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Rough Country 501078 Installation Instructions

N3 Leveling Struts for 2019–2023 Ford Ranger 4WD

Part number: 501078

trailfortress.com/n3-leveling-struts-ford-ranger-4wd-rough-country-501078

Scan for fitment, price and install help

FORD 2019-20 Ranger N3 Loaded Strut

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.

⚠NOTICE **Do not let the axle over extend or droop down. Damage may occur to the axle and axle boot.**

KIT CONTENTS:
RC N3 Loaded Strut x2

HARDWARE INCLUDED:
12mm-1.75 x 80mm Hex Head Bolt x4
12mm-1.75 Nylock Nuts x4
12mm Flat Washers x8
10mm-1.5 Flange Nuts x6

TOOLS NEEDED:
Jack
Jack Stands
Punch
Hammer
8mm Socket
10mm Socket
13mm Socket
15mm Wrench or Socket
17mm Wrench
18mm Socket
19mm Wrench or Socket
36mm Socket

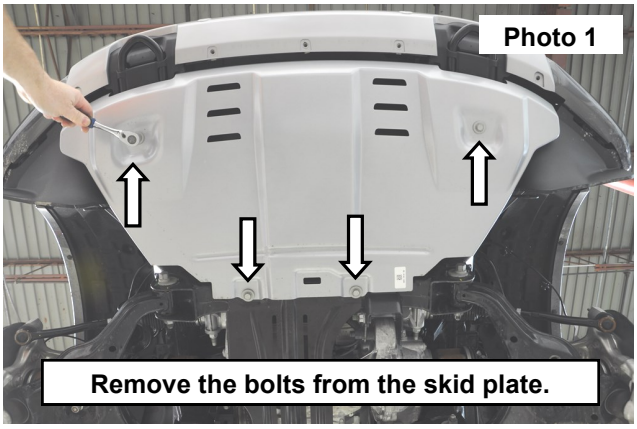


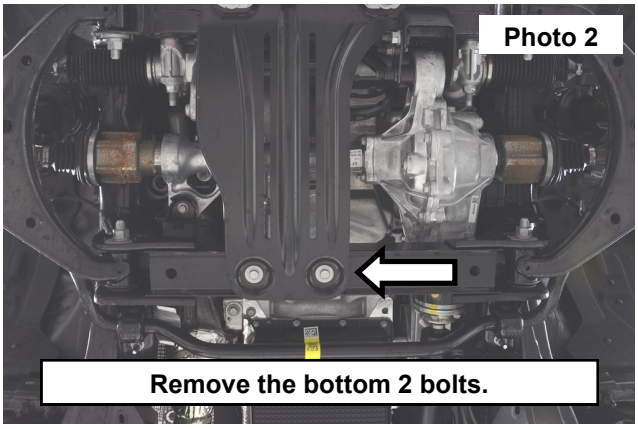
Torque Specs:

