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Rough Country 687 Installation Instructions

2.5-Inch Lift Kit for 2008–2012 Jeep Liberty 4WD

Part number: 687

trailfortress.com/rough-country-2-5-inch-lift-kit-687

Scan for fitment, price and install help

921687000

ROUGH COUNTRY
SUSPENSION SYSTEMS®



08-12 Jeep Liberty KK 2.5” Frt 2” Rear Leveling Lift Kit

Thank you for choosing Rough Country for all 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 on this page. 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 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.

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

This suspension system was developed to run up to 265/70/R16 or 245/75/R16 tire on a 7ò or 8ò wide wheel. Before installing other combinations, please consult your local tire and wheel specialist.

⚠NOTICE **NOTICE TO DEALER AND VEHICLE OWNER**

Any vehicle equipped with any Rough Country product should have a ñWarning to Driverò decal installed on the inside of the windshield or on the vehicleôs dash. The decal should 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 forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service

Kit Contents:

693 Kit Box
2ï Front Strut Spacers
2ï Rear Coil Spring Spacers
1-10mm Stud Bag

Tools Needed:

Flat Screwdriver
12mm Socket/Wrench
16mm Wrench
16mm Socket
17mm Socket
18mm Wrench
18mm Socket
19mm Deep Well Socket
21mm Socket
21mm Wrench
24mm Socket
Torque Wrench
Jack
Jack Stands

Torque Specs:

Size	Grade 5	Grade 8
5/16ò	15 ft/lbs	20 ft/lbs
3/8ò	30 ft/lbs	35 ft/lbs
7/16ò	45 ft/lbs	60 ft/lbs
1/2ò	65 ft/lbs	90 ft/lbs
9/16ò	95 ft/lbs	130 ft/lbs
5/8ò	135 ft/lbs	175 ft/lbs
3/4ò	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

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FRONT INSTALLATION INSTRUCTIONS

1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground. Chock rear wheels.
2. Remove the front tires/wheels, using a 19 mm deep well socket.
3. Support the Drivers side lower control arm with a floor jack.
4. Remove the positive wire from the battery terminal.
5. On the driver side remove the rear most box from the mount by releasing the clips from the box as shown in **Photo 1.** Take care not to damage the clip or the box.
6. Carefully fold the box over to access the mount bolts with a 12mm socket /wrench as shown in **Photo 2, 3 & 4.**
7. Carefully lift the forward fuse box on the driver side of the engine compartment and release the wiring clips. Take care not to damage the clips. **See Photo 5.**


PHOTO 1


PHOTO 2

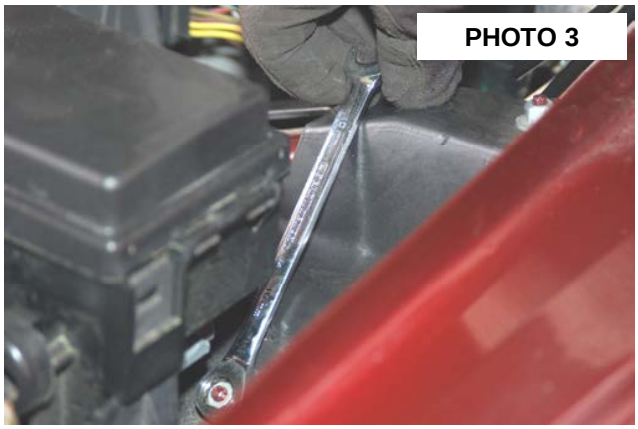
PHOTO 3


PHOTO 4


PHOTO 5

6. With the floor jack under the lower drivers side lower control ,remove the 4 stock nuts that secure the strut to the upper mount as shown using a 18mm socket/wrench. Retain the hardware for reuse. **See Photo 6.**

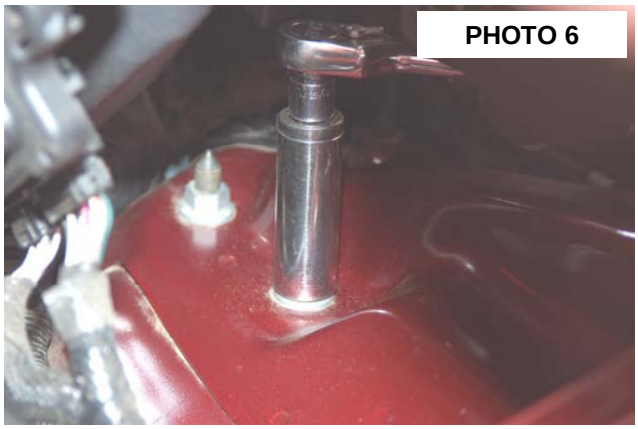
PHOTO 6

7. Gently lower the floor jack under the front driver side and place it under the passenger side lower control arm of the vehicle.
8. Release the air box clamps that secure the top of the air box to the bottom and remove the hose as shown in **Photo 7.** Lift the air box out of the air box mount.
9. Remove the upper strut nuts using a 18mm socket / wrench. Retain the factory hardware for reuse. Lower the floor jack gently to lower the strut from the mount.
12. Starting on the drivers side remove the wire clip from the strut as shown in **Photo 8.**
13. Remove the sway bar from the control arm as shown in **Photo 9** using a 18mm socket. Retain the hardware for reuse.


