TRAIL FORTRESS

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Rough Country 78944 Installation Instructions

3.5-Inch Lift Kit with M1R Shocks for 2024-2025 Jeep Gladiator 4WD

Part number: 78944

trailfortress.com/rough-country-3-5-inch-lift-kit-78944

Scan for fitment, price and install help

921789000

ROUGH COUNTRY SUSPENSION SYSTEMS®

Jeep JT Gladiator 3.5” Dual Rate Coil Spring Suspension 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 against the parts list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

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.

This suspension system was developed using a 37x12.50x20 tire on a 20x9 wheel with -12 offset. Different wheel and tire combinations may be used but different tire manufactures designs may result in a tire width that could result in contact with the lower control arm and/or front sway bar link in a sharp turn. Please consult with your tire and wheel expert before purchasing. Also note that if wider tires are desired, offset wheels will be required. If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products by calling 1-800-222-7023.

⚠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.

Tools Needed:

6mm Allen
8mm Socket
10mm Socket & Wrench
15mm Socket & Wrench
18mm Socket & Wrench
19mm Socket & Wrench
21mm Socket & Wrench
22mm Deep Well Socket
24mm Socket & Wrench
Pliers
9/16” Socket & Wrench
3/4” Socket & Wrench
Jack
Jack Stands
Torque Wrench

Prior to installing this kit, with the vehicle on the ground, measure the heights of your vehicle. This measurement can be recorded from the center of the wheel straight up to the top of the inner fender lip. Record the measurements.

LF:_____ ,RF:_____,

LR:_____, RR:_____

KIT CONTENTS

Kit Box 78800991

Qty	Description
2	Front Sway Links
2	Front Bump Stop Spacers
2	Rear Sway Links
1	78700BAG2
1	63730BAG2
1	Instruction Sheet
1	1609BAG7

Kit Box 11061

Qty	Description
1	Forged Adjustable Track Bar
1	Instruction Sheet

Kit Box 9420

Qty	Description
1	Dr Front Dual Rate Coil Spring
1	Pass Front Dual Rate Coil Spring

Kit Box 9421

Qty	Description
2	Rear Dual Rate Coil Springs

23217

Qty	Description
2	Front N3 Shocks (660808)

23220

Qty	Description
2	Rear N3 Shocks (660782)

78700BAG2

Qty	Description
4	1/2” Flat Washer
2	12mm x 65mm Bolt
2	12mm Flange Lock Nut
2	14mm x 75mm Bolt
2	14mm Nylock Nut
2	9/16” Flat Washer

63730BAG2

Qty	Description
2	3/8” Flat Washer (Not Used in 64930 kit)
2	3/8” x 2” Bolt (Not Used in 64930 kit)
2	Rr Spacer Mounting Washers (Not Used in 64930 kit)
2	12mm-1.75 x 65mm Bolts
2	12mm-1.75 Flange Lock Nuts
6	12mm Flat Washers
2	12mm-1.5 x 60mm Bolts

1609BAG7

Qty	Description
2	3/8” Flat Washer
2	3/8” x 3” Bolt
2	3/8” Flange Lock Nut

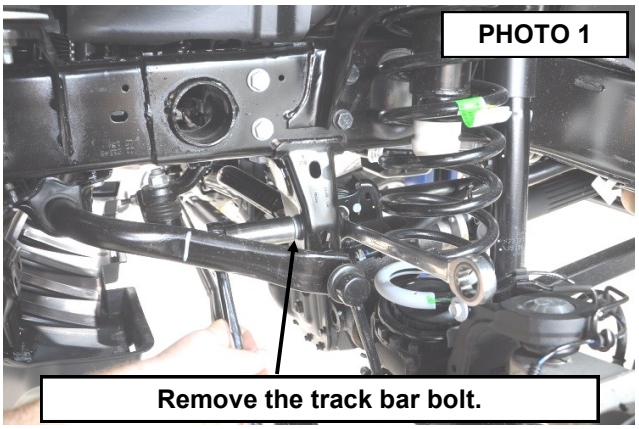
Torque Specs:

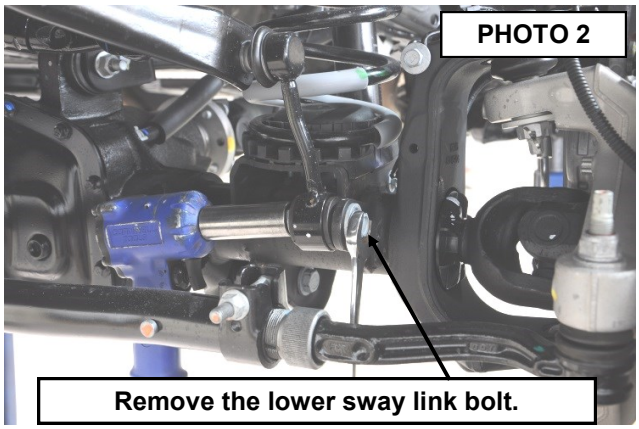
Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16”	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8”	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16”	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2”	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16”	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8”	135ft/lbs	175ft/lbs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