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

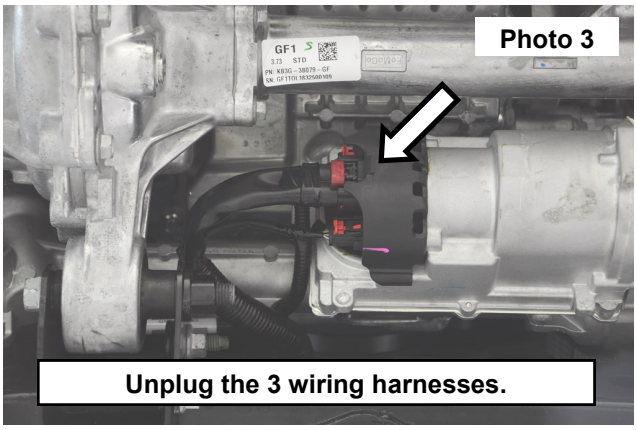
INSTALLATION INSTRUCTONS

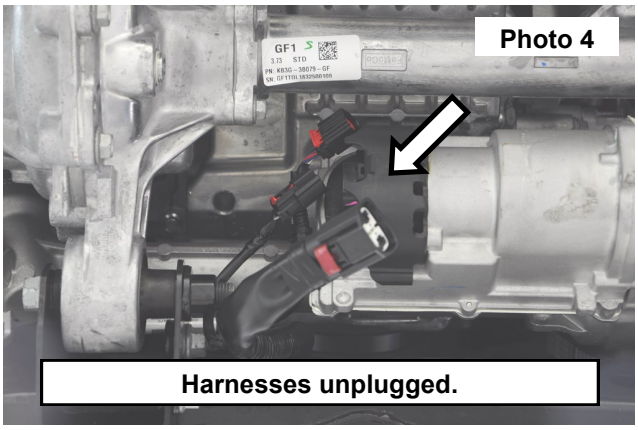
1. Chock the rear wheels and jack up the front of the vehicle.
2. Place jack stands under the frame rails and lower onto jack stands.
3. Remove the wheels/tires using a 19mm socket.
4. Remove the 4 bolts from the front skid plate, Set aside the front skid plate and hardware for reuse. Remove the 2 bolts in the rear skid plate, use a 15mm socket. **See Photos 1 and 2.**



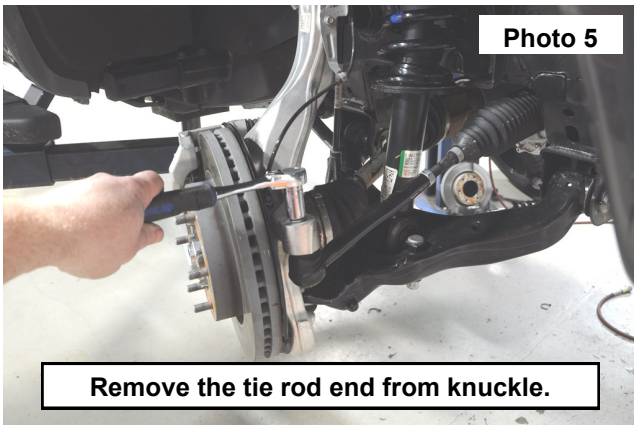


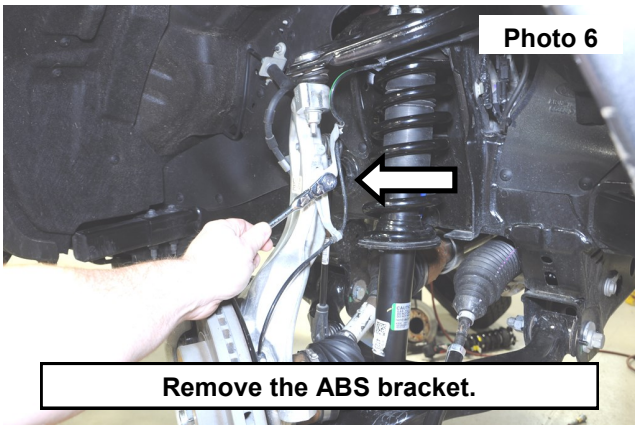
5. Remove the (3) EPAS (Electronic Power Assist Steering) Plugs as shown located on the steering assembly by the front differential. **See Photos 3 and 4.**



