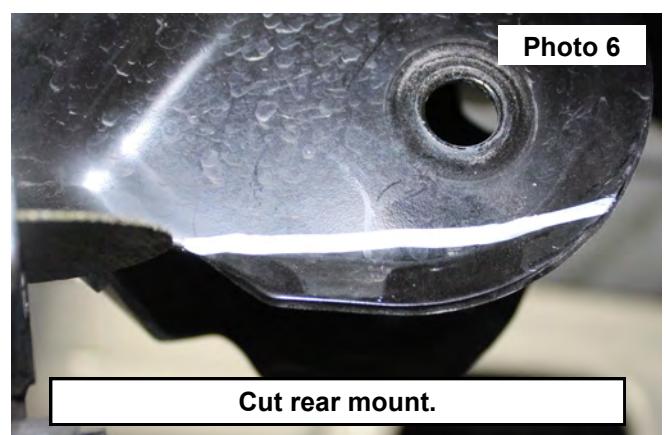
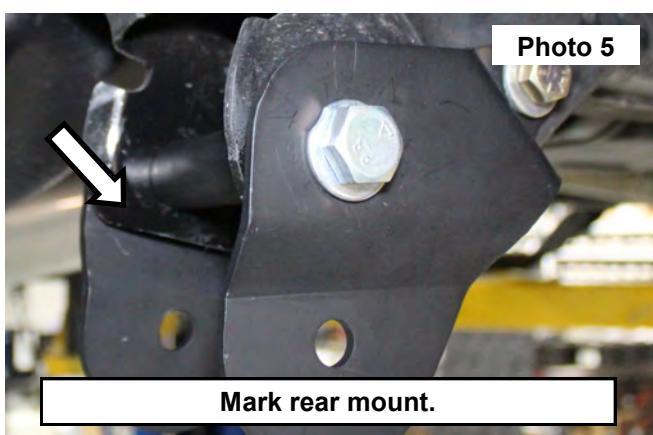
1. Jack vehicle up and place on jack stands. Remove tires and wheels.
2. Support rear axle at pinion and axle tube with stand, using an 18mm socket, remove lower shock mount. **See Photo 1.**
3. Use a 19mm socket and remove upper shock mount. **See Photo 2.**



4. Use the 19mm to loosen factory bolts from leaf springs. **See Photo 3.**
5. Place jack under leaf spring and remove lower U-bolt plate using 22mm socket. Set leaf springs aside. **See Photo 4.**

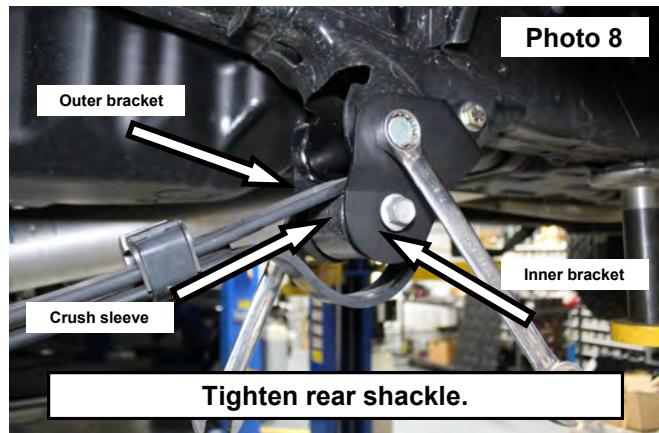
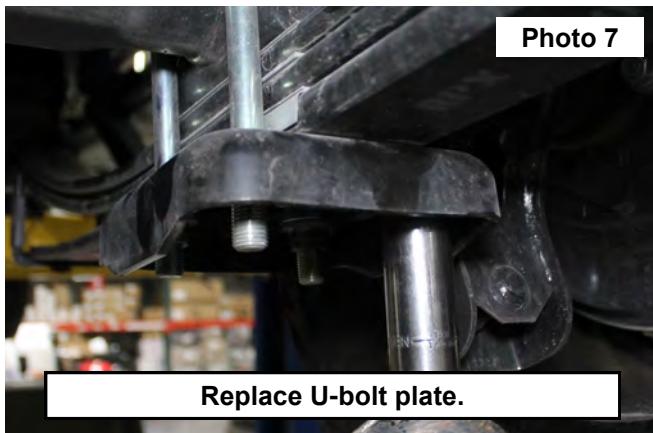


6. Loosely attach rear shackle with supplied hardware. **See Photo 5.**
7. With the rear shackle attached, using a paint marker, mark where to cut the rear mount. Cut mount just above the upper bend on the shackle.



## INSTALLATION INSTRUCTIONS

8. Using a cut wheel, cut the leaf spring mount. **See Photo 6.**
9. Using 22mm socket, replace lower U-bolt plate. **See Photo 7.**
10. NOTE: Install inner and outer rear drop brackets in OE location. Place bolt and washer thru inner drop bracket, then place crush

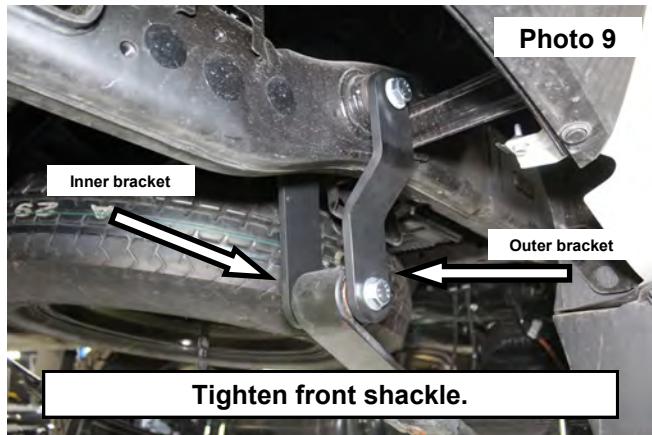


sleeve on bolt. Install leaf spring on crush sleeve and place outer drop bracket and washer on bolt. **See Photo 8.**

11. NOTE: Install inner and outer front drop brackets in OE location. Place bolt and washer thru inner drop bracket, then place crush sleeve on bolt. Install leaf spring on crush sleeve and place outer drop bracket and washer on bolt. **See Photo 9.**
12. Use 22mm socket or wrench for

13. Repeat steps 2-11 for opposite

side.



By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

