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Rough Country 51139 Installation Instructions

1 Inch Leveling Kit for 2021–2025 Ford F-150 Raptor

Part number: 51139

trailfortress.com/1-inch-leveling-kit-ford-f150-raptor-rough-country-51139

Scan for fitment, price and install help

ROUGH COUNTRY
SUSPENSION SYSTEMS®

921511390

FORD 2021-23 Raptor Leveling Kit

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:
Strut Clamp Parts x4
Cable Clamp x2

Tools Needed:
Plyers
Paint Pen
13mm Socket
18mm Socket
21mm Socket
30mm Socket
1-16” Wrench

Hardware Included:
6mm-1.0 x 30mm SHCS Bolt x4



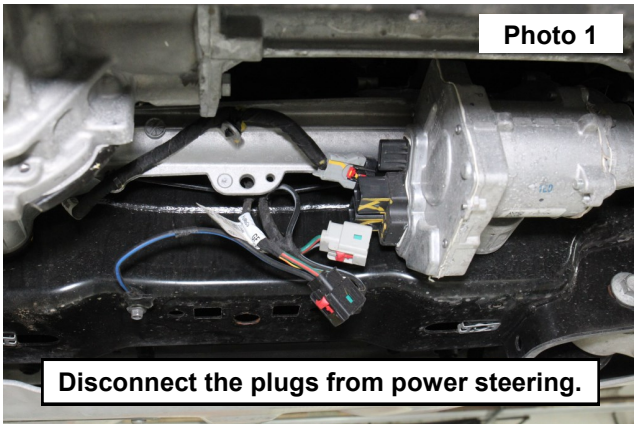
Torque Specs:

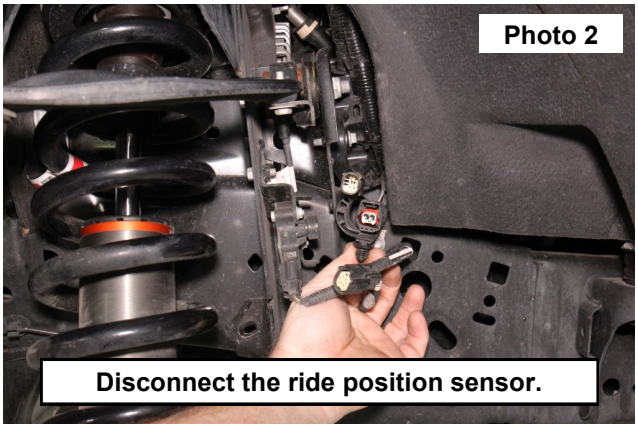
Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16”	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8”	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16”	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2”	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16”	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8”	135ft/lbs	175ft/lbs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

RC ROUGH COUNTRY

INSTALLATION INSTRUCTIONS

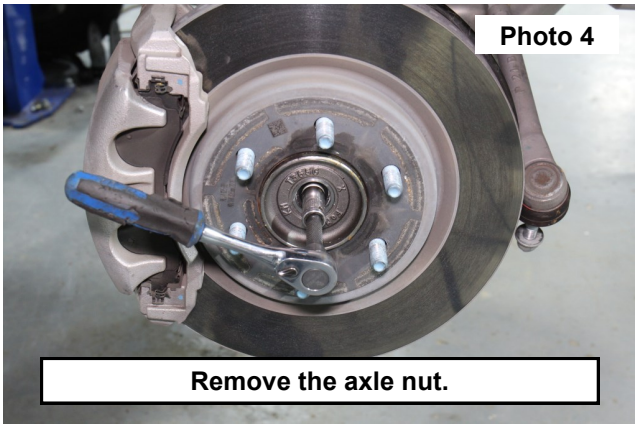
1. Disconnect the plugs from power steering rack. **See Photo 1.**
2. Disconnect the ride position sensor. **See Photo 2.**