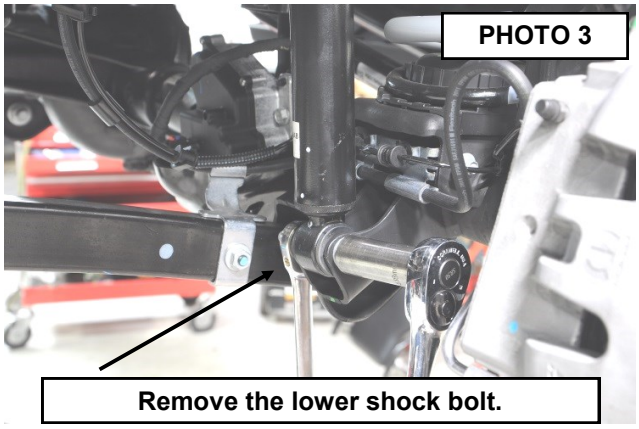

ROUGH COUNTRY
PREMIUM SHOCK ABSORBER
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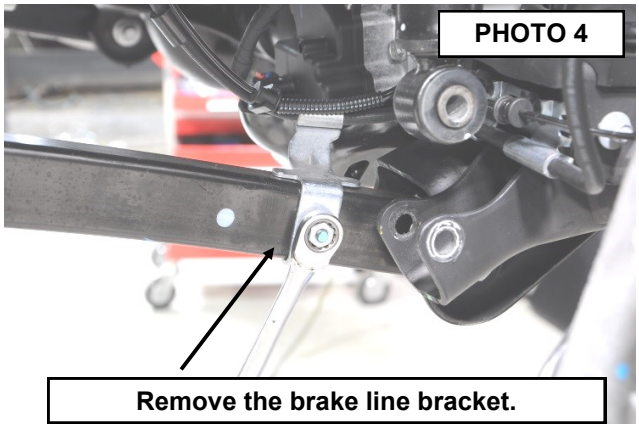
FRONT INSTALLATION INSTRUCTIONS

1. Place vehicle in park and chock the rear wheels. Raise the front of the vehicle with a jack and secure a jack stand beneath each frame rail behind the front control arms. Ease the frame down onto the stands. Place the jack under the front axle for support when removing the coil springs.
2. Remove the front tires/wheels, using a 22mm deep well socket.
3. Mark and remove front driveshaft from axle using a 15mm socket. **Hang the driveshaft up don't let it fall or rest on the driveshaft boot or it could damage the boot.**
4. Using a 21mm socket and wrench, remove the front track bar from the frame and axle. **See Photo 1.** Retain hardware for reuse.
5. Using an 18mm socket and wrench remove the bottom sway bar link bolts. Retain hardware for reuse. **See Photo 2**.
6. Remove the upper and lower shock bolts using a 18mm socket and wrench. You may have to raise the axle with the jack and pull down on the shock to remove the lower bolt. **See Photo 3.** Retain stock hardware.

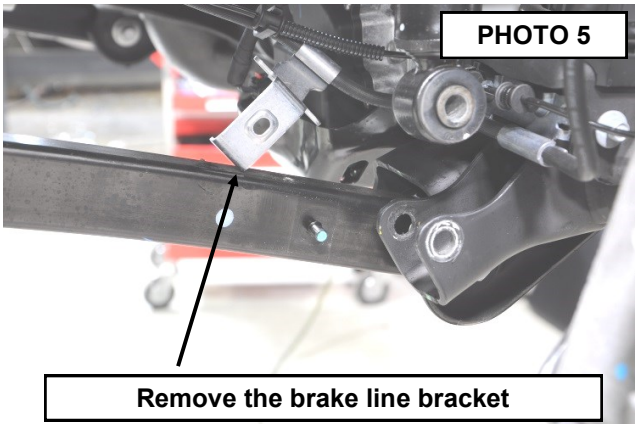


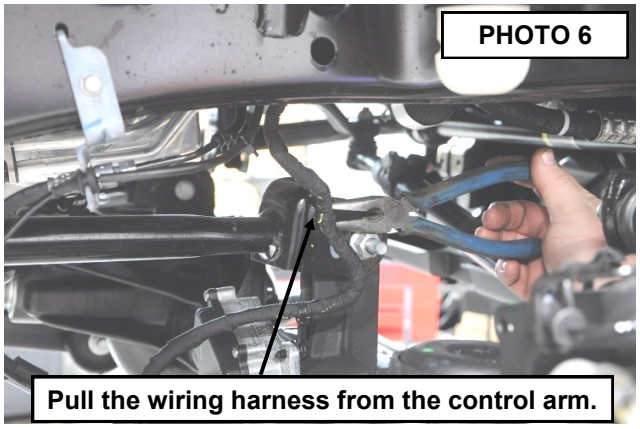




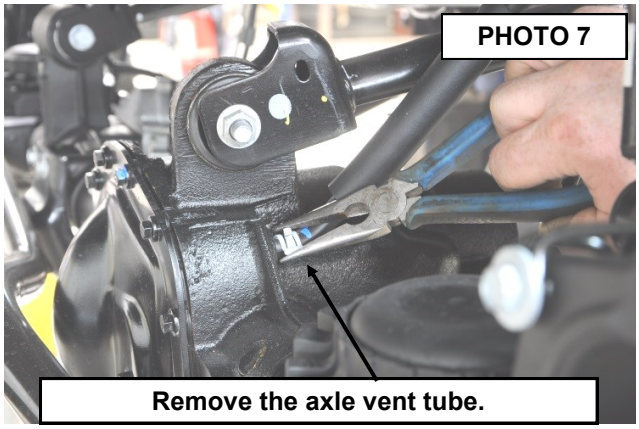


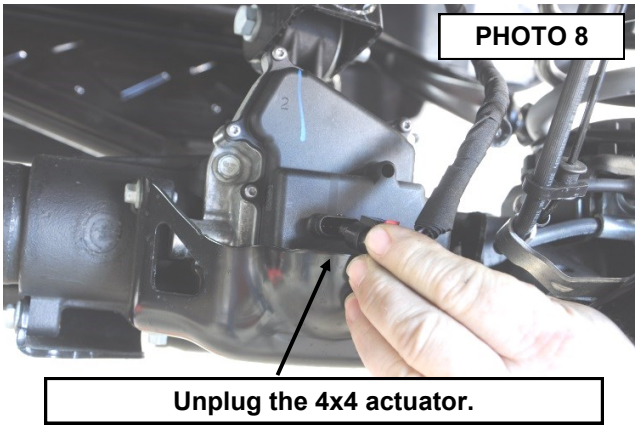
7. Using a 15mm wrench, remove the brake line bracket from the lower control arm. **See Photos 4 & 5.** Retain hardware for reuse.
8. Using pliers, remove the wiring harness from the upper control arm. **See Photo 6.**



