

ROUGH COUNTRY

SUSPENSION SYSTEMS®

2011-14 F250 6" 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 needed tools.

⚠ WARNING

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/heavier 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.

This kit is packaged as a leveling kit- raising the front 6+ and the back 6+. If you desire a different look or if the vehicle has a tool box or added weight in the rear, please consult with your sales representative about block / u-bolt options.

This 6+ suspension system was developed for 37x12.50x17 tire on an after market wheel w/ 4.5+ back spacing.

⚠ NOTICE

NOTICE TO DEALER AND VEHICLE 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.

Tools Needed:

10mm Socket / Wrench
 12mm Socket / Wrench
 15mm Socket / Wrench
 18mm Socket / Wrench
 18mm Socket / Wrench
 19mm Socket / Wrench
 21mm Socket / Wrench
 24mm Socket / Wrench
 30mm Socket / Wrench
 34mm Socket
 5/8+Socket / Wrench
 3/4+Socket / Wrench
 1 7/8+Socket / Wrench
 Pliers
 Coil Spring Compressor
 Pitman Arm Puller
 Brake Fluid
 Jack Stands
 Jack

Torque Specs:

Size	Grade 5	Grade 8
8MM	18ft/lbs	23 ft/lbs
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



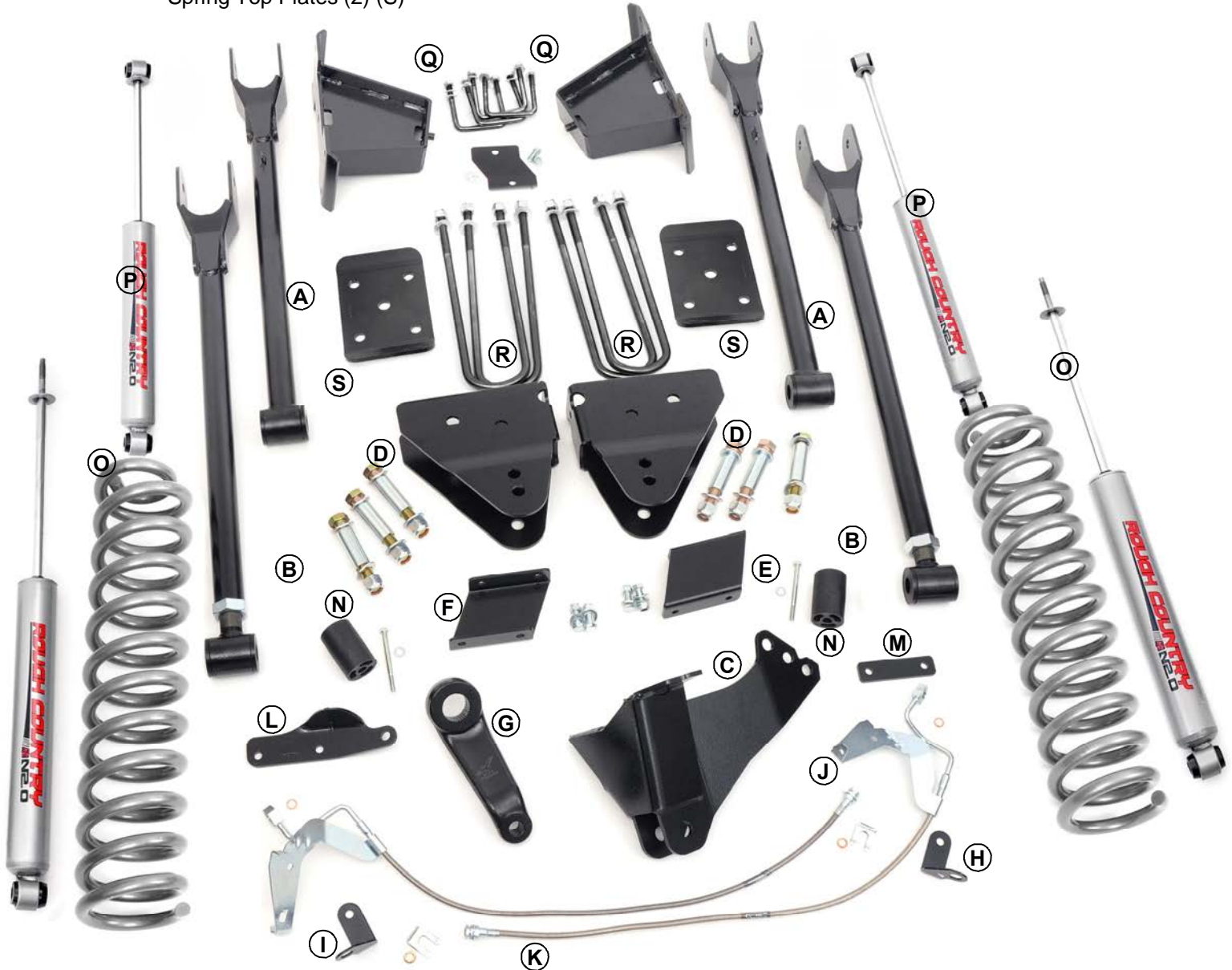
Kit Contents:

- 9295 Diesel Coil Springs
- 1580Box1 Fixed Upper Control Arms (A)
- 1580Box2 Adj Lower Control Arms (B)
- 1565Box1 Track Bar Bracket (C)
- Control Arm Bracket (D)
- Dr Sway Bar Brkt (E)
- Pass Sway Bar Brkt (F)
- Pitman Arm (G)
- Dr Brake Line Bracket (H)
- Pass Brake Line Bracket (I)
- Dr Fr Stainless Line (J)
- Pass Fr Stainless Line (K)
- Pass Stab Brkt (L)
- Dr Sway Bar Shim (M)
- Fr Bump Stop Spacers (N)
- Fr Bump Stop Spacers (N)
- 1580Box4 Nitro Fr Shock Absorbers (O)
- Nitro Rr Shock Absorbers (P)
- 1564Box3 or 1564BOX4 Rr 6+Anti-Wrap Blocks (Q)
- 5/8+x 3 1/4+x 18+U-bolts (R)
- Fabbed Block Shims (S)
- Spring Top Plates (2) (S)

Kit Bags:

- 1580Bag4-Qty 2**
For Upper and Lower Arms:
8-Bushings
4-Sleeves
- 1580Bag3-**
For Lower Adj Arms:
2-Jam Nuts
- 1565Bag1-**
For Upper and Lwr Arms
2-Crush Sleeves
6-3/4" x 5" Bolts
6-3/4" Lock Nuts
12-3/4" Flat Washers
- For Fr Bump Stops:
2-8mm x 95mm Bolts
2-8mm Flat Washers
- For Fr Brake Line Bracket:
2-Brake Line Clip
- For Fr Sway Bar Brackets:
4-7/16" x 1 1/4" Bolts.
4-7/16" Lock Nuts
8-7/16" Flat Washers

- For Rear Brake Line Brkt:
1-7/16" x 1" Bolt
1-7/16" Lock Nut
2-7/16" Flat Washers
- For Rear Spring U-bolts:
8-7/16" Lock Nuts
8-7/16" Flat Washers
- For Rear Axle U-bolts:
8-5/8" Lock Nuts
8-5/8" Flat Washers

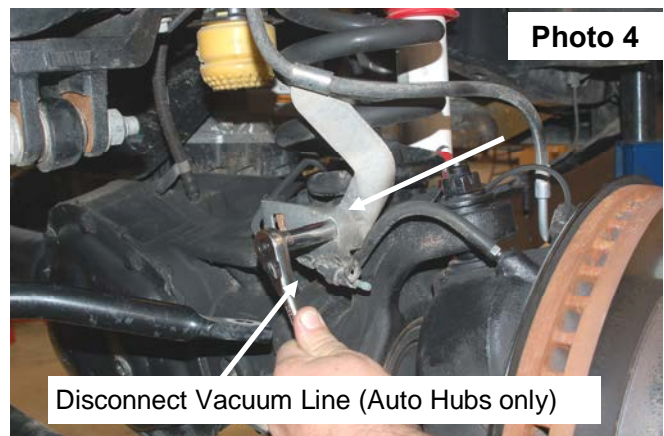
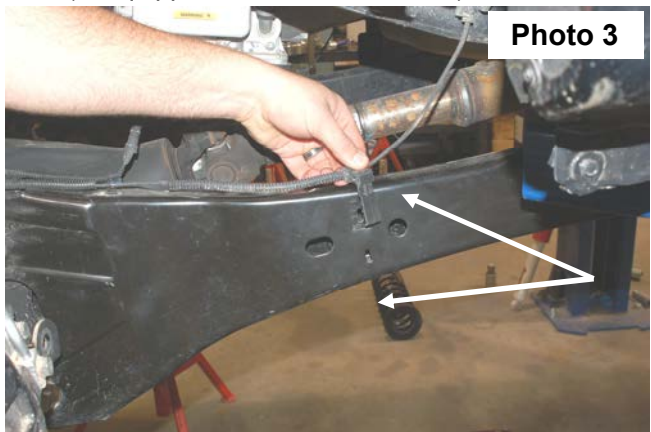


FRONT INSTALLTION INSTRUCTIONS

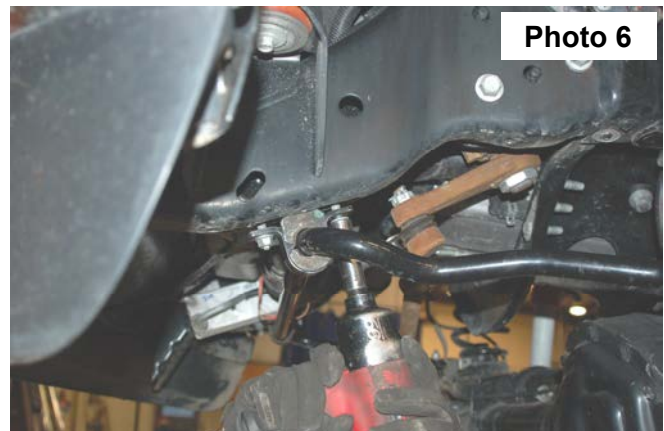
1. Block the rear wheels of the vehicle. Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and tires and set aside. Position a hydraulic jack under the front axle and raise the jack until the front suspension begins to compress
2. Disconnect the track bar from the driver side frame bracket, using a 30mm wrench. **See Photo 1.**
3. Remove the bump stop from the cup shaped bracket. Remove the bracket from the frame rail using 10mm wrench. **See Photo 2.**



4. Disconnect the ABS sensor wire from the lower spring seat and the radius arm, using pliers. **See Photo 3.**
5. Unbolt the brake line brackets from the axle, using a 10mm wrench. Remove the vacuum line from the clamp on the axle. (If equipped with automatic hubs). **See Photo 4**



6. Remove the stock brake line from the frame using a 10mm socket. Retain stock hardware. **See Photo 5.**
7. 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.
8. Remove the sway bar from the frame using a 15mm socket. **See Photo 6.** Retain the stock hardware for re-use.
9. Remove the factory stabilizer from the passenger side frame mount using 15mm wrench. Retain hardware for re-use.
10. 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.



11. Support both driver and passenger radius arms with jack stands. Using a 24mm wrench, and socket remove the bolts holding the radius arm to the axle. Retain stock hardware for re-use. **See Photo 7.**
12. Using a 24mm wrench, and socket remove the bolt holding the radius arm to the frame. **See Photo 8.**



13. Insert bushings, and sleeves from kit bag into the upper control arm. **See Photo 9.**
14. Insert the radius arm drop bracket into the stock location. Bolt into place using the supplied 3/4"x 4.75" bolt, crush sleeve, nut and washer in the bracket. Do not tighten at this time. **See Photo 10.**



15. Attach the control arms to the axle using the stock hardware. **See Photo 11. It may be necessary to use the rear nut from the frame mount due to some models having the radius arm nut welded to the radius arm.**
16. Attach the upper control arm to the radius arm bracket in the top hole. Bolt into place using the supplied 3/4"x 4.75" bolt, nut and washer provided in the kit bag. Do not tighten at this time. **See Photo 12.**



17. Adjust the arm to a measurement of 36 1/8+ from center hole to center hole. Tighten the jam nut using a 1 7/8+ wrench.
18. Attach the lower control arm to the axle using the stock hardware. **See Photo 13.** Do not tighten at this time.
19. Insert the joint end of the lower control arm into the radius arm drop bracket. Bolt into place using a 3/4"x 4.75"+ bolt, nut and washer provided in the kit bag. **See Photo 14.**



Photo 13



Photo 14

20. Reattach the ABS wire to the upper control arm. **See Photo 15.**
21. Repeat step 12-17 on the opposite side.
22. Remove the cotter pin and nut using a 21mm wrench, from the drag link end where it attaches to the pitman arm. **See Photo 16.**
23. Dislodge link with a tie rod end puller, or a pickle fork. Note: replace the link if any stud looseness is detected, or if you can twist the studs in its socket with your fingers.

