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Rough Country 511 Installation Instructions

2 Inch Leveling Kit for 1999–2004 Ford Super Duty 4WD

Part number: 511

trailfortress.com/2-inch-leveling-kit-ford-super-duty-4wd-rough-country-511

Scan for fitment, price and install help



99-04 F250/F350 & 00-05 EXCURSION FRONT 2.5” LEVELING 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 needed tools. If any parts are missing or if you have any questions please contact us at 731-285-9000

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.

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. Mixing component brands, lifts, and/or combining body lift with suspension lifts voids all warranties. 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.

The 2.5” suspension system was developed for 33x12.50x17 tire on an after market wheel with 4.5” of back spacing.

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 to the vehicle owner for review and to be kept in the vehicle for its service life.

Kit Contents:

1511
- 1-Dr Side Spring Hanger Bracket
- 1-Pass side Spring Hanger Bracket
- 2 –Spring Shackles

1-1511bag1:
- 2-7/16” X 1.50 Bolt
- 4-7/16” washers
- 2-7/16”-lock nuts
- 2-1/2” x 1.5” bolts
- 4-1/2” washers
- 2-1/2” lock nuts

1512
- 1—Cross Member

Tools Needed:
- Assorted Metric Wrenches
- Assorted standard wrenches
- Jack stands
- Floor jack

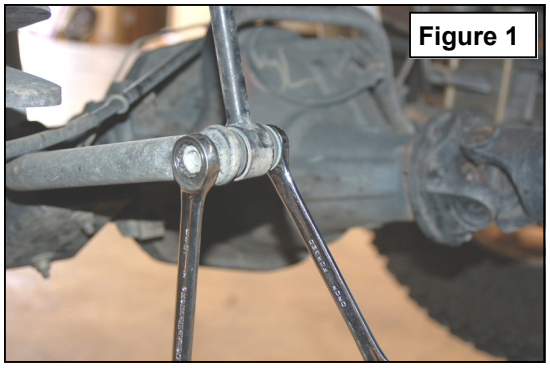
Torque Specs:

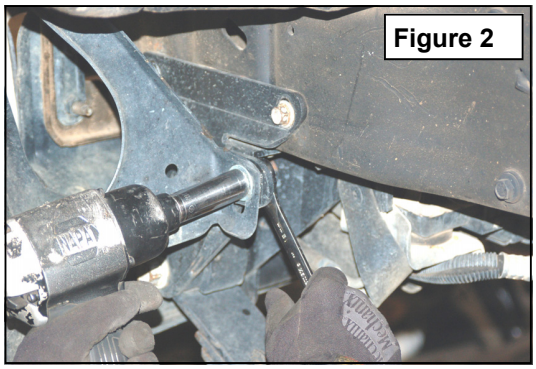
Size	Grade 5	Grade 8
5/16”	15 ft/lbs	20 ft/lbs
3/8”	30 ft/lbs	35 ft/lbs
7/16”	45 ft/lbs	60 ft/lbs
1/2”	65 ft/lbs	90 ft/lbs
9/16”	95 ft/lbs	130 ft/lbs
5/8”	135 ft/lbs	175 ft/lbs
3/4”	185 ft/lbs	280 ft/lbs

