TRAIL FORTRESS

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Rough Country 30740 Installation Instructions

4-Inch Lift Kit with M1 Shocks for Ram 1500 2WD (2009-2024)

Part number: 30740

trailfortress.com/rough-country-4-inch-lift-kit-30740

Scan for fitment, price and install help

921307000

ROUGH COUNTRY SUSPENSION SYSTEMS®

307INSTBAG

2009-17 Dodge 2wd 1500 4” Lift Kit

Thank you for choosing Rough Country for all 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 against the kit contents list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have the tools needed to install the kit.

⚠WARNING 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. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

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 use of our products.

⚠NOTICE This 4” suspension system was developed using a 35 X 12.5 tire with aftermarket wheels. 20” wheels with 5 1/2” backspace. **This kit will not work with a wheel smaller than 20”.** As with any tire and wheel combination it is recommended to trial fit the tire / wheel to assure there are no clearance problems.

⚠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:

WD-40
Loc-Tite
Reciprocating Saw
Hammer
Dead Blow Hammer
T30 Torx head bit
5mm Allen Wrench
8mm Socket / Wrench
10mm Socket / Wrench
13mm Socket / Wrench
14mm Socket / Wrench
15mm Socket / Wrench
16mm Socket / Wrench
17mm Socket / Wrench
18mm Socket / Wrench
19mm Socket / Wrench
21mm Socket / Wrench
22mm Socket / Wrench
24mm Socket / Wrench

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

trailfortress.com/rough-country-4-inch-lift-kit-30740

KIT CONTENTS

30730BOX1 ***Containing:***

2-Front Shocks
2-143201 Frt Shock Bags
2-Rr Shocks
2-Rr Sway Bar Link
1-Dr Fr Brake Brkt
1-Pass Fr Brake Brkt
2-Rr Brake Brkt
2-Rr Bumpstop Brkt
2-Rr Shock Flagnut
2-Rr Coil Spacers
2-Rr Coil Retainers
1-132330Bag2
1-307INSTBAG
2-143201

1322Box1 ***Containing:***

1-Dr Knuckle
1-Pass Knuckle

132330Bag2 *Containing:*

For Front Brake Line Brackets:
2-5/16" x 3/4" Bolts
2-5/16" Flange Lock Nuts
2-5/16" Flat Washers
2-3/8" x 1" Bolt
2-3/8" Flange Lock Nuts
2-3/8" Flat Washers

For Rear Coil Spacers:
2-3/8" x 3 1/2" Bolts
2-3/8" Flange Lock Nuts

For Rear Bump Stops:
2-3/8" x 1" Bolts
2-3/8" Flange Lock Nuts
2-3/8" Flat Washers

For Rear Sway Bar Links:
4-12mm x 65mm Bolts
4-12mm Flange Lock Nuts
8-Flat Washers

For Rear Brake Line Bracket:
2-5/16" x 3/4" Bolt
2-5/16" Flange Lock Nuts
2-5/16" Flat Washers

For Rear Vent Hose:
1-Cable Tie

For Rear Shock Absorbers:
2-Washers

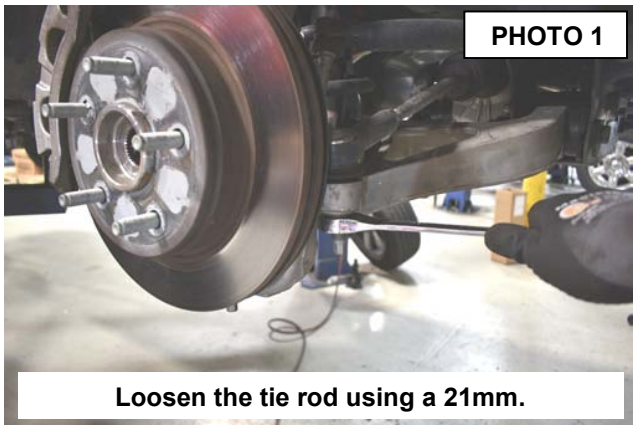
KIT CONTENTS



Thank You for choosing Rough Country for your off road needs!!!

INSTALLATION INSTRUCTIONS

1. Chock rear wheels of the vehicle and raise the front of the vehicle using a floor jack.
2. Support the vehicle with jack stands.
3. Remove wheel using 22mm socket.
4. Remove tie-rod end nut using 21mm as shown in **Photo 1**.
5. Strike with hammer to remove the tie rod from the knuckle. **See Photo 2.**

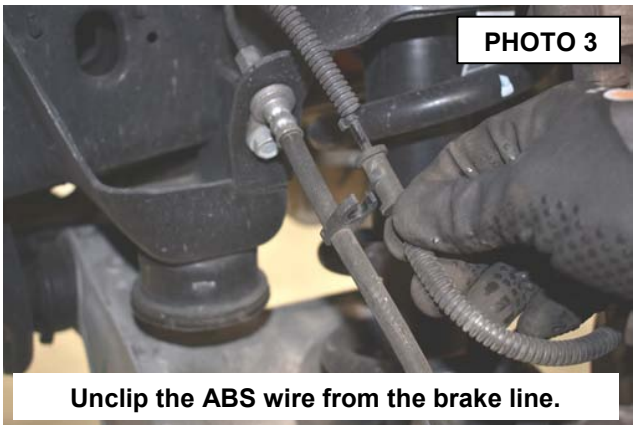


Loosen the tie rod using a 21mm.

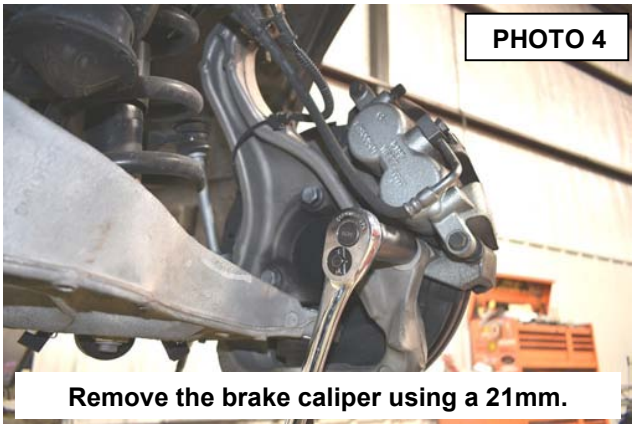


Remove tie rod from knuckle.