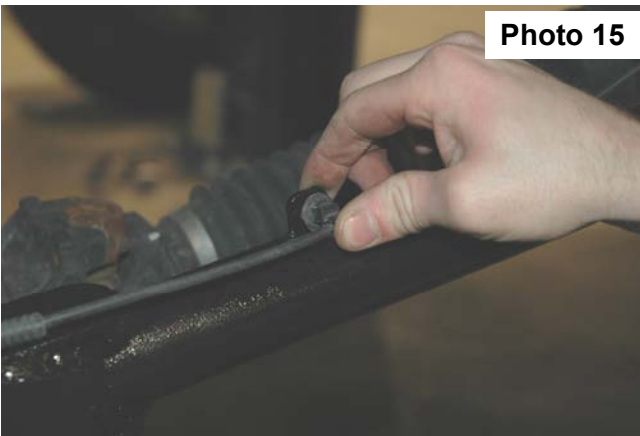


Photo 15

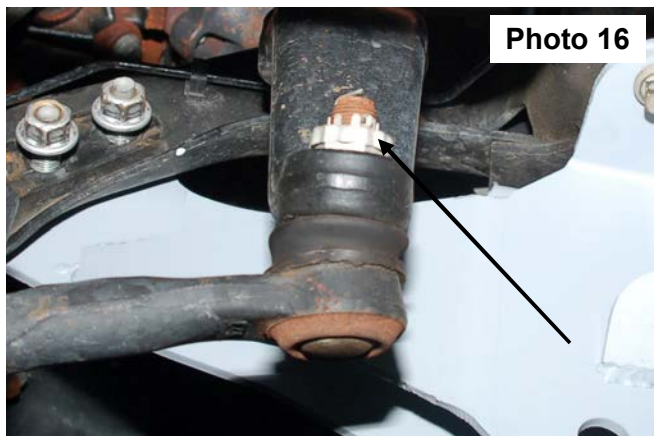


Photo 16

24. Using a 34mm socket, remove the nut from the steering sector and remove the pitman arm with a puller tool. Inspect the splines on the shaft for excessive wear, repair if needed.
25. Install new arm, lock washer, and nut. Using a 34mm socket, tighten bolt.
26. 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
27. 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 supplied 8mm x 95mm bolt. Torque to 15 ft. lbs using a 12mm wrench. Reinstall the factory bump stop in the bump stop cup. **See Photo 17.**



Photo 17

28. Lower the front axle enough to install the new coil springs. Position the coil springs in the lower coil buckets on the axle and rotate as necessary to be sure that the pigtail of the coil is 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.
29. Install the bushings and 9/16+ID sleeves on the front gas shock absorbers part # 658459.
30. 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 with the stock hardware, using a 19mm wrench. Tighten only enough to bulge the bushing
31. Remove the clip as shown from the brake line and remove the factory brake line bracket from the line. **See Photo 18.**
32. Loosen the hard line from the brake line block using a 10mm wrench and straighten out the metal brake line.
33. Remove the stock brake line from the caliper.
34. Secure the new bracket to the frame with the stock hardware. Tighten using a 10mm socket. **See Photo 19.**
35. Install the new supplied brake line to the steel line and tighten.
36. Install the supplied brake line clip to secure the line to the bracket. **See Photo 19.**



Photo 18

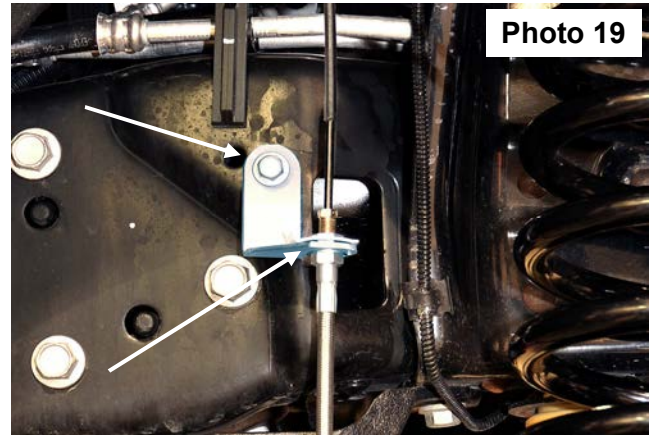


Photo 19

37. Reinstall the ABS and vacuum line.
38. Install the new sway bar link drop brackets and sway bar shim bracket if reusing the factory stabilizer as shown in the drivers side factory frame location with the factory hardware. **If the factory stabilizer will not be re-used or an after market stabilizer will be installed, the stabilizer bracket will not be installed.** Tighten using a 15mm socket. **See Photo 20.**
39. Install the sway bar drop bracket and stabilizer relocation bracket if reusing the factory stabilizer on the passenger side as shown with the factory hardware. **If the factory stabilizer will not be re-used or an after market stabilizer will be installed, the stabilizer bracket will not be installed.** Tighten using a 15mm wrench. **See Photo 21.**



Photo 20



Photo 21

40. **If reinstalling the stock stabilizer**, install the sway bar on the drop brackets and shim plate as shown on the driver side with the supplied 7/16+x 1 1/4+ bolts, washers and lock nuts. Tighten using a 5/8+Wrench. **See Photo 22.**
41. Install the stabilizer in the bracket using the stock hardware. **See Photo 23.**



42. Using a 21mm wrench and 18mm wrench socket remove the factory track bar bracket. Retain stock hardware for re-use.
43. Position the Rough Country track bar bracket on the frame as shown and secure using the factory hardware. Tighten hardware using a 18mm wrench. **See Photo 24.**
44. Install the wheels/tires.
45. Jack up the vehicle and remove the jack stands.
46. Lower the vehicle to the ground and tighten the radius arm bolts.
47. Line up the track bar with the hole in the new track bar bracket. You may have to start the truck and turn the wheels 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.



