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Rough Country 47940 Installation Instructions

4.5-Inch Lift Kit with M1 Shocks for Ford Super Duty 4WD (2005–2007)

Part number: 47940

trailfortress.com/rough-country-4-5-inch-lift-kit-47940

Scan for fitment, price and install help



92147900

05-07 F250 4 1/2" SUSPENSION KIT

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician installs 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 all the instructions before beginning the installation. Check the kit hardware against the parts list. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list and make sure you have the tools necessary to install this kit.

PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is the easier it will roll. We strongly recommend seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur. Braking performance and capabilities are decreased when significantly larger/heaver tires and wheels are used. Take this into consideration while driving. Also, speedometer recalibration is necessary when larger tires are installed.

Do not add, alter, or fabricate any factory or after-market parts which increase vehicle height over the intended height of the Rough Country product purchased. 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 kit is packaged as a leveling kit—raising the front 4 1/2" and the back 3". If you desire a different look or if your truck has a tool box or something else that is going to bring the rear end down, please consult with your sales representative about options. Due to payload options and initial ride height variation the amount of lift shown is a base figure. Final ride height may vary slightly.

This 4 1/2" suspension system was developed for 35x12.50x17 tire on an after market wheel with 4.5" of back spacing. **If equipped with factory rear contact overload springs, please note they will need to be removed with the addition of the block included with this kit.**

NOTICE TO DEALER AND VECHICLE OWNER

Any vehicle equipped with any Rough country product must have the "Warning to Driver" decal installed on the sun visor or dash. The decal is to 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 to forward these installation instructions on too the vehicle owner for review and to be kept in the vehicle for its service life.

Part # 1197 carrier bearing drop kit is also offered for vehicles equipped with two piece drive shafts. Ask your dealer for details.

Tools Needed

8mm Wrench	1 1/8" Wrench
10mm Wrench	12mm Wrench
15mm Wrench	Coil Spring Compressor
17mm Wrench	5/8" Wrench
17mm Socket	Jack Stand
18mm Wrench	Jack
18mm Socket	
19mm Wrench	
21mm Wrench	
24mm Socket	
30mm Socket	

Torque Specs:

Size	Grade 5	Grade 8
5/16"	15 ft/lbs	20 ft/lbs
7/16"	45 ft/lbs	60 ft/lbs
1/2"	65 ft/lbs	90 ft/lbs
5/8"	135 ft/lbs	175 ft/lbs
3/4"	185 ft/lbs	280 ft/lbs

	Class 8.8	Class 10.9
8MM	18ft/lbs	23 ft/lbs

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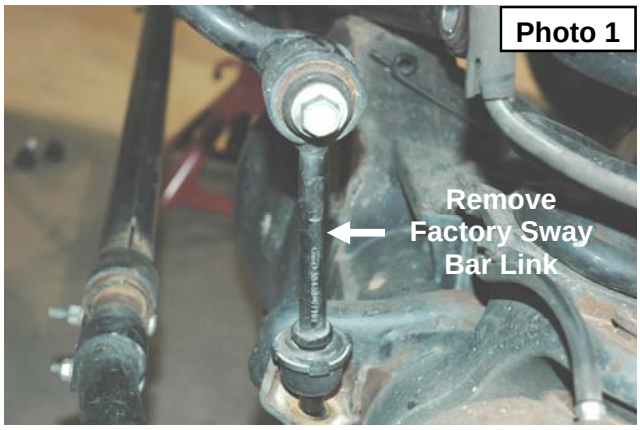
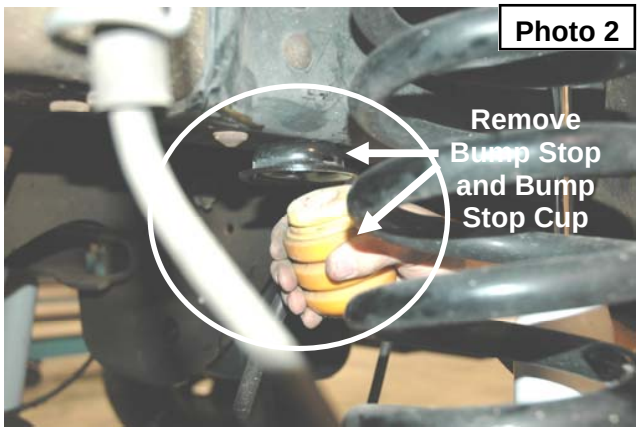
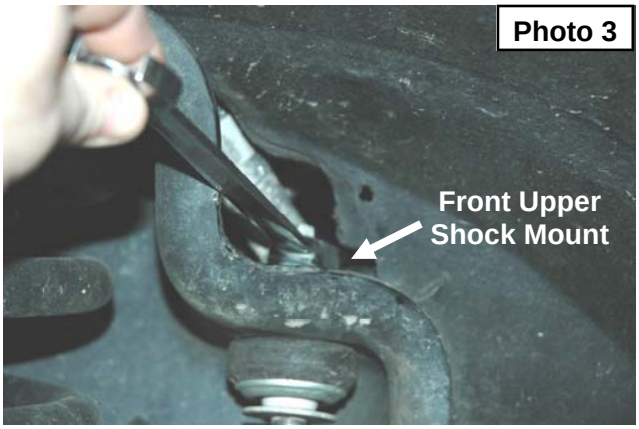
FRONT INSTALLATION INSTRUCTIONS

