TRAIL FORTRESS

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Rough Country 76031 Installation Instructions

3-Inch Lift Kit with N3 Shocks for 4Runner & FJ Cruiser

Part number: 76031

trailfortress.com/rough-country-3-inch-lift-kit-76031

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

76620BAG

2010-17 4 Runner 3” Front 2” Rear Leveling 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 disassembly/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 and the product layout on the last page. Be sure you have all needed parts and know where they go. Also please review the tools needed list and make sure you have needed tools.

⚠NOTICE Will not fit X-REAS suspension equipped models.

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. 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 Maximum tire size of 285/70R-17 tire with factory wheels. For aftermarket wheel and tire combinations consult your tire and wheel specialist.

⚠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.

⚠NOTICE Note to installer : Before installation begins we recommend that a test drive be performed. While driving check for uncommon sounds and/or vibrations . What you feel and hear during the test drive will only magnify once lift kit is installed. Advise you to discuss possible issues identified from drive with customer before proceeding to install this kit.

Kit Contents:
2-Front Strut Spacers
2-Rear Coil Spacers
2-Rear Shocks Absorbers
2-Rear Shock Upper Mounting Hardware Bags
1-Front Bag that includes:
- 6-10mm Nuts
- 6-10mm Lock Washers
- 6-10mm Flat Washers
- 6-10mm Studs
- 1-1/2” Jam Nut

1-Rear Bag containing:
- 2-1/2” x 1 1/4” bolts
- 4-Washers
- 2-Nylock nuts

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

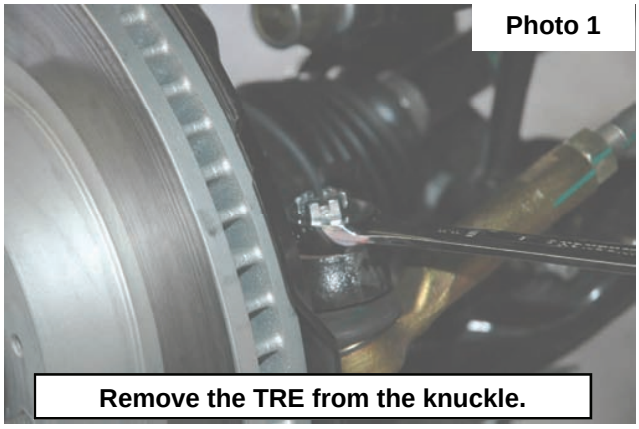
	Class 8.8	Class 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18ft/lbs	23 ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	55ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs
18MM	170ft/lbs	240ft/lbs

Tools Needed:
7mm Wrench
12 mm Wrench
14 mm Socket
17 mm Socket
17 mm Wrench
19 mm Socket
Hammer
Punch
16mm Wrench
21mm Socket
9/16” Wrench
Torque Wrench

FRONT INSTALLATION

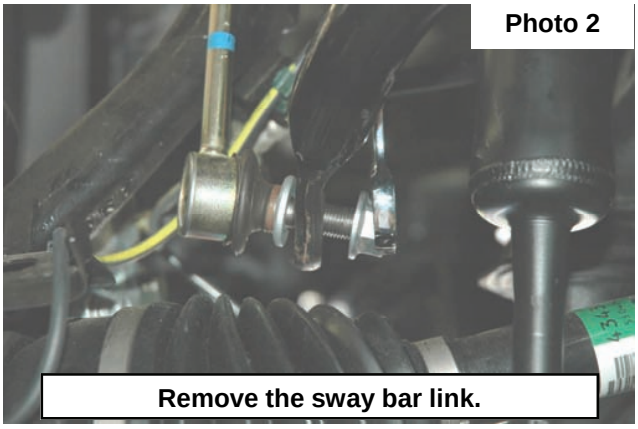
1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground.
2. Remove the front tires/wheels. Using a 21mm deep well socket.
3. Using a 12mm socket, remove the skid pate from the vehicle.
4. Remove cotter pin from the outer tie rod end on the steering linkage. Using 19mm socket/wrench remove the nut. Using a hammer hit on the side of the cast knuckle to allow the tie rod end to separate from the knuckle. Remove the linkage from the knuckle. Push linkage forward to make room for installation. Retain factory nut. **See Photo 1.**
5. Using a 17mm wrench, remove the sway bar bolts, allowing the sway bar to drop. Retain factory hardware. **See Photo 2.**

Photo 1



Remove the TRE from the knuckle.