REAR INSTALLATION

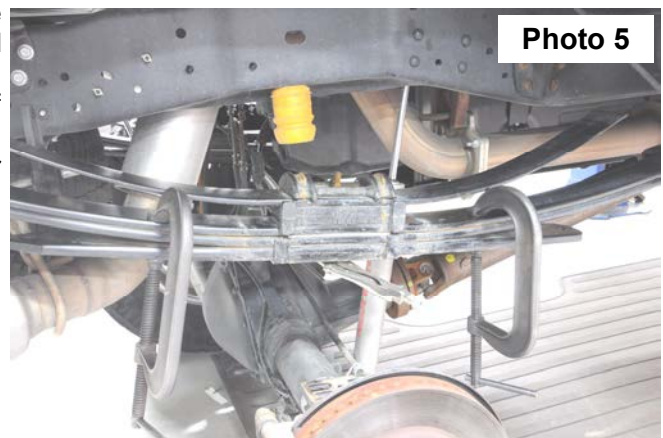
1. Chock front wheels and jack up the rear of the vehicle. Secure with jack stands on the frame rail.
2. Place a floor jack under the rear differential on the rear axle. Using a 18mm wrench for the upper, and 19mm and 15mm wrench for the lower, remove the stock shock absorbers, retain the stock hardware for reuse.
3. Remove the diff vent hose from the differential. **See Photo 1.**
4. Remove the diff vent tube using a 5/8+wrench. Retain the vent tube for reuse. **See Photo 2.**



5. Install the supplied bracket in the stock location using the stock hardware. Tighten using a 5/8+wrench. **See Photo 3.**
6. Install the stock brake line bracket to the new bracket with the supplied 7/16+x 1+Bolts, washers and lock nuts and tighten using 5/8+wrench. Reinstall the diff vent hose as shown. **See Photo 4.**



7. Using a 24mm socket, remove the stock u-bolts. Use the floor jack to lower the axle assembly to allow for lifted block installation.
8. Using C-clamps, clamp the spring pack on each side of the center pin.
9. Using locking pliers, lock onto the bottom of the center pin. **See Photo 5.**



10. Using a 9/16+socket, remove the nut from the center pin. **See Photo 6.**

11. Remove the factory ubolt plate. **See Photo 7.**

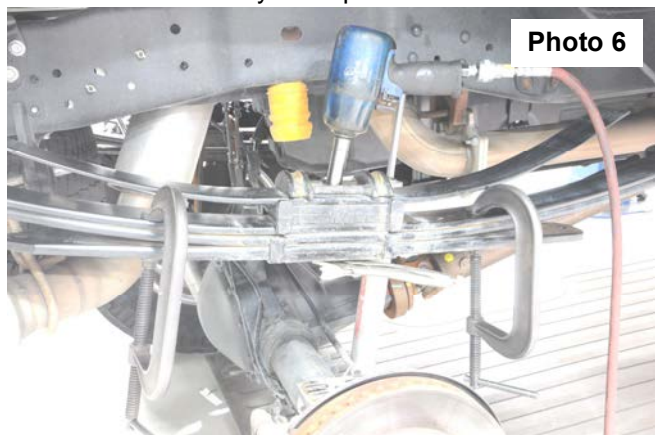


Photo 6

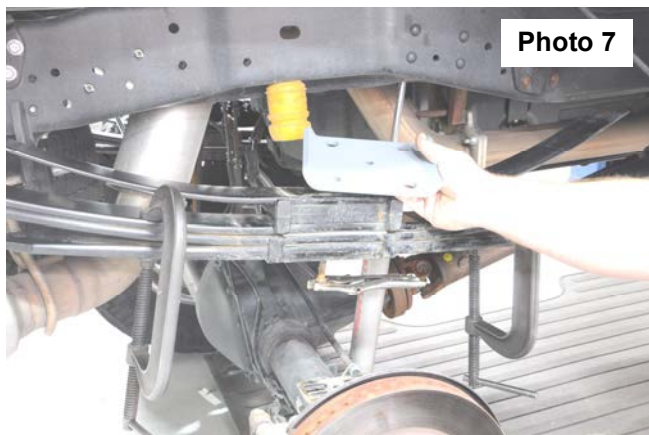


Photo 7

12. Using the stock hardware, attach the supplied ubolt plate and tighten the center pin using a 9/16+socket. **See Photo 8.**

13. Install the supplied shim plates between the block and the leaf spring. Install the supplied 7/16+square ubolts and hardware. Tighten using a 5/8+socket.

14. Install the new supplied 3/4+ubolts from the bottom. Use the supplied 3/4+ hardware and tighten using a 1-1/8+ socket. **See Photo 9.**

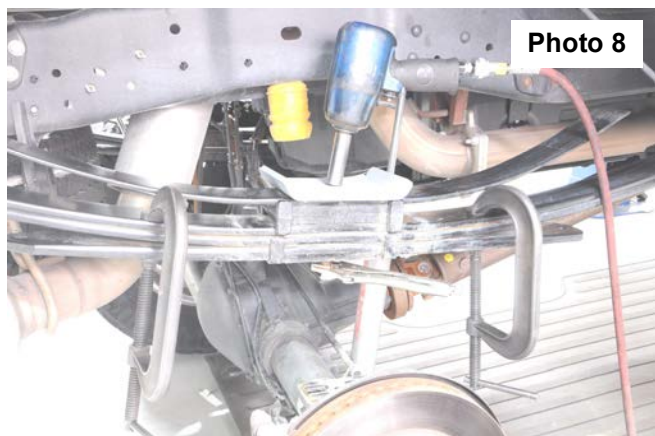


Photo 8

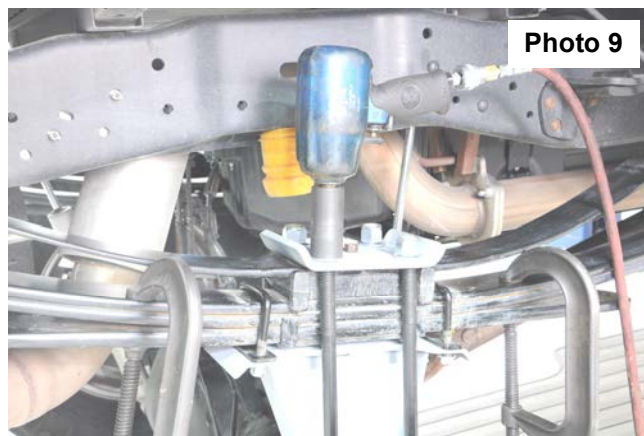


Photo 9

15. Locate shock part number 658601 gas 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

16. Install the tires and wheels.

17. Jack up the rear of the vehicle and remove the jack stands. Lower the vehicle to the floor.

18. With the weight of the vehicle on the axle, torque the u-bolts to 130-150 ft-lbs.

19. Check all hardware for proper torque.

POST INSTALLTION INSTRUCTIONS

⚠ WARNING *BRAKE SYSTEM MUST BE BLED BEFORE DRIVING. MAKE SURE THE BRAKE SYSTEM IS WORKING PROPERLY BEFORE OPERATING THE VEHICLE.*

1. Have a qualified alignment center realign front end to
Caster min. 4.0 degree
Camber . 0.6- .09 degree
Toe . .10. .15 degree
2. Install Warning to Driver decal on sun visor.
3. Re-torque all nuts, bolts, and especially u-bolts after the first 100 miles, again after another 100 miles and then check periodically thereafter.
4. All components must be retightened after 500 miles, and every three thousand miles after installation
5. Adjust headlights to proper settings.