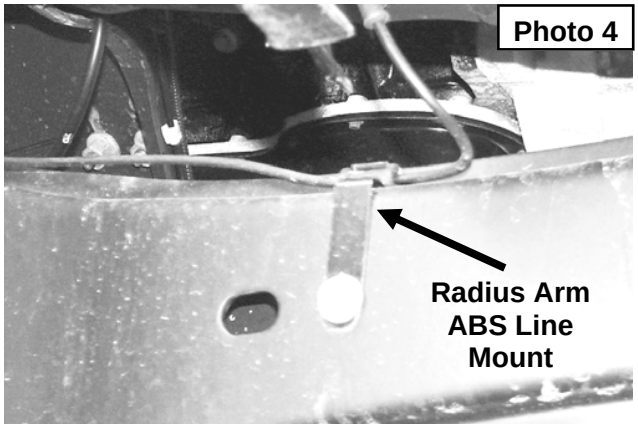
1. Block the rear wheels of the vehicle. Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and tires and set aside. Position a hydraulic jack under the front axle and raise the jack until the front suspension begins to compress.
2. Disconnect the track bar from the driver side frame bracket, using a 30mm wrench.
3. Disconnect the sway bar end links from the axle bracket, using a 21mm wrench. Remove end links **See Photo 1**. Retain for reuse.
4. Remove the bump stop from the cup shaped bracket. Remove the bracket from the frame rail. **See Photo 2**.



