TRAIL FORTRESS

BUILT FOR THE TRAIL. CHECKED FOR YOUR TRUCK.

Rough Country 51144 Installation Instructions

3.5-Inch Lift Kit for 2024–2025 Ford Ranger 4WD

Part number: 51144

trailfortress.com/rough-country-3-5-inch-lift-kit-51144

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

FORD 2024 RANGER 3.5” LIFT KIT

Thank you for choosing Rough Country for all your vehicle 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.
If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product.
Check all fasteners for proper torque. Check to ensure for adequate clearance between all components.
Periodically check all hardware for tightness.

PRODUCT USE INFORMATION

⚠WARNING The taller a vehicle is, the easier it will roll. We strongly recommend, because of rollover possibility that seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

⚠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.

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 them concerning the design, function, and correct use of our products.

The suspension system was developed using a 285/65R18 tires with 18 x 8.5 wheel with 0mm offset. The lifts were designed to lift the front to level the vehicle. Due to manufacturing, dimension variances, and inflation all tire and wheel combinations should be tested prior to installation on all oversized / wider then stock tires.

⚠NOTICE **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.

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

KIT CONTENTS

10MMHEXBAG
- 6 - 10mm x 50mmm Bolt
- 6 - 10mm Serrated Flange Nut

9/16BAG1
- 8 - 9/16” Flat Washer
- 8 - 9/16” Lock Nut

51144BAG2
- 2 - 5/16” Flange Lock Nut
- 1 - 3/8” x 1 1/4” Bolt
- 2 - 3/8” Flat Washer
- 1 - 3/8” Lock Nut
- 2 - 5/16” x 3/4” Bolt
- 2 - 16mm Flat Washer
- 2 - 16mm Lock Nut
- 1 - 5/8” Lock Nut
- 1 - 5/8” x 4” Bolt
- 12 - 10mm Serrated Flange Nut
- 4 - Upper Control Arm Spacer
- 2 - Rear Axle Brake Line
- 2 - 5/16” Flat Washer
- 2 - 5/8” Flat Washer

RCK6696P2BAG

81168BAG2
- 2 - Ball Joint Eyelet Cap

2 - Leveling Spacer
2 - Preload Spacer
2 - Rear Lift Block
4 - 9/16” x 2 3/4” x 10” Round U-bolt
2 - Sway Bar Link
1 - Dr. Side Upper Control Arm
1 - Pass. Side Upper Control Arm
1 - N3 Shock Pair

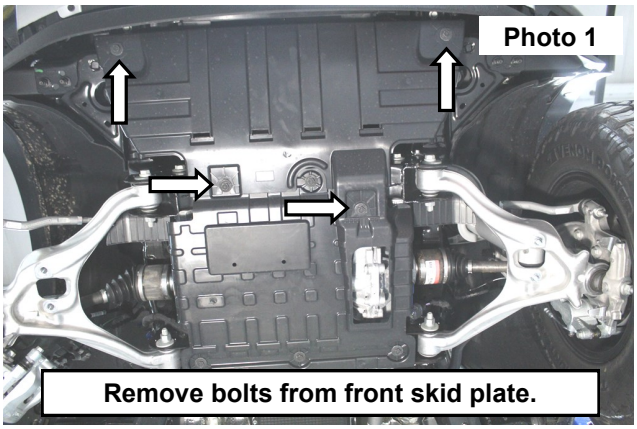
Tools Needed:

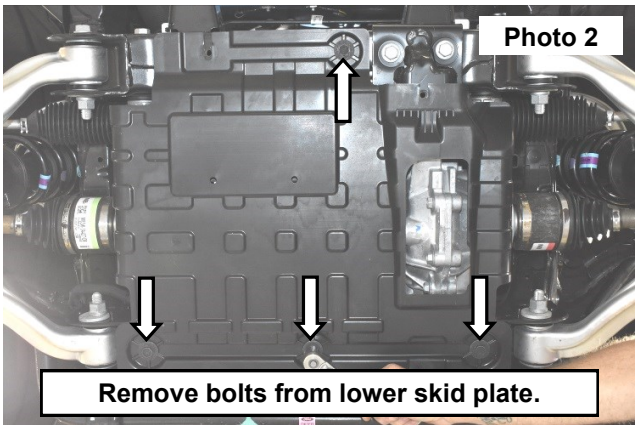
8mm Socket/Wrench
10mm Socket/Wrench
13mm Socket/Wrench
15mm Socket/Wrench
17mm Socket/Wrench
18mm Socket/Wrench
21mm Socket/Wrench
24mm Socket/Wrench
36mm Socket/Wrench
9/16” Socket/Wrench
15/16” Socket/Wrench
1-1/16” Socket/Wrench
Screw Driver
Drill
13/32” Drill Bit
Coil Compressor
Sawzall