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.



ROUGH COUNTRY

SUSPENSION SYSTEMS®

921500100

FORD 2005-22 F-250 Vertex Coilover Conversion

Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.

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.

KIT CONTENTS:

Upper Coil Over Mount x2
Lower Coil Over Mount x2
Brake Line Relocation Bracket x2
Driver Vertex x1
Passenger Vertex x1
Front Shocks x2

TOOLS NEEDED:

10mm Wrench or Socket
18mm Wrench or Socket
21mm Wrench or Socket
22mm Wrench or Socket
7/16 Wrench or Socket
9/16 Wrench or Socket
30mm Socket
Drill Motor
.406 Drill Bit
Reciprocating Saw
Sander
Color Match Frame Paint
Paint Pen
Jack Stands
Jack

HARDWARE INCLUDED:

3/8-16 x 1.25 Hex Head Bolt x8
3/8" Washer x8
3/8-16 Flange Lock x8
14mm-2.0 x 40mm x2
14mm Lock Washer x2
14mm Flat Washer x10
14mm-2.0 x 75mm x4
14mm-2 Nylock Nut x4
1/4-20 x 1 Hex Head Bolt x6
1/4-20 Nylock Nut x6
1/4" Flat Washer x6

Torque Specs:

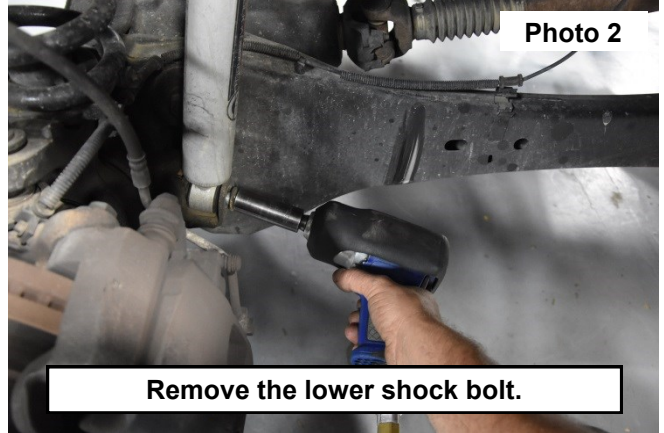
Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs



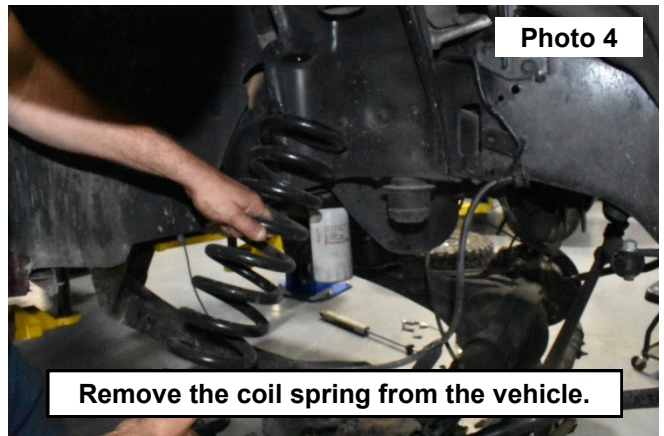
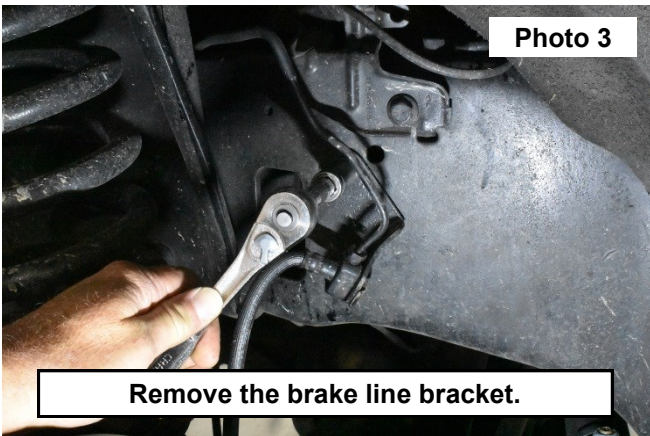


INSTALLATION INSTRUCTONS

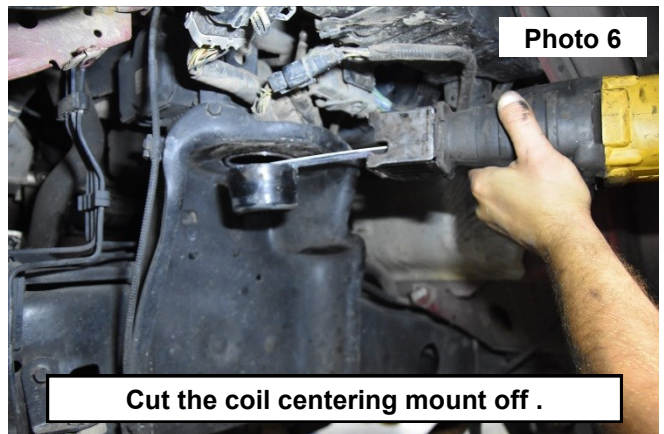
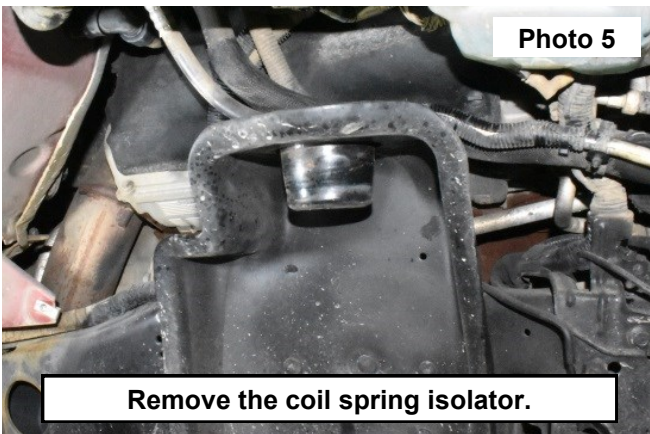
1. Lift up the front of the vehicle using a jack, place jack stands under the frame and lower the vehicle.
2. Remove the wheels and tires from the vehicle.
3. Support the axle using a jack and remove the front sway link nut from each side of the vehicle using an 18mm socket. **See Photo 1.**
4. Remove the trackbar bolt and bar from the frame mount using a 30mm socket.
5. Remove the brake line bracket from the axle mount using a 10mm socket.
6. Disconnect the abs line from the radius arm.
7. Remove the lower shock bolt using an 21mm socket. **See Photo 2.**
8. Remove the upper shock hard ware using a 21mm wrench, then remove the shock from the vehicle.



