Rough Country 510040 Installation Instructions

2.5-Inch Lift Kit with M1 Struts for F-150 Tremor 4WD (2021-2025)

Part number: 510040

trailfortress.com/rough-country-2-5-inch-lift-kit-510040

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

FORD 2021-22 F-150/Tremor Loaded Strut Leveling Kit

THANK YOU FOR CHOOSING ROUGH COUNTRY FOR YOUR SUSPENSION NEEDS.

Rough Country recommends a certified technician install 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 instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

PRODUCT USE INFORMATION

⚠WARNING The taller a vehicle is, the easier it will roll. We strongly recommend, because of rollover possibility that seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

⚠WARNING Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

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. If questions exist we will be happy to answer them concerning the design, function, and correct use of our products.

This suspension system was developed using a 34” or 295/70R18-295/60R20, tire on 9” wheels with a +12 offset. Factory wheels and tires can be used. If using a larger tire on the factory wheel, wheel spacers are required. **Note** if wider tires are used, offset wheels will be required and trimming will be required.

⚠NOTICE **Vehicles will require the EPAS (Electronic Power Assist Steering) plugs to be disconnected prior to beginning installation of this kit. See installation instructions. Failure to disconnect these plugs may result in damage to the EPAS module resulting in an error message being displayed, which will require replacement of the EPAS module**

⚠NOTICE **DEALER AND VEHICLE OWNER**

Any vehicle equipped with any Rough Country product should have a “Warning to Driver” decal installed on the inside of the windshield or on the vehicle’s dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

Tools Needed:

5mm Allen Wrench	Floor Jack
8mm wrench /socket	Jack stands
13mm wrench / socket	Hammer
15mm wrench /socket	Torque Wrench
18mm wrench /socket	
21mm wrench /socket	
22mm wrench /socket	
T45 Torx Bit	

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

	Class 8.8	Class 10.9
6MM	5 ft/lbs	9 ft/lbs
8MM	18ft/lbs	23 ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	55ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs
18MM	170ft/lbs	240ft/lbs

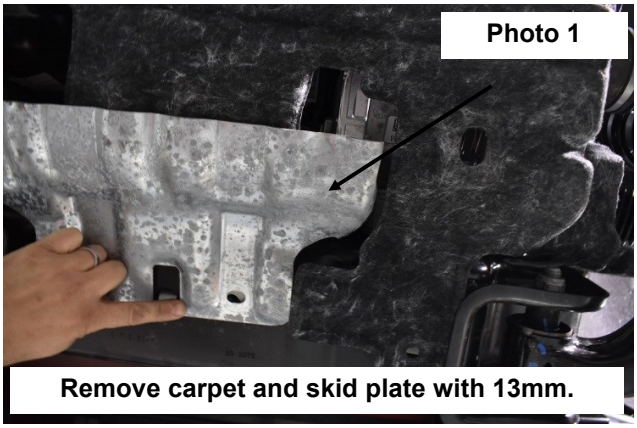
KIT CONTENTS

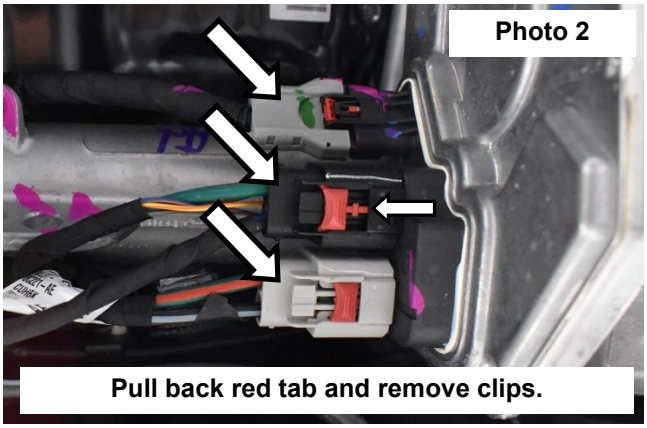
Loaded Strut Pair x1
1” Blocks x2
9/16” x 3-1/8” x 9” Semi Round U-Bolts x4
Hardware Bag x1



