Rough Country 91430 Installation Instructions

2.5-Inch Lift Kit with N3 Shocks for Jeep Grand Cherokee 4WD

Part number: 91430

trailfortress.com/rough-country-2-5-inch-lift-kit-91430

Scan for fitment, price and install help

ROUGH COUNTRY
SUSPENSION SYSTEMS®

JEEP 2016-20 WK2 2.5” Strut and Coil Kit

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 on this page. 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

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.

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 33x11.50-R20 tire on 20x8.5” wheels with 5.75” backspacing. **Note** if wider tires are used, offset wheels will be required and trimming will be required.

This kit will not work on vehicles with Quadra-Lift.

⚠ NOTICE

NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped ⚠ NOTICE gh 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

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

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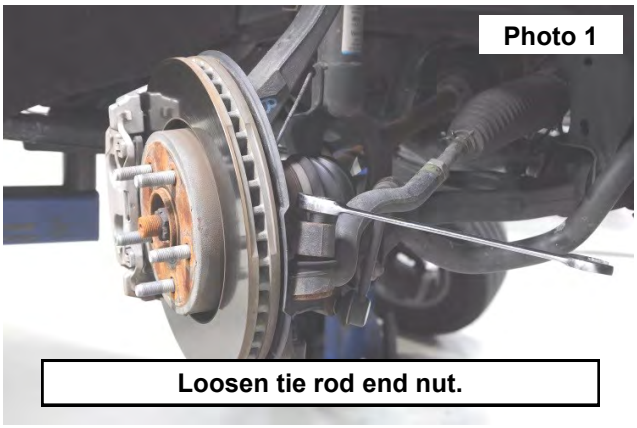
KIT CONTENTS:
Loaded Front Struts x2
Rear Coil Springs x2
Rear Shocks x2

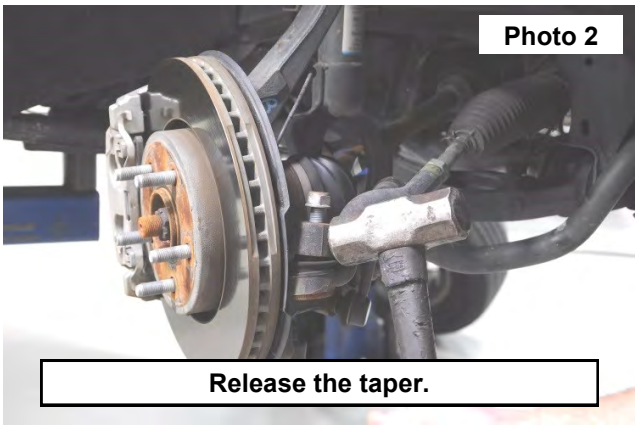


TOOLS NEEDED:
8mm Wrench and Socket
10mm Wrench and Socket
13mm Wrench and Socket
15mm Wrench and Socket
18mm Wrench and Socket
19mm Wrench and Socket
21mm Wrench and Socket
22mm Wrench and Socket
24mm Wrench and Socket
32mm Socket
Hammer

