



TOMS OFFROAD

Suspension Lift Kit Installation

Installation requires a professional mechanic. Prior to beginning, inspect the vehicles steering, driveline, brake systems, paying close attention to the suspension link arms and bushings, anti-sway bars and bushings, tie rod ends, pitman arm, ball joints and wheel bearings. Also check the steering sector-to-frame and all suspension-to-frame attaching points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace all worn parts.

Read instructions several times before starting. Be sure you have all needed parts and know where they install. Read each step completely as you go.

- Front-end realignment is necessary.
- This base suspension lift kit contains no hardware for modifying or relocating the suspension's compression travel bump stops. We recommend upgrading your bump stops to match your lift height. These stops are designed to prevent the suspension from collapsing too far and damaging components & sheet metal in the process. For extreme suspension droop off-roading, extension travel limiting straps are also recommended to extend shock life.
- Front and Rear Driveshaft Length - When running a stock transmission and a suspension lift of 3.5"+, your rear driveline must be lengthened. With a 5.5" lift, your front driveshaft will need extended as well. Custom transmissions will also affect the length of driveshaft needed. We recommend 1.5" minimum spline contact with suspension at full extension travel.
- With most lifts 3.5"+, tracking bar, vent hose and brake hose length must be addressed along with caster angle.
- A foot-pound torque reading is given in parenthesis () after each appropriate fastener.
- Do not fabricate any components to gain additional suspension height.
- Prior to drilling, cutting or welding, check behind the surface being worked on for any wires, lines or fuel hoses that could be damaged.
- After drilling, file smooth any burrs and sharp edges.
- Prior to attaching components, be sure all mating surfaces are free of grit, grease, undercoating, etc.
- A factory service manual should be on hand for reference.

Front Procedure

1. Prepare Vehicle

Put transmission in neutral. Position a floor jack under front axle and raise vehicle. Secure jack stands under the frame rails, a few inches behind the radius arm-to-frame brackets. Ease down the jack until frame is resting on stands. Keep a slight load on jack. Put vehicle in gear or park, set emergency brake and chock rear wheels to prevent any possibility of movement.

2. Brake Hoses & Pitman Arm

Front brake hose, if being replaced, should be installed now. If stock hose is retained, it must be in good condition. Check for chafed spots, cracks and dry rot.

3. **Wheels & Shocks**

Remove wheels and shocks. On either side, remove the coil springs upper retaining strap. Loosen, but do not remove, the two bolts attaching the coil/seat to the axle. If installing front hoop shocks, do this now.

4. **Coil Springs**

Lower jack enough to allow for coils removal. Do not overextend brake and axle vent hoses; both may need rerouting or replacing. Rotate the coils out of their lower seats.

Note: If applicable, install C-bushings, radius arm bushings, and/or radius arm lowering brackets.

Install new coils. Usually, the coils bottoms can be rotated into the seats without the two-piece seats being completely disassembled. Upper retaining straps may require reforming to properly fit the large diameter coil wire.

5. **Pitman Arm**

If applicable, install drop pitman arm and adjustable drag link.

6. **Shocks**

Install bushings, sleeves and boots on shock absorbers.

Install new shocks. Tighten upper stem type bushings or sleeveless eye type bushings only until they swell slightly. Torque lower bolts to 40-60 ft. lb.

7. **Wheels**

Note: When wheels are installed, always check for and remove any corrosion, dirt or foreign material on the wheel mounting surface or anything that contacts the wheel mounting surface (hub, rotor, etc.). Installing wheels without the proper metal-to-metal contact at the wheel mounting surfaces can cause the lug nuts to loosen and the wheel to come off while the vehicle is in motion.

Note: Re-Torque lug nuts at 500 miles after any wheel change, or anytime the lug nuts are loosened. Failure to do so could cause wheels to come off while vehicle is in motion.

8. **Clearance Check**

With the vehicle still on jack stands and the suspension hanging at full extension travel, cycle steering lock-to-lock and check all components for proper operation and clearances. Pay special attention to the clearance between the tires/wheels and brake hoses, wiring, etc. Lower vehicle to the floor.

Rear Procedure

9. **Prepare Vehicle**

Raise rear of vehicle with a floor jack positioned under the rear axle. Place jack stands under the frame rails, a few inches in front of the leaf spring front hangers. Ease the jack down until the frame is resting on the stands. Keep a slight load on the jack. Chock front tires to prevent possibility of movement.

Remove rear wheels, u-bolts and shocks. Lower the axle by easing down the jack. Do not overextend the brake and axle vent hoses; both may need rerouting or replacing. If installing dual rear shock mounts, this is a good time to do so.

Note: If a longer rear hose is to be installed, pinch closed the factory rubber hose with vise grips or a small C-clamp, and disconnect at the axle mounted T-block.

Note: The spring perches, where the leaf springs sit on the axle, are prone to collapse or warp, especially toward the ends. Without a perfectly flat mounting surface, the block may fail or “roll” out from under the vehicle. If not flat, re-plate the perches with ¼” thick steel plate (or something similar) or replace perches completely.

Place a C-clamp beside each spring wrap, prior to installing or re-forming, to ensure total pack compression. If heat is used on the wraps, allow them to cool naturally and thoroughly before removing C-clamps.