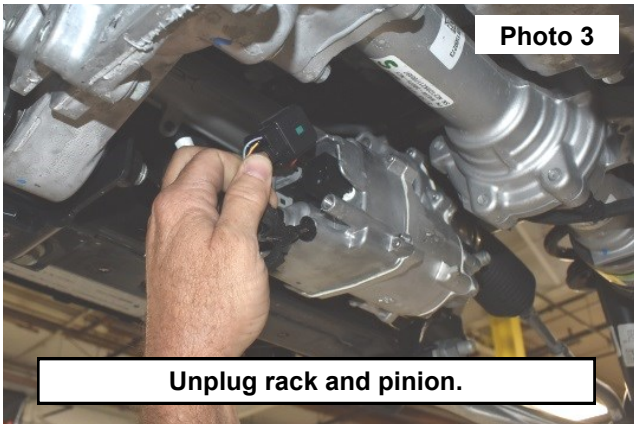
FRONT INSTALLATION INSTRUCTIONS

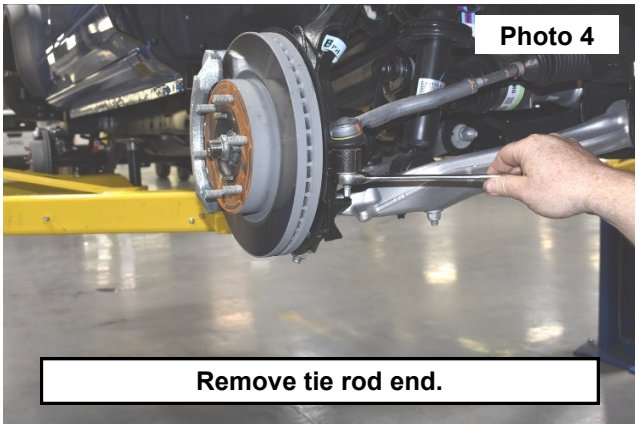
1. Disconnect the negative terminal for the battery. Jack up the front of the vehicle and place on jack stands. Remove the front wheels.
2. Remove the skid plates using a 15mm socket/wrench. **See Photo 1** and **Photo 2**.



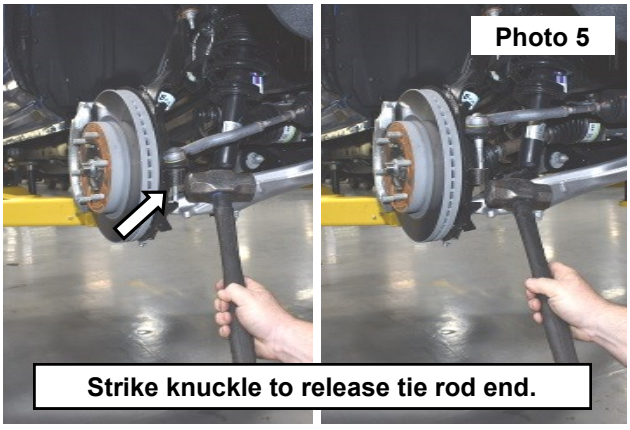


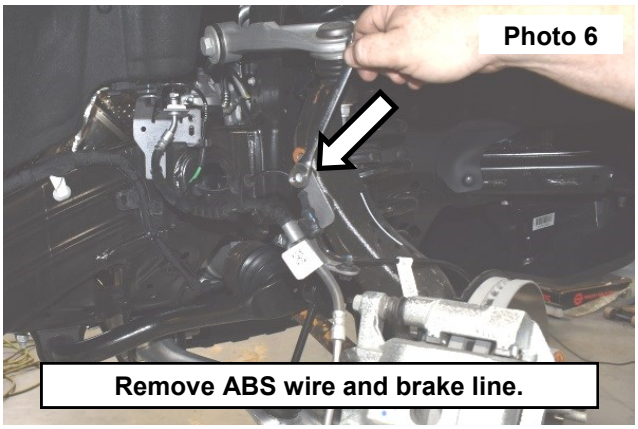
3. Unplug the rack and pinion. **See Photo 3**.
4. Remove the tie rod end using a 15mm socket/wrench. Strike the knuckle with a hammer if needed to remove the tie rod end. **See Photo 4** and **Photo 5**.