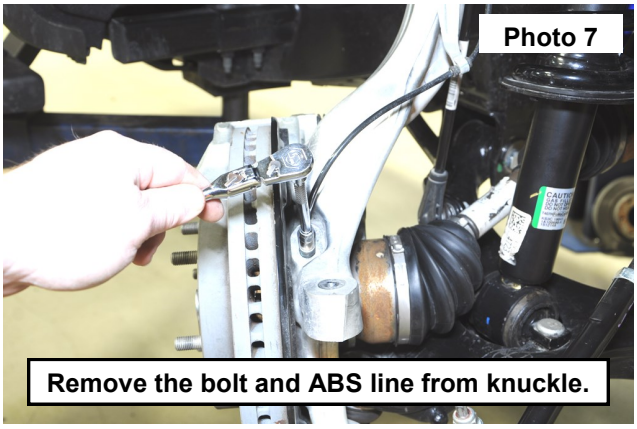


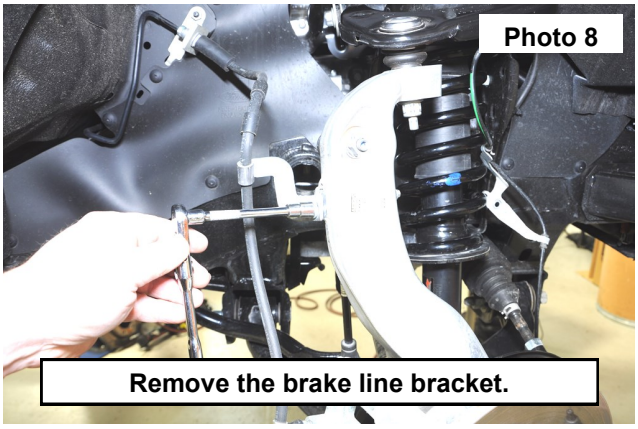
6. Loosen the nut on the tie rod end, using a 15mm socket. Use a hammer to unseat the taper by striking the end of the knuckle, finish removing the nut. **See Photo 5.**
7. Remove the ABS wire bracket from the front side of the knuckle, using an 8mm socket. Retain hardware for reuse. **See Photo 6.**





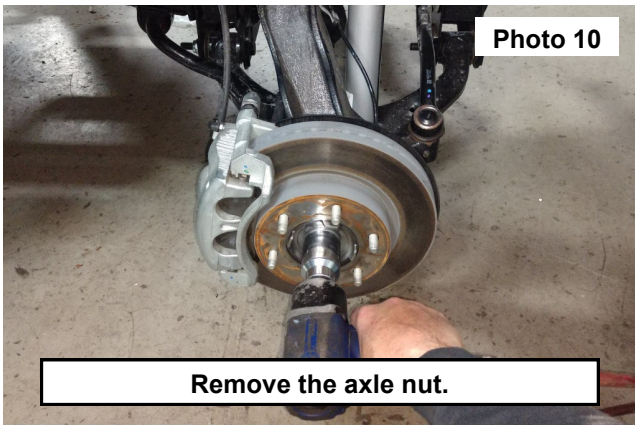
8. Remove the bolt attaching the ABS line to the knuckle, use an 8mm socket, then remove the sensor from the knuckle. **See photo 7.** Retain hardware.
9. Remove the bolt attaching the brake line bracket to the knuckle, using a 10mm socket. **See Photo 8.** Retain hardware.