6. Unclip the ABS wire from the brake line. **See Photo 3.**
7. Using a 21mm socket, remove the brake caliper. Retain factory hardware. Hang the caliper out of the way. **Do not hang by the brake line. See Photo 4.**

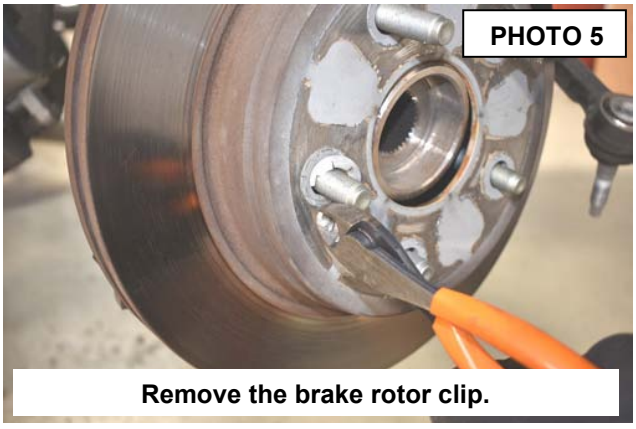


Unclip the ABS wire from the brake line.

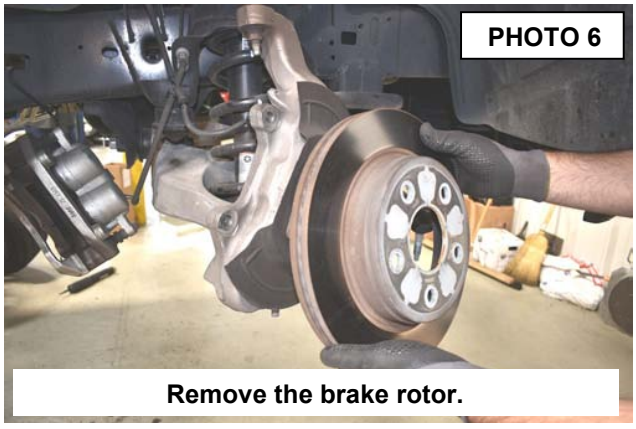


Remove the brake caliper using a 21mm.

8. Remove the brake rotor clip and discard. **See Photo 5.**
9. Remove the brake rotor. **See Photo 6.**

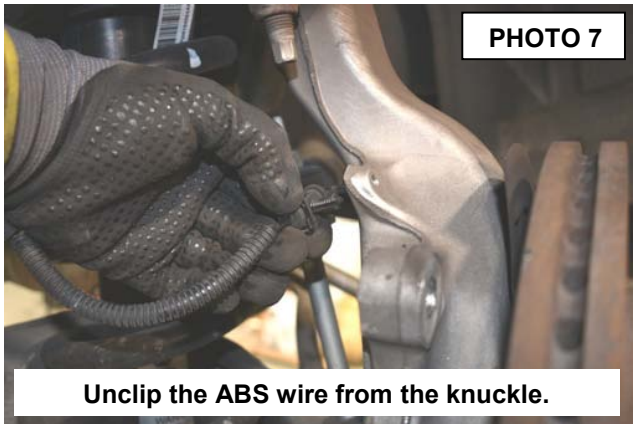


Remove the brake rotor clip.



Remove the brake rotor.

10. Unclip the ABS wire from the backside of the knuckle. **See Photo 7.**
11. Using a 5mm Allen, remove the ABS wire and place out of the way. **See Photo 8.**



Unclip the ABS wire from the knuckle.

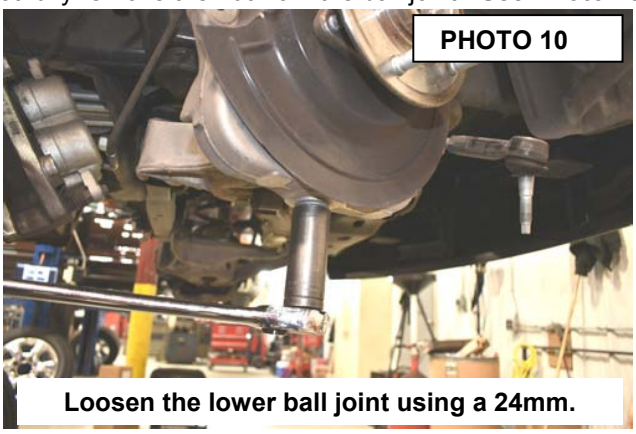


Remove the ABS sensor using a 5mm.

12. Using a 21mm wrench, loosen the upper ball joint nut. Do not fully remove the nut from the ball joint. **See Photo 9.**
13. Using a 24mm socket, loosen the lower ball joint nut. Do not fully remove the nut from the ball joint. **See Photo 10.**



Loosen the upper ball joint using a 21mm.



Loosen the lower ball joint using a 24mm.

14. Strike the knuckle with a hammer to release the taper of the ball joint. **See Photo 11.**
15. Strike the knuckle with a hammer to release the taper of the ball joint. **See Photo 12.**



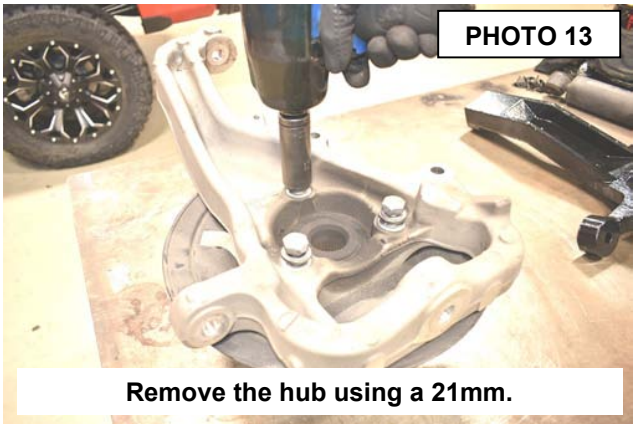
Strike the knuckle to release the taper.