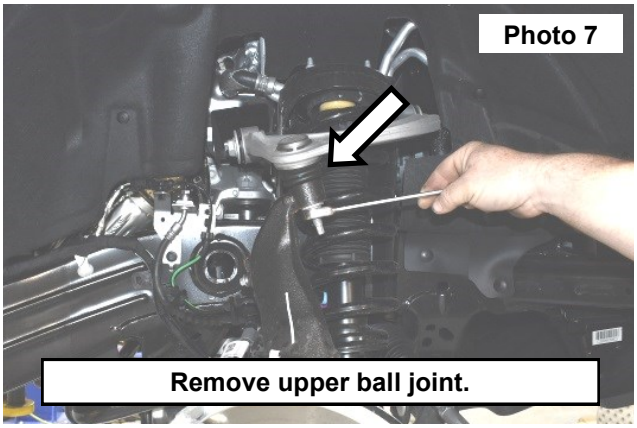


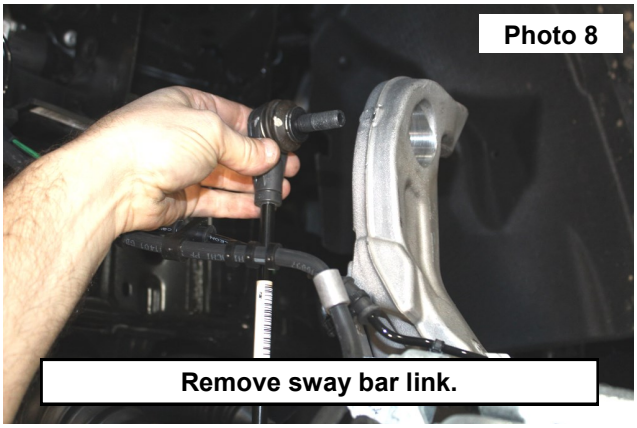
5. Remove the ABS wire and brake line from the knuckle using a 10mm socket/wrench. **See Photo 6**.



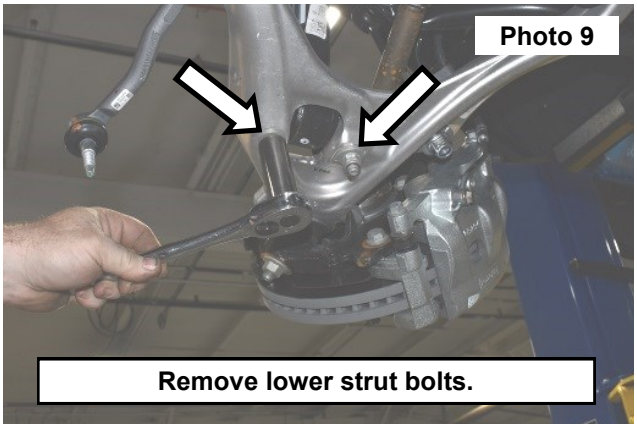


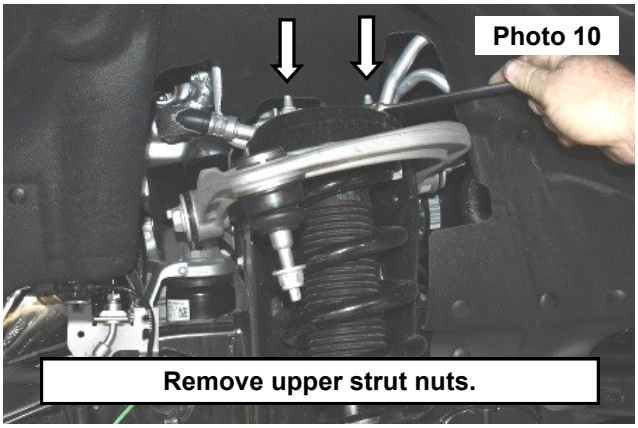
6. Remove upper ball joint just using an 18mm socket/wrench. Strike knuckle with a hammer if needed. **See Photo 7**.
7. Remove the sway bar link using a 18mm socket/wrench. **See Photo 8**.