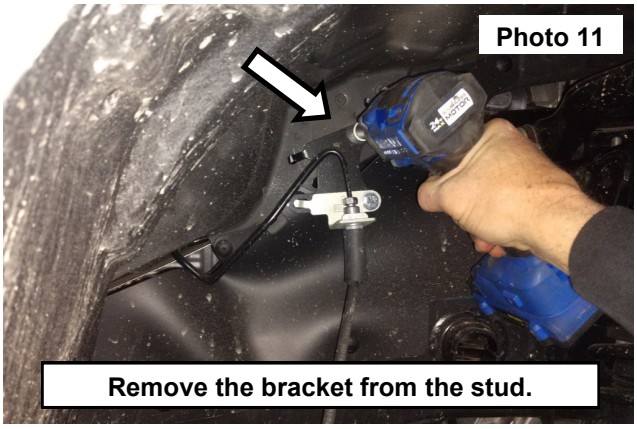


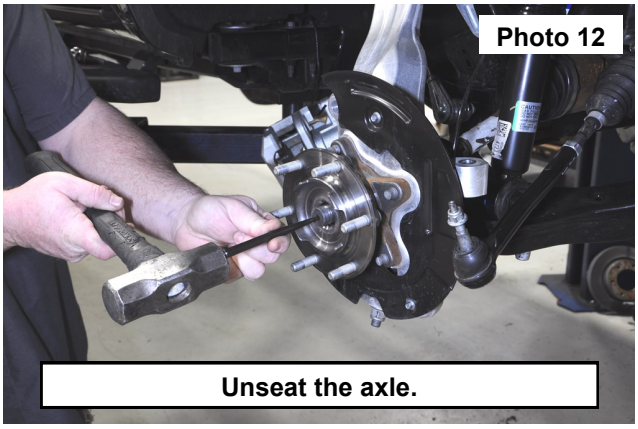
10. Remove the sway link nut from the knuckle, using a 18mm socket. Retain hardware. **See Photo 9.** Remove sway link from knuckle.
11. Using a 36mm socket, remove the axle nut from the hub. Retain hardware for reuse. **See Photo 10.**



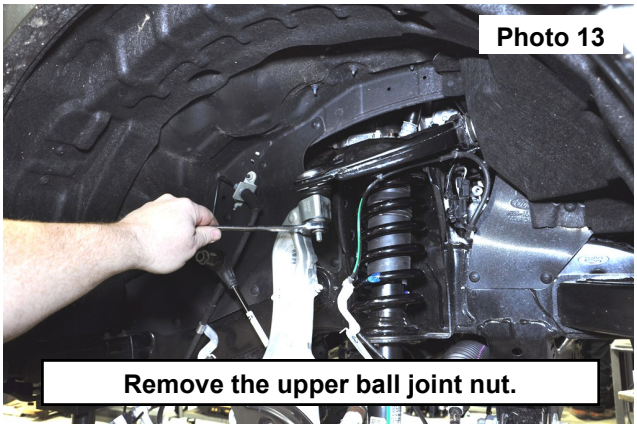


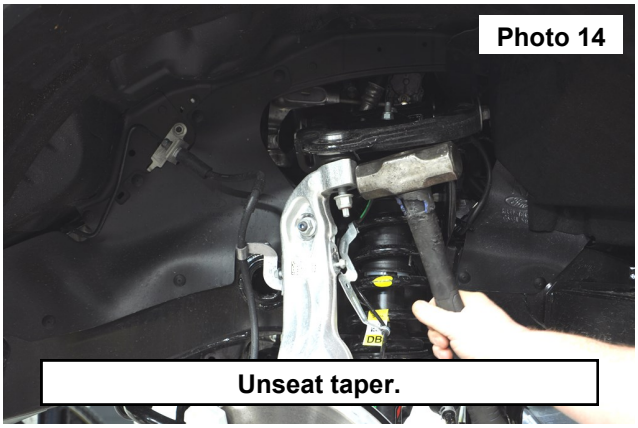
12. Remove the nut from the brake line bracket on the inner structure of the vehicle using a 13mm wrench. Retain hardware for reuse. **See Photo 11.**
13. Unseat the axle from the hub, using a punch and a hammer. **See Photo 12. Do Not Damage Threads.**