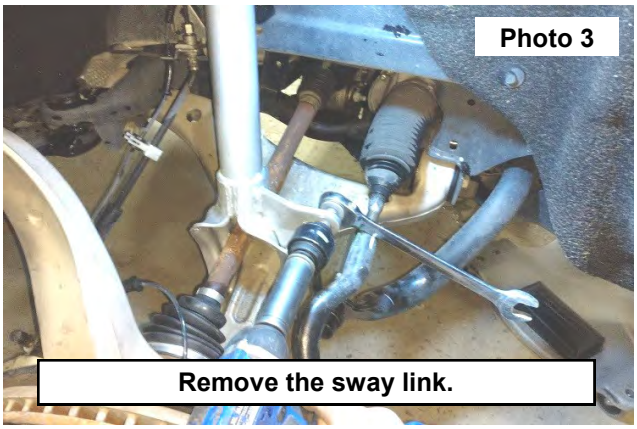
FRONT INSTALLATION INSTRUCTONS

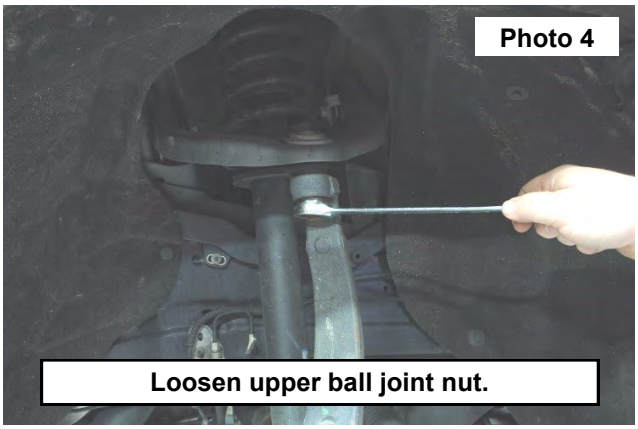
1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground. Chock rear wheels.
2. Remove the front tires/wheels, using a 22mm deep well socket.
3. Using a 13mm socket, remove the front skid plate. Retain hardware.
4. Unplug the electric power steering.
5. Using a 21mm wrench, loosen the tie rod end nut. Do not completely remove. **See Photo 1**.
6. Using a hammer, hit the knuckle at the tie rod end to release the taper. Remove and retain hardware for reuse. **See Photo 2.**



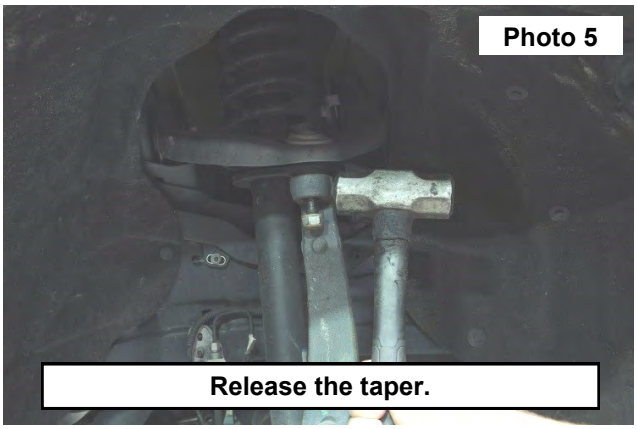


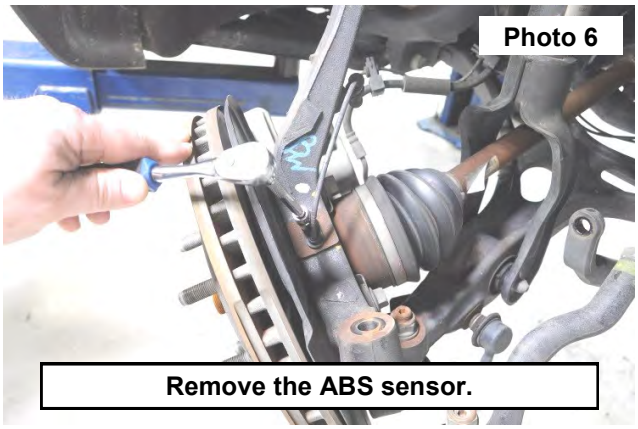
7. Using a 19mm wrench and an 8mm socket, remove the sway link from the sway bar. Retain hardware for reuse. **See Photo 3.**