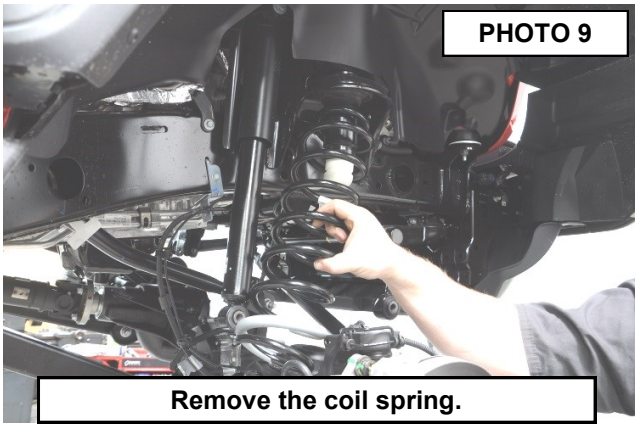


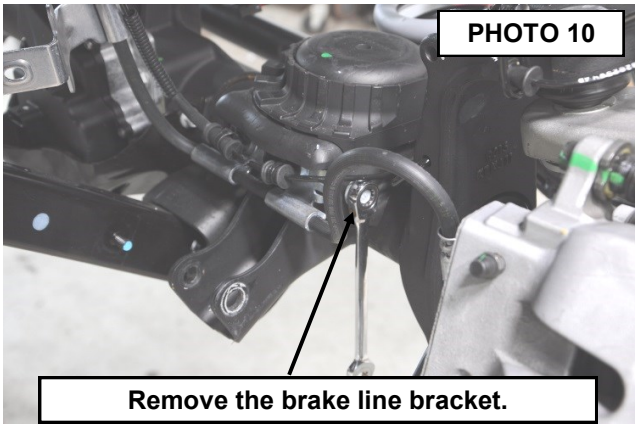
9. Using pliers, remove the axle vent tube from the differential housing. **See Photo 7**.
10. Unplug the 4x4 actuator for slack. **See Photo 8.**



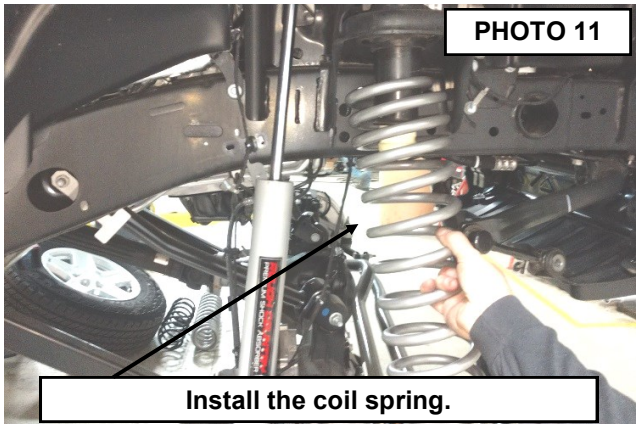


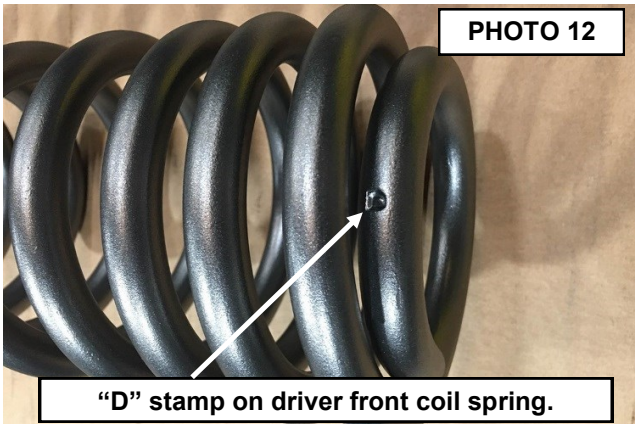
11. Lower the jack slowly and remove the coil spring and spring isolator. **See Photo 9.**
12. Using a 10mm wrench, remove the brake line bracket from the coil mount. Retain hardware for reuse. **See Photo 10.**



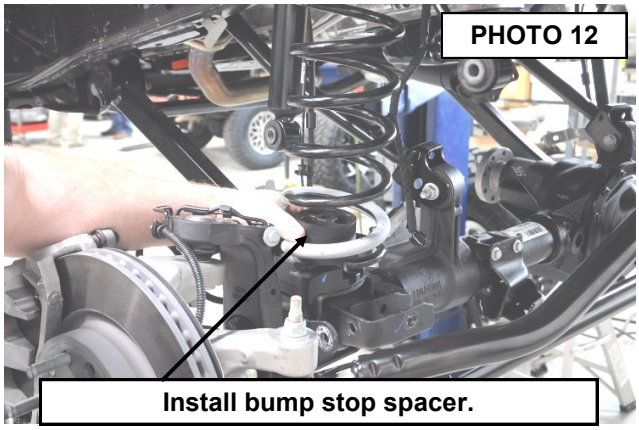


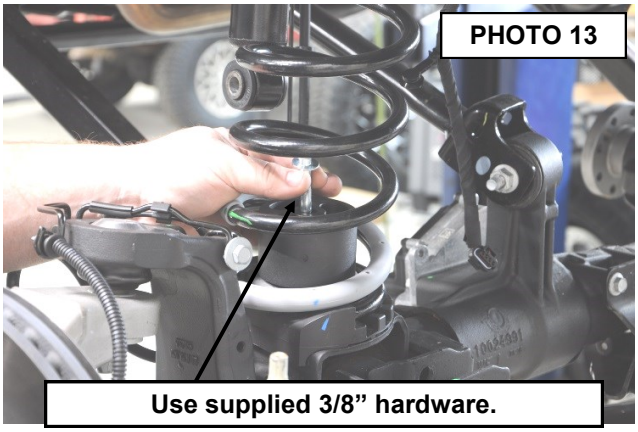
13. Install the supplied dual rate coil spring with the factory coil spring isolator. **See Photo 11.**
14. **NOTICE** **The Driver coil spring will have a "D" stamped on it.** **See Photo 12.**