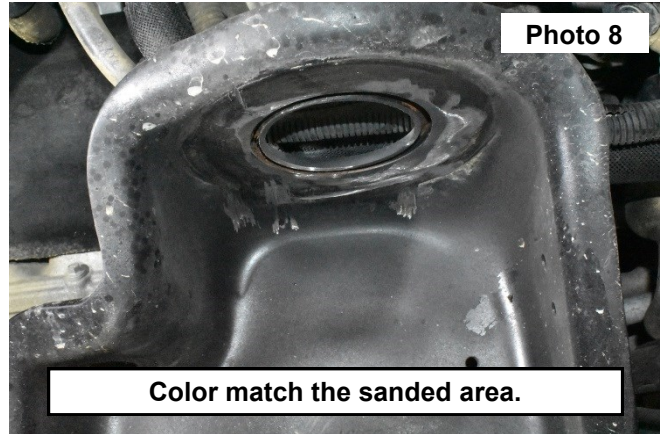
9. Remove the brake line bracket from the frame using a 10mm socket. **See Photo 3.**
10. Lower the jack down and remove the coil spring from the vehicle. **See Photo 4.**



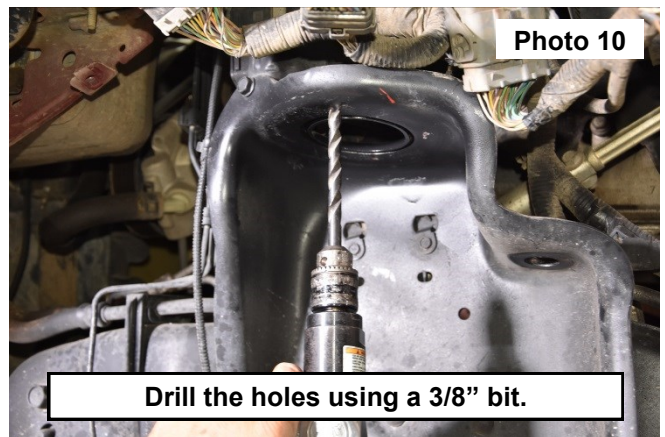
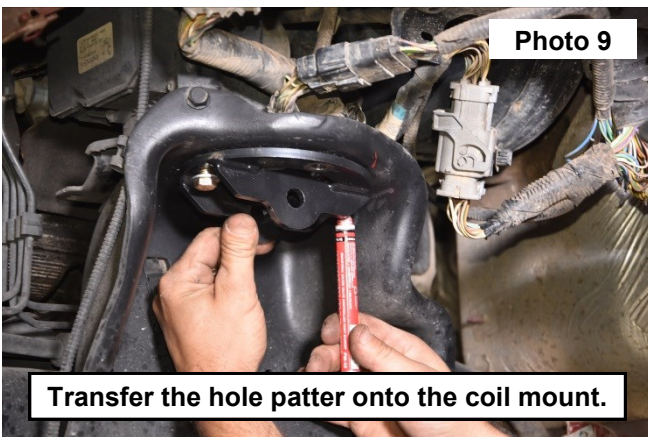
11. Remove the coil spring isolator. **See Photo 5.**
12. Cut along the top of the coil spring mount, removing the coil spring centering mount. Using a reciprocating saw. **See Photo 6.**



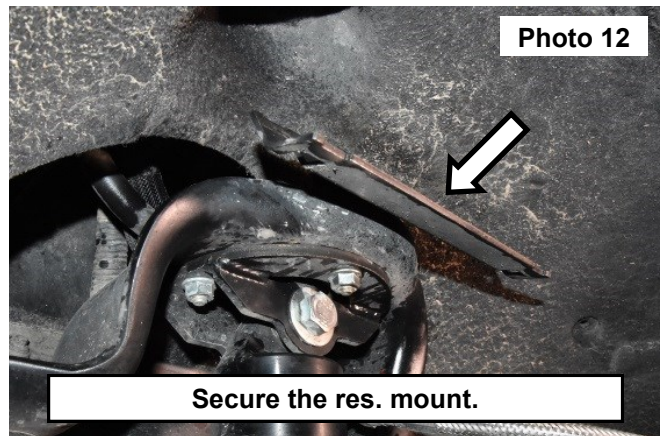
13. Sand the trimmed are flush with the coil mount and touch any sanded areas with color match spray paint. **See Photos 7 and 8.**