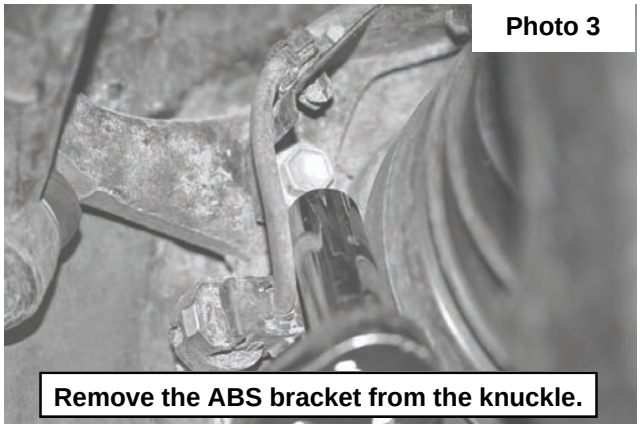
Photo 2



Remove the sway bar link.

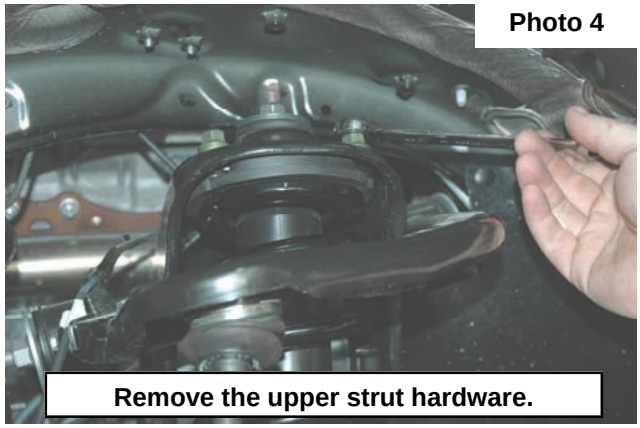
6. To allow the strut to be removed, remove the ABS bracket from the knuckle using a 12mm socket. Retain factory hardware for reuse. **See Photo 3.**
7. Using a 14mm socket, remove the strut nuts on the upper strut tower that holds the assembly in place. **See Photo 4**. One nut can be left on an upper stud to hold the strut in place **.**

Photo 3



Remove the ABS bracket from the knuckle.

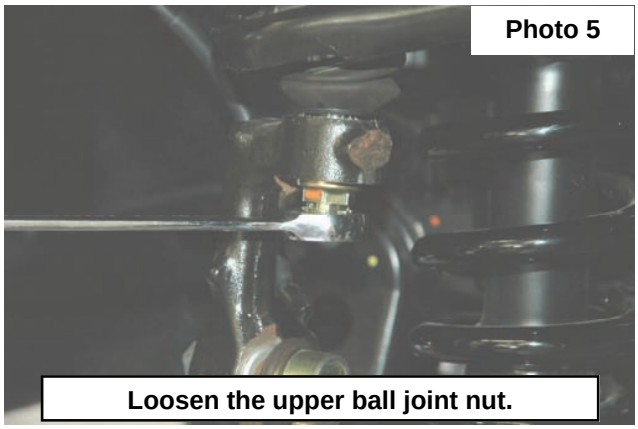
Photo 4



Remove the upper strut hardware.

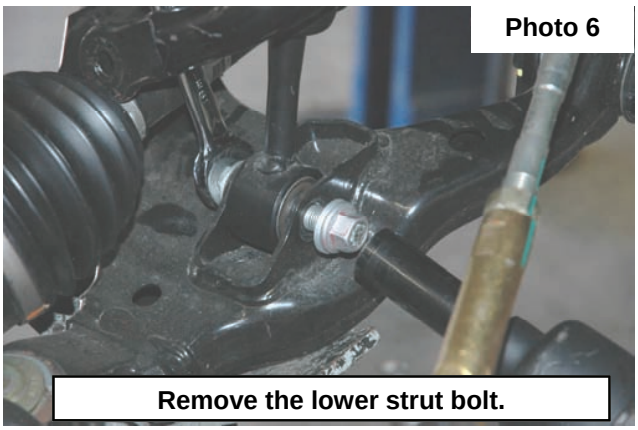
8. Place jack stand under the knuckle for support.
9. Using 19 mm socket remove nut from the ball joint on the upper control arm. Using a hammer hit the knuckle to allow the ball joint to separate from the upper control arm **See Photo 5**. **Do not** allow the knuckle to pull out far enough that it pulls the CV shaft out of the differential or over extends the brake line.
10. Using a 19mm socket and wrench, remove the strut bolt from the lower control arm and remove the strut assembly. Retain the factory lower hardware for reassembly. Note the direction of the bolt for reassembly. **See Photo 6.**

Photo 5



Loosen the upper ball joint nut.