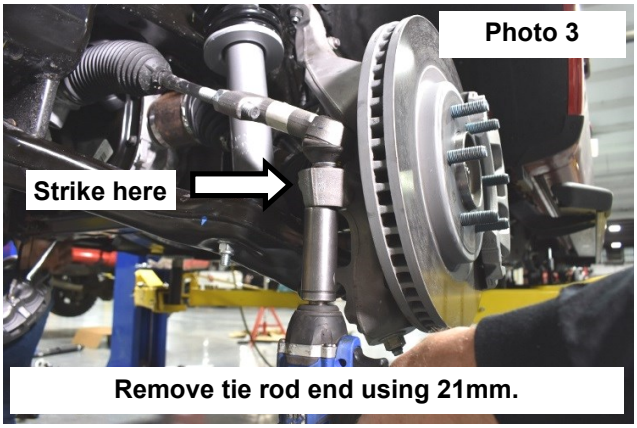
FRONT INSTALLATION INSTRUCTIONS

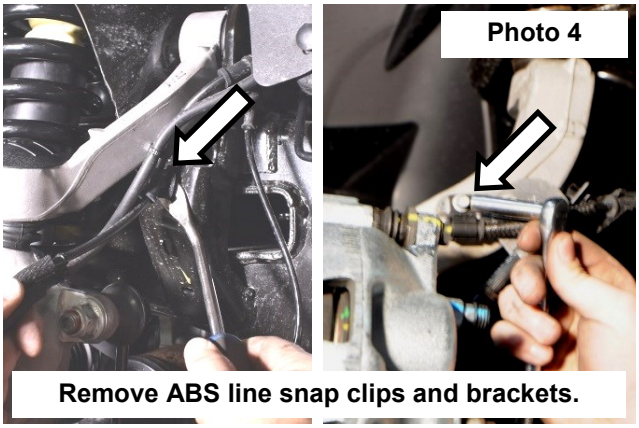
1. **NOTE: Make sure vehicle is in 2WD before beginning installation.**
2. Chock the rear wheels and jack up the front of the vehicle.
3. Place jack stands under the frame rails and lower onto jack stands.
4. Remove the wheels/tires using a 21mm socket.
5. Remove the carpet and skid plate with a 13mm socket/wrench. **See Photo 1.**
6. Remove the 3 EPAS (Electronic Power Assist Steering) Plugs on the steering assembly by the front differential. Pull the red tab back to unlock as shown by the middle plug in **Photo 2.**
   This must be done BEFORE installation is started.



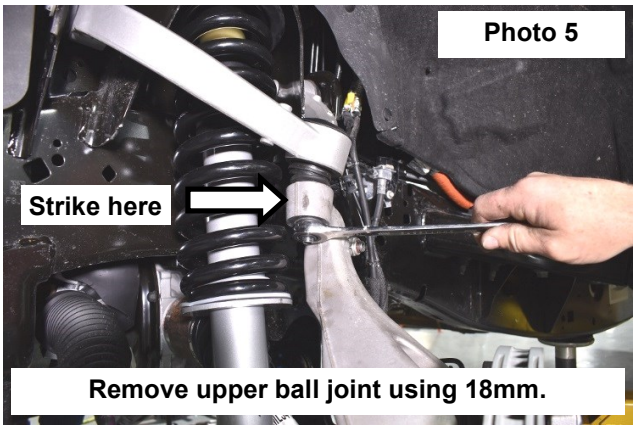


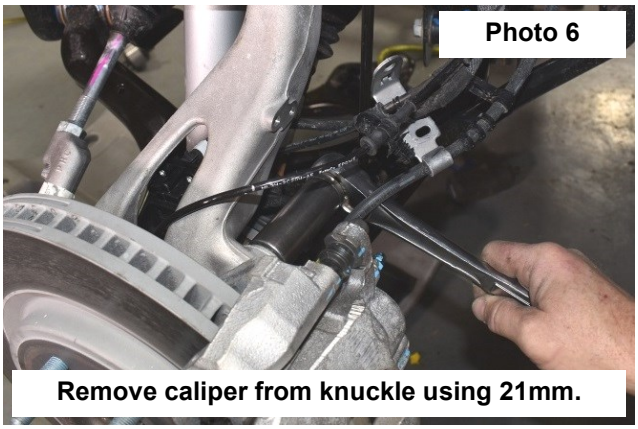
7. Remove tie-rod end using a 21mm wrench. Strike the knuckle with a hammer to loosen the tie rod end. **Photo 3.**
8. Remove ABS line snap clips using a trim remover tool to get more slack in the line. **See Photo 4.**