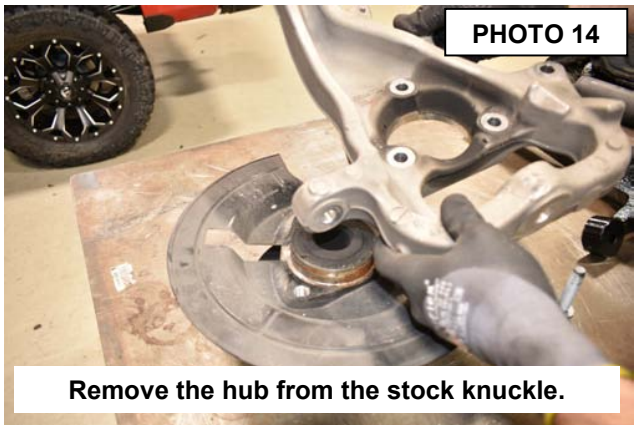
Strike the knuckle to release the taper.

16. Remove the knuckle and retain the stock hardware.

17. Using a 21mm socket, remove the hub bolts from the back of the knuckle. Retain the stock hardware . **See Photo 13.**
18. Remove the knuckle from the hub. **See Photo 14.**



Remove the hub using a 21mm.



Remove the hub from the stock knuckle.

19. Place the new lifted knuckle on the hub and install the factory hardware. **See Photo 15.**
20. Using a 21mm socket, torque the bolts to the factory spec. **See Photo 16.**

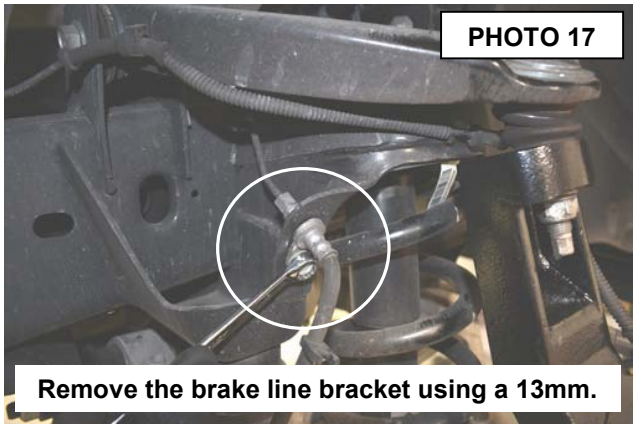


Install the new knuckle on the hub.

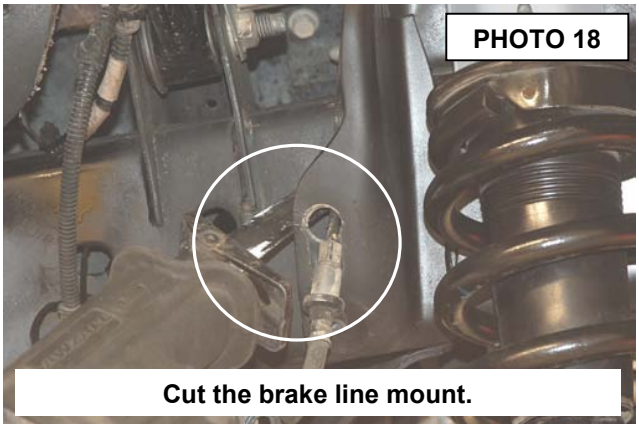


Tighten using a 21mm.

21. Using a 13mm socket, remove the brake line bracket from the frame. **See Photo 17.**
22. Using a reciprocating saw, carefully cut the brake line mount. **See Photo 18.**

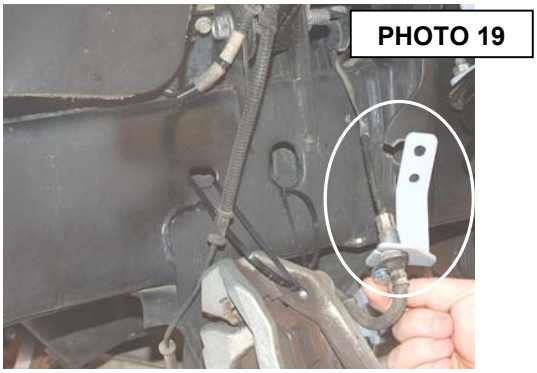


Remove the brake line bracket using a 13mm.

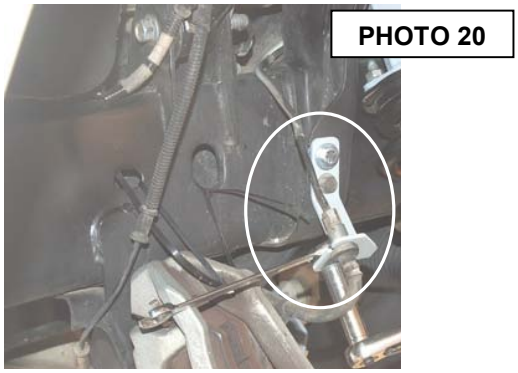


Cut the brake line mount.