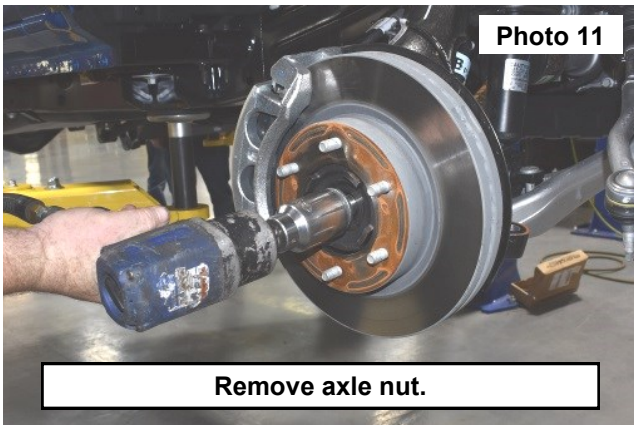


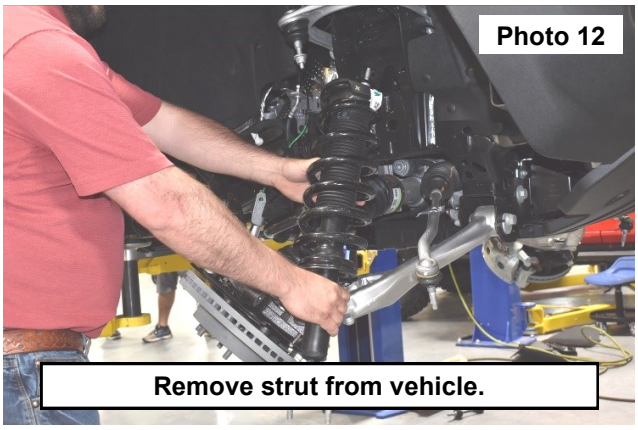
8. Remove the lower strut bolts using an 18mm socket/wrench. **See Photo 9**.
9. Remove the upper strut nuts using a 15mm socket/wrench. **See Photo 10**.



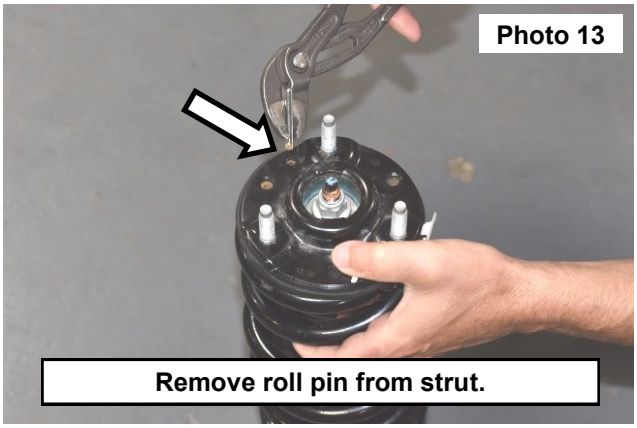


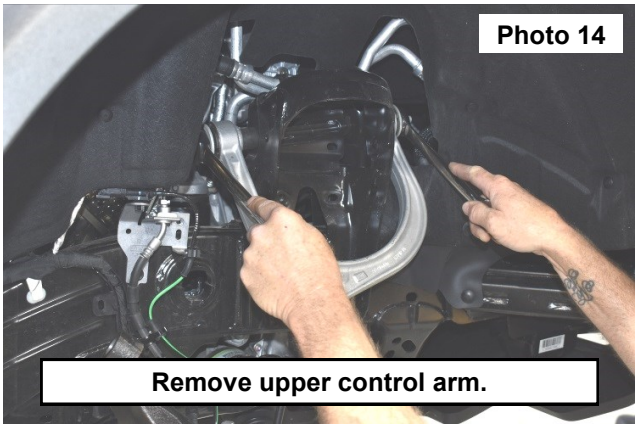
10. Remove the axle nut using a 36mm socket/wrench. Strike with hammer to loosen if needed. **See Photo 11**.
11. Remove the strut from the vehicle. **See Photo 12**.



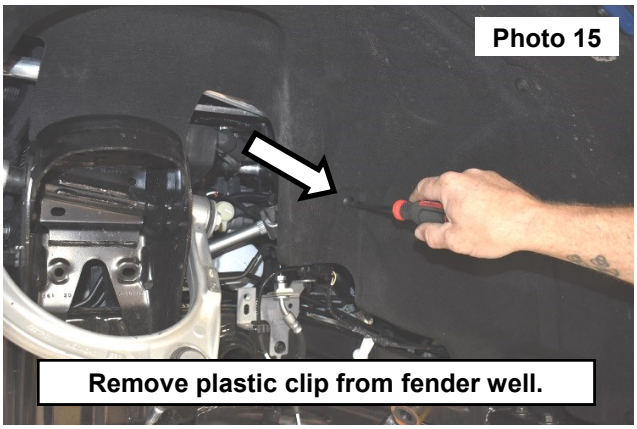


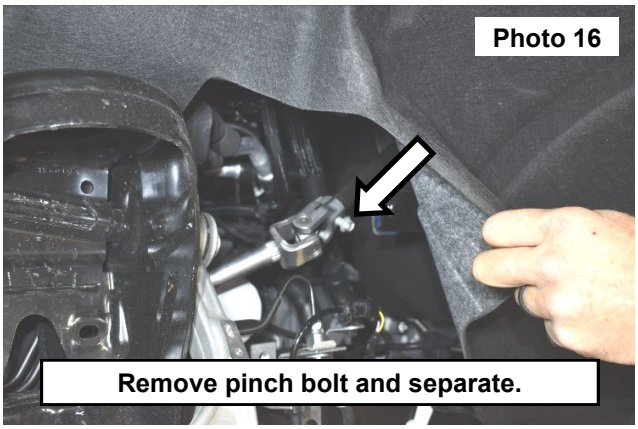
12. Remove the roll pin from strut. **See Photo 13**.
13. On the Passenger side, remove the upper control arm using a 21mm and 24mm socket/wrench. **See Photo 14**.