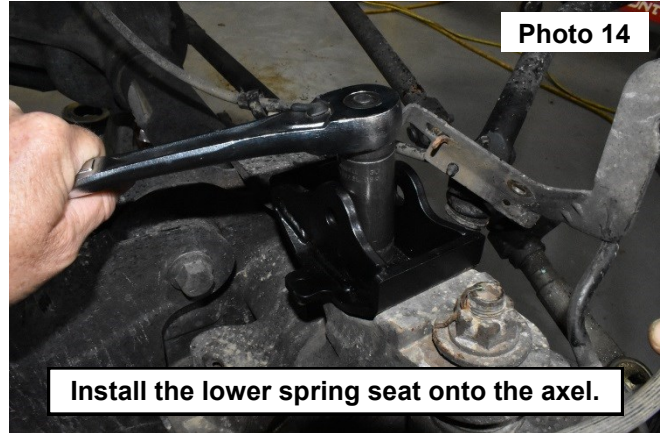
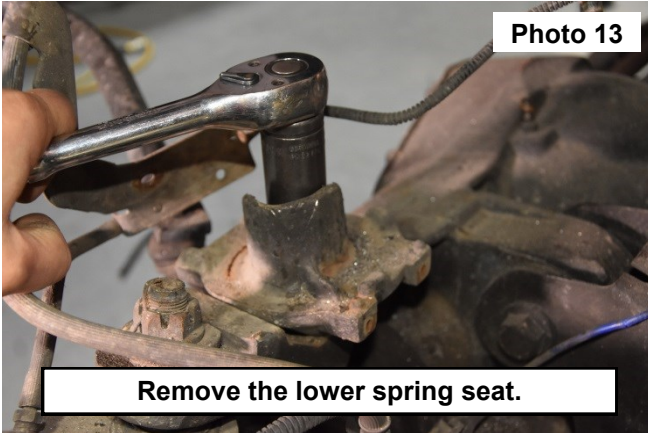
14. Using a paint pen to transfer the hole orientation of the coil mount. **See Photo 9.**
15. Use a 13/32" bit to drill each marked hole in the coil mount. **See Photo 10.**



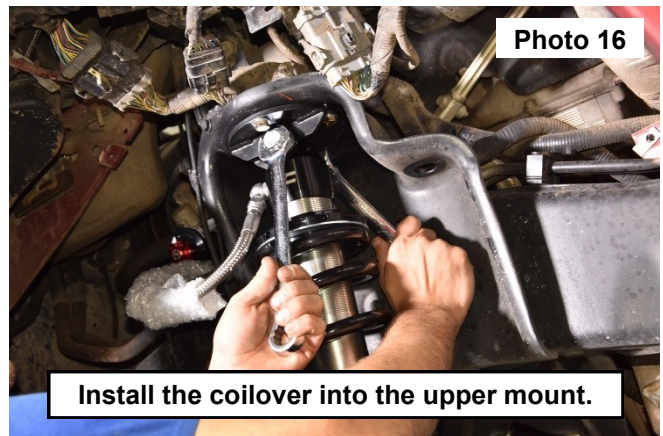
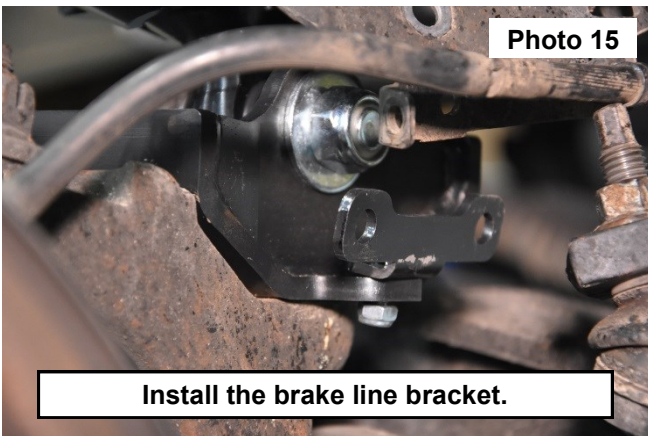
16. Install (2) of the supplied 3/8-16 bolts, and (2) 3/8" Washers into the upper bracket and place the coil over mount to the bottom of the coil seat. **See Photos 11 and 12.**
17. Secure the brackets using (2) of the supplied 3/8 Flange locks nuts. Tighten using a 9/16 wrench and socket.



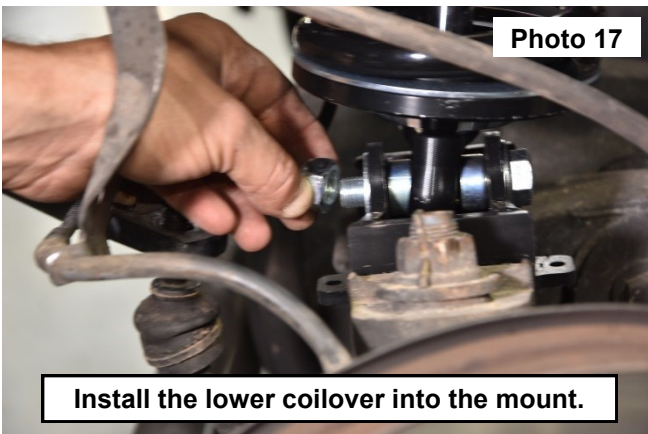
18. Remove the lower spring seat using a 21mm socket. **See Photo 13.**
19. Install the lower spring seat onto the axel. Then secure using (1) 14mm hex head bolt (1) 14mm Lock washer and (1) 14mm Flat washer. Tighten using a 22mm socket. **See Photo 14.**



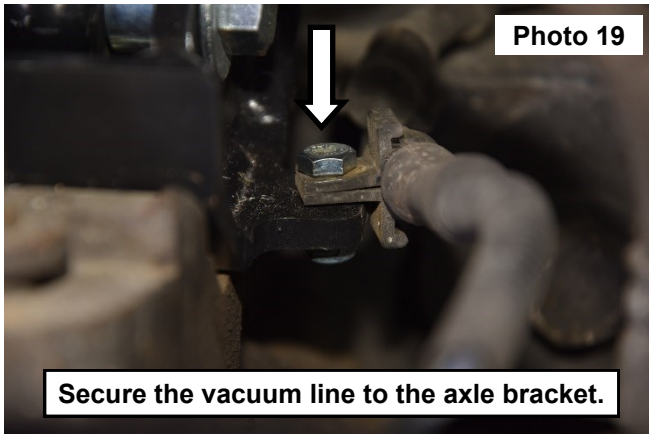
20. Install brake line bracket to front side of the axle mount using (1) 1/4-20 x 1" Hex head bolt (2) 1/4" Flat washers and (1) 1/4-20 Hex nut. Tighten the bracket parallel with the axle bracket using a 7/16 wrench and socket. **See Photo 15.**
21. Install the Vertex Coilover into the upper mount. Secure using (1) 14mm x 40mm Hex head bolt (2) 14mm Washers and (1) 14mm-2.0 Nylock nut. Tighten using a 22mm wrench and socket. **See Photo 16.**