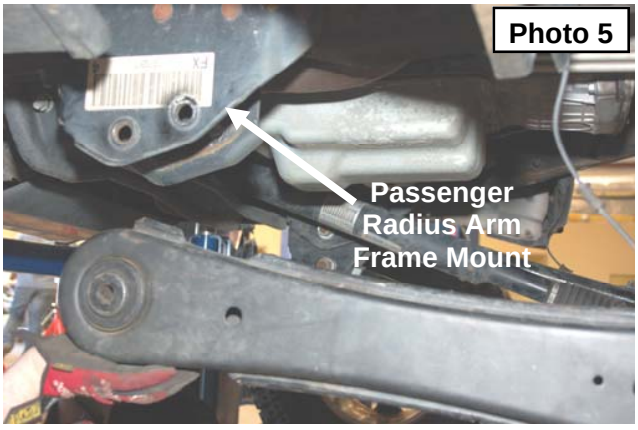


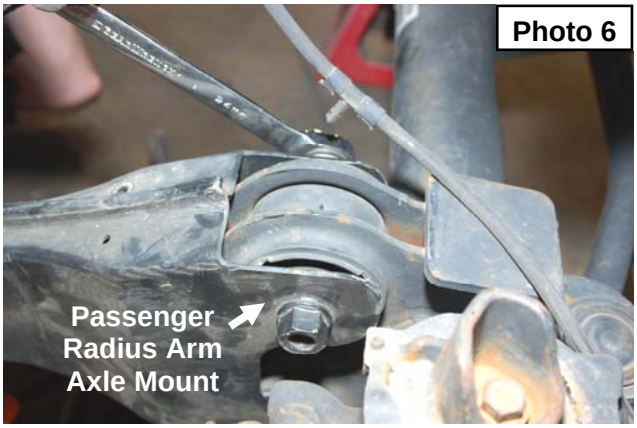
5. Disconnect the ABS sensor wire from the lower spring seat and the radius arm, using a 8mm wrench.
6. Unbolt the brake line brackets from the axle to ensure brake line free play during the suspension system installation using a 10mm wrench.
7. Remove the center disconnect vacuum lines from the clamp on the axle.(If equipped with automatic hubs).
8. Using a 19mm wrench, remove the nut, retaining washer and rubber bushing from the both upper shock mounts. Using a 18mm wrench remove the lower shock bolts. Retain hardware for re-use. **See Photo 3**.
9. Carefully lower the jack until the coil springs are free. Remove the coil springs from the vehicle. Note: use of a coil spring compressor may be required for spring removal.
10. Remove the ABS line from the retaining tab on the radius arm and carefully pull the plastic clip free from the radius arm. **See Photo 4.** This is done to prevent over extending the line during bracket installation.



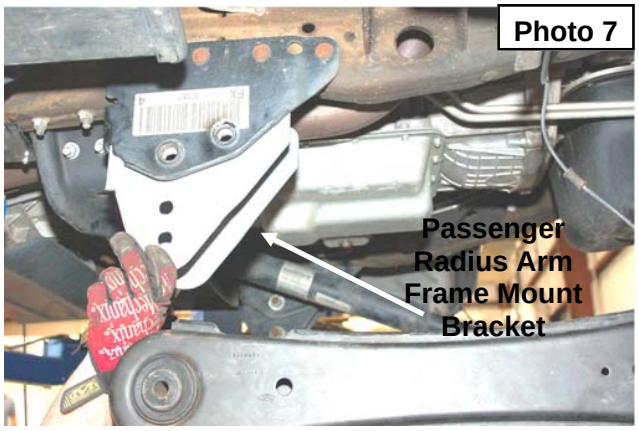


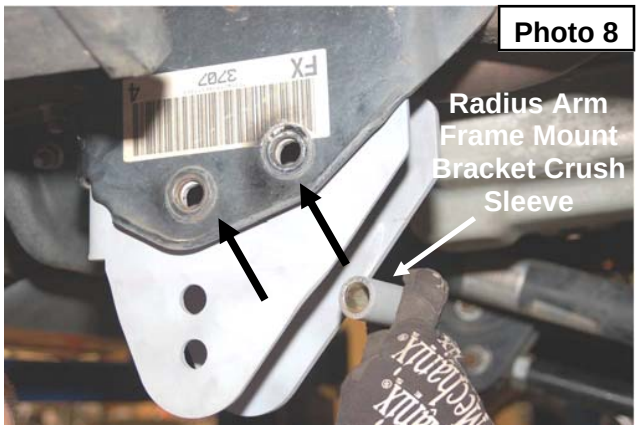
11. Using a 1 1/8” wrench, and socket remove the bolt holding the radius arm to the frame. **See Photo 5.**
12. Using a 24mm wrench, and socket loosen the bolt holding the radius arm to the axle. **See Photo 6.**





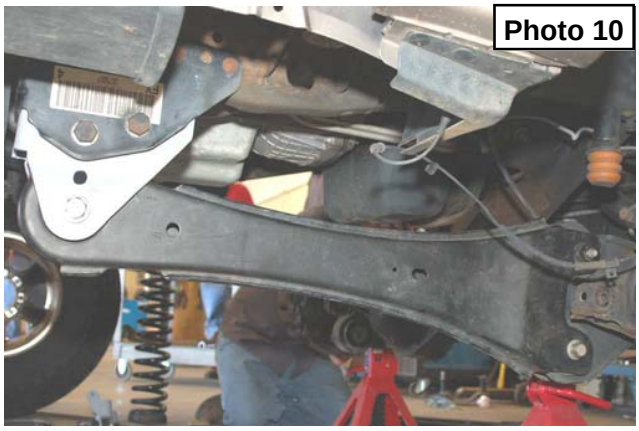
13. Insert the radius arm drop bracket into the stock location. **See Photo 7.**
14. Insert the supplied crush sleeves in the bracket as shown in **Photo 8** and secure using the supplied 3/4" x 5" bolts, washers & nuts. Tighten using a 1 1/8" wrench & socket .(2 Per side).