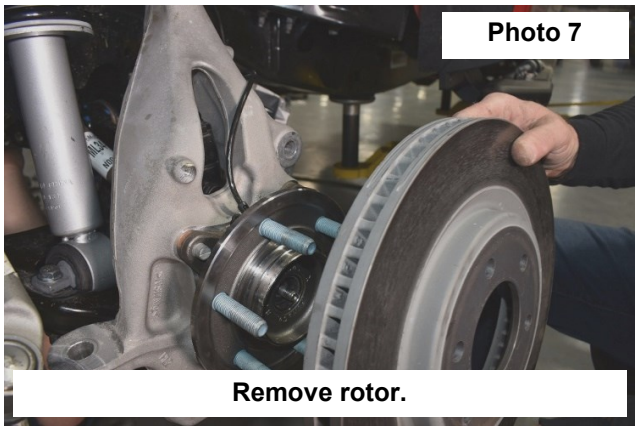


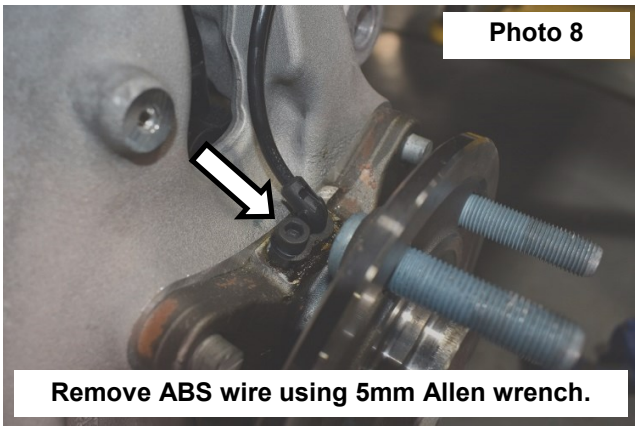
9. Remove the upper ball joint nut using a 18mm socket/wrench. Strike the knuckle to loosen. **See Photo 5.**
10. Using a 21mm socket, remove brake caliper as shown in **Photo 6**. Hang caliper out of way. Do not let caliper hang by brake hose as this will damage hose.



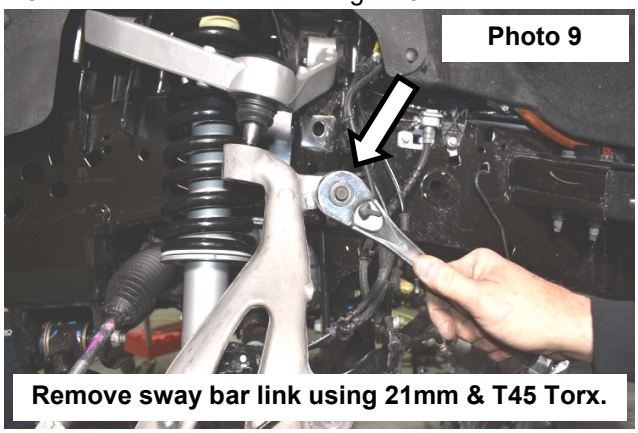


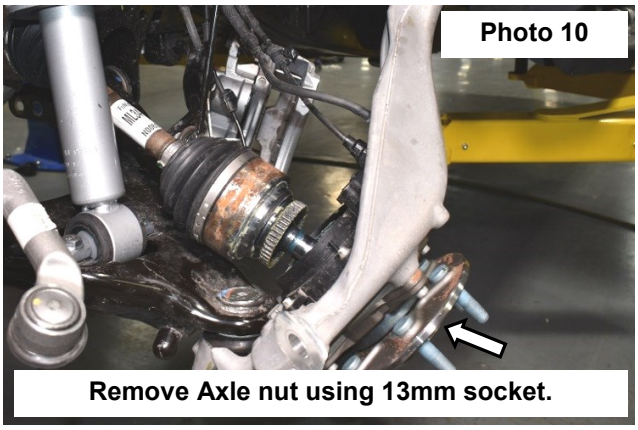
10. Remove the rotor. **See Photo 7.**
11. Remove the ABS wire from the bearing assembly using a 5mm Allen wrench. **See Photo 8.**