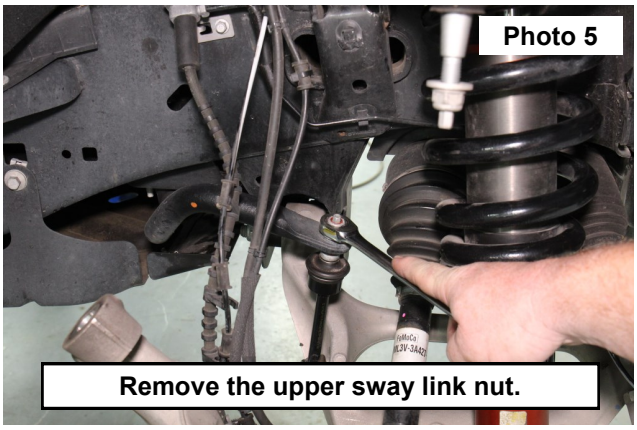


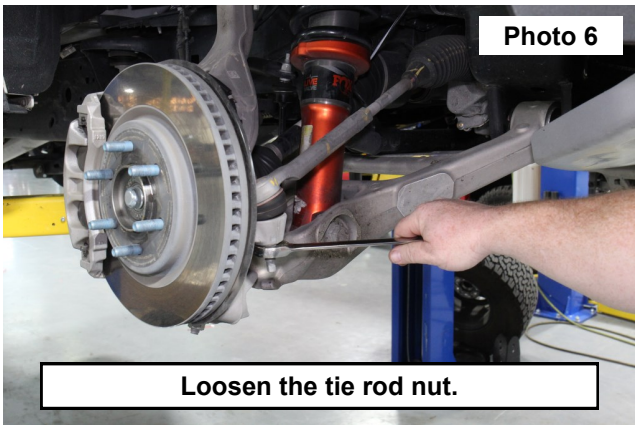
3. Remove the axle nut dust cap. **See Photo 3.**
4. Remove the axle nut using a 13mm socket. **See Photo 4.**



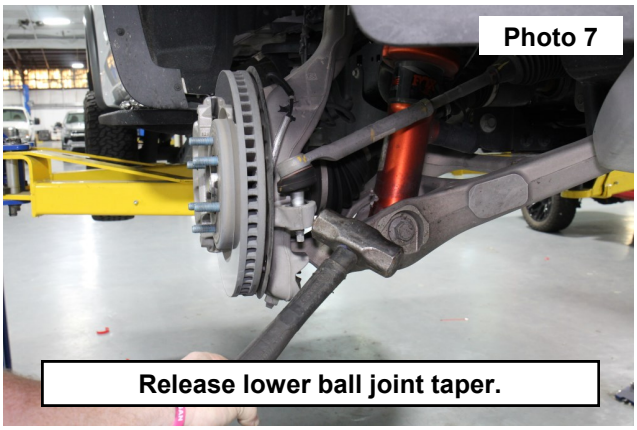


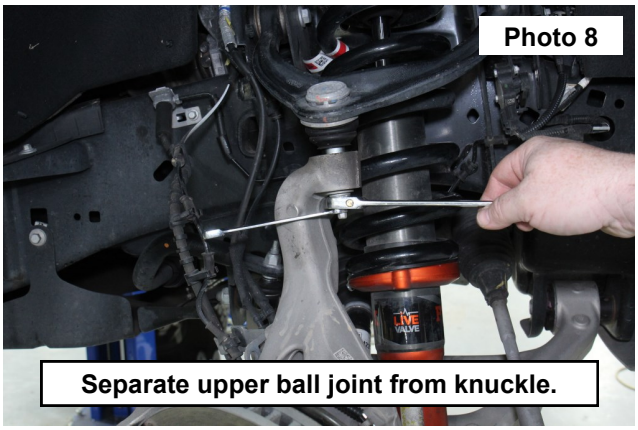
5. Remove upper sway link nut using a 18mm wrench. **See Photo 5.**
6. Loosen the tie rod end nut using a 21mm wrench. **See Photo 6.**