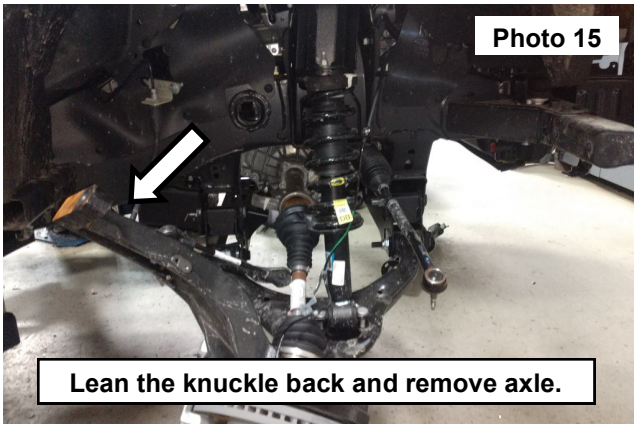


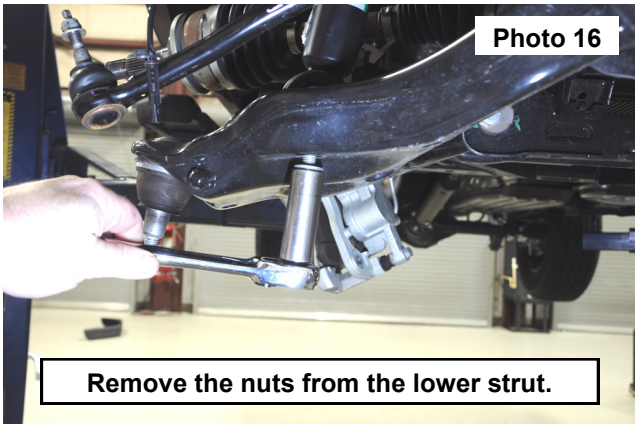
14. Loosen the nut on the upper ball joint, using an 18mm wrench. **See Photo 13.**
15. Strike the front of the knuckle using a hammer to release the taper, remove the ball joint nut. **See Photo 14.** Retain hardware for reuse.



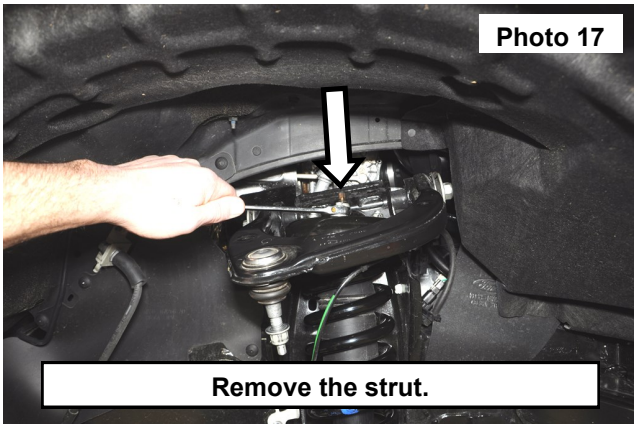


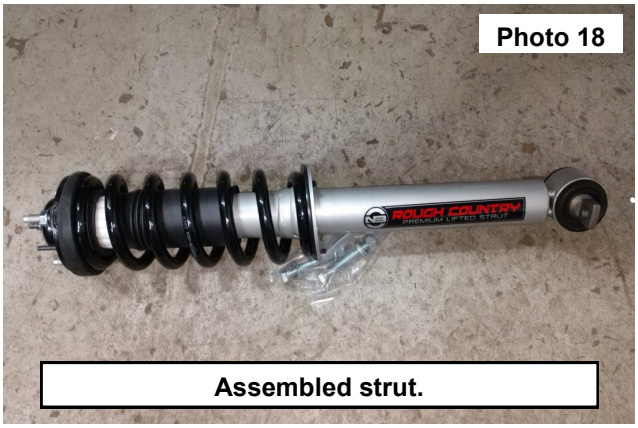
16. Lean the knuckle outward, removing the axle from the knuckle. **See Photo 15. NOTE: Do not let the axle over extend or droop down. Damage may occur to the axle and axle boot.**
17. Remove the 2 nuts from the bottom of the strut using a 18mm socket. Then remove the strut from the lower control arm. **See Photo 16.**





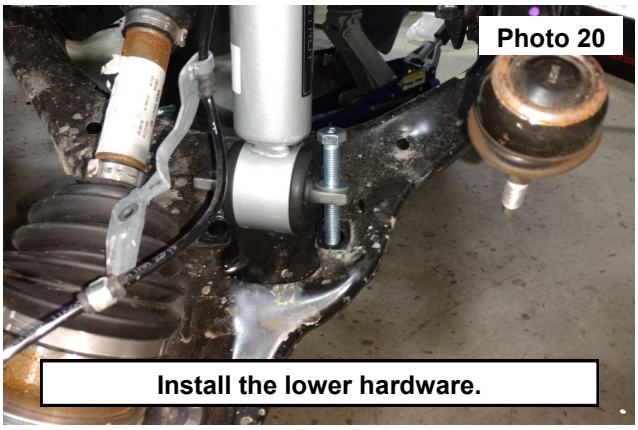
18. Remove the 3 nuts on the top of the strut, using a 15mm wrench. **See Photo 17.**
19. Remove the strut from the vehicle.
20. Locate the assembled strut to install in to the vehicle. **See Photo 18.**