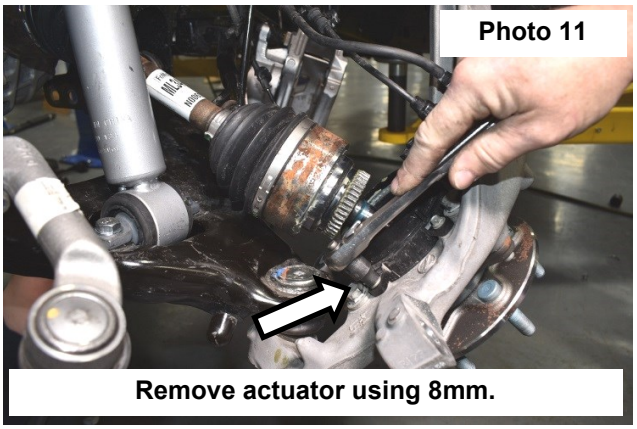


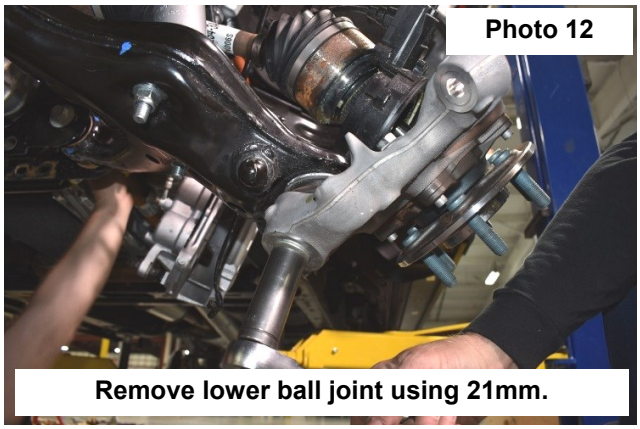
12. Remove the sway bar link using a 21mm wrench and T45 Torx bit. **See Photo 9.**
13. Remove the axle nut using a 13mm socket. Let the knuckle hang. **See Photo 10.**





14. Remove actuator using an 8mm socket/wrench. **See Photo 11.**
15. Remove the lower ball joint using a 21mm socket/wrench and remove the knuckle. **See Photo 12.**





17. Remove the lower strut nuts using an 18mm socket/wrench. **See Photo 13.**
18. Remove the upper strut nuts using an 18mm wrench. **See Photo 14.**

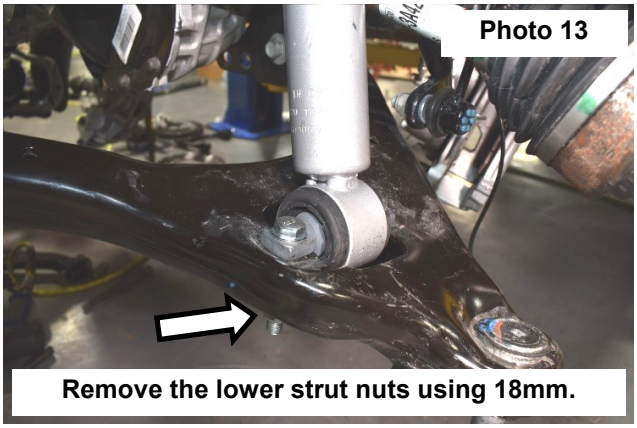


Photo 13

Remove the lower strut nuts using 18mm.

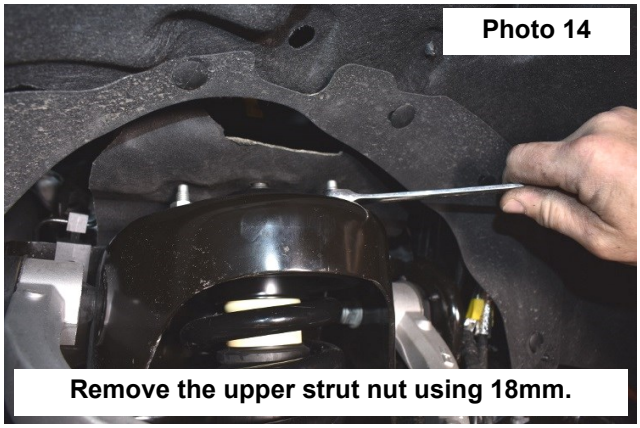


Photo 14

Remove the upper strut nut using 18mm.