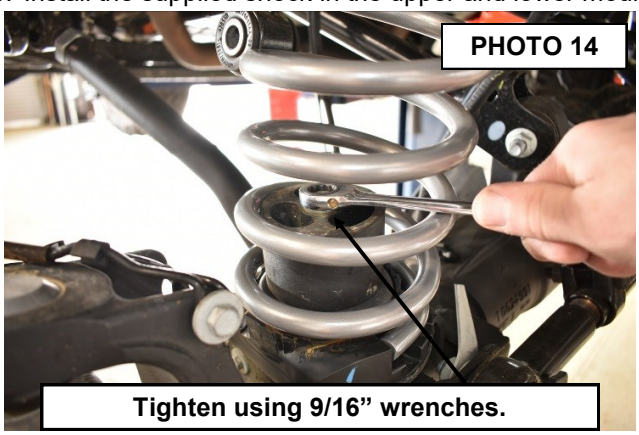


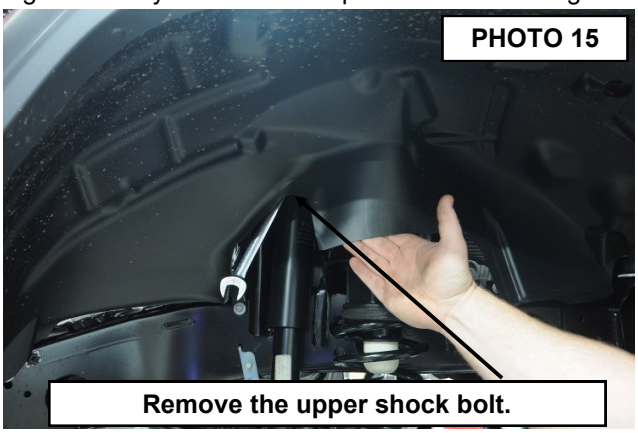
15. Install the bump stop spacer into the lower coil mount. **See Photo 12.**
16. Place the supplied 3/8” x 3” bolt, washers, and nut (1609BAG7) through the spacer and coil mount. **See Photo 13.**

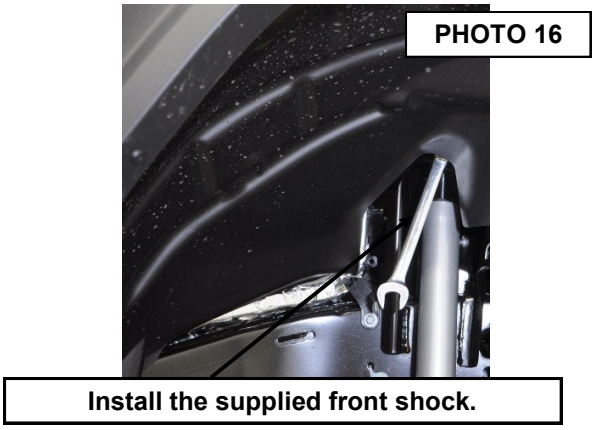


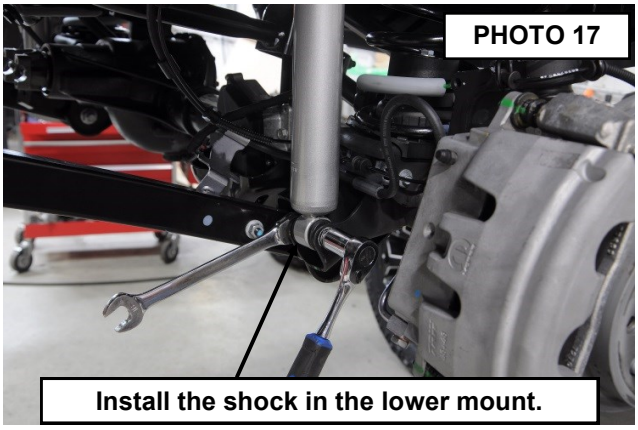


17. Torque to 30 ft-lbs. using 9/16” wrenches. **See Photo 14.**
18. Install the brake line bracket that was removed in step 14 on the lower coil mount using the factory hardware and a 10mm wrench. Torque to 5 ft-lbs.
19. Remove the upper shock mounting bolt using a 19mm wrench. Retain hardware for reuse. **See Photo 15.**
20. Install the supplied shock in the upper and lower mounts using the factory hardware. Torque to 55 ft-lbs. using a 19mm socket. **Make sure the upper eyelet is offset to the outside of the vehicle. See Photo 16.**
21. Torque the lower shock mounting bolt to 55 ft-lbs. using an 18mm wrench and socket. **See Photo 17.**









23. Install the brake line bracket on the lower control arm using the factory hardware. Torque to 18 ft-lbs. using a 15mm wrench. Torque to 18ft/lbs. **See Photo 18.**
24. Remove the sway link from the sway bar using a 6mm Allen and an 18mm wrench. **See Photo 19.**

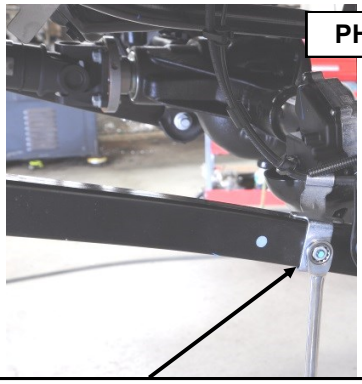


PHOTO 18

Install the brake line bracket.