Technical Assistance 731-285-9000

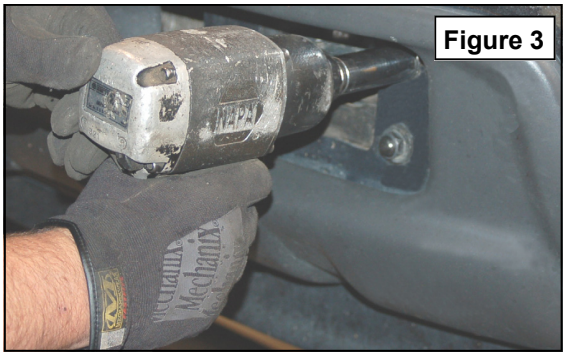
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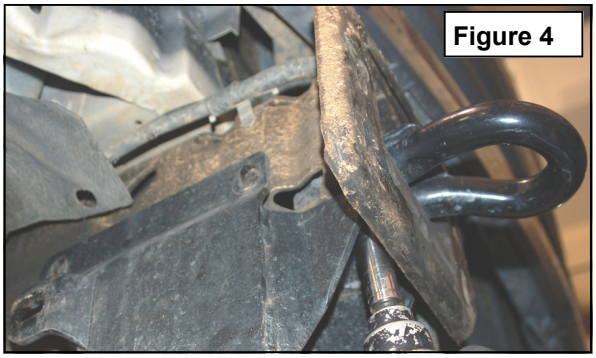
1. Park the vehicle on a level, hard surface. Block the rear wheels.
2. Remove the front anti-sway bar links from the frame mount and the sway bar using a 19 mm wrench. Retain the upper and lower mount hardware for re-use. **See Figure 1.**
3. Disconnect the track bar on driver side from the frame bracket using a 30mm wrench. Retain the hardware for re-use.
4. Remove the front shock absorbers from the upper mount and the lower mount from the axle using a 19mm wrench . Retain the hardware for re-use. Remove the shock absorber.
5. Using a 13mm socket remove the bolts that secure the bumper to the front hanger bracket. Retain hardware for reuse. **See Figure 2.**



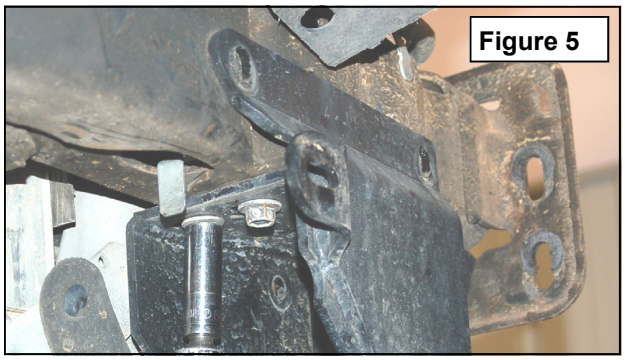


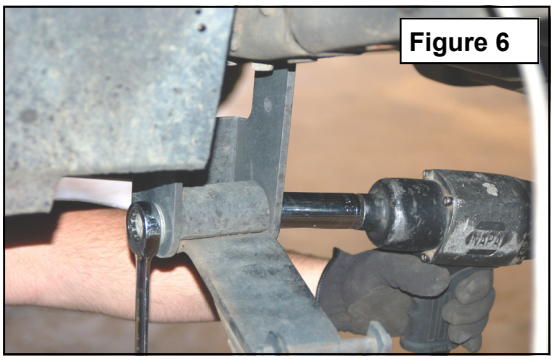
6. Remove the 4 bolts that secure the front bumper to the frame using a 18mm socket. **See Figure 3**. Retain the hardware for re-use. Remove the bumper from the vehicle. It may be necessary to remove the rubber lower dust shroud between the bumper and the lower cross-member..





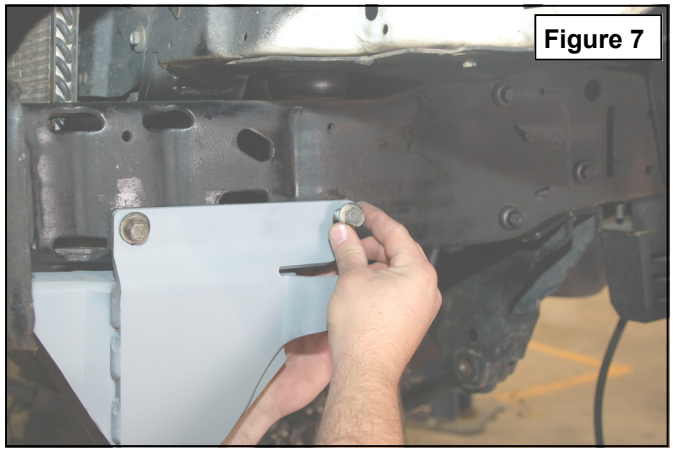
7. Position a floor jack under the front axle and jack up the vehicle. Place jack stands under the frame rails directly behind the rear stock shackles. Lower the vehicle onto the jack stands. Do not remove the jack at this time. The jack will be used to support the axle later in the step.
8. Remove the 7 bolts securing the side and bottom of the stock bracket using a 15 mm wrench. **See Figure 4 & 5.** Repeat for opposite side. This will allow the front axle and brackets to be lowered down to allow access to remove the spring bolts.
9. Remove the stock rear spring shackle upper and lower bolts using a 21mm and 24mm wrench and retain hardware for re-use. **See Figure 6.**