23. Remove the hard line from the frame and straighten the bends taking care to not kink the line. **See Photo 19.**
24. Attach the brake line to the supplied relocation bracket using the supplied 5/16" x 3/4" bolts, washers, and nuts Attach the bracket to the frame using the stock bolt in the lower hole and the supplied 3/8" x 1" bolt, washer and nut in the lower hole. Tighten using a 13mm on the stock bolt, 1/2" wrenches on the 5/16" bolt and 9/16" wrenches on the 3/8" bolt. **See Photo 20.**

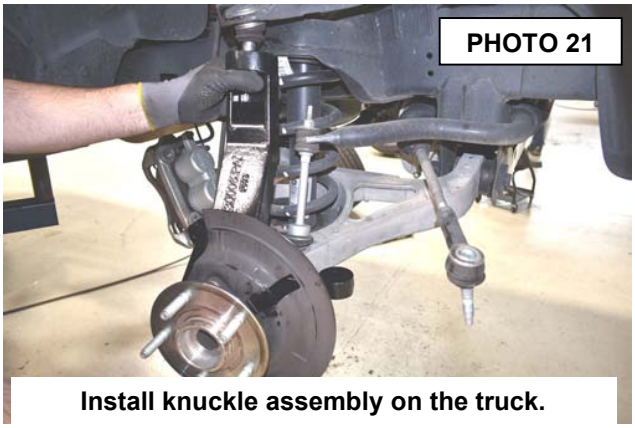


Install the line on the new bracket.

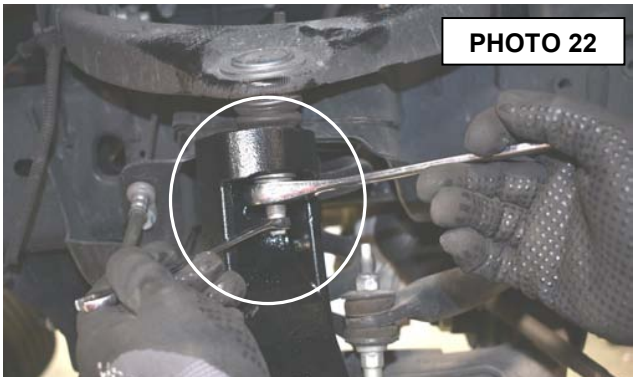


Install bracket to secure the brake line.

25. Install the knuckle assembly on the upper and lower ball joints. **See Photo 21**.
26. Tighten the upper ball joint using a 21mm wrench on the nut and a 10mm wrench to keep the ball joint from spinning. **See Photo 22**.

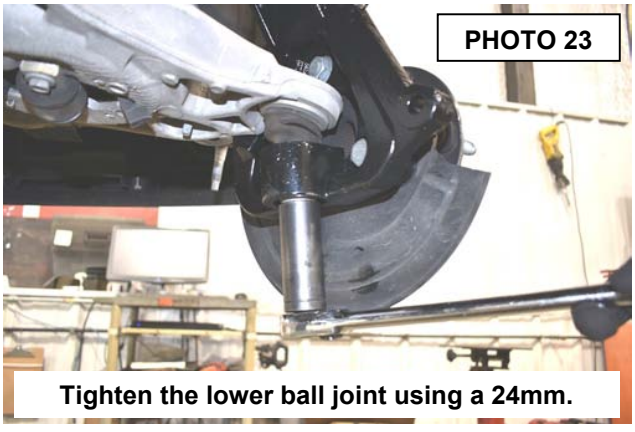


Install knuckle assembly on the truck.

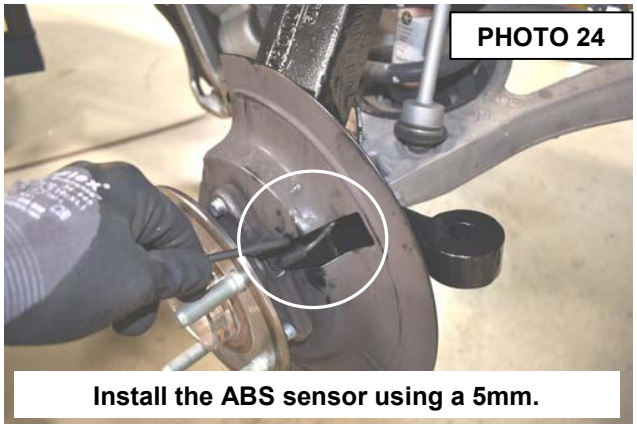


Tighten the upper ball joint using a 21mm & 10mm.

27. Tighten the lower ball joint using a 24mm socket. **See Photo 23.**
28. Install the ABS wire using the factory hardware and tighten using a 5mm Allen. **See Photo 24.**

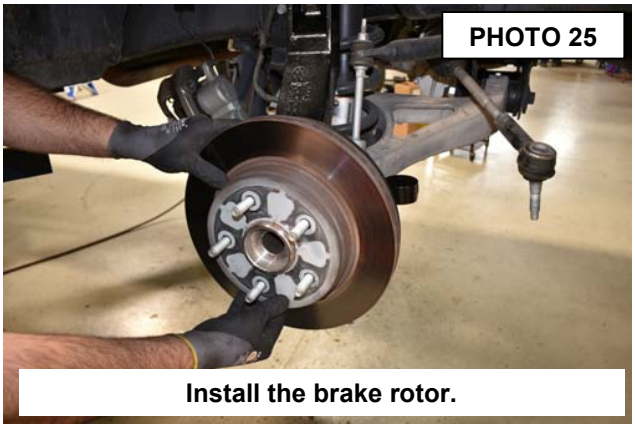


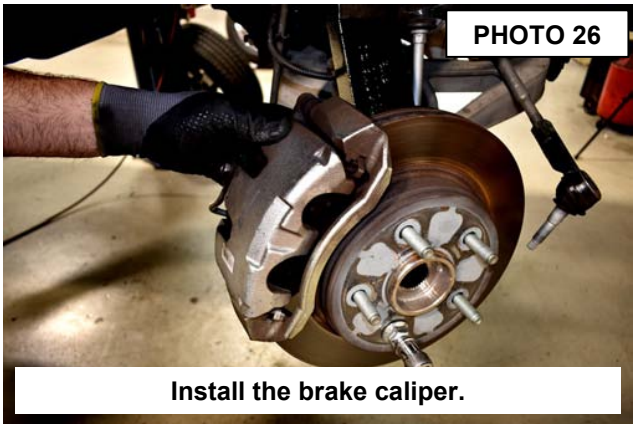
Tighten the lower ball joint using a 24mm.