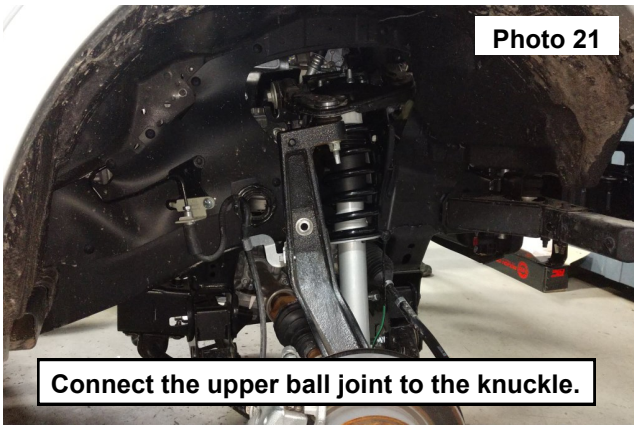


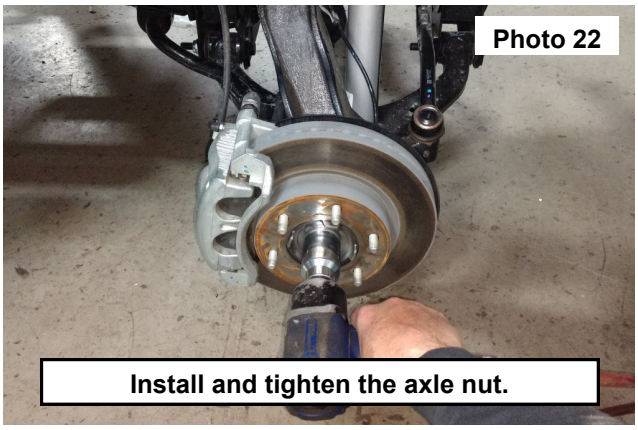
21. Install the new strut into the vehicles strut hat. Secure using (3) of the supplied 10mm-1.5 nuts supplied in the strut kit. Tighten using a 17mm wrench. **See Photo 19.**
22. Install the strut in the lower control arm mount, secure using (2) of the supplied 12mm-1.75 x 80mm hex head bolts, (4) 12mm flat washers and (2) 12mm-1.75 nylock nuts. Tighten using a 18mm socket on the nut and a 19mm wrench on the bolt. **See Photo 20.**





23. Raise the knuckle up and insert the axle into the hub. Then connect the upper ball joint into the knuckle. Tighten the upper ball joint using an 18mm wrench. **See Photo 21.**
24. Using a 36mm socket, tighten the axle nut to the hub. **See Photo 22.**





25. Connect the tie rod end to the knuckle. Tighten using a 15mm socket.
26. Connect the abs line to the knuckle. Tighten using an 8mm socket.
27. Connect the brake line to the knuckle using a 10mm socket.
28. Install the brake line mount to the stud on the inner structure. Tighten using a 13mm socket.
29. Install the sway link onto the knuckle, using a 18mm socket.
30. Repeat steps 6-29 on the opposite side of the vehicle for installation of the strut.
31. Connect the (3) EPAS (Electronic Power Assist Steering) Plugs. Then Install the skid plates under the front of the vehicle.
32. Install the wheels and tires using a 19mm socket.
33. Using a jack lift up the front of the vehicle and remove the jack stands then lower onto the ground.

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