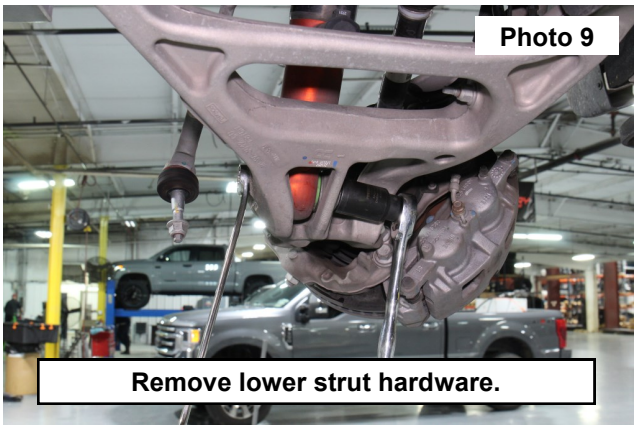


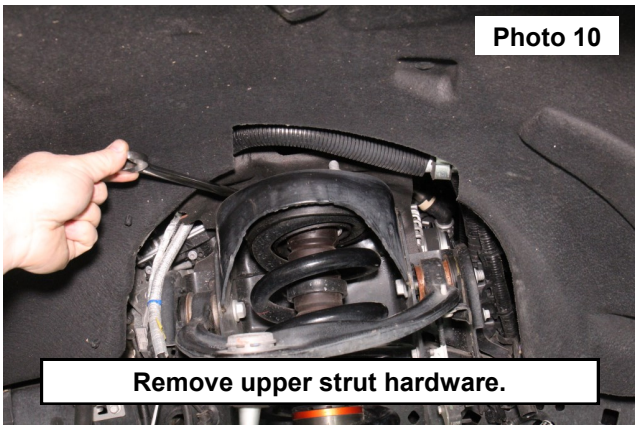
7. Unseat the tie rod end taper using a hammer on the end of the knuckle boss. **See Photo 7.**
8. Loosen the upper control arm nut using a 18mm wrench unseat the ball joint taper using a hammer on the knuckle boss, then remove the ball joint nut. **See Photo 8.**



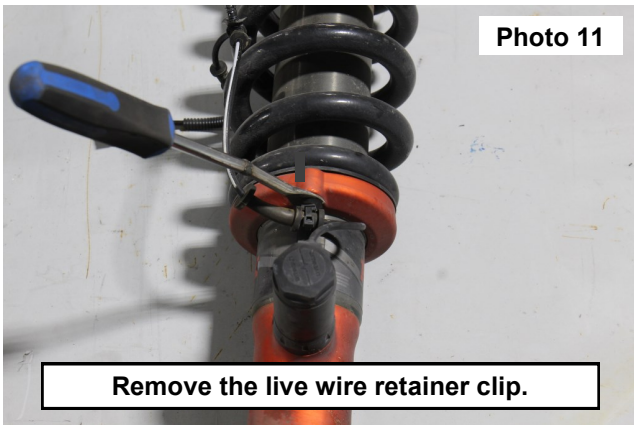


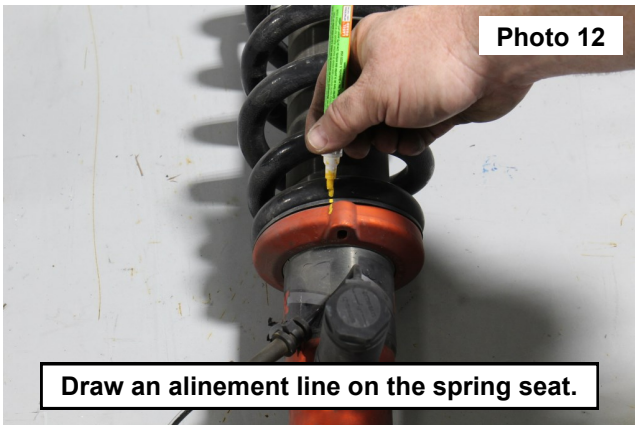
9. Remove the lower strut bolt using a 30mm socket and a 1”-1/16” wrench. **See Photo 9.**
10. Remove the (3) upper strut nuts using a 18mm wrench. **See Photo 10.**



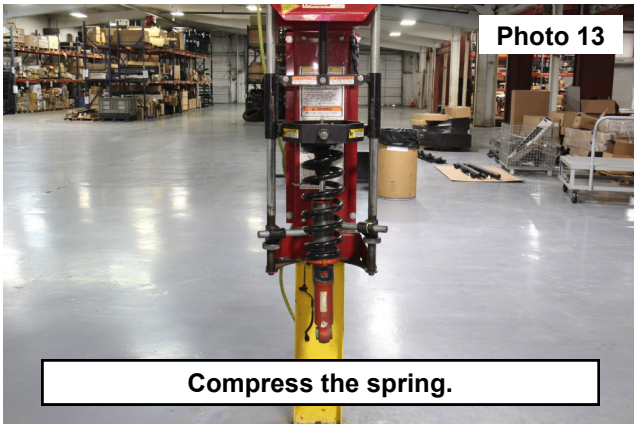


11. Using a pry tool remove the live wire retainer from the coil spring seat. **See Photo 11.**
12. Draw an alinement line on the coil spring and the spring seat. Use a Pant pen of a light color. **See Photo 12.**