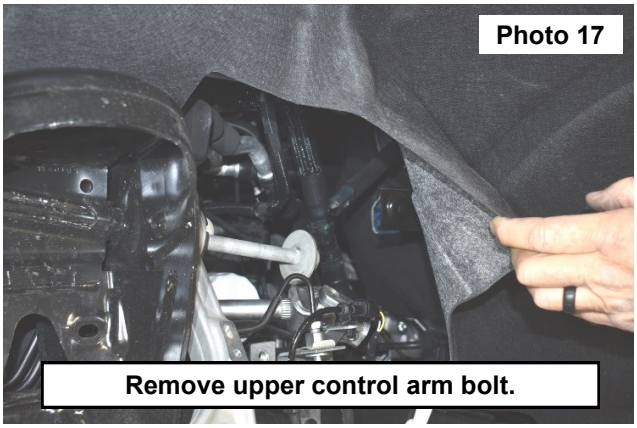


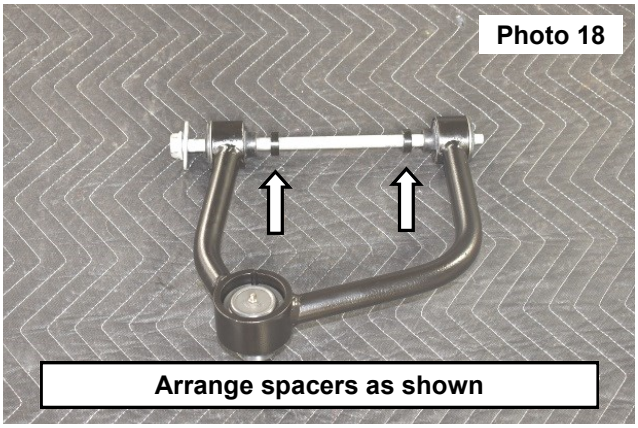
14. On the driver side, the steering shaft will have to be disconnected to be able to remove the bolt. Remove the plastic clip from fender well using a screw driver. Lock the steering wheel but make sure the bolt is accessible. Using a 10mm socket remove the pinch bolt from shaft and separate. **See Photo 15** and **Photo 16**.



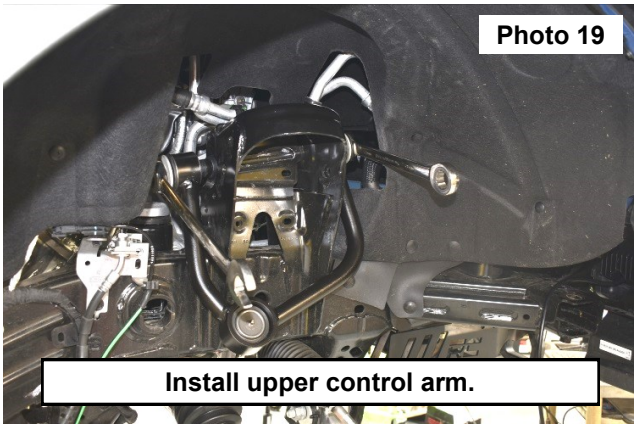


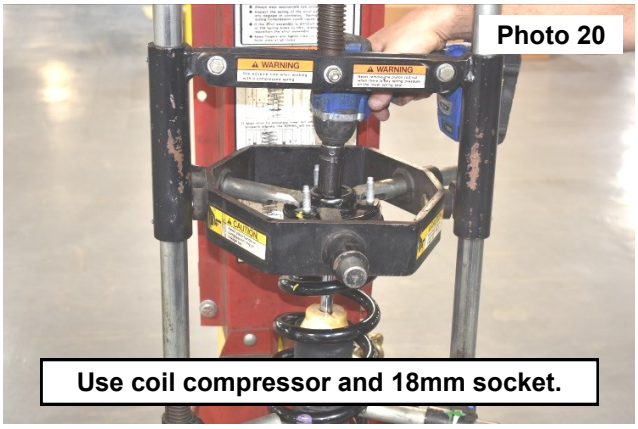
15. Remove the driver side upper control arm using a 21mm and 24mm socket/wrench. **See Photo 17**.
16. Note the spacer locations shown in **Photo 18**.