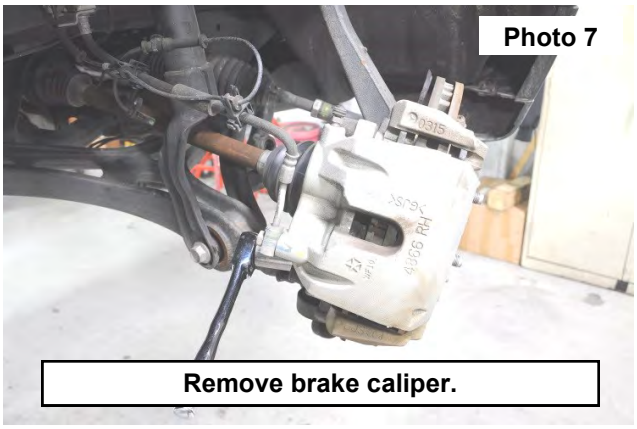


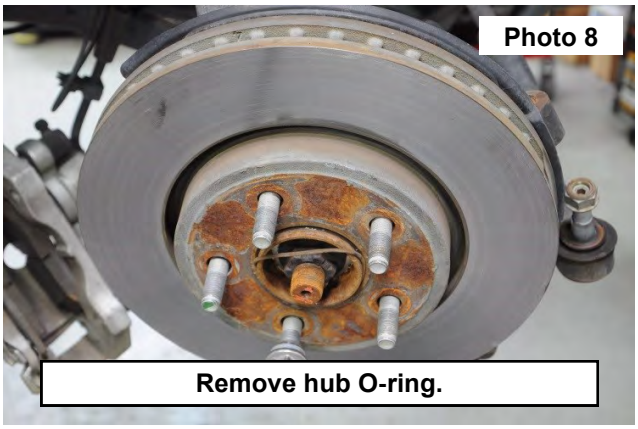
8. Using a 21mm wrench, loosen the upper ball joint nut. Do not completely remove. **See Photo 4.**
9. Using a hammer hit the knuckle at the upper ball joint to release the taper. Remove the nut and retain for reuse. **See Photo 5.**





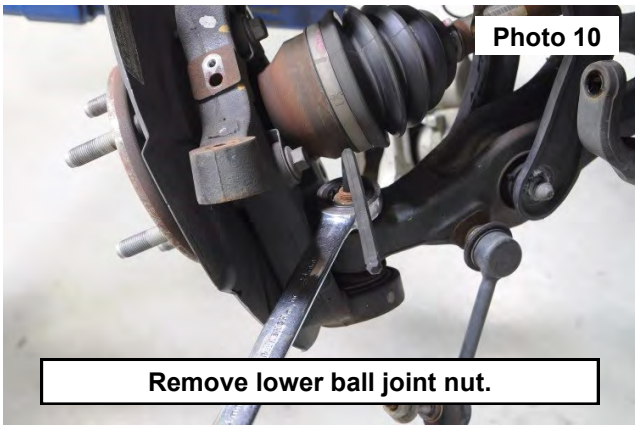
10. Using a 10mm socket, remove the ABS sensor from the knuckle. Retain the hardware for reuse. **See Photo 6.**
11. Using a 21mm socket, remove the brake caliper and hang caliper out of the way. Retain hardware for reuse. Do not hang caliper by the brake line. **See Photo 7.**