Photo 6



Remove the lower strut bolt.

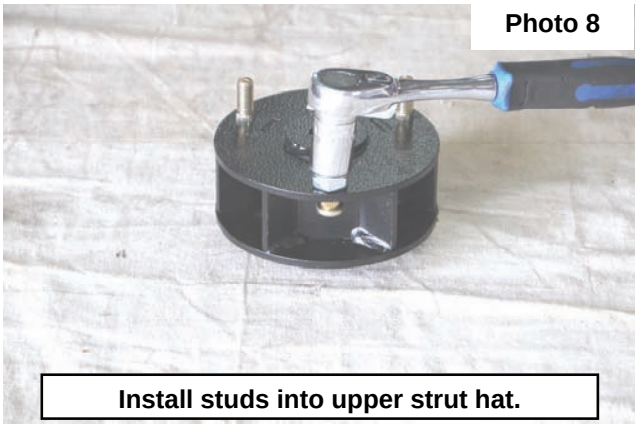
11. Place the supplied 10mm studs from 10MMSTUDBAG-1 into the holes in the strut spacer. **See Photo 7.**
12. Use the supplied 1/2” jam nut and the supplied 10mm nut, from 10MMSTUDBAG-1, and a 17mm socket to pull the stud into the spacer. **See Photo 8.**

Photo 7



Install studs into upper strut hat.

Photo 8



Install studs into upper strut hat.

13. On the factory strut assembly, mark the orientation of the studs, spring isolator and coil spring. **Make sure to mark all 3 studs. See Photo 9.**
14. Place the strut into a strut compressor and compress the strut. Using 17mm and 7mm wrenches, remove the upper strut hat and bushings. **See Photo 10**.

Photo 9



Mark isolator and spring orientation.

Photo 10



Remove the upper strut nut.

15. Remove the strut hat and bushing. **See Photo 11**.
16. Save the upper bushing, washer, and nut for reuse. **See Photo 12.**

Photo 11



Remove the strut hat.

Photo 12



Retain the upper bushing and washer.

17. Using a hammer and punch, knock the lower strut bushing and washer out of the factory strut hat. **See Photo 13.**
18. Retain the lower strut bushing and washer for reuse. **See Photo 14.**



Photo 13

Remove the lower bushing and washer.



Photo 14

Retain lower bushing and washer.

19. Place the lower strut hat bushing and washer back onto the strut shaft. **See Photo 15.**
20. Remove the spring isolator from the factory strut hat. **See Photo 16**..



Photo 15

Install lower bushing and washer on strut.



Photo 16

Remove spring isolator from strut hat.

21. Place the spring isolator on the new supplied strut hat, making sure to align marks with studs in the strut hat. **See Photo 17**.
22. Place the new strut hat and isolator on the strut, making sure to align the marks on the spring, spring isolator, and studs in the strut hat. **See Photo 18.**

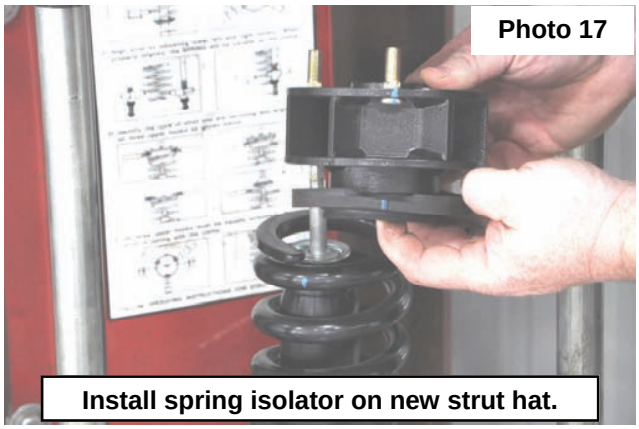


Photo 17

Install spring isolator on new strut hat.

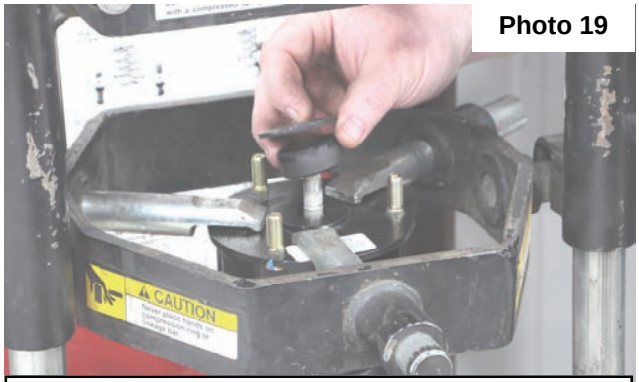


Photo 18

Place strut hat and isolator on strut.