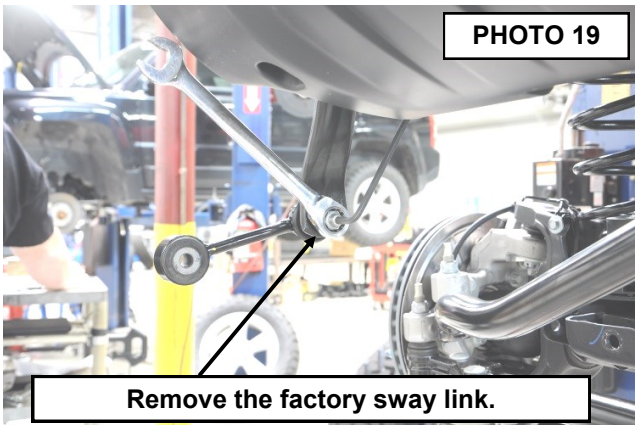


PHOTO 19

Remove the factory sway link.

25. Install the new supplied bent sway link using the supplied 14mm x 75mm bolt, washer, and lock nut (78700BAG2). **Install the bolt, with washer, through the link then the sway bar. The nut should be tightened against the sway bar.** Torque to 55ft/lbs using an 18mm wrench and socket. **Only turn the nut when tightening**. **See Photo 20.**
26. Clip the wiring harness into the upper control arm.
27. Attach the axle vent tube to the differential using a pair of pliers.
28. Plug-in the 4x4 actuator. **See Photo 21.**

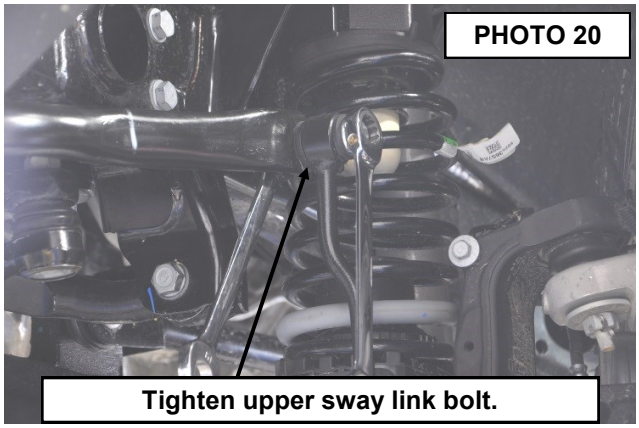


PHOTO 20

Tighten upper sway link bolt.

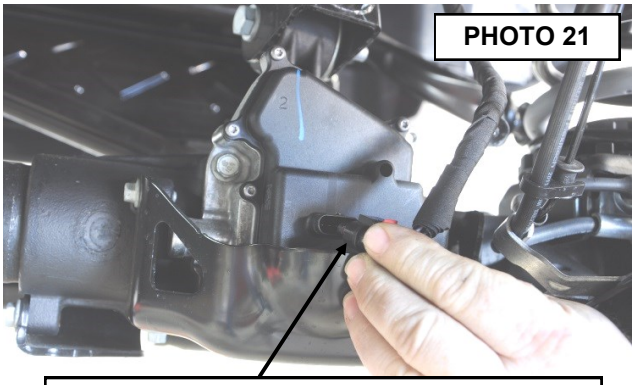


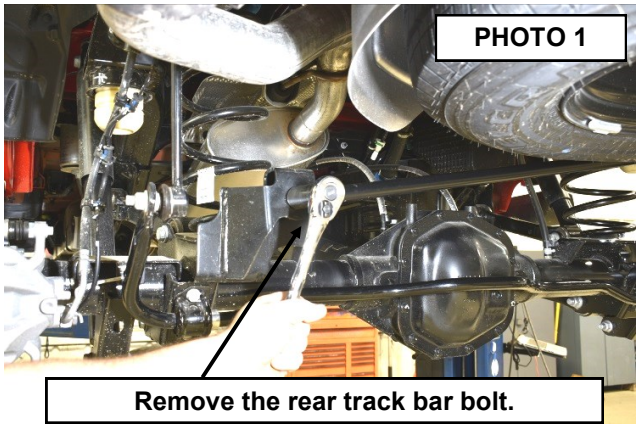
PHOTO 21

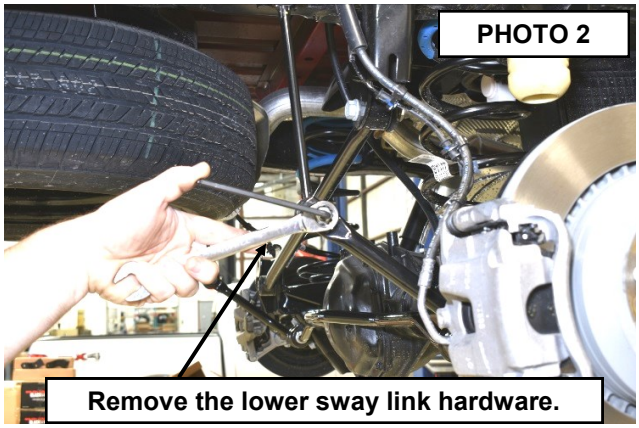
Plug in the 4x4 actuator.

29. Attach the sway bar links, to the axle, using the factory hardware and an 18mm socket and wrench. Torque to 55t/lbs.
30. Reinstall the front tires/wheels, using a 22mm deep well socket.
31. Lower the vehicle to the floor.
32. Attach the supplied 11061 track bar using the factory hardware and a 21mm socket and wrench. Torque to 120ft/lbs. Turning the steering wheel will help align the track bar and the mounting hole.
33. Retighten the lower control arms using a 21mm & 24mm wrench. Torque to 165 ft-lbs.
34. Retighten the upper control arms using a 18mm wrench. Torque to 55 ft-lbs.