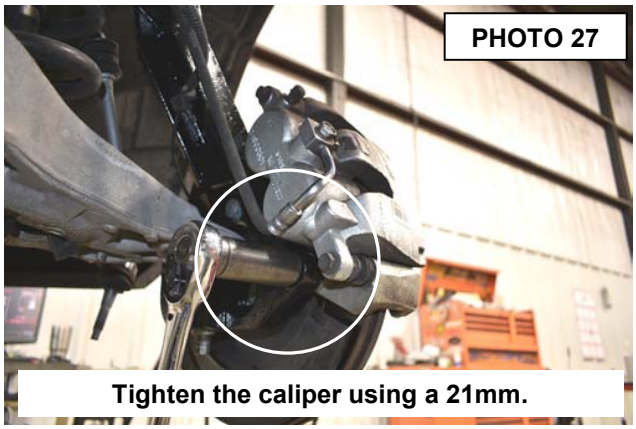
Install the ABS sensor using a 5mm.

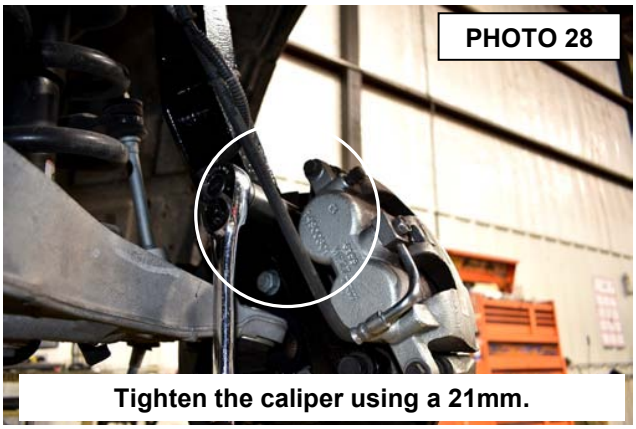
29. Install the brake rotor. **See Photo 25.**
30. Install the brake caliper. **See Photo 26.**



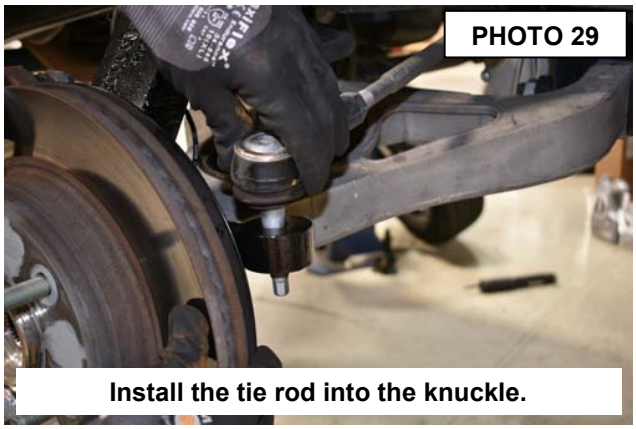


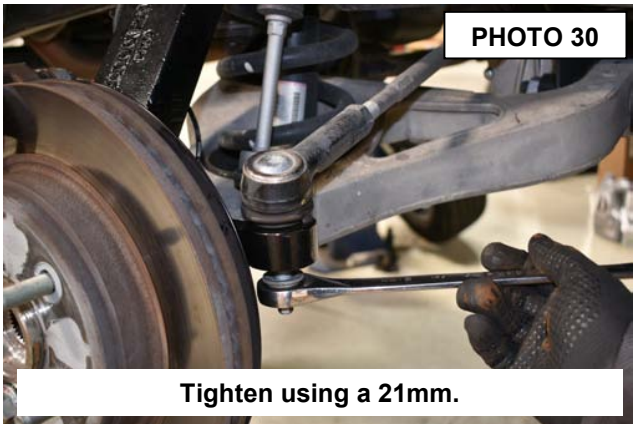
31. Torque the brake caliper bolts to factory specs using a 21mm socket. **See Photos 27 & 28**.



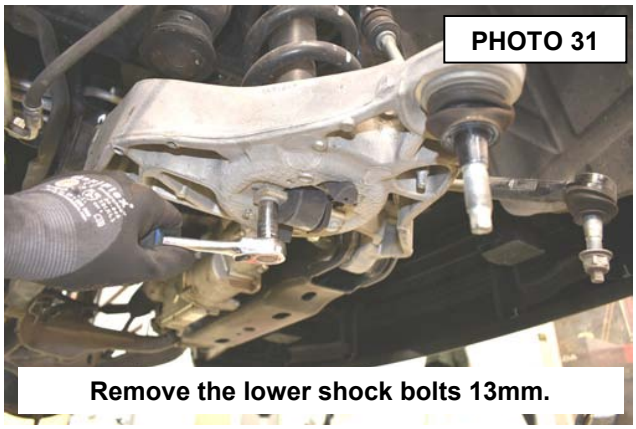


32. Install the tie rod end into the knuckle. **See Photo 29.**
33. Torque to factory specs using a 21mm. **See Photo 30.**

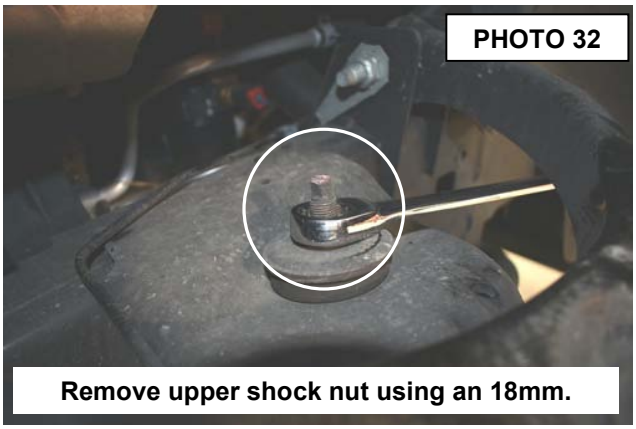




34. Using a 13mm socket, remove the lower shock bolts and retain for reuse. **See Photo 31.**
35. Using an 18mm wrench, remover the upper shock nut, washer, and bushing. **See Photo 32.**