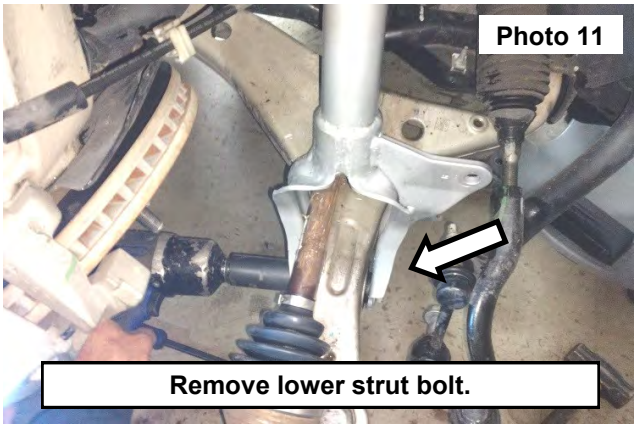


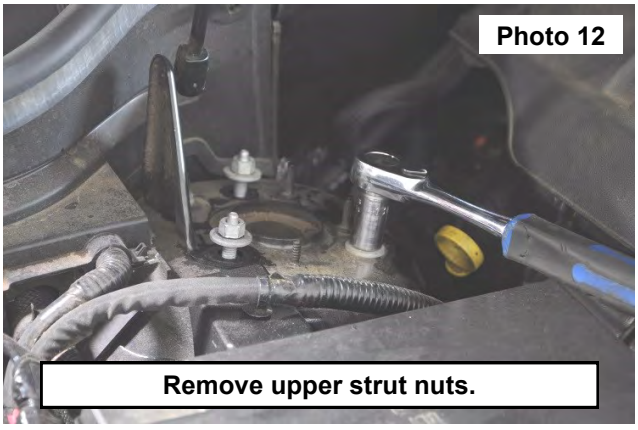
12. Remove the rubber O-ring from the hub and remove the brake rotor. Retain O-ring for reuse. **See Photo 8.**
13. Using a 32mm socket, remove the axle nut. Retain nut for reuse. **See Photo 9.**





14. Using a 24mm wrench and an 8mm Allen, remove the lower ball joint nut. **See Photo 10.**
15. Remove the knuckle from the Jeep.
16. Using 21mm and 24mm wrenches, remove the lower strut hardware. Retain the hardware for reuse. **See Photo 11.**
17. Some models require removal of an electrical relay on the pass side. Remove the plastic cover and use a 10mm socket to unbolt the assembly. Unclip the harness and move until upper strut nuts are accessible.
18. Using a 13mm socket, remove the upper strut hardware from under the hood. Retain hardware for reuse. **See Pho-**
19. NOTICE **READ ENTIRE STEP:** Slightly pull the axle out of the diff housing and rest on the lower control arm. **TAKE CARE TO NOT DAMAGE THE BOOT.**

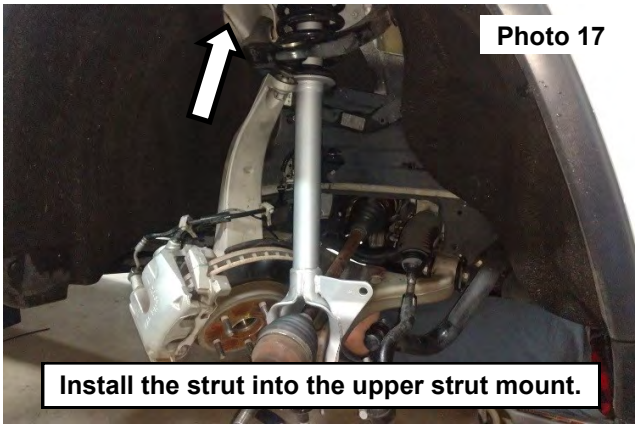


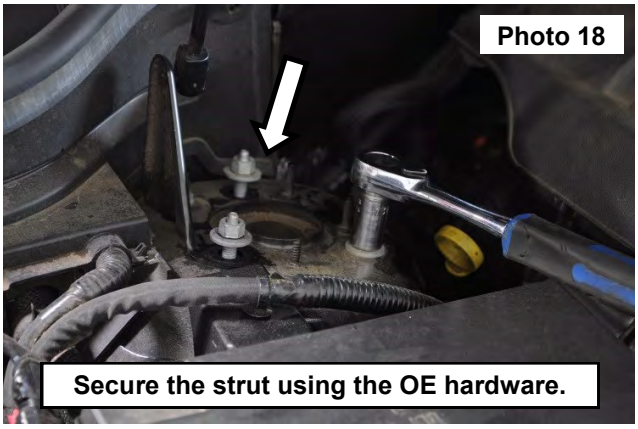


20. R axle and strut together to prevent strut fork from damaging CV boot.

NOTICE

21. **Step 22 Take care not to damage the axle boot when installing the strut and axle.**
22. Install the assembled strut in to the upper strut mount and the axle together to prevent the fork from damaging the axle boot. Secure the strut using the retained OE hardware. Tighten using a 13mm socket. **See Photos 17 and 18.**