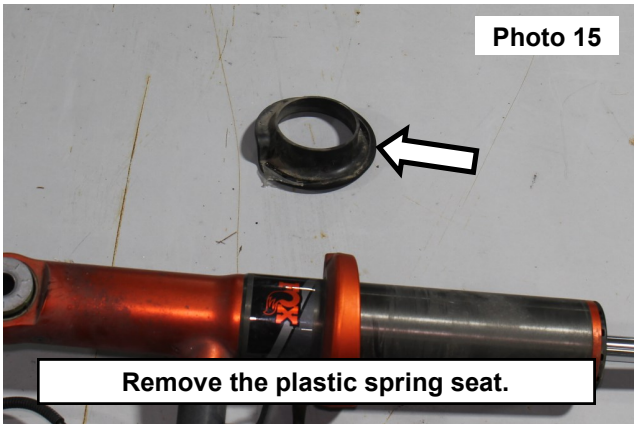


13. Compress the spring using a compressor tool. **See Photo 13.**
14. Remove the upper strut nut using a 17mm socket. **See Photo 14.**



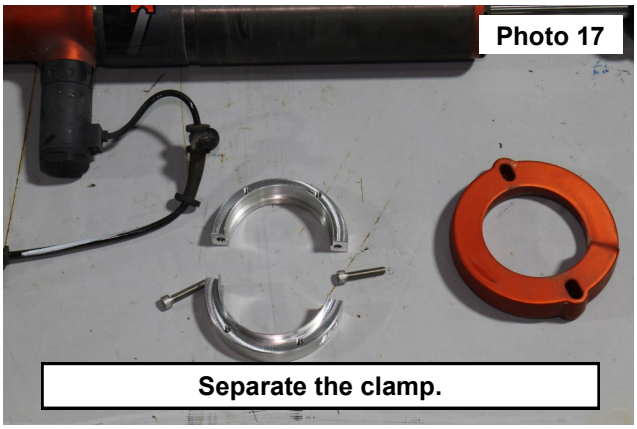


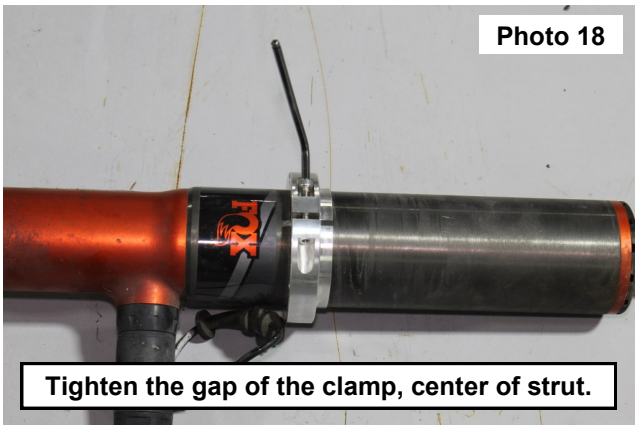
15. Remove the plastic spring seat. **See Photo 15.**
16. Remove the OE aluminum spring seat along with the inner retainer. **See Photo 16.**



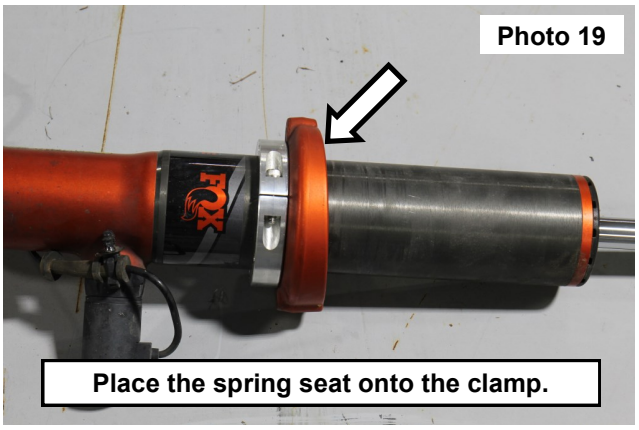


17. Separate the new RC lower retainer clamp and place it around the strut in the OE groove at the bottom of the strut. Secure the clamp using (2) of the supplied 6mm x 30mm bolts. Tighten the clamp keeping the gap in the center of the strut and evenly on each side using a 4mm Allen wrench. **See Photos 17 and 18.**



