Rough Country 521.20 Installation Instructions

3-Inch Lift Kit with N3 Shocks for Ford Super Duty 4WD (2008-2010)

Part number: 521.20

trailfortress.com/rough-country-3-inch-lift-kit-521-20

Scan for fitment, price and install help

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ROUGH COUNTRY SUSPENSION SYSTEMS®

1486BAG5

05-13 F250 SUPERDUTY 3” LIFT 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.

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.

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 no 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.

This 3” suspension system was developed for **35x12.50x17** tire on an 8” wheel.

The 3” front system comes standard with a 2” block and u-bolt set-up for the rear to give the truck a level look. Personal preference, OE options, and aftermarket add-ons may require additional lifting options. One option on the SD is factory contact overload springs (a set of springs that sit above the leaf springs and that under load come in contact with two stops off of the frame) Vehicles equipped with **factory** contact overloads need a longer u-bolt kit and is included in this kit. On vehicles with dual rear wheels the use of blocks and longer u-bolts is not recommended and should not be installed.

⚠NOTICE 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 / 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.

Kit Contents:

9284– Front Coil Springs
Kit Boxes containing
- 2-Radius Arm Drop Brackets
- 2-660793 Front Shock
- 2-660789 Rear Shock
- 2-142731 Front Shock Bushings
- 2-2” Blocks
- 4-5/8” x 3 5/8” x 16” U-Bolt

Or
- *4-5/8 x 3 1/8” x 15 1/4” (2011 Models)*
- 1-Track Rod Bracket

1486 Bag1:
For Front Radius Arm Drop Brackets:
- 4-3/4” x 5” Bolts
- 4-3/4” Nuts
- 8-3/4” Washers
- 4-Crush Sleeves

Tools Needed:

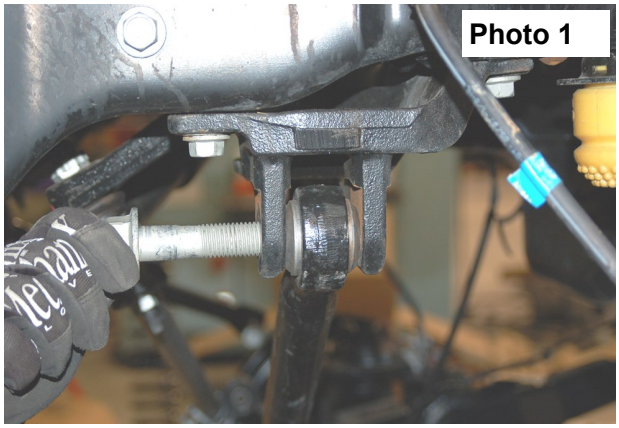
18mm Socket
18mm Wrench
19mm Socket
19mm Wrench
21mm Socket
21mm Wrench
24mm Socket
30mm Socket
Jack Stands
Floor Jack
Wheel Chocks
1 1/8” Socket
1 1/8” Wrench
Reciprocating Saw
Tap Measure

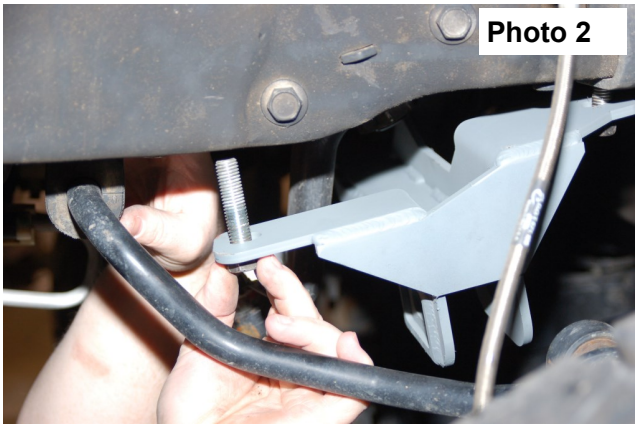
Torque Specs:

Size	Grade 5	Grade 8
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

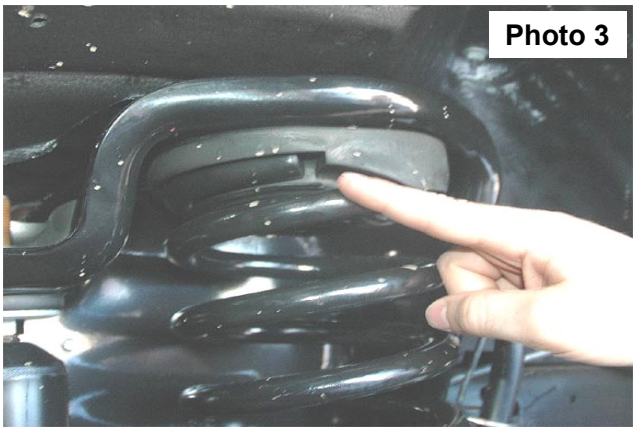
FRONT INSTALLATION INSTRUCTIONS

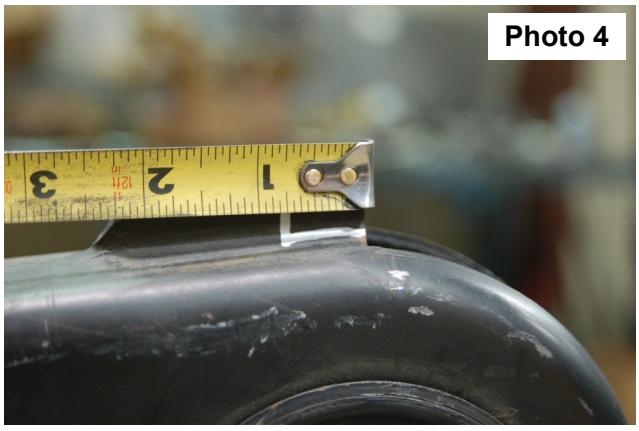
1. Place the vehicle on a level surface and chock the rear wheels.
2. Jack up the front of the vehicle and support with jack stands on the frame rail.
3. Remove the front wheels and tires. Support the axle with a floor jack.
4. Remove the stock shock absorber from the upper mount using a 19mm wrench and the lower mount using a 18mm wrench. Retain the lower shock mounting bolt for reuse.
5. Remove the stock track bar from the frame as shown in **Photo 1** using a 30mm socket / wrench and retain the factory hardware.
6. Install Rough Country track rod bracket with the factory hardware as shown in **Photo 2.** Tighten with a 22mm socket.



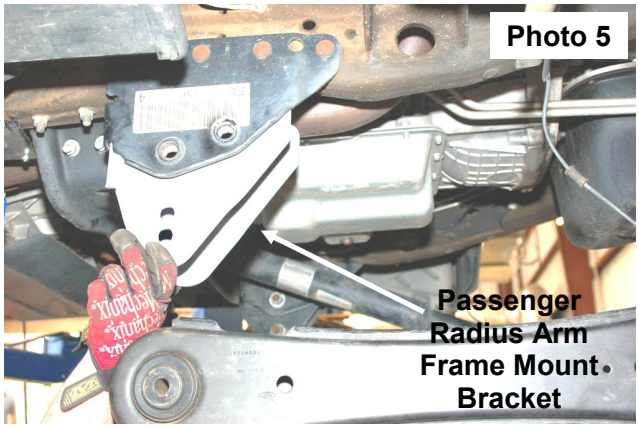


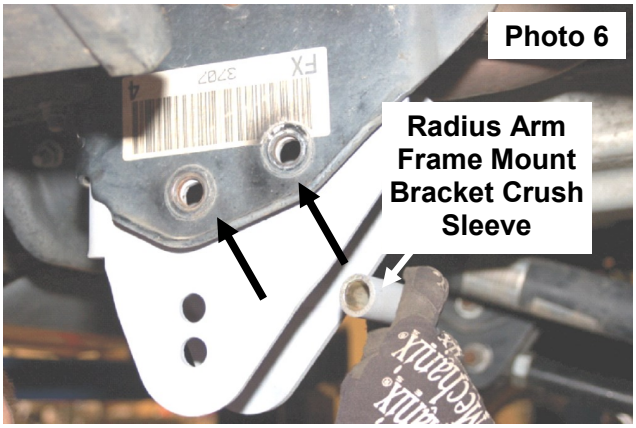
7. Remove lower sway bar nut on the axle using a 21mm wrench to allow the axle to move downward for the installation of the new coil.
8. Using the floor jack, lower the axle to allow for the coil spring to be removed from the coil mount. Take notice of the position of the coil wraps on the top and bottom spring in the mount. The new Rough Country coil with its progressive rate design built into the coil will be installed in the same position. **See Photo 3.**
6. 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 4.**