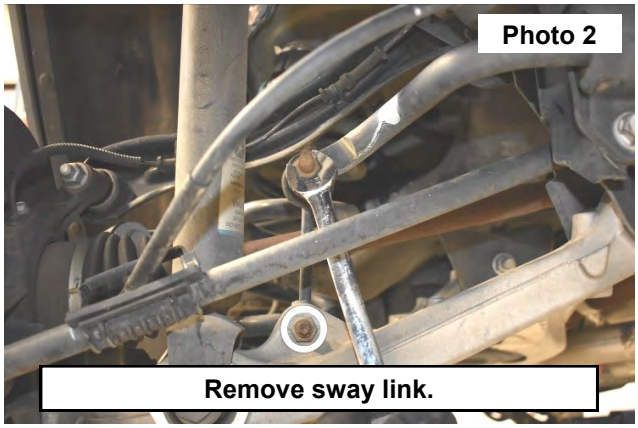


23. Install the knuckle on the lower ball joint and tighten using a 24mm wrench and an 8mm Allen.
24. Install the axle nut and torque to factory specs using a 32mm socket.
25. Install the brake rotor and O-ring.
26. Install the brake caliper using the factory hardware. Torque to factory specs using a 21mm socket.
27. Install the ABS sensor into the knuckle using a 10mm socket.
28. Install the upper ball joint into the knuckle and tighten using a 21mm wrench.
29. Install the sway link into the sway bar using the factory hardware. Tighten using a 19mm wrench and an 8mm socket.
30. Install the tie rod end into the knuckle and tighten using a 21mm socket.
31. Repeat steps 5-30 on opposite side of the vehicle.
32. Connect the electric power steering plug.
33. Install the factory skid plate using the factory hardware, torque to factory specs using a 13mm socket.
34. Install the wheels and tires and lower the vehicle to the ground.

Rear Installation

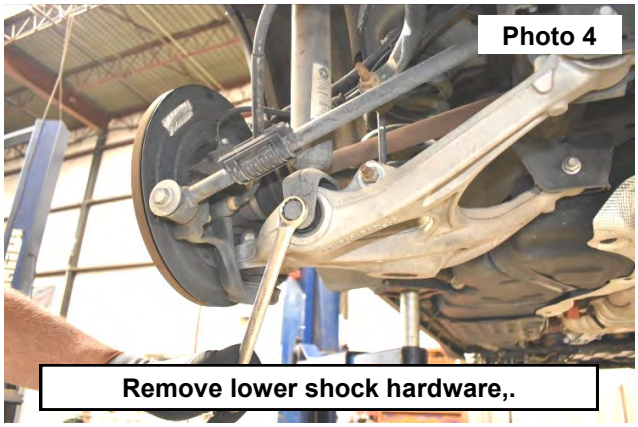
1. Chock the front wheels of the vehicle. Using a jack lift the rear of the of the vehicle up and insert jack stands in a safe location under the vehicle for disassembly. Lower the vehicle onto the jack stands and remove the jack.
2. Using an 18mm wrench and socket, remove the tow bar from the knuckle. **See Photo 1.**
3. Using 18mm and 8mm wrenches, remove the sway link from the sway bar. Retain hardware. **See Photo 2.**



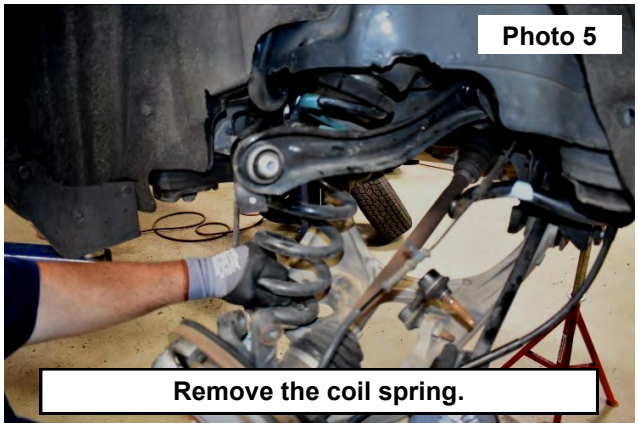


4. Using an 18mm wrench and socket, remove the 2 upper control arms from the knuckle. Retain hardware. **See Photo 3.**
5. If applicable, remove the ride height sensor linkage using a 10mm wrench.
6. Using a 10mm socket, remove the ABS line from the brake caliper and hang out of the way.
7. Place a jack under the lower control arm to support it.
8. Using 21mm and 24mm wrenches, remove the lower shock hardware. Retain hardware. **See Photo 4.**