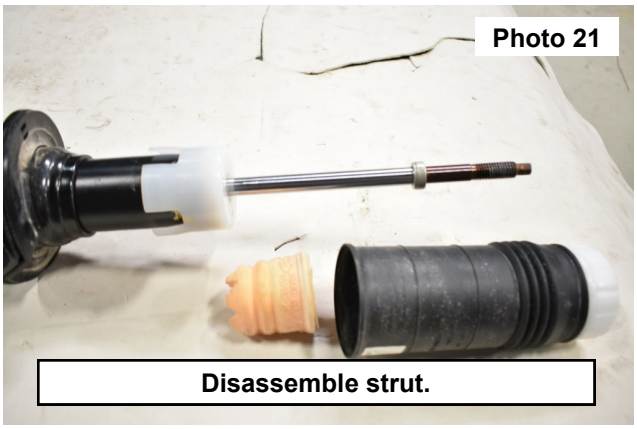


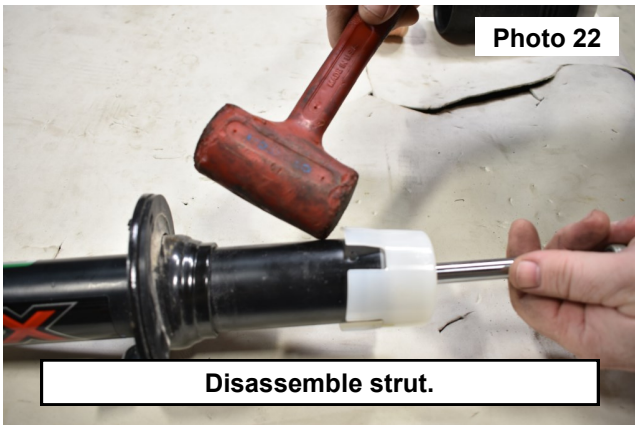
17. Install supplied upper control arm using the factory bolt and supplied spacers shown in the previous step. **See Photo 19.**
18. Use a coil compressor and an 18mm socket/wrench to remove the top hat. **See Photo 20**.
NOTE: Mark the top of the strut and rubber isolator for realignment before removing.



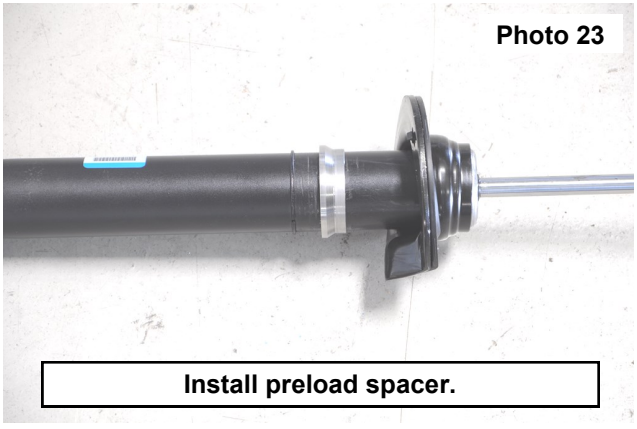


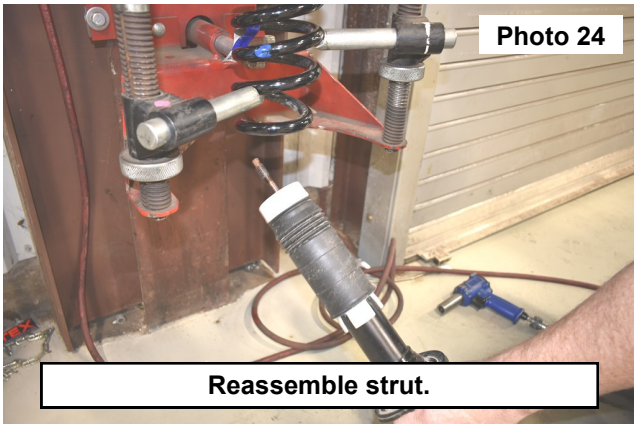
19. Disassemble the strut. **See Photo 21** and **Photo 22**.