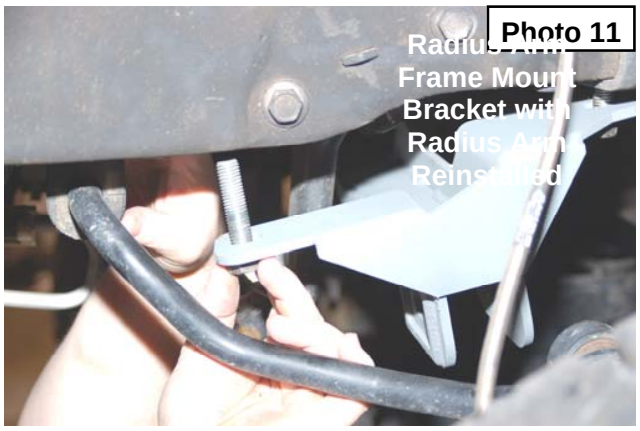


15. Using a measuring tape, mark 3/4" from the end of the factory radius arm as shown and trim using a reciprocating saw. This area is trimmed for clearance on the crush sleeve. **See Photo 9**
16. Reinstall the stock radius arm in the drop bracket in the lower hole with the stock hardware. **See Photo 10.** Leave loose. Both radius arm bolts will be torqued with the weight of the vehicle on the axle.
17. Reattach the ABS wire to the radius arm.
18. Repeat step 3-15 on the opposite side.
19. Using a 21mm wrench and 19mm wrench & socket remove the factory track bar bracket. Retain stock hardware for re-use.