PHOTO 7


PHOTO 8

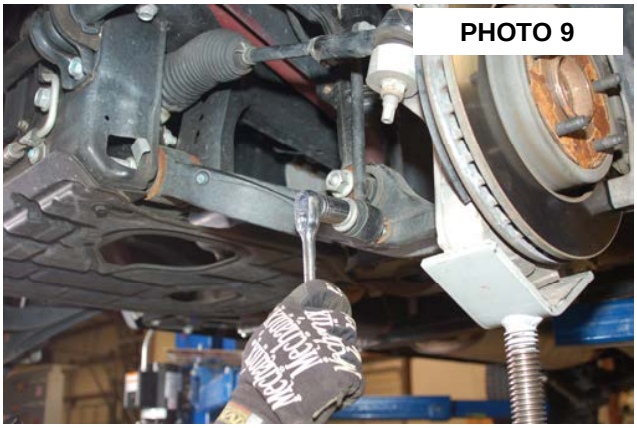
PHOTO 9

14. Remove the tie rod from the knuckle as shown using a 21mm socket/wrench. **See Photo 10.** Retain hardware.
15. Using a 24mm socket, remove the lower strut mount bolt from the strut and lower control arm. **See Photo 11.** Retain hardware.

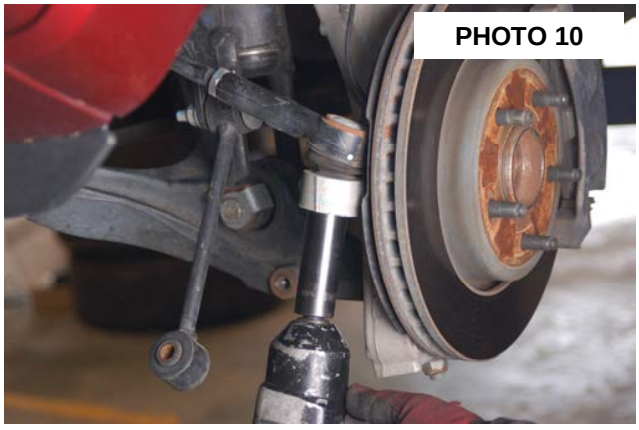
PHOTO 10


PHOTO 11

15. Using a 24mm socket, remove the strut clevis pinch bolt. **See Photo 12.** Retain hardware.
16. Remove the upper strut assembly from the clevis by lowering the control arm and prying up on the strut assembly. **See Photo 13.**


PHOTO 12

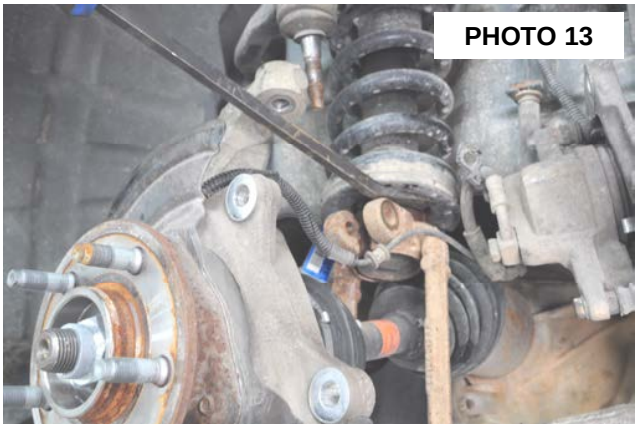
PHOTO 13

17. Place the strut assembly in wall mounted strut compressor. Compress the strut and remove the upper strut nut using a 12mm socket. **See Photo 14.** Retain hardware.
18. Remove the upper strut plate from the strut. Press the bushing out of the stock upper strut plate.
19. Press the stock bushing into the supplied RC upper strut plate. **See Photo 15.**


PHOTO 14


PHOTO 15

20. Place the new upper strut plate back onto the strut. Compress the strut and install the upper strut nut and tighten using a 12mm socket. **See Photo 16.**
21. Using the supplied hardware in 10mmStudbag-1, install the studs into the upper strut plate. **See Photo 17.** Use the supplied 1/2òjam nut as a spacer. Use a 17mm socket and impact to pull the stud into the upper strut plate.