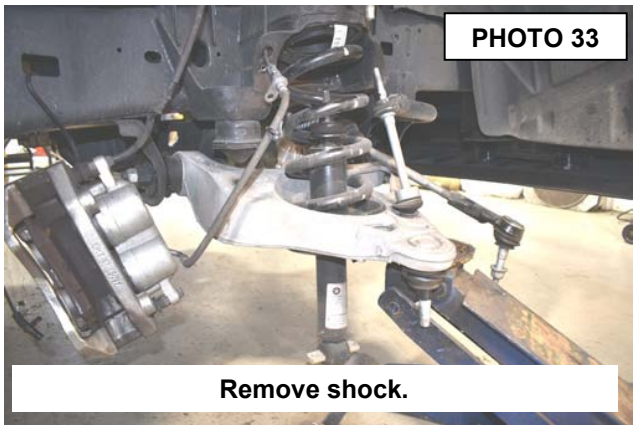


Remove the lower shock bolts 13mm.



Remove upper shock nut using an 18mm.

36. Remove the shock by pulling it out of the lower control arm. **See Photo 33.**

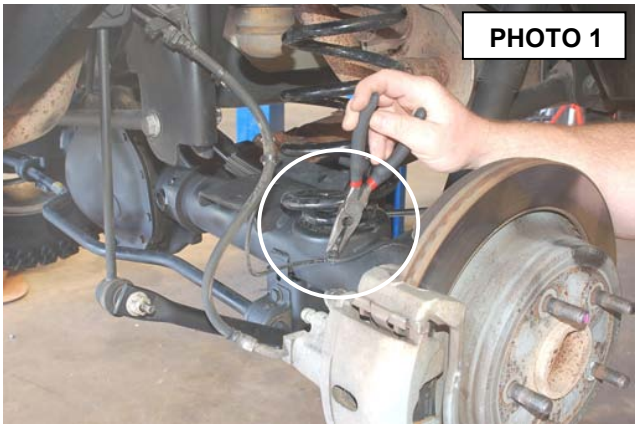


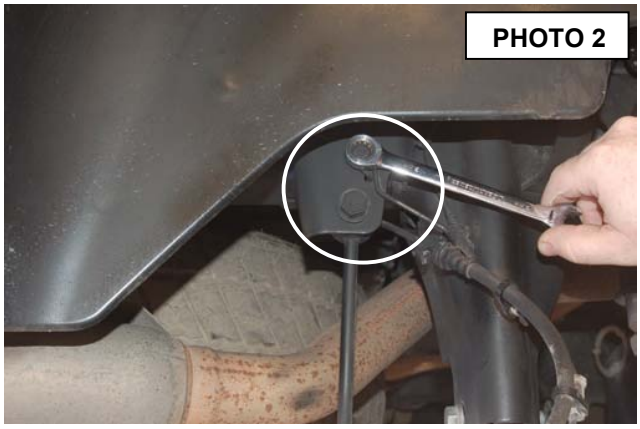
Remove shock.

37. Place a supplied cup washer (cup upward) then bushing onto the supplied 660810 shock upper stud. Use supplied 143201 bag.
38. Install the supplied 660810 shock up through the bottom of the lower control arm while aligning the upper stud in the upper mounting hole.
39. Place a supplied bushing then cup washer (cup down) on the upper stud. Install supplied nut and tighten using an 18mm wrench until the bushings start to bulge under the washers.
40. Attach the lower shock mount to the lower control arm using the supplied 8mm bolts and nuts in the 1043201 bag. Torque to 18ft-lbs using a 13mm wrench and socket.

REAR INSTALLATION INSTRUCTIONS

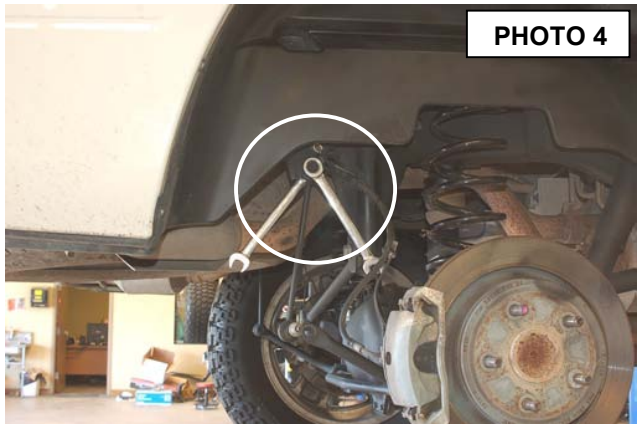
1. Remove wheels using a 22mm socket.
2. Remove ABS clip from axle. **See Photo 1**.
3. Remove the brake line as shown in **Photo 2** using 13mm.