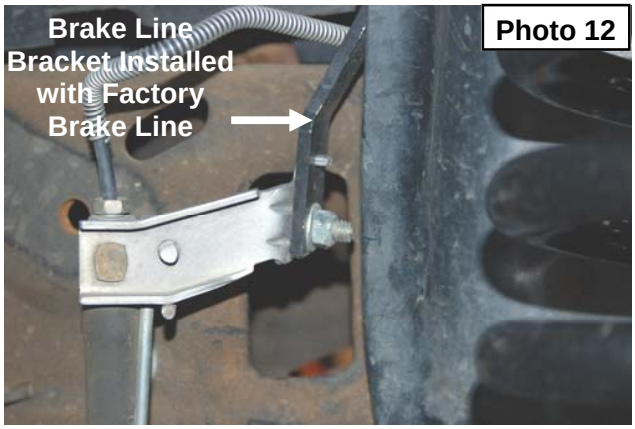


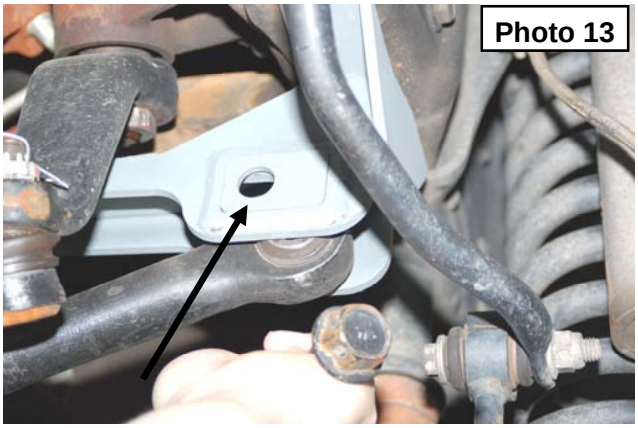


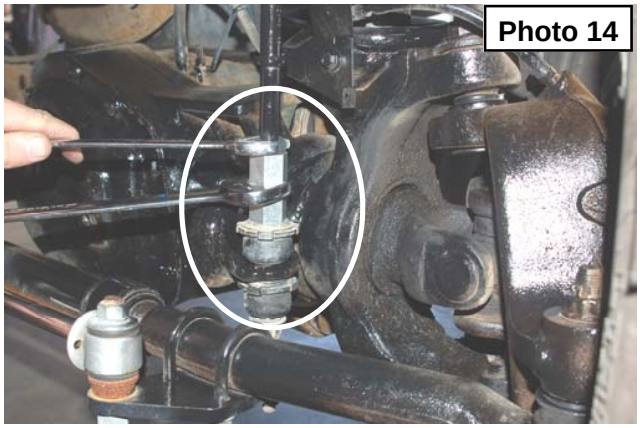
20. Position the Rough Country track bar bracket on the frame in the same position as the original and secure using the factory hardware. Tighten all 5 mounting bolts to 129 ft/lbs. **See Photo 11.**
21. Using the nylon bump stop extension provided, place the extension between the frame and the bump stop cup. Bolt back into the original location using the 8mmx95mm bolt supplied. Torque to 15 ft. lbs.
22. Lower the front axle enough to install the new coil springs. Position the coil springs in the lower coil mounts on the axle and rotate as necessary to be sure that the pigtail of the coil in indexed properly in the bucket. Position the factory rubber isolator on top of each coil, then raise the axle enough to seat the coil springs in the upper spring buckets.



23. Install the bushings and sleeves on the Rough Country Front shock absorbers Part # **658640.**
24. Compress the front springs enough to install the front shocks. Bolt the lower end of the shock to the axle using the stock hardware , using a 18mm wrench. Attach the upper end of the shock using the stock hardware, and a 19mm wrench, tighten only enough to bulge the bushing.
25. Factory brackets secured the brake hoses to the front of the coil spring tower on the frame, these brackets where removed during disassembly. Remove the stock brake line strap from the brake hose to allow more of the rubber holes to be utilized. Attach the brake line drop brackets to the coil towers where the factory brackets where mounted using the stock hardware. Insert the supplied 5/16"x 3/4" bolt through the bracket and coil tower just below the factory bolt and secure using the supplied 5/16" nut.
26. Carefully reform the metal brake line as necessary in order to line up the factory brake hose bracket with the lower end of the drop bracket. Attach the factory bracket to the drop bracket using the supplied 1/4" x 3/4" bolt and nut. Attach the lower brake hose brackets to the axle using the factory hardware and tighten. **See Photo 12**.
27. Install tires and wheels and lower the vehicle to the ground.
28. Position the track bar cam washer as shown in **Photo 13** for the 4 1/2" kit and swing up the track bar and install in the new track bar bracket with the factory hardware. NOTE: The vehicle may have to be started and the wheels turned in the direction the track bar needs to go to help align the track bar with the hole. Install using the stock track bar bolt. Tighten bolt to factory specifications using a 30mm socket.
29. Thread the female end of the anti-sway bar link extension and supplied jam nut on the factory sway bar end links and tighten to 60 ft/lbs. **See Photo 14.**
30. Tighten the radius arm bolt to 230 ft/lbs.
31. Attach the drag link stud to the pitman arm. Torque nut to factory specs, and install cotter pin. Check for adequate linkage clearances while turning steering wheel full lock in both positions.







REAR INSTALLATION

1. Chock front wheels and jack up the rear of the vehicle. Secure with jack stands on the frame rail.
2. Place a floor jack under the rear differential on the rear axle. Using a 18mm wrench for the upper, and 19mm and 15mm wrench for the lower, remove the stock shock absorbers, retain the stock hardware for reuse.
3. Remove the brake line bracket on the u-bolt plate as shown in **Photo 15** using a 10mm wrench.
4. Using a 24mm socket, remove the stock u-bolts. Use the floor jack to lower the axle assembly to allow for lifted block installation. **See Photo 16. If equipped; the factory rear frame contact over load springs will not be reused. Remove the over load springs and retain the main spring plate for reuse.**