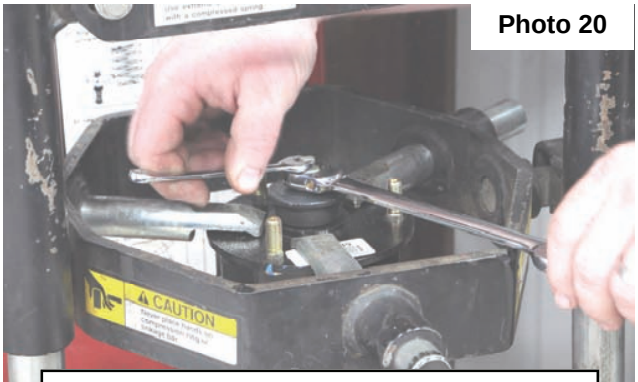
23. Place the new strut hat, factory bushing and washer onto the strut. **See Photo 19.**
24. Using the factory nut and 17mm and 7mm wrenches, tighten the strut hat nut until the bushings begin to bulge under the washer. **See Photo 20.**

Photo 19



Compress and install upper bushing and washer.

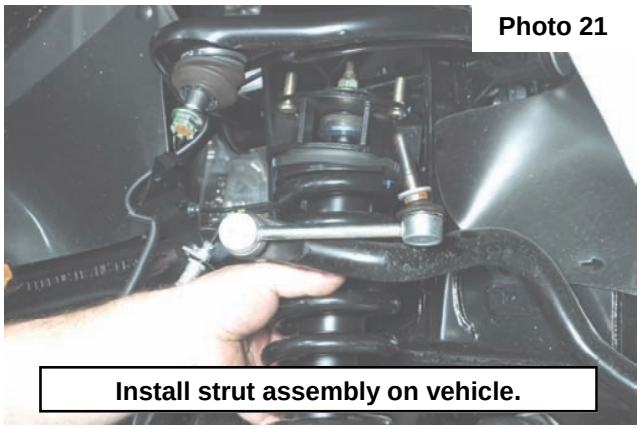
Photo 20



Tighten strut nut.

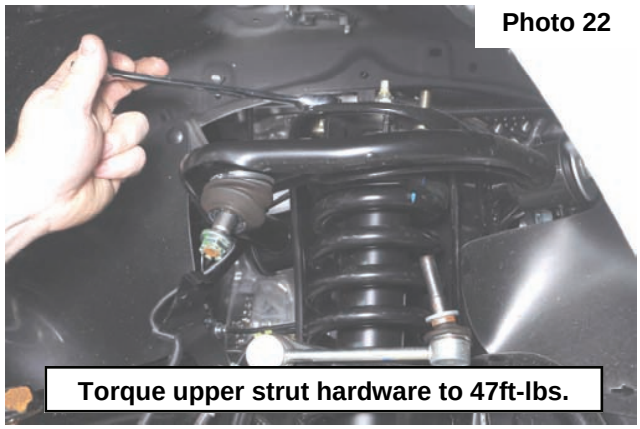
25. Install the strut assembly into the strut tower. **See Photo 21.**
26. Install the supplied 10mm nuts. Using a 17mm wrench torque to 47ft. lbs. **See Photo 22**.

Photo 21



Install strut assembly on vehicle.

Photo 22



Torque upper strut hardware to 47ft-lbs.

27. Position the strut assembly to reinstall the lower strut bolt in its original position that it was removed. Using original hardware and a 19mm socket torque to 100ft lbs.
28. Using a floor jack, raise the lower control arm and connect the upper ball joint on the upper control arm to the spindle. Using a original nut and a 19mm socket, torque to 40ft lbs.
29. Reinstall the tie rod end off steering linkage into knuckle using original factory nut. Using a 19mm socket torque nut to 65ft. Lbs. Install supplied new cotter pin
30. Repeat steps 3-14 on opposite side of vehicle.
31. Using 17 mm wrench reinstall sway bar links using factory hardware. Torque to 52 ft. lbs.
32. Install the skid plate using the factory hardware and a 12mm socket.
33. Install the wheels / tires. Using a 21mm socket. Torque to 85 ft. lbs. With vehicle on the ground, check the clearance between the tire and upper control arm to make sure the arm does not rub the tire.
34. Jack up the vehicle and remove the jack stands. Lower the vehicle to the ground and re-check all bolts, to assure they are tight.
10. This vehicle must have a front-end alignment after installation of the suspension kit. The vehicle will be aligned to factory specs.