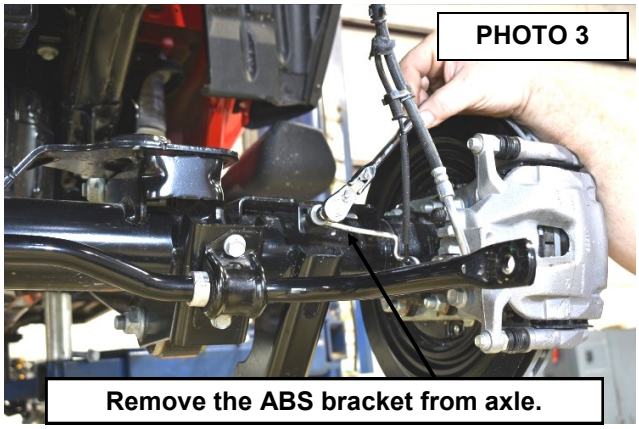
REAR INSTALLATION INSTRUCTIONS

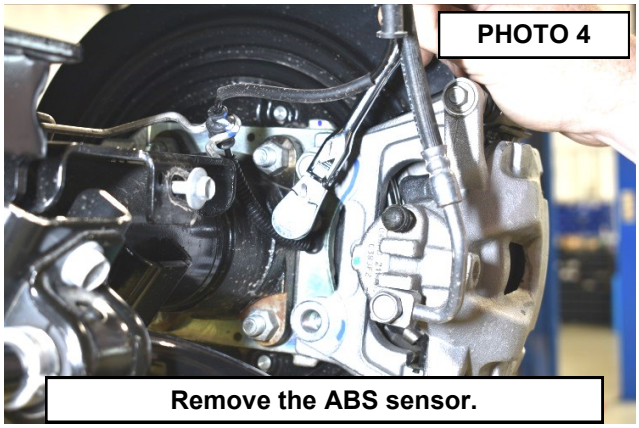
1. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear wheels are off the ground. Chock front wheels. Position a jack so it supports, but does not raise the rear axle.
2. Remove the rear tires/wheels, using a 22mm deep well socket.
3. Using a 21mm socket remove the track bar bolt at the axle. Retain the stock hardware for reuse. **See Photo 1.**
4. Using a pair of pliers, disconnect the vent tube from the rear axle.
5. Using an 18mm socket and 6mm Allen, disconnect the sway link from the sway bar. **See Photo 2.**



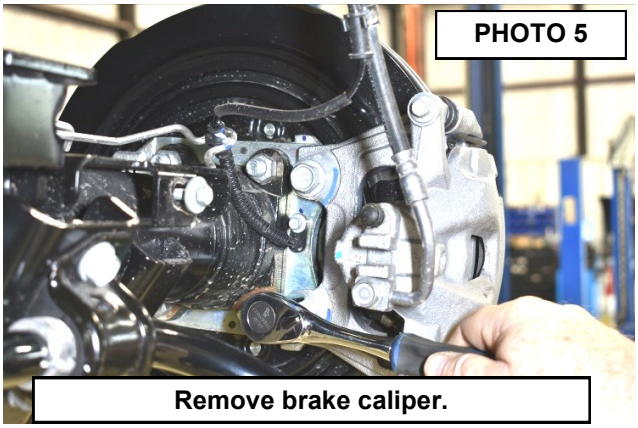


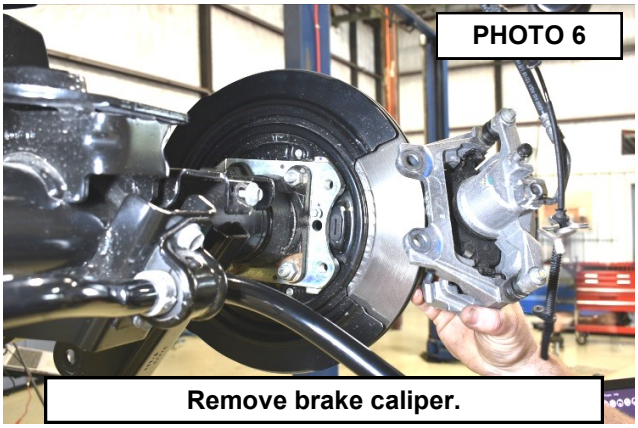
6. Using a 10mm socket, remove the ABS bracket from the axle. Retain hardware. **See Photo 3.**
7. Using an 8mm socket, remove the ABS sensor from the brake caliper bracket. Retain hardware. **See Photo 4**.



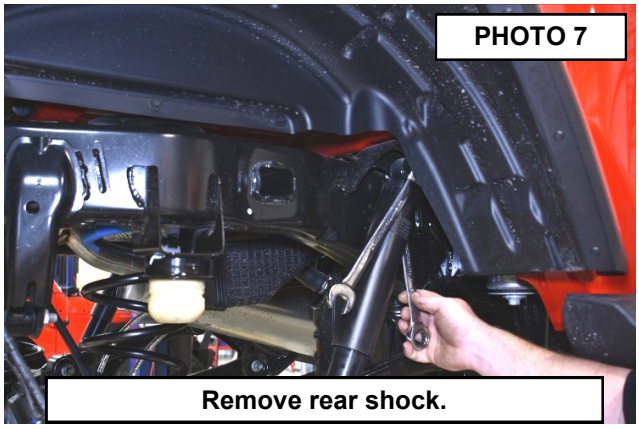


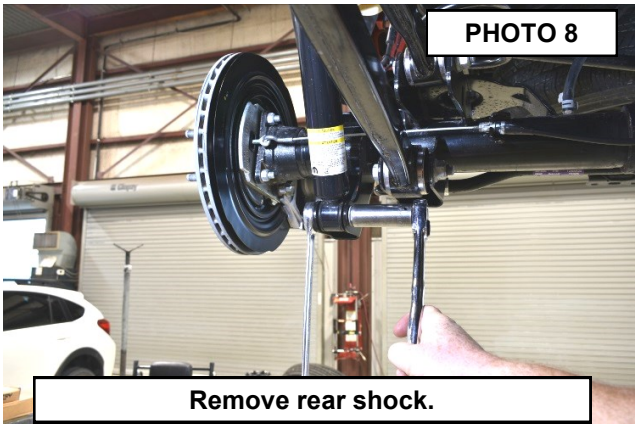
8. Using an 18mm socket, remove the brake caliper bolts. Retain hardware. **See Photo 5.**
9. Remove the brake caliper and hang out of the way. **See Photo 6. Do not hang the caliper by the brake line.**