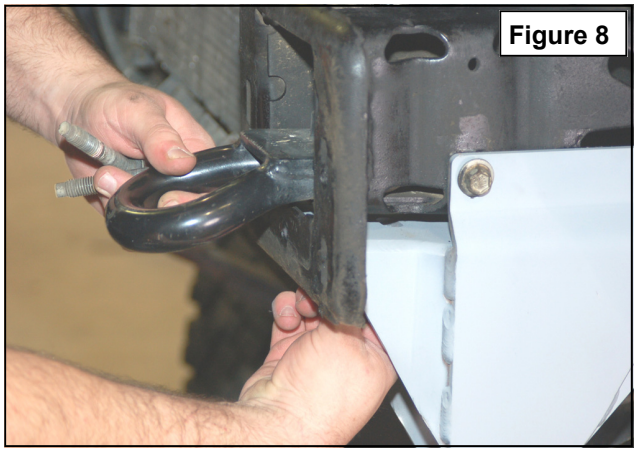




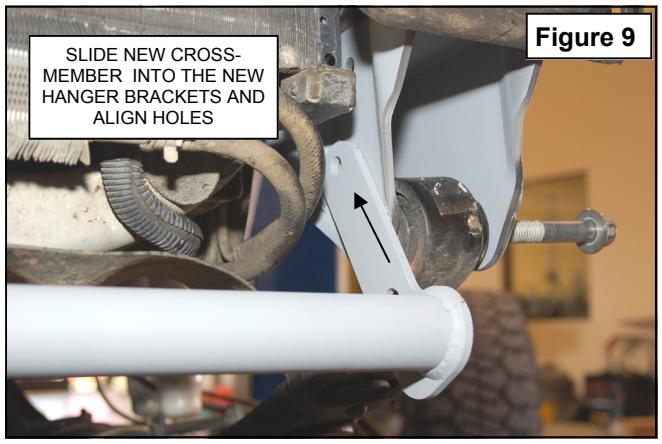
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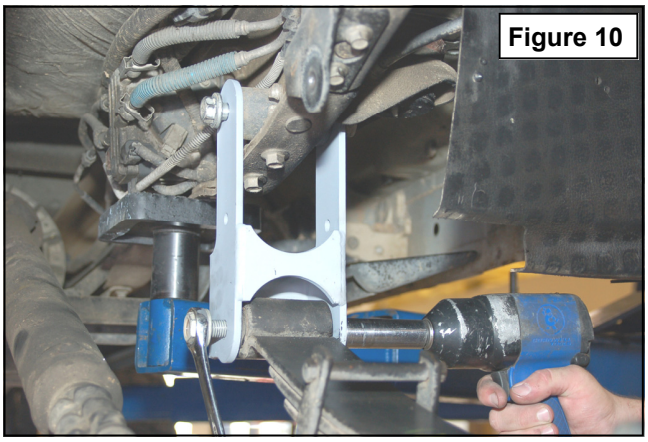
10. Lower the axle assembly down (**do not lower beyond the limit of the brake lines**), remove the stock spring bolts and remove the cross member if equipped. The cross member is the bar that connects the two stock hanger brackets and is secured with the stock 24mm spring bolt and a upper bolt. Retain the stock leaf spring bolt /hardware.
11. Locate the new Rough Country front hanger brackets. **See Figure 7**.
12. Install re-using the factory 15 mm bolts that secure the frame hook, side and rear portion of the bracket to the frame. **See Figure 7 & 8.**