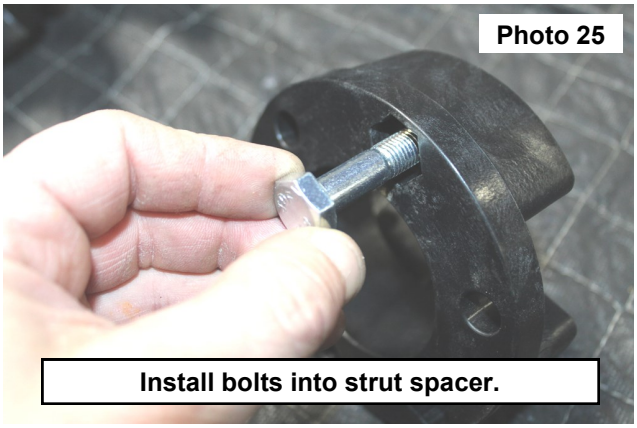


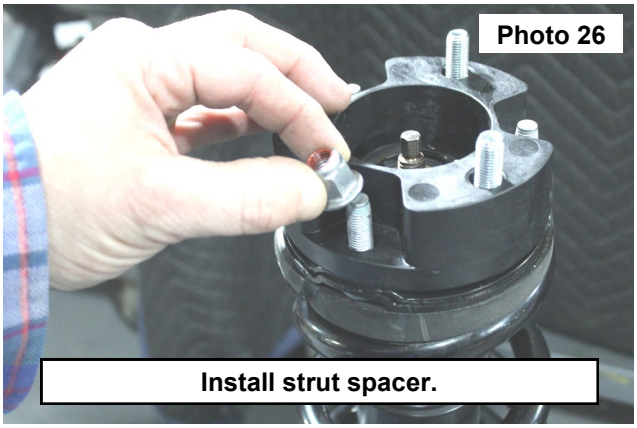
20. Install the supplied preload spacer as shown in **Photo 23.**
21. Reassemble strut using the coil compressor and 18mm socket. **See Photo 24**.





22. Install the 10mm bolts in the nylon spacer. **See Photo 25.**
23. Install the strut spacer onto the top of the strut using the supplied 10mm flange lock nuts. Tighten with a 16mm socket. **See Photo 26.**

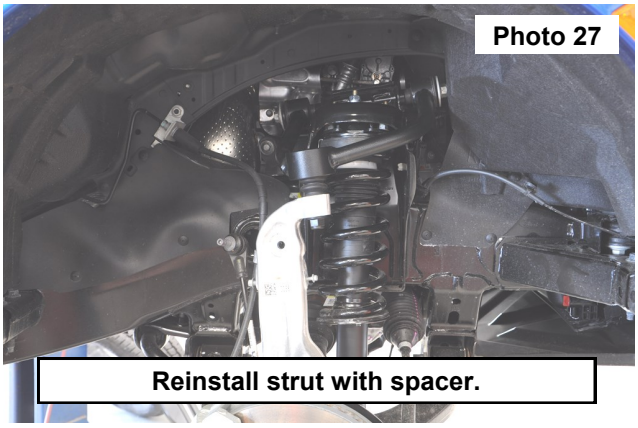




24. Reinstall the strut with the spacer using the 10mm hardware and 17mm wrench. **See Photo 27**.
25. Reassemble the front suspension in reverse order of the disassembly.
26. Reconnect battery terminal.

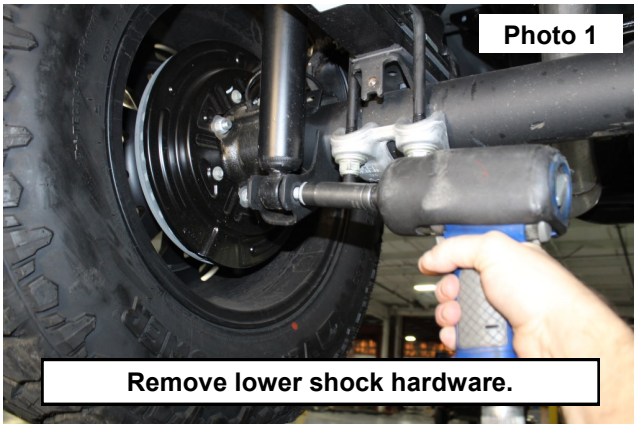
⚠NOTICE Ball joints must be greased before use.

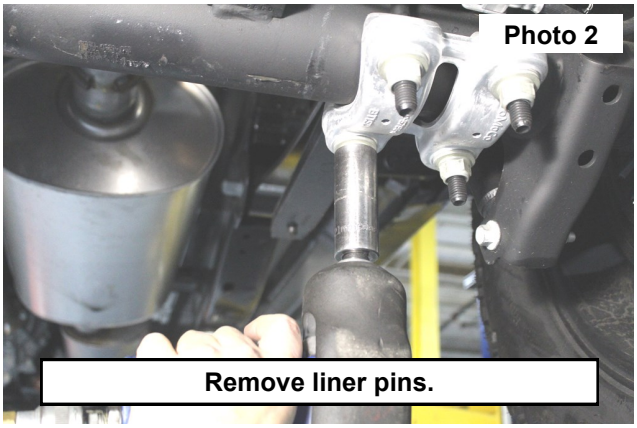
27. Put on wheels and lower.