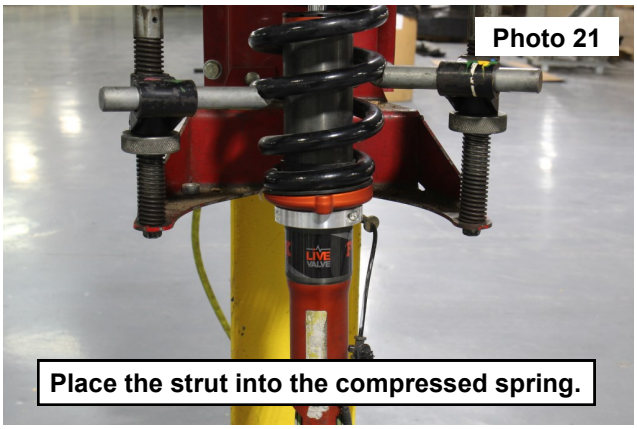


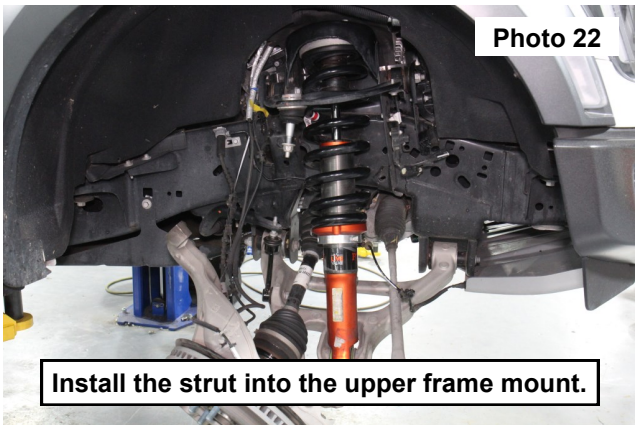
18. Place the spring seat onto the clamp along with the plastic spring retainer. **See Photo 19.**
19. Secure the Live wire to the clamp using (1) of the supplied clamps and (1) 6mm button head bolt. Tighten using a 4mm Allen wrench. **See Photo 20.**



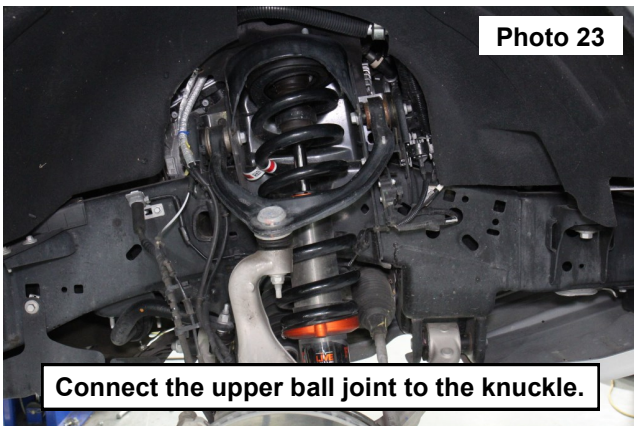


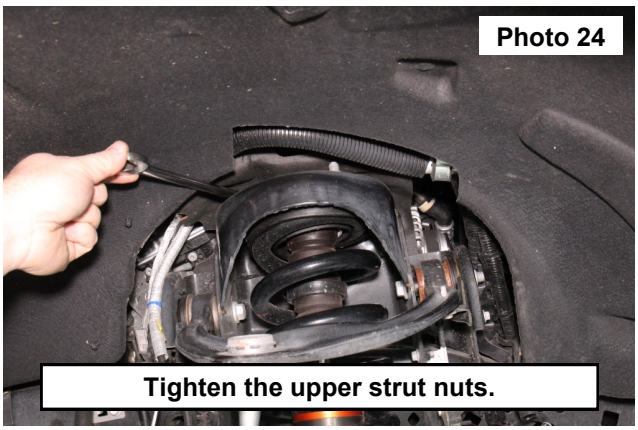
20. Place the strut into the compressed spring and secure the top of the strut using the OE nut. Using the marks, align the strut and tighten the upper strut nut using a 1mm socket. **See Photo 21.**
21. Install the strut into the upper frame mount. Secure using the OE nuts. Hand tighten at this time. **See Photo 22.**
22. Connect the lower strut to the control arm using the OE bolt.
23. Connect the sway link to the sway bar using the OE hardware.
24. Install the axle nut using OE hardware tighten using a ratchet and a 13mm socket..





25. Connect the upper control arm to the knuckle using the OE nut. Tighten using a 18mm wrench. **See Photo 23.**
26. Tighten the upper strut nuts using a 18mm wrench. **See Photo 24.**
27. Install the abs lines to the knuckle.
28. Install the wheels and tires onto the vehicle and lower to the ground. Then tighten the lower strut bolt to the control arm using a 30mm socket and a 1”-1/16” wrench.





29. Connect the plugs from power steering rack.
30. Connect the ride position sensor.

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