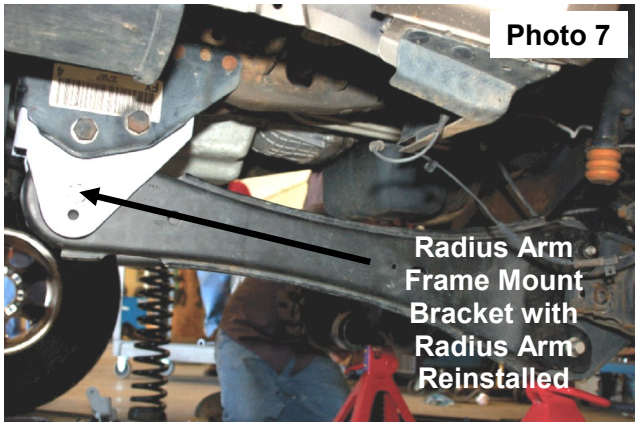


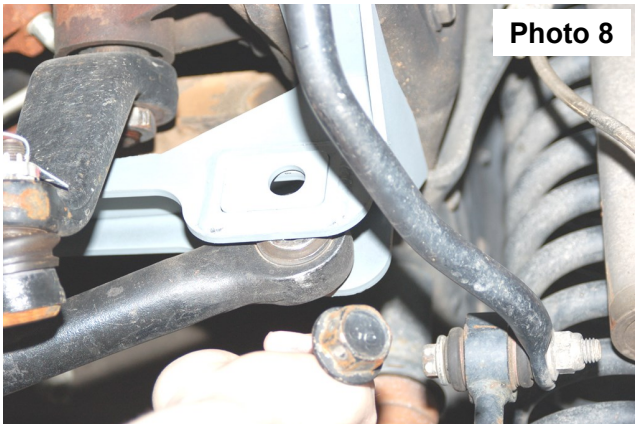
9. Using a 1 1/8" wrench, and socket remove the bolt holding the radius arm to the frame.
10. Insert the radius arm drop bracket into the stock location. **See Photo 5.**
11. Insert the supplied crush sleeves in the bracket as shown in **Photo 6** and secure using the 3/4" x 5" bolts, washers & nuts. Tighten using a 1 1/8" wrench & socket .(2 Per side).





12. Reinstall the stock radius arm in the new bracket in the upper hole with stock hardware. **See Photo 7.** Leave loose. Do not tighten the radius arm to bracket at this time.
13. Install the coil spring with the smaller diameter opening to the bottom and upper end into factory coil isolator, slightly compress the coils springs in the mount using the floor jack. Reinstall the sway bar nut using a 21mm wrench.
14. Install the front shock part # 660793, using the 142731 bushing kit from 1486BOX3. Install back in the factory position using the stock hardware and using a 18mm wrench.
15. Install the wheels/tires. Jack up the vehicle and remove jack stands. Lower the vehicle to the ground
16. Position the supplied cam washer as shown in **Photo 8** and swing up the track rod and install in the new bracket with the factory hardware. Tighten the factory hardware using a 30mm socket. **Note: It may be necessary to have another person turn the vehicle as it sits still to align the track rod with the mount.**
17. Tighten the radius arm to new bracket hardware using a 1 1/8" wrench & socket.





REAR INSTALLATION

An option on the SD is factory contact overload springs. Vehicles equipped with factory contact overloads need a longer u-bolt. Part #6558. Please verify the correct kit has been ordered and received prior to proceeding. On vehicles with dual rear wheel the use of blocks and longer u-bolts is not recommended.

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 stock u-bolts using a 24mm socket. Use the floor jack to lower the axle assembly to allow for the lifted block installation
4. Install the Rough Country block in between the factory block and the axle. The block being installed has a taper, the short end of the block should be towards the center of the truck. Jack up the axle and align the pins in the blocks and axle seat.
5. Secure with the new u-bolts and torque evenly to 120ft lbs using a 24mm socket. As you tighten work side to side to not over-torque one leg of the u-bolt
6. Locate shock number **660789**. Install using factory mounting pin on upper and factory bolt on lower shock mount. Tighten using a 18mm wrench for the upper and a 19mm & 15mm wrench for the bottom.
7. Install the wheels and tires.
8. Jack up the vehicle with the floor jack and remove the jack stands. Lower the vehicle to the floor.

POST INSTALLATION INSTRUCTIONS

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering gear for interference and proper working order. Test brake system
2. Perform steering sweep. Check to ensure brake hoses have sufficient slack and will not contact rotating, mobile, or fixed members, adjust lines/brackets to eliminate interference and maintain proper working order. Failure to perform inspections may result in component failure
3. Readjust headlights to factory settings
4. Have vehicle aligned by a certified alignment professional.
5. Re-torque all nuts, bolts, and especially u-bolts after the first 100 miles, again after another 100 miles and then check periodically thereafter
6. All components must be retightened after 500 miles, and every three thousand miles after installation

Kit Contents



Thank you for choosing Rough Country for your suspension needs.

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.