19. Remove the strut from the vehicle. **See Photo 15.**

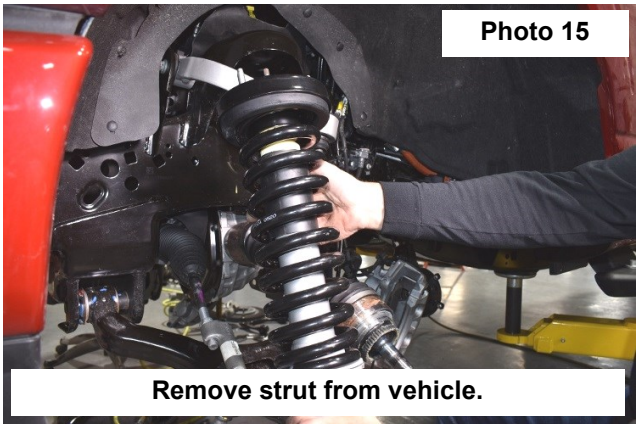


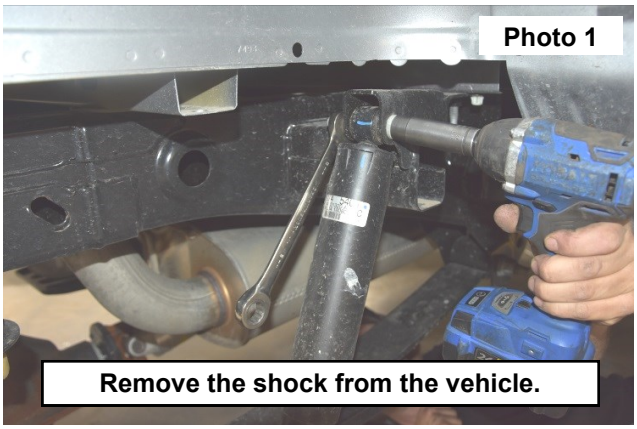
Photo 15

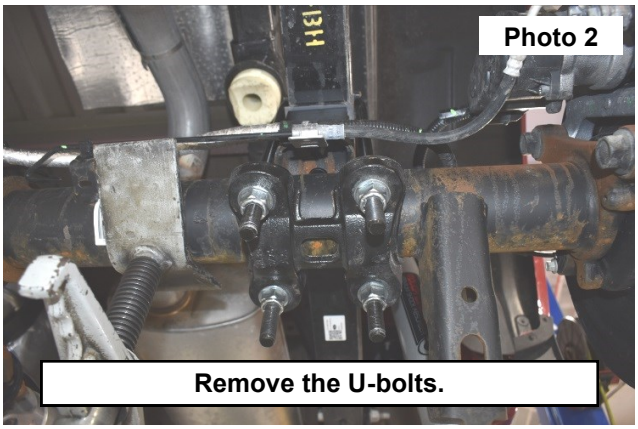
Remove strut from vehicle.

20. Install the supplied loaded strut using the stock hardware.
21. Reinstall components in reverse order of tear down.
22. Put on wheels and lower.

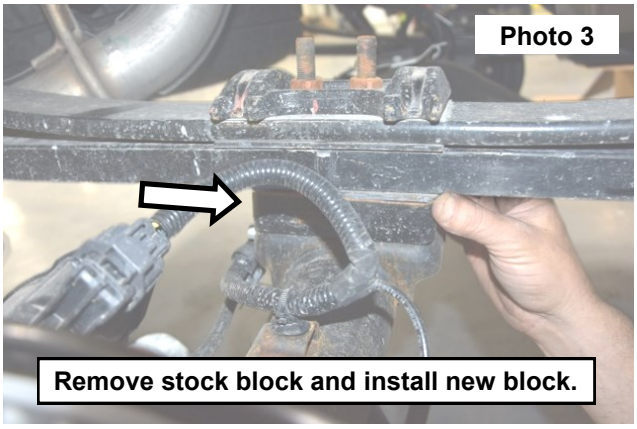
REAR INSTALLATION INSTRUCTIONS

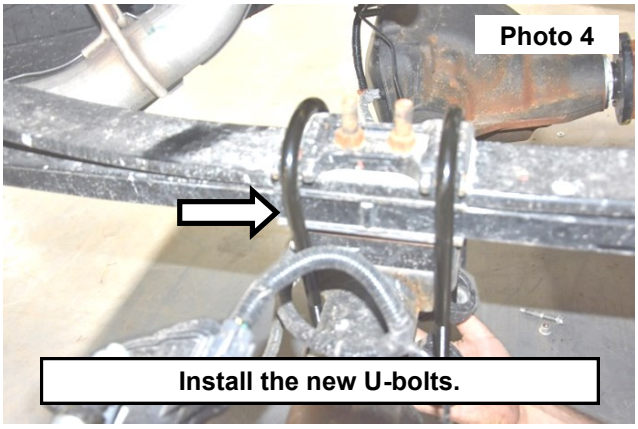
1. Chock the front wheels.
2. Jack up the rear of the vehicle and place jack stands underneath the frame rail.
3. Remove the tires and wheels.
4. Remove rear shocks using a 15mm, and 18mm wrench. Retain stock hardware. **See Photo 1.**
5. Place the floor jack underneath the axle and remove the stock U-bolts. **See Photo 2.**





6. Lower the axle, remove the stock block and install the new block between the spring and axle perch. **See Photo 3.**
7. Install the new U-bolts and secure with fasteners provided. Tighten using a 22mm socket. **See Photo 4.**





8. Reinstall components in reverse order of tear down.
9. Put on wheels and lower.

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.