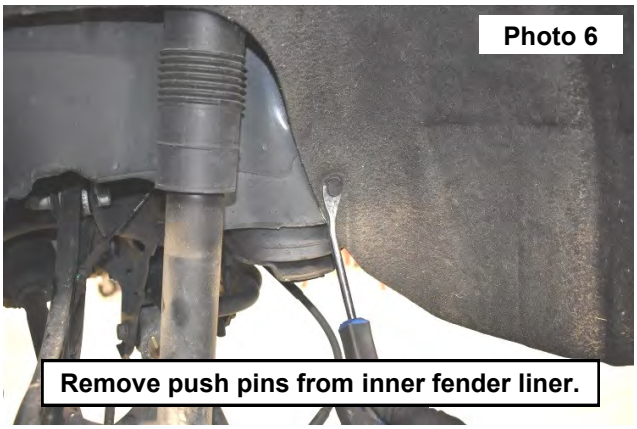




9. Mark the position of the coil spring in relation to the vehicle body and upper coil spring isolator.
10. Slowly lower the jack and remove the coil spring. **See Photo 5.**
11. Remove the lower coil isolator from the lower control arm by pushing in on the clips from the underside. **Note the position of the lower isolator in the lower control arm as the new supplied spacer will be oriented the same, in step 14.**

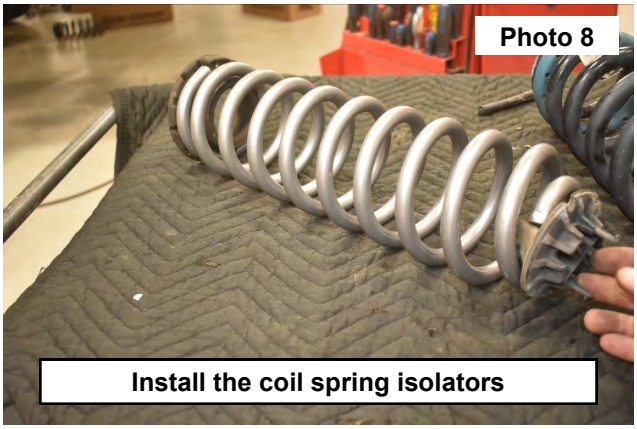


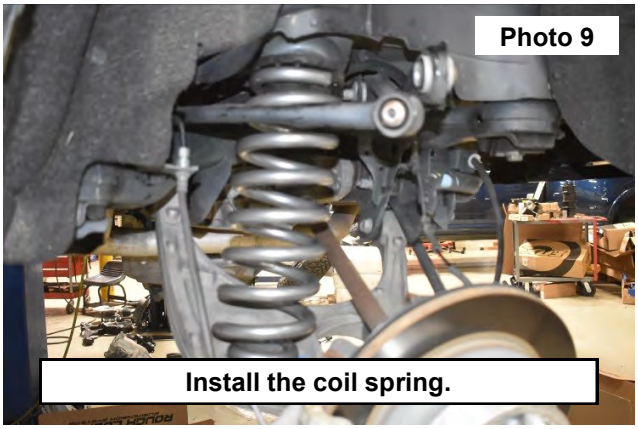
12. Remove the push pins from the inner fender just behind the shock. **See Photo 6.**
13. Using a 15mm socket, remove the upper shock bolts. Retain hardware for later use. **See Photo 7.**





14. Install the isolators onto the top and bottom of the coil spring. **See Photo 8.**
15. Install the new coil spring into the vehicle. **See Photo 9.**