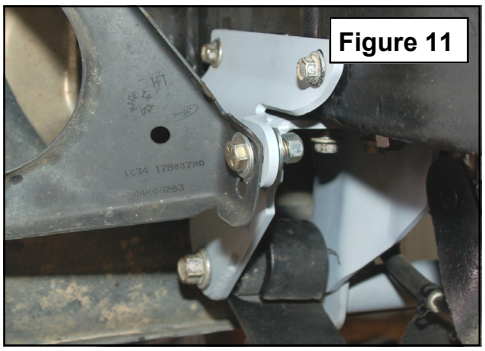
13. Raise the axle to align the hole with the leaf spring and new Rough Country hanger bracket and use factory hardware to install the spring in the mount and the new cross-member. **See Figure 9.**
14. Install the upper bolt on the new Rough Country cross-member and hanger bracket with the supplied 7/16" X 1 1/2" bolt/hardware and using a 5/8" wrench.





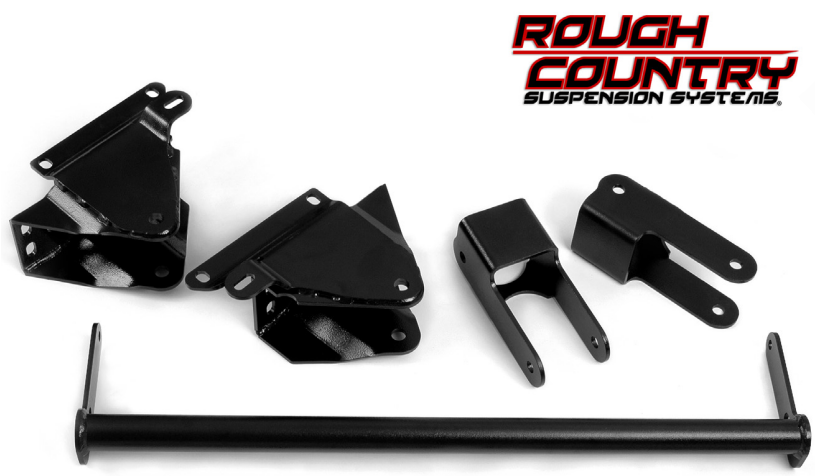
15. Install the new Rough Country shackle brackets with re-using factory hardware and using a 21mm & 24mm wrench.
16. Position axle to align with new shackle and secure with factory hardware using a 21mm & 24mm wrench. **See Figure 10.**
17. Tighten the hardware securing the spring hanger brackets to the frame and the cross-member hardware. Do not tighten the spring bolts at this time. This will be performed with the vehicle on the ground and under its own weight.
18. Install tire/wheels and torque to factory specifications.
19. Raise the vehicle and remove the jack stands. Lower the vehicle to the ground and tighten all spring hardware.
20. If purchased with kit, install the new Rough Country shock absorbers with supplied hardware.
21. Attach the factory sway bar links using factory hardware. Torque to factory specifications.
22. To reattach the factory track rod it will be necessary for two people to perform this task. With the vehicle running, turn the steering wheel until the track bar aligns, install factory bolt and torque to factory specification.

23. Reinstall front bumper at this time re-using the factory hardware on the front of the bumper. The bumper supports (if equipped) will be installed on the new Rough Country bracket with the supplied 1/2" x 1 1/2" bolts/washers & nuts using a 3/4" wrench. **See Figure 11.**
24. Re-center the steering wheel if necessary.
25. Drive the vehicle several miles and recheck all clearances and bolt torque.
26. Headlight adjustment may be necessary.
27. Have a qualified alignment center align front end to factory specifications.


Figure 11

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.





Thank you for purchasing a Rough Country Suspension Kit. Please consider the additional options offered by Rough Country and shown below for your F250/F350.



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