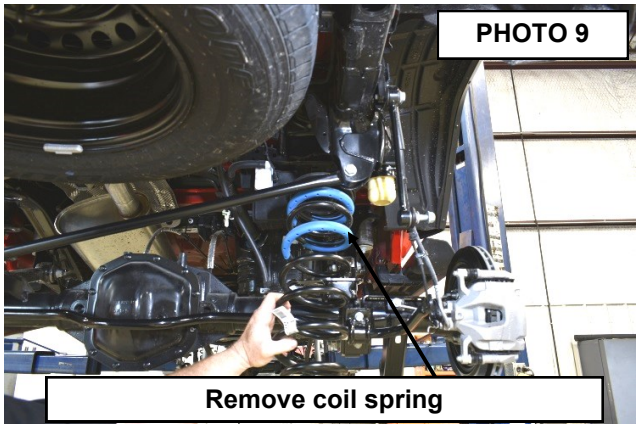


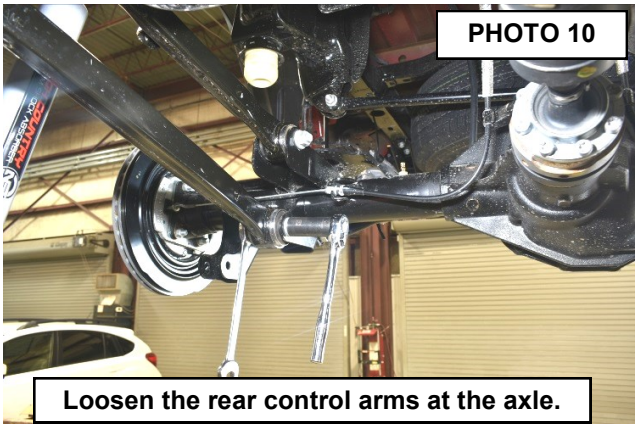
10. Support the rear axle using a jack or jack stands.
11. Using a 21mm wrenches, remove the upper and lower shock hardware. Retain hardware. **See Photos 7 & 8.**



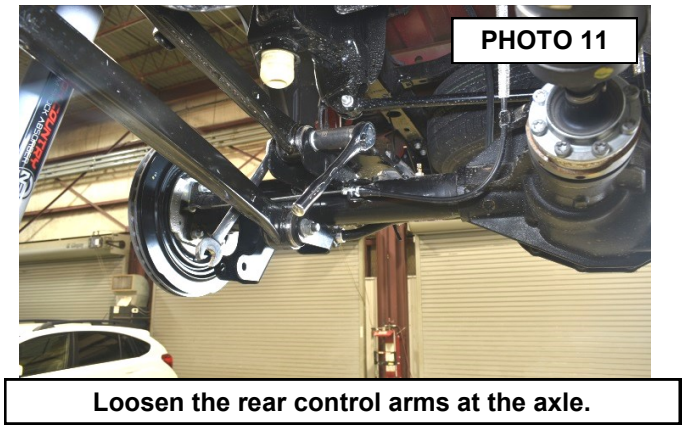


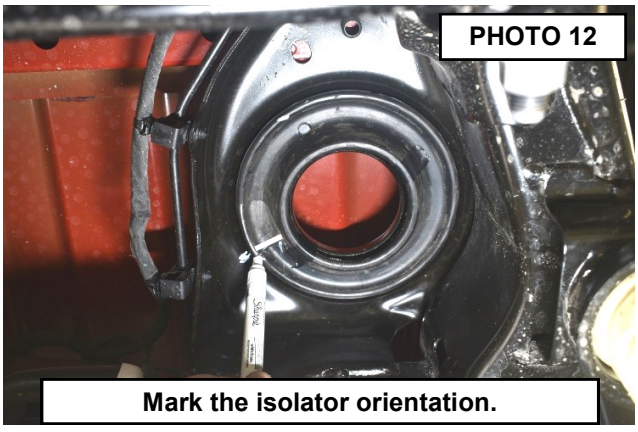
12. Lower the axle and remove the rear coil springs. **See Photo 9.**
13. Using 21mm wrench and 24mm socket, loosen (**do not remove**) the upper and lower control hardware at the axle. **See Photos 10 & 11.**



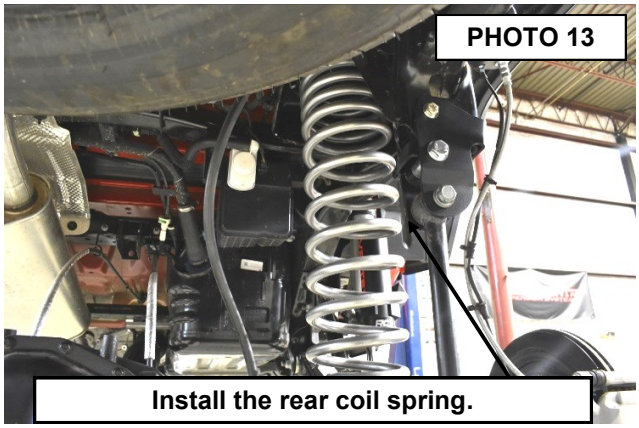


14. Place upper coil spring isolator in the upper coil bucket and mark its orientation on the isolator and the upper coil bucket. **See Photo 12**.