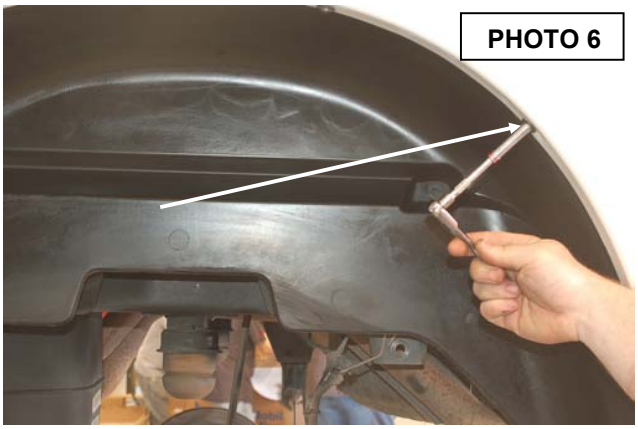
4. Remove sway-bar link using 8mm and 18mm wrench for lower end and 18mm for top end. **See Photo 3 & 4.**



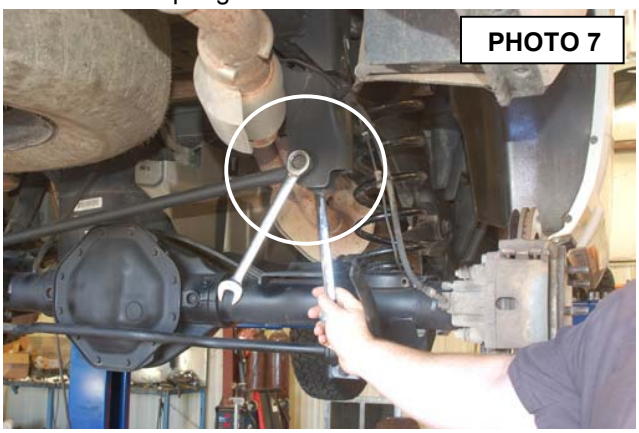


5. Support rear end.
6. Remove the shocks from the axle using 21mm wrench. **See Photo 5.**
7. To remove the upper shocks from the frame mount, remove the inner fender well using 8mm socket. **See Photo 6**. There are **10** bolts on driver side and **10** on passenger side. This is done to gain access to nut on back of shock. Use a socket on back side to remove bolt.



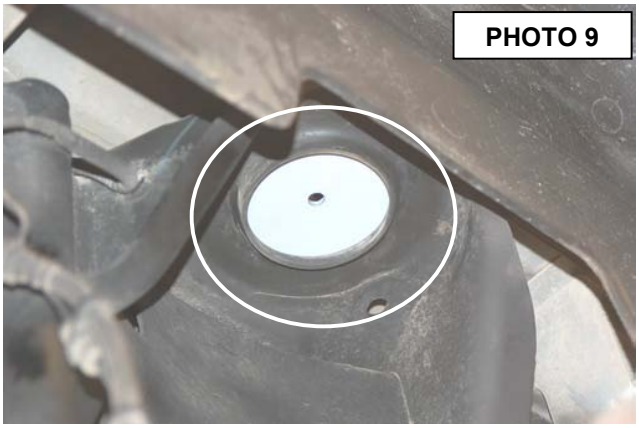


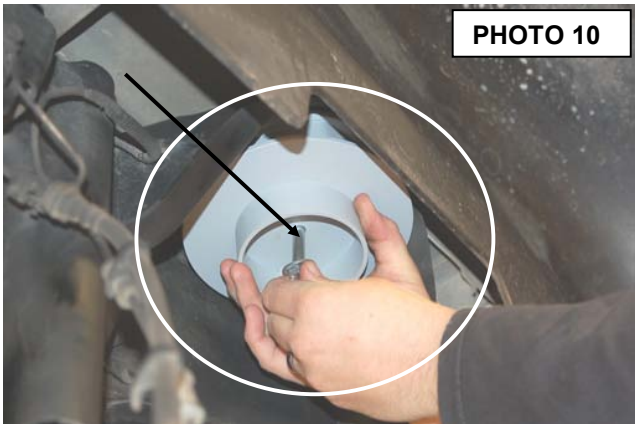
8. Remove upper track bar bolt using 21mm wrench. **See Photo 7.**
9. Remove the vent hose from axle.
10. Remove coil springs. **See Photo 8.**



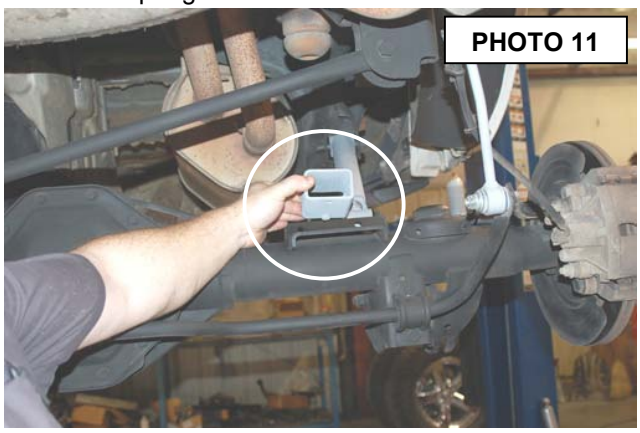


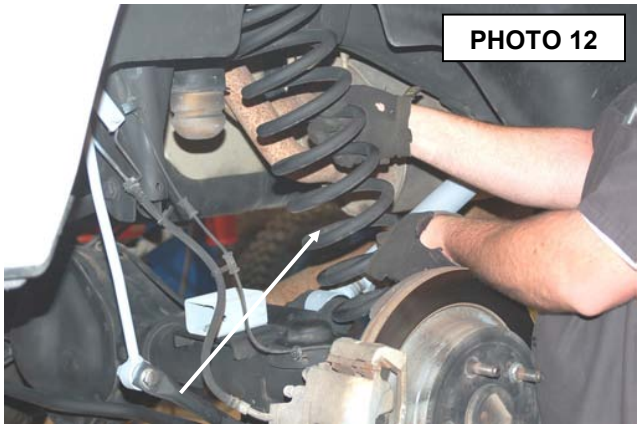
11. Install the flat upper spacer retainer as shown in **Photo 9** on the upper coil seat.
12. Install the spring spacer and secure with the supplied 3/8” x 2 1/2” bolt through the upper flat retainer to hold the spacer in place. Tighten using a 14mm Socket & wrench. **See Photo 10**.



