



GENERAL INSTRUCTION GUIDELINES

READ THIS FIRST:

- Read these instructions fully prior to beginning work. Verify all parts listed below are in the kit packaging, and all tools, equipment, skills and methods are on hand to safely complete the installation.
- Read the attached GENERAL INSTALLATION NOTES prior to beginning any work.
- Installation of these components should be performed by experienced and qualified mechanics, using safe and correct tools and equipment. Northwoods recommends this installation be performed by a qualified, certified automotive shop.
- Use safe methods in all work operations. Support the vehicle safely as required on a lift or hoist, or certified jack stands.

GENERAL INSTALLATION NOTES

- Installation shall be performed by qualified, experienced mechanics capable of performing this type of work. Northwoods recommends the work be performed in qualified ASE certified shops.
- Use only quality, certified tools and equipment appropriate for the job.
- Vehicle should only be supported by certified hoists, lifts, or jackstands of adequate capacity.
- Use only certified, dedicated spring compressors to compress and assemble springs. Northwoods recommends springs only be assembled and installed by qualified auto repair shops, using quality spring compression tools.
- Actual lift heights will vary by vehicle due to vehicle accessories, weights, loading, wear, initial ride height, and other factors.
- Upon completion of installation of springs or other suspensions and steering components, vehicles should be immediately aligned at a qualified shop.
- Modification to vehicle ride height requires re-alignment of headlights.
- Full inspection of all components installed should be checked after 300 miles of driving, including torque of all fasteners.
- Modified vehicles will handle and perform differently from stock vehicles, and the modified vehicle characteristics should be considered for driving safety. Modified vehicles may have affects to vehicle steering and response, and increased braking distances due to increased vehicle weight or larger tires.
- Modified vehicles may exhibit increased wear to suspension and other components, as well as an increase in vibration due to changes in component alignment and operating angles.
- Northwoods Performance Warranty, Return, and Replacement policies can be found on-line at northwoodsperformance.com, RESOURCES tab.



FRONT SPACER INSTALLATION INSTRUCTIONS

2013-2018 Toyota RAV4

2006-2012 Toyota RAV4

FRONT SPACER LIFT KIT MATERIAL LIST

- Hex flange nut, 10mm 6
- Washers 6
- Front Lift Spacers with studs 2