REAR INSTALLTION

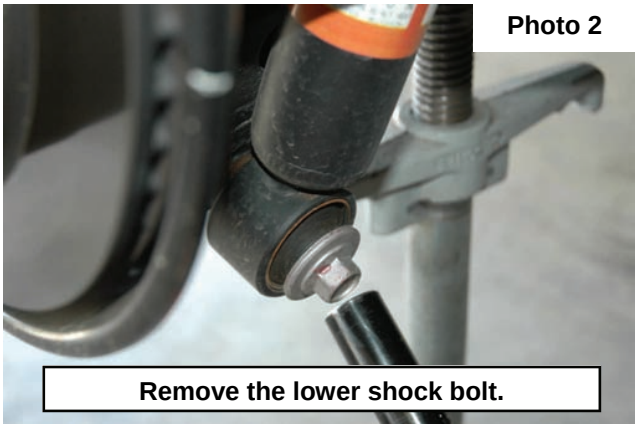
1. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear tires are off the ground
2. Remove the rear tires/wheels. Using a 21mm deep well socket.
3. Using a 17mm socket and wrench remove the rear shocks. Retain the lower shock hardware for reuse. **See Photo 1 & 2.**

Photo 1



Remove the upper shock nut.

Photo 2



Remove the lower shock bolt.

4. Using a 17mm socket or wrench disconnect the sway bar links. **See Photo 3.**
5. Using a 12mm wrench remove the bolt holding the brake line bracket to the frame on the drivers side, and the ABS wire on the passengers side.
6. Lower the axle and remove the factory coil spring.
7. Install new coil spring spacer in the factory pocket with the supplied 1/2” x 1 1/4” bolts, washers & nuts. **See Photo 4.**

Photo 3



Remove sway bar link from sway bar.

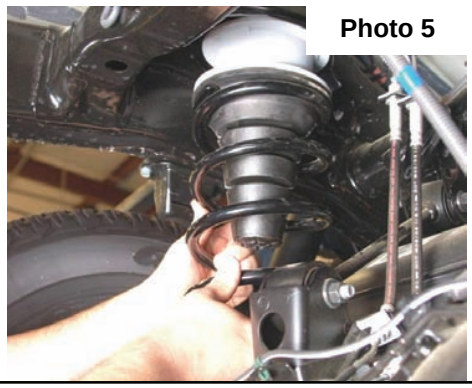
Photo 4



Install supplied coil spacer.

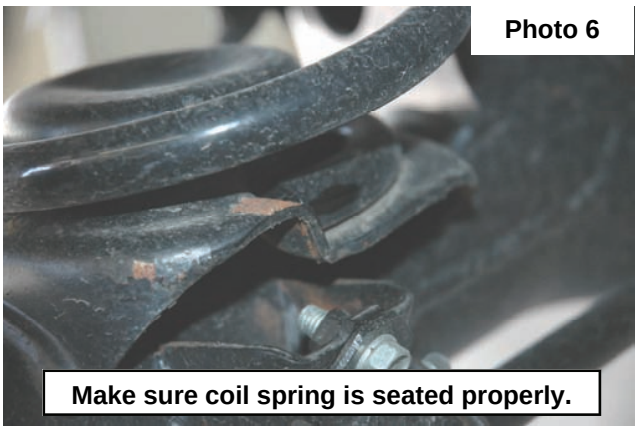
8. After the new spacer has been secured to the frame, reinstall the stock coil spring as shown in **Photo 5**. Make sure the lower coil is positioned correctly in the lower spring seat. **See Photo 6.**

Photo 5



Install factory coil spring.

Photo 6



Make sure coil spring is seated properly.

9. Using a 12mm wrench, reinstall the brake line bracket on the drivers side, and ABS bracket on the passengers side.
10. Using 17mm wrench reinstall sway bar links using factory hardware. Torque to 52 ft. lbs.

11. Using 17mm socket install new Rough Country shocks, 658738, using new hardware for the top, and factory hardware for the lower mount. Torque upper shock mount nut to 18 ft. lbs. Lower shock bolt torque to 72 ft. lbs.
12. Reinstall tire/wheels. Using a 21mm socket. Torque to 82 ft. lbs. Jack up the rear of the vehicle and remove the jack stands.
13. Lower the vehicle to the ground.

POST INSTALLATION

1. Check and recheck all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check clearance between upper control arm and sidewall of tire for proper clearance. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Adjust headlights to proper settings given increased vehicle height.

MAINTENANCE INFORMATION

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 500 miles and then every 1000 miles. Wheel alignment steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles.





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.