10. Leaf Springs

If new leaf springs are being installed, remove the u-bolt nuts and remove the two u-bolts and the spring clip plate. Lower the axle to relieve the spring tension and remove the nut from the spring front attaching bolt. Remove the spring front attaching bolt from the spring and hanger with a drift. Remove the nut from the shackle-to-hanger attaching bolt and drive the bolt from the shackle and hanger with a drift and remove the spring from the vehicle. Remove the nut from the spring rear attaching bolt. Drive the bolt out of the spring and shackle with a drift.

Note: The military double wrap will face the front of the vehicle. When installing stock height leaf springs, the curved eyelet end will mount to the front leaf spring hanger.

Install the new leaf spring by first positioning the shackle (closed section facing toward the front of the vehicle) to the spring rear eye and install the bolt and nut.

Position the spring front eye and bushing to the spring front hanger, and install the bolt and nut. Position the spring rear eye and bushing to the shackle, and install the bolt and nut.

11. U-Bolts, Shocks & Wheels

Raise the axle to the spring and install the u-bolts and leaf spring retainer plate. Torque the u-bolt nuts and spring front and rear bolt nuts 45-60 ft. lbs.

U-Bolt Torque Guide	Plated Finish (ft. lb.)	Plain Finish (ft. lb.)
1/2" Diameter up to 13" Long	57	92
9/16" Diameter up to 13-1/2" Long	82	131
9/16" Diameter 13-1/2" and Longer	106	185
5/8" Diameter up to 14-1/2" Long	112	181
5/8" Diameter 14-1/2" and Longer	145	256

Install new shocks and wheels, then lower the vehicle to the floor.

If applicable, install new rear brake hose.

13. Final Clearance and Torque Check

With vehicle on floor, cycle steering wheel lock-to-lock and inspect the tires/wheels, and the steering, suspension and brake systems for proper operation, tightness and adequate clearance.

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14. Headlights

Re-adjust headlights to proper setting.

15. Alignment

Camber angle was not significantly altered by the suspension lift. Caster should have been maintained with the use of C-bushings and/or radius arm lowering brackets. Have toe-in setting checked.

Important Product Use Information

As a general rule, the taller a vehicle is, the easier it will roll over. As much as possible, offset what is lost in roll over resistance by increasing tire track width. In other words, go wider as you go taller. Many sportsmen remove their mud tires after winter/hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability.

We strongly recommend, because of roll over possibility, that the vehicle be equipped with a functional interior bar. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performances and capabilities 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 aftermarket parts to increase vehicle height over the intended height of the lift kit purchased. Mixing component brands is not recommended.

Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift may be achieved, varies greatly. Several states offer exemptions for farm or commercially registered vehicles. It is the owner's responsibility to check state and local laws to ensure that their vehicle will be in compliance.

Toms Offroad makes no claims regarding lifting devices and excludes any and all implied claims. Toms Offroad will not be responsible for any altered product or any improper installation or use of our products.

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

Important Maintenance Information

Ultimately it is the buyer's responsibility to have all hardware checked for tightness after the first 100 miles and then every 1000 miles. A qualified professional mechanic should inspect the steering, suspension and driveline systems, along with wheel alignment at least every 3000 miles.

C-Bushing Kit Instructions

Prepare Vehicle

Place vehicle in neutral. Raise front of vehicle with a jack and secure a jack stand beneath each frame rail, behind the radius arm frame brackets. Ease the frame down onto the stands, place transmission in low gear or "park", and chock rear tires. Leave the jack in place so that it supports the front axle but does not lift the frame away from the jack stands.

Removing the Shocks, Coil Springs and Coil Cups

Note: Perform the following steps one side at a time. Start on either side. Remove lower nut and bolt from shock absorber on one side only and free the shock from the mounting. In case of a dual shock set up, remove both lower nuts/bolts.

Remove two bolts from the upper coil retaining spring clip. Lower axle with floor jack until coil is free from upper coil bracket. Using the proper size box end wrench, remove the two lower coil seat and retainer bolts. Remove the coil spring.

Lowering the Axle Housing

Remove the two bolts on the top of the radius arm cap and the two bolts on the bottom of the radius arm cap. Remove the front cap and the old C-bushing. Lower axle housing so differential will slide out of the strut arm and then remove the old C-bushing. Install rear radius arm bushings at this time. Install nuts loosely, you will tighten them later. IMPORTANT: When lowering axle do not overextend the brake hose. In some instances, you may need to loosen the nut at the end of the radius arm and/or the drive shaft to allow axle to drop.

Installing the C-Bushings

Install the new urethane C-bushings between the radius arm cap and the radius arm. To install the C-bushings correctly, use a very generous amount of the provided poly lubricant so that the bushings do not bind causing the bronco to lean to one side more than the other. The bushings are marked on the inside as to their correct installed position, rear bottom and front bottom, and must be placed on the axle accordingly. When reassembling the front cap and radius arm on the axle housing, the new bushings may keep the cap from closing enough to get the lock washers and bolt to start. You may have to start the bolts without the lock washers, use longer bolts or compress with C-clamps, and tighten the cap enough to allow the bolts to be removed and the lock washers installed.

Torque bolts to 153 ft. lb.

Reverse previous steps to reassemble.

Repeat the original steps for the removal and installation of the other side.

Final Clearance and Torque Check

With vehicle on floor, cycle steering lock-to-lock and inspect the tires/wheels, and the steering, suspension and brake systems for proper operation, tightness and adequate clearance.