Photo 15

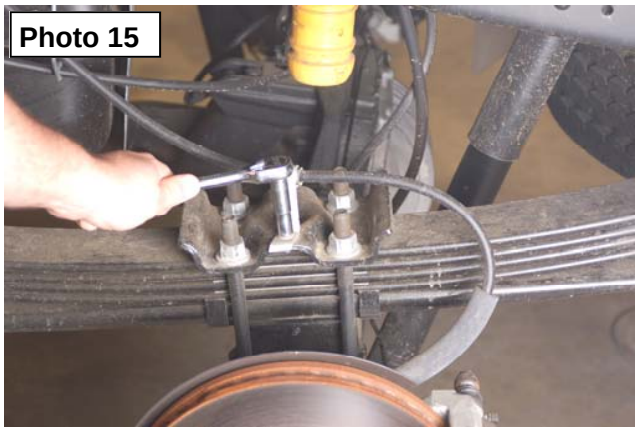


Photo 16



5. Install the Rough Country block in between the leaf spring and the axle as shown in **Photo 17**. Jack up the axle and align the pins in the blocks and axle seat. Secure with new u-bolts using a 24mm socket. Torque evenly to 85 ft/lbs.
6. Install the supplied square u-bolts and block shims on the block as shown in **Photo 18** using a 5/8 wrench.

Photo 17

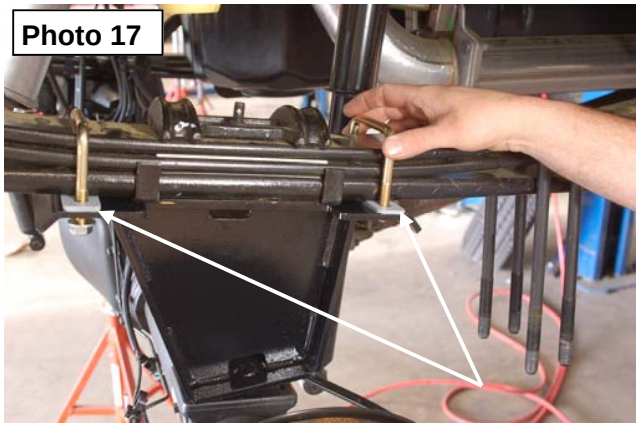


Photo 18



7. Locate shock part number **650377** shock and assemble poly bushings and sleeve in shock. Using a 18mm wrench, for the upper, and a 19mm and 15mm wrench for the lower. Install using factory hardware on upper and lower shock mount
8. Install the tires and wheels
9. Jack up the rear of the vehicle and remove the jack stands. Lower the vehicle to the floor.

POST INSTALLATION INSTRUCTIONS

1. Adjust steering wheel to re-center prior to driving.
2. 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.
3. 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. Longer replacement hoses, if needed can be purchased from a local parts supplier.
4. Have a qualified alignment center realign front end to
   Caster min– 4.0 degree
   Camber –0.6—.09 degree
   Toe –.10– .15 degree
5. If drive line vibration is experienced you may have to fine tune shaft angles. Shafts may need to lengthened or trued and u-joints may need to be replaced.
6. Install Warning to Driver decal on sun visor.
7. Re-torque all nuts, bolts, and especially u-bolts after the first 100 miles, again after another 100 miles and then check periodically thereafter.
8. All components must be retightened after 500 miles, and every three thousand miles after installation
9. Adjust headlights to proper settings.

ROUGH COUNTRY
SUSPENSION SYSTEMS

KIT CONTENTS



Kit Contents :

Part # 9296 Front Coil Spring (2)
Radius Arm Bracket (2)
Track Rod Bracket
Sway Bar Link Ext (2)
Fr Brake Line Bracket (2)
Fr Bump Stop Ext (2)
FR Rough Country Shock (2)
RR Rough Country Shock (2)
Rear Block (2)
Fabbed Block Shims (4)
U-bolts (4)

Hardware List

For Radius Arm Bracket:
- *4-3/4" x 5" Bolt*
- *8-3/4" Flat Washer*
- *4-3/4" Nut*
- *4-Crush Sleeves*

For Fr Brake Line Bracket
- *2-5/16" x 3/4" Bolt*
- *2-5/16" Nut*
- *4-5/16" Flat Washer*
- *2-1/4" x 3/4" Nut*
- *2-1/4" Nut*
- *4-1/4" Flat Washer*