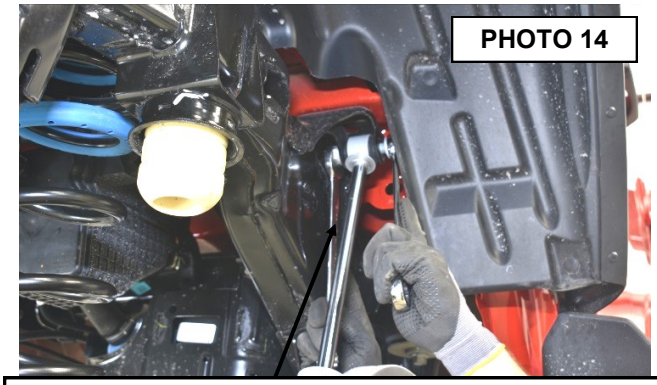




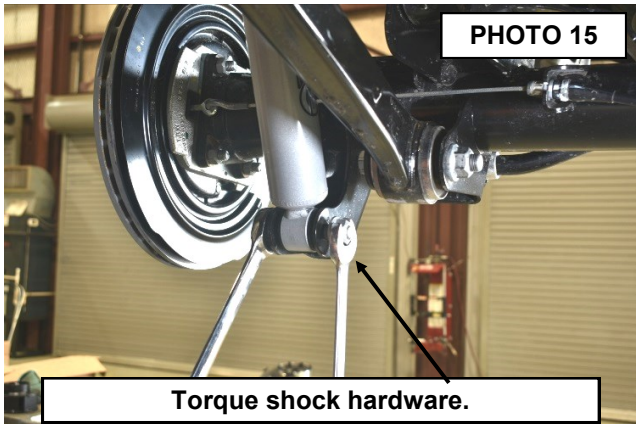
15. Align the upper coil isolator with the marks made in step 14 and install the supplied rear coil spring, making sure the spring is seated in the upper isolator and on the axle mount. **See Photo 13.**
16. Install the supplied rear shocks using the factory hardware in the upper and lower mounts. Torque to 55ft-lbs using a 21mm wrench and socket. **See Photos 14 & 15**.



Install the rear coil spring.



Install supplied rear shocks.



Torque shock hardware.

17. Using an 18mm socket, remove the upper sway link hardware.
18. Install the supplied sway bar links, in the upper mount using the supplied 12mm x 60mm **fine thread** bolt and washer. Torque to 55ft-lbs using an 18mm socket. **See Photo 16.**
19. Attach the sway link to the lower mount using the supplied 12mm x 65mm bolt, flat washer, and 12mm flange lock nut. **Make sure to install the bolt, with washer, through the sway link then into the sway bar. The nut should tighten against the sway bar.** Torque to 55 ft-lbs using an 18mm wrench and 19mm socket. **Only turn the nut when tightening**. **See Photo 17.**

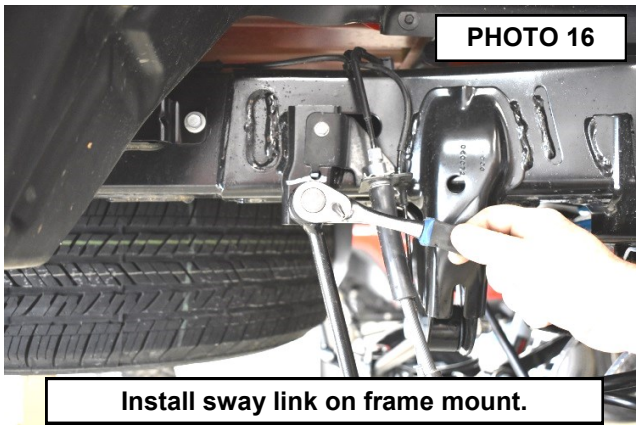


PHOTO 16

Install sway link on frame mount.

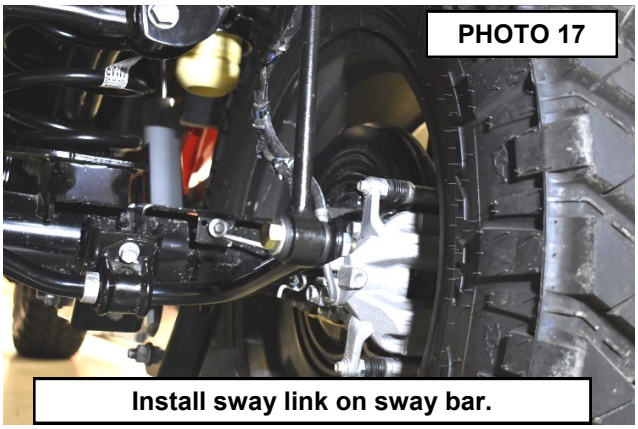


PHOTO 17

Install sway link on sway bar.

20. Torque the upper and lower control arm hardware to 217ft-lbs using a 21mm wrench and 24mm socket.
21. Install the brake caliper using the factory hardware. Torque to 55ft-lbs using an 18mm socket.
22. Install the ABS sensor into the brake caliper bracket using the factory hardware. Tighten using an 8mm socket.
23. Attach the ABS wire bracket to the axle using the factory hardware. Adjust wire as needed. Tighten using a 10mm socket.
24. Connect the axle vent tube to the axle using pliers.
25. Reinstall the rear tires/wheels, using a 22mm deep well socket.
26. Lower the vehicle to the ground.
27. Reinstall the track bar in the factory location using the factory hardware, Torque to 130ft-lbs. using a 21mm wrench.

POST INSTALLATION

1. Confirm that the draglink was adjusted to the center steering wheel **BEFORE** the vehicle is driven. Failure to do so will cause a computer error, odd handling, and poor performance.
2. 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.
3. 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. Failure to perform inspections may result in component failure.
4. Re-torque all fasteners after 500 miles and recheck after 1000 miles. Alignment must be checked by a qualified mechanic. Visually inspect components and re-torque fasteners during routine vehicle service.
5. Readjust headlights to proper settings.
6. Have a qualified alignment center realign the front end, to the factory specifications immediately.



Thank you for purchasing a Rough Country Suspension System.

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.