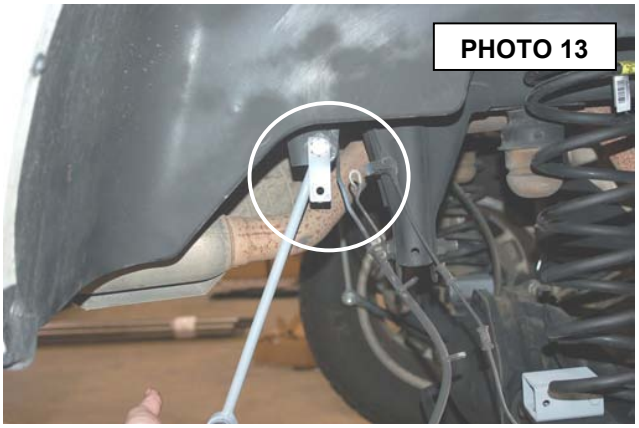


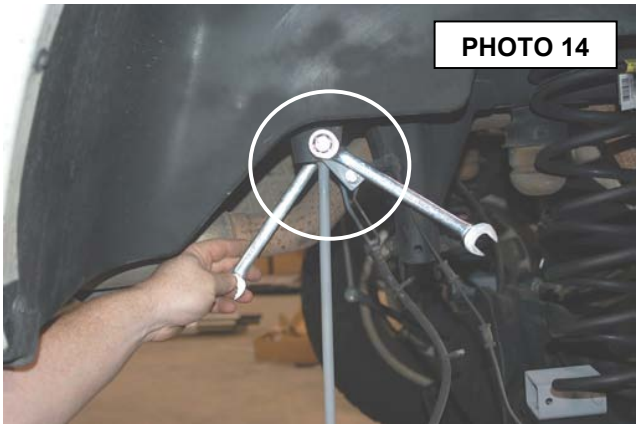
13. Install bump stops using supplied 3/8” x 1” bolts, washers and nuts. The pin in the block goes in front hole as shown in **Photo 11.** Tighten hardware using a 14 mm wrench.
14. Install coil spring with stock isolator. **See Photo 12.**



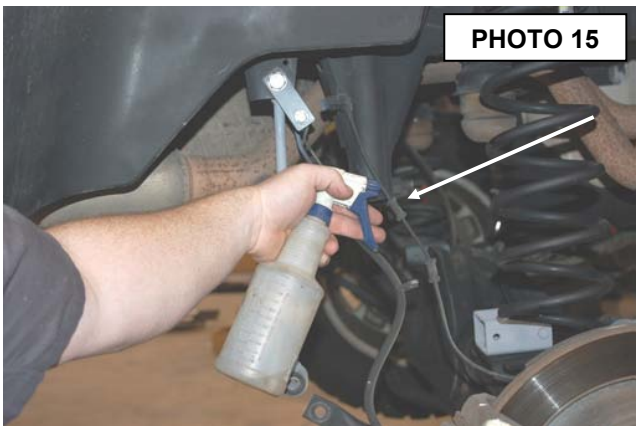


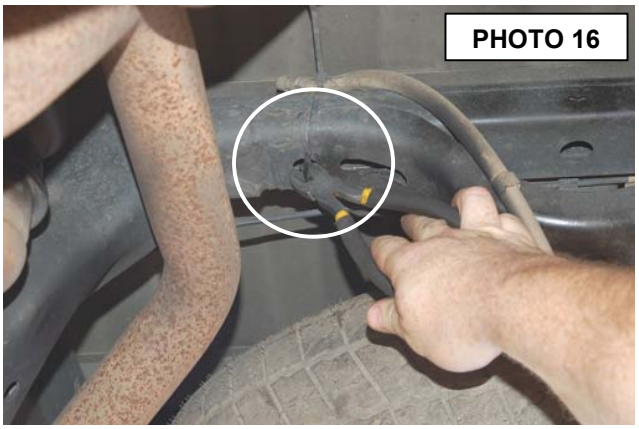
15. Install shock onto truck, **body of shock will go to bottom mount**, using stock hardware with supplied flag nut for top bolt.
16. Also install washer on bottom of shock to the outside of truck. Use 21mm to tighten.
17. Pull down and straighten brake line. Take care not to kink the brake line.
18. Install sway bar links & brake line brackets on the frame with the supplied 12mm x 65mm bolts, washers and nut. **See Photo 13.**
19. Install the stock brake line on the bracket with supplied 5/16" x 3/4" bolt, washers and nut. **See Photo 14.**

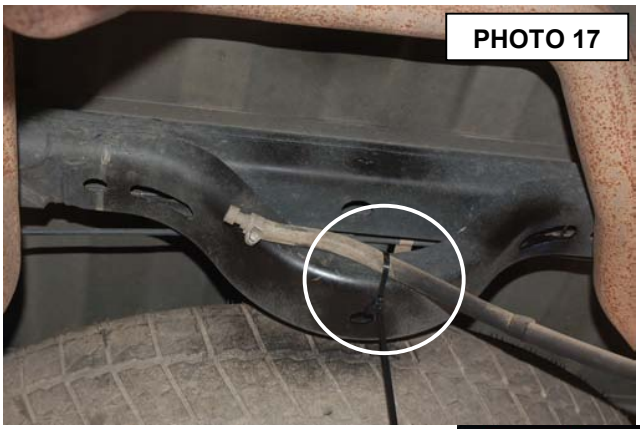




20. Use a 18mm and 19 mm to tighten sway bar link bolts and 13 mm for brake line bolts.
21. Install track bar into bracket with stock bolt. You may have to do this with truck on the ground. Tighten upper bolt using 22mm wrench and lower with 21mm wrench.
22. With WD-40 or alcohol adjust the rubber insulator on ABS wire so that it will fit back into clip on brake line. **See Photo 15.**
23. Cut zip tie for axle vent tube and install new zip tie and vent tube on lower part of frame. **See Photo 16 & 17.**
24. Reinstall fender wells using 8mm socket.
25. Check to make sure all fasteners are tight.
26. Reinstall the track rod in the stock location on the frame. Tighten using a 21mm socket / wrench.







POST INSTALLATION

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings and take truck in for a front-end alignment to a qualified alignment professional.

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