For Fr Bump Stop
- *8mm x 95mm Bolt*
- *2-Washer*

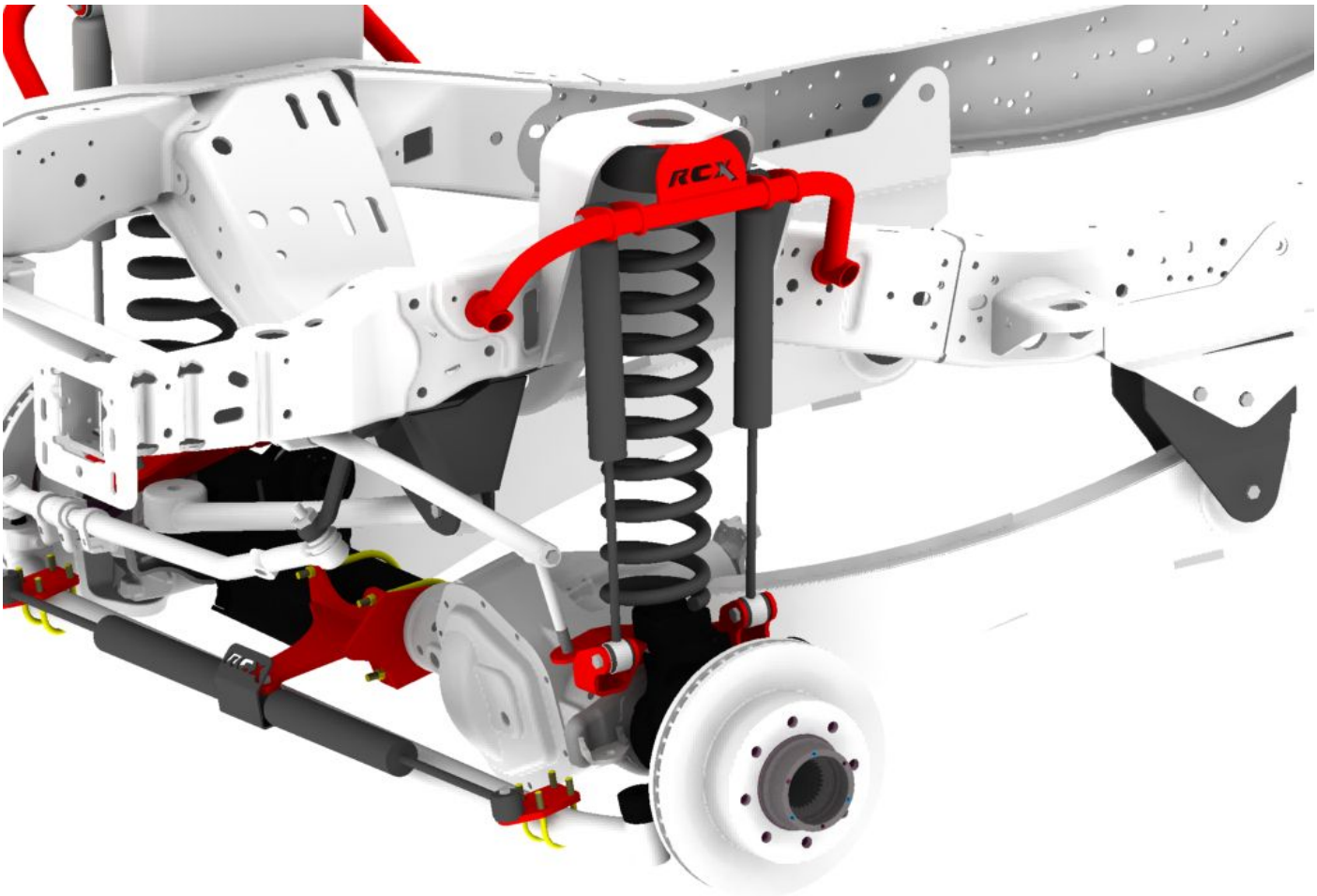
For Rear Block
- *4-7/16" x 3" U-bolt*
- *8-7/16" Nut*
- *4-5/8" x 3 5/8" x 16" U-bolt*
- *8-5/8" Nut*
- *8-5/8" Flat Washer*

For Front Sway Bar Link:
- *2-14mm Jam Nuts*

Rough Country can meet all of your 4WD suspension needs. From Dual Stabilizers to Dual Shock Kits.







Thank you for choosing Rough Country for your suspension needs.

ROUGH COUNTRY SUSPENSION SYSTEMS