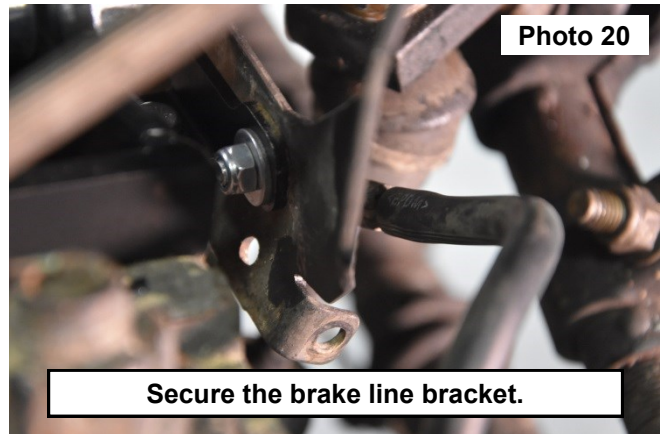
22. Raise the axle up and install the lower coilover mount into the bracket. Secure using (1) 14mm x 40mm Hex head bolt (2) 14mm Washers and (1) 14mm-2.0 Nylock nut. Tighten using a 22mm wrench and socket. **See Photo 17.**
23. Place the reservoir onto the mount and secure using (2) clamps around the mount and reservoir. Tighten using a flat bit driver. **See Photo 18.**



24. Secure the vacuum line to the rear of the axle bracket using (1) 1/4-20 x 1" Hex head bolt(2) 1/4" Flat washers and (1) 1/4-20 Hex nut. Tighten the bracket parallel with the axle bracket using a 7/16 wrench and socket. **See Photo 19.**
25. Secure brake line bracket to front bracket installed onto the axle bracket using (1) 1/4-20 x 1" Hex head bolt(2) 1/4" Flat washers and (1) 1/4-20 Hex nut. Tighten the bracket using a 7/16 wrench and socket. **See Photos 20 and 21.**

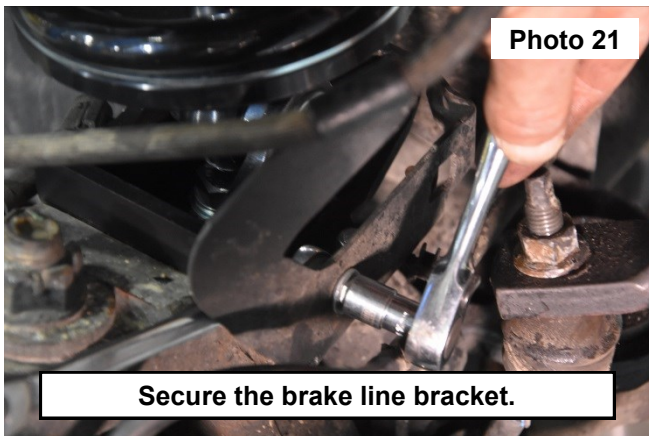


Secure the vacuum line to the axle bracket.

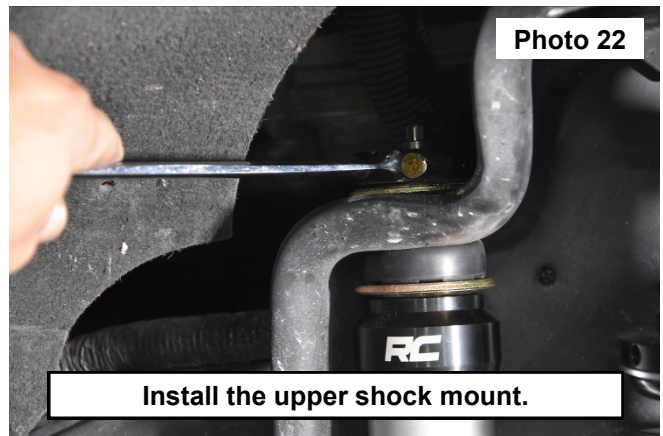


Secure the brake line bracket.

26. Install upper shock mount using the bushing stack supplied. Tighten the nut using a 22mm socket. **See Photo 22.**

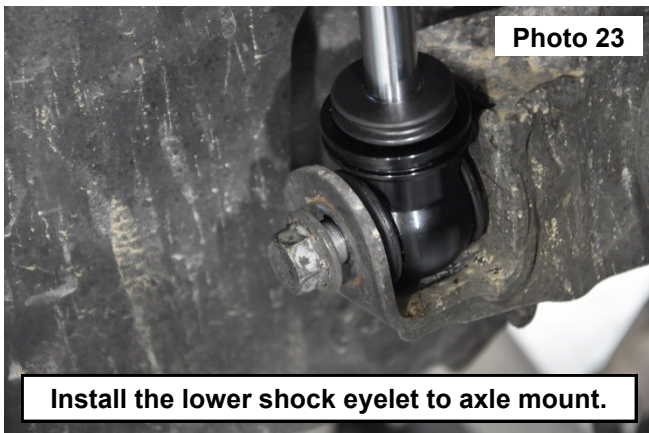


Secure the brake line bracket.

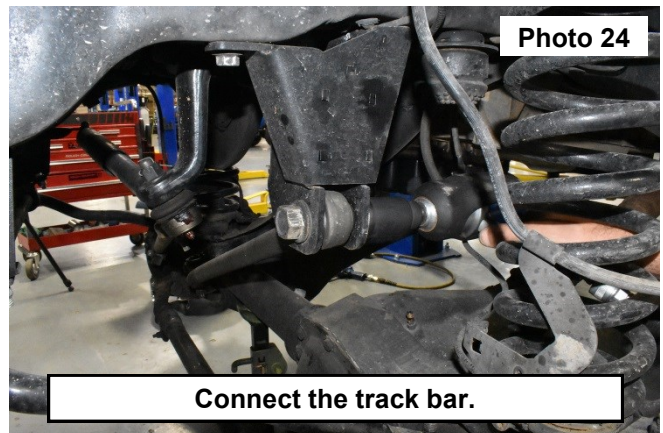


Install the upper shock mount.

27. Install lower shock eyelet into axle mount. Secure using OE bolt, tightening using an 19mm socket. **See Photo 23.**
28. Install the wheels and tires, remove the vehicle from the jack stands and lower onto the ground.
29. Connect the track bar into the frame mount, securing with the OE bolt. Tighten using a 30mm socket. **See Photo 24.**



Install the lower shock eyelet to axle mount.



Connect the track bar.

30. Connect the sway links to the sway bar and secure using the OE nuts. Tighten using a 18mm socket.
31. Install the brake line into the frame mount using the OE bolt. Tighten using a 10mm socket.

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