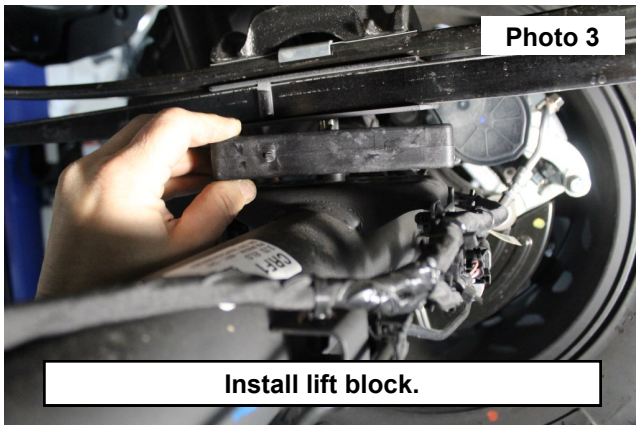
REAR INSTALLATION INSTRUCTIONS

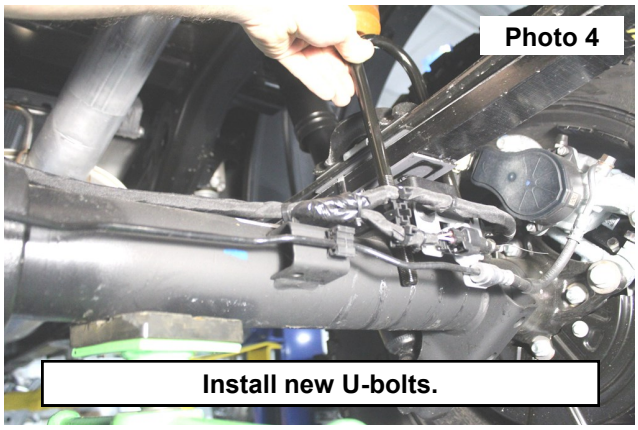
1. Chock the front wheels. Jack the front of the vehicle up and place vehicle on jack stands Remove the rear wheels and set aside.
2. Place a jack under the axle for support. Remove the lower shock mount hardware using a 15mm socket and wrench. Retain hardware for reuse. **See Photo 1.**
3. Remove factory U-bolts using a 21mm socket. **See Photo 2.**



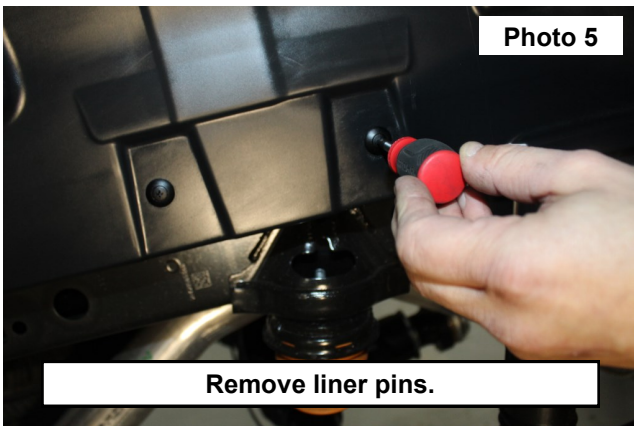


4. Slightly lower the axle and place supplied lift block between the axle and leaf spring. **See Photo 3.**
5. Install supplied U-bolts over the leaf spring. Used supplied hardware to secure the factory cradle to the axle. Tighten with a 13/16” socket. **See Photo 4.**



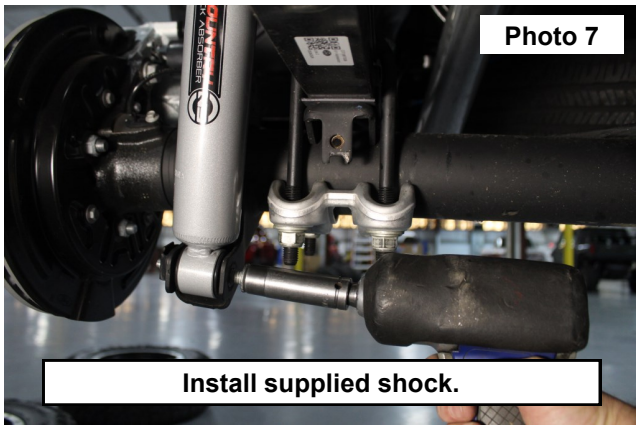


6. Gently pull on the liner to expose the upper shock hardware. **See Photo 5.**
7. Remove upper shock hardware with a 15mm wrench. Remove shock from vehicle. Retain hardware for reuse. **See Photo 6.**





8. Install supplied shocks using the factory hardware. **See Photo 7.**
9. Repeat for other side of vehicle.
10. Reinstall wheels and lower vehicle to the ground.



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, floorboards, and wiring harness.
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.
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 300 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.

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.