TRAIL FORTRESS

BUILT FOR THE TRAIL. CHECKED FOR YOUR TRUCK.

# Rough Country 24140 Installation Instructions

4-Inch Lift Kit with M1 Monotube Shocks

Part number: 24140

trailfortress.com/rough-country-4-inch-lift-kit-24140

Scan for fitment, price and install help



92750000

# 92750000 88-98 GM 2WD Lift Spindle Instructions

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.

With the installation of all lift kits and larger tires it is important to consider the installation of a steering stabilizer. Steering stabilizers are designed to restrain “bump steering” and front end vibration, giving added life to tires, ball joints, and other steering components.

## PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall".

We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll-bar and cage system. 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 significantly 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.

## NOTICE TO 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.
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 life.

## PRE- INSTALLATION NOTES

1. On some early 88 model GMC trucks you may have to purchase updated bearings and rotors to install these spindles.
2. These spindles, like all spindles, will slightly increase you front end stance.
3. Vehicles that will receive oversized tires should have ball joints, tie rod ends and idler arm checked every 3,000 miles.

## INSTALLATION INSTRUCTIONS

1. Set the emergency brake and chock rear tires to prevent rolling.
2. Jack up the front of the vehicle and support the frame rails with jack stands.
3. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!!!**
4. Starting on the driver’s side of the vehicle, remove the tire.
5. Remove the 2 bolts holding the brake line tab to the upper control arm and the bolt holding the brake line to the top of the frame rail.
6. Remove the brake caliper and secure it to the frame rail, **DO NOT LET CALIPER HANG FROM THE BRAKE LINE!**
7. Remove the nut from the tie rod end to the spindle. Use a ball joint puller to separate the tie rod from the spindle.
8. Remove the dust cap from the rotor, remove the cotter pin and castle nut from the axle and slide the rotor off the spindle. Keep the bearing inside the rotor and set it aside in a clean place.
9. Remove the dust cover by the three bolts on the spindle, carefully remove the Rubber dust ring (ONLY NON ABS VEHICLES HAVE THE RUBBER DUST RING) and the cover and place aside; these will be used on the new spindle.
10. **If you have removed the factory shock SUPPORT THE LOWER CONTROL ARM WITH A FLOOR JACK**.
11. Remove the cotter pins from the upper and lower ball joints.
12. Remove the castle nuts from the upper and lower ball joints.
13. Using a ball joint puller to separate the spindle from the ball joints and set the spindle aside.
14. **CHECK YOUR BALL JOINTS FOR WEAR, A PROPER ALIGMENT WILL BE AFFECTED BY WORN OUT PARTS!**



trailfortress.com/rough-country-4-inch-lift-kit-24140

15. **Using a grinder remove the factory rivets from the spindle steering stop from the lower control arm as shown. After the Rivets are removed, use a hammer to remove the brackets. These will need to be retained if the vehicle is returned to stock.**
16. Place the NEW driver's side spindle on the lower ball joint and reinstall the factory castle nut and torque to factory specs, install the new cotter pin.
17. Insert the spindle in the upper control arm and reinstall the factory castle nut and torque to factory specs, install the new cotter pin.
18. If you have ABS please go to step 21. Slide the rubber ring on the spindle then the dust cover with the three factory bolts. Skip step 19 and 20.
19. Separate the ABS sensor from the retaining clip in the upper control arm and slide the ring on the spindle then the dust cover and ABS sensor. Reinstall the three factory bolts.
20. Slide the ABS sensor wire behind the steering arm and route the wire along the rubber brake line. Using the supplied cable ties attach the wire to the brake line.
21. **CHECK THE FRONT WHEEL BEARINGS FOR WEAR AND REPLACE IF NEEDED.**
22. Put a small amount of grease on the spindle shaft and slide the rotor back on, tighten the castle nut to factory specs and install the cotter pin.
23. Slide the brake caliper on the spindle and install the bolts to factory specs. **Check the brake line for clearance of the spindle. If necessary bend the brake line at the caliper with a screw driver for clearance. As shown.**
24. Reinstall the tie rod and torque the nut to factory specs.
25. Repeat steps 2 through 21 on passenger side of vehicle.
26. With both sides of the vehicle finished and in the air, turn the steering wheel from side to side checking for clearance of brake lines, ABS wires and all other components.
27. Install the tires on the vehicle and torque the lug nuts to factory specs.
28. **Drive the vehicle 50 miles and recheck all bolts, wheel bearings and clearances.**
29. Have vehicle professionally aligned.







**POST INSTALLATION INSTRUCTIONS**

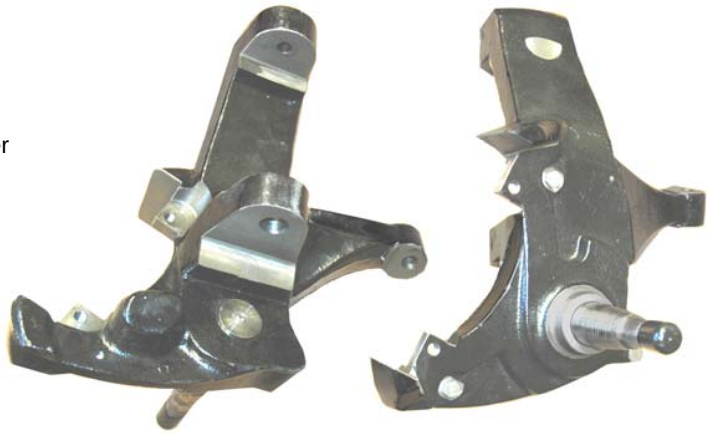
1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering gear for interference and proper working order. Test brake system.
2. Perform steering sweep. If any obstructions you must call the tech line for assistance. If stock wheels are being used ( or wheels with the same or greater offset, 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. If at any time the brake line comes within 1 inch or closer, the hose must be modified accordingly. To achieve desired clearance, first bend the hoses metal end at the caliper inboard slightly. If more clearance is needed locate and bend the metal tab as shown to the right. Check to ensure brake hoses have sufficient slack and will not contact rotating, mobile, or fixed members, adjust lines/brackets to eliminate interference and maintain proper working order. 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 if applicable.

**MAINTENANCE INFORMATION**

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 100 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.

**Kit Contents:**

1Ea – Lift Spindle Driver
1Ea – Lift Spindle Passenger
1Ea – Kit Bag
6Ea – Cotter Pins
2Ea – Cable Ties





trailfortress.com/rough-country-4-inch-lift-kit-24140