PHOTO 16


PHOTO 17

22. Install the strut assembly back into the Jeep. Align the Keyway on the strut with the slot in the clevis and align the studs with the upper mounting holes. **See Photo 18.**
23. Tighten the clevis pinch bolt using a 24mm socket. Tighten the upper strut bolts using a 17mm socket. Tighten to factory torque specs. **See Photo 19.**


PHOTO 18


PHOTO 19

24. Tighten the lower strut bolt using a 24mm socket. Tighten to factory torque specs. **See Photo 20.**
25. Using a 21mm socket, tighten the drag link ball joint to factory specs. **See Photo 21.**


PHOTO 20

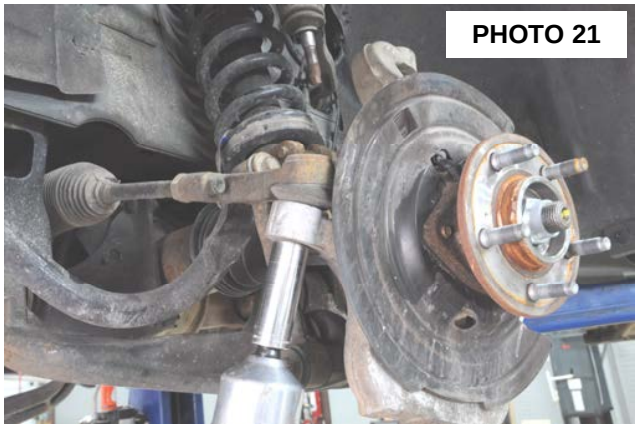
PHOTO 21

26. Place the upper ball joint into the steering knuckle and tighten using a 21mm wrench. **See Photo 22.**
27. Repeat this process on the passenger side.
28. Install the sway bar links onto the lower control arms and tighten using a 18mm socket. **See Photo 23.**
29. Reinstall the air cleaner assembly, battery, and fuse box working in reverse of steps 7-4.

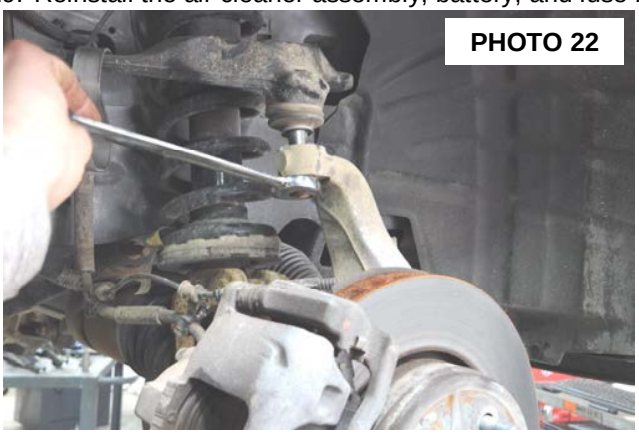
PHOTO 22

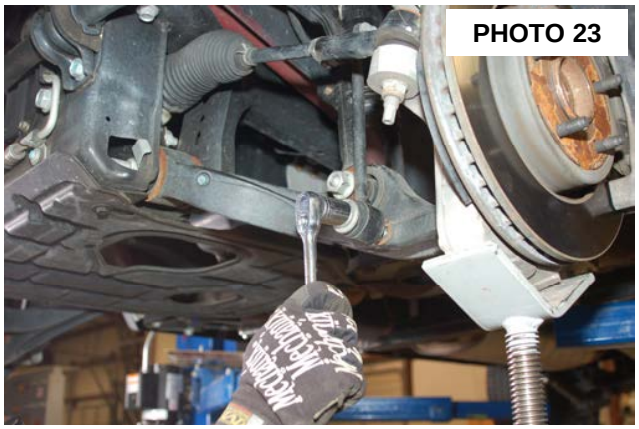
PHOTO 23

30. Reinstall the wheels and tires and lower the Jeep to the ground.

REAR INSTALLATION INSTRUCTIONS

1. Jack up the rear of the vehicle and support the vehicle with jack stands, so that the rear wheels are off the ground. Chock front wheels and remove the rear tires/wheels, using a 19mm deep well socket.
2. Remove the lower shock bolt using a 16mm and 18mm socket and wrench. . **See Photo 1.**
3. Using a 18mm socket and wrench remove the sway bar from the axle. Retain hardware for later use. **See Photo 2.**





4. Pull down on the rear axle and remove the coil spring. **See Photo 3**.
5. Push down on the axle to allow the stock coil to be removed. Remove the stock coil spring and isolator.
6. Install the new coil spring spacer on the bottom of the stock coil. The factory coil spring isolator will be re-used. **See Photo 4**.





7. Reinstall sway bar onto the axle and tighten to factory specs. **See Photo 5**.
8. Install the rear shock and tighten using a 16mm and 18mm socket and wrench, using the stock hardware. **See Photo 6.**
9. Reinstall the rear tires/wheels and Lower the vehicle to the ground





Alignment Specs

Rough Country recommends having an alignment performed by a certified alignment professional to the specs in the table below.

Front			
Total Toe	+0.07°	+0.20°	+0.33°
Front Camber	-0.75°	-0.38°	+0.00°
Caster	+2.80°	+3.30°	+3.80°
King-Pin	ð ð ð	ð ð ð	ð ð ð
Incl. Angle	ð ð ð	ð ð ð	ð ð ð
Rear			
Total Toe	-0.16°	+0.25°	+0.66°
Rear Camber	-0.63°	-0.25°	+0.12°
Thrust Angle	-0.25°	+0.00°	+0.25°

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 for interference and proper working order. Test brake system.
2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
3. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
4. Readjust headlights to proper settings.

Maintenance Information

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 500 miles and then every 1000 miles. Wheel alignment steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles



By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable Federal, 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.