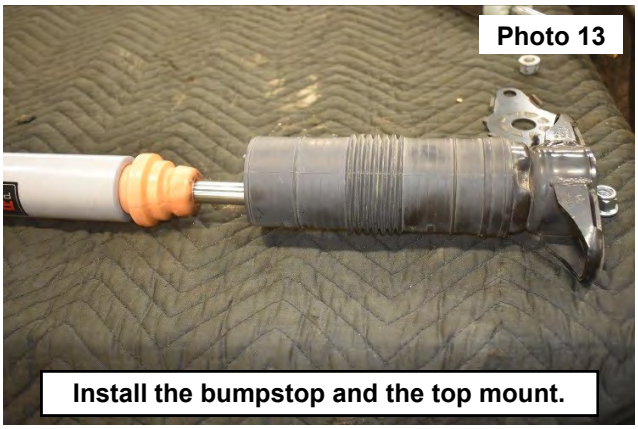
16. Remove the bushing cover off of the top of the shock. Retain for later use. **See Photo 10.**
17. Using a 18mm socket remove the nut from the top bushing end of the shock. **See Photo 11.**





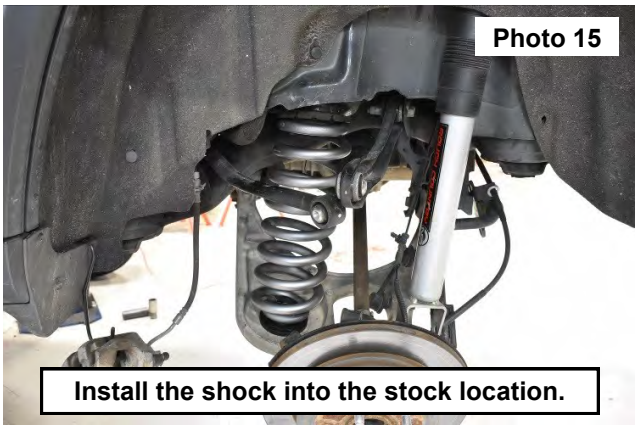
18. Remove the top shock mount and the bump stop from the shock. Retain for later use. **See Photo 12.**
19. Install the bump stop and the top mount onto the new shock. Tighten using a 18mm socket. **See Photo 13.**



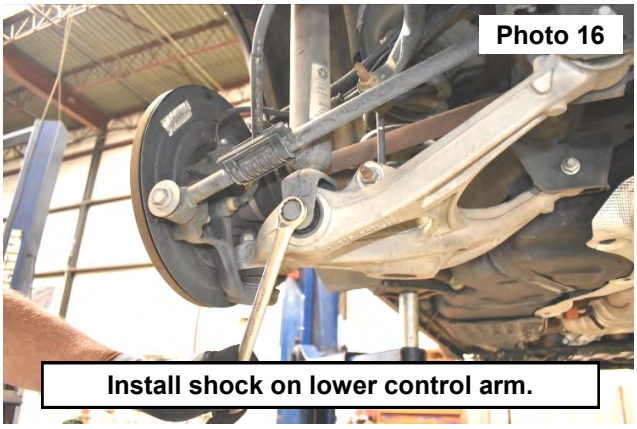


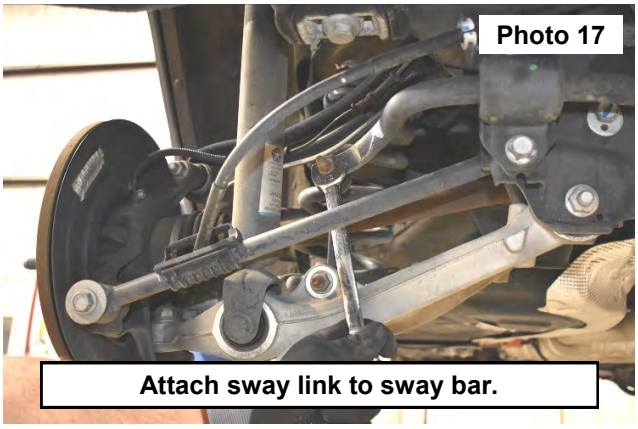
20. Install the bushing cover onto the mount. **See Photo 14.**
21. Install the shock into the stock location using the retained hardware. Tighten using a 15mm socket. **See Photo 15.**



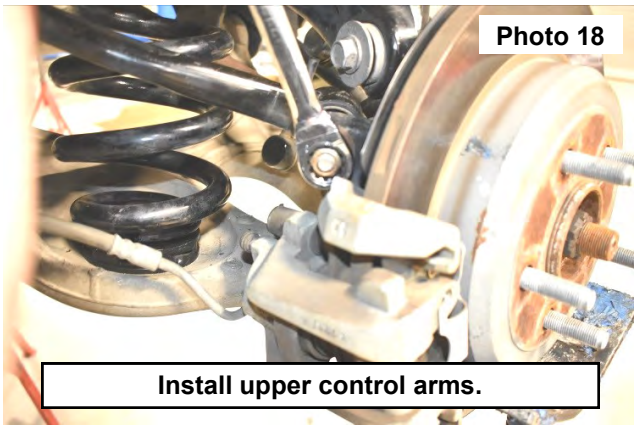


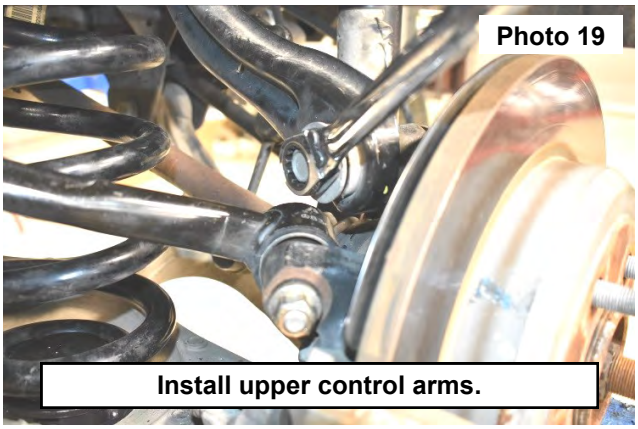
22. Install the shock on the lower control arm. Torque to factory specs using a 24mm wrench and 21mm socket. **See Photo 16.**
23. Attach the sway link to the sway bar using the factory hardware. Tighten using 18mm and 8mm wrenches **See Photo 17.**



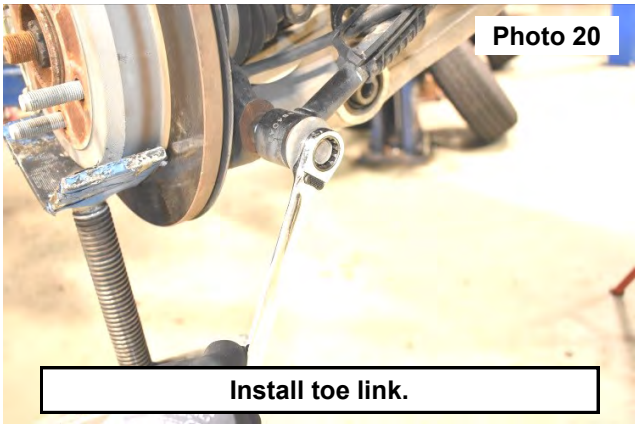


24. Install the upper control arms using the factory hardware. Torque to factory specs using an 18mm wrench and socket. **See Photos 18 & 19.**





25. Install the toe link using the factory hardware. **See Photo 20.**
26. Repeat process on opposite side of the vehicle.
27. Install the wheels and tires.
28. Using a jack lift the vehicle up and remove the jack stands then lower the vehicle to the ground.
29. Remove front wheel chocks.



POST INSTALLATION INSTRUCTIONS

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. On some vehicles the front lower skirting will need to be trimmed if using certain wheel /tire combinations and with heavy offset wheels. Trim only as needed.
4. Activate four wheel drive system and check front hubs for engagement.
5. Have a qualified alignment center align the vehicle immediately. Realign to factory specifications. The following are the recommended specifications:
   - Caster in degrees +6.95° +-.50°
   - Camber in degrees -.38° +-.50°
   - Toe In in degrees +0.1 +-.06°
6. Perform head light check and adjustment to proper settings.
7. Check and retighten wheels at 50 miles and again at 500 miles.
8. All kit components must be retightened at 500 miles and then every three thousand miles after installation. Periodically check all hardware for tightness.
9. Install “Warning to Driver” decal on sun visor

Note: Installation of larger tires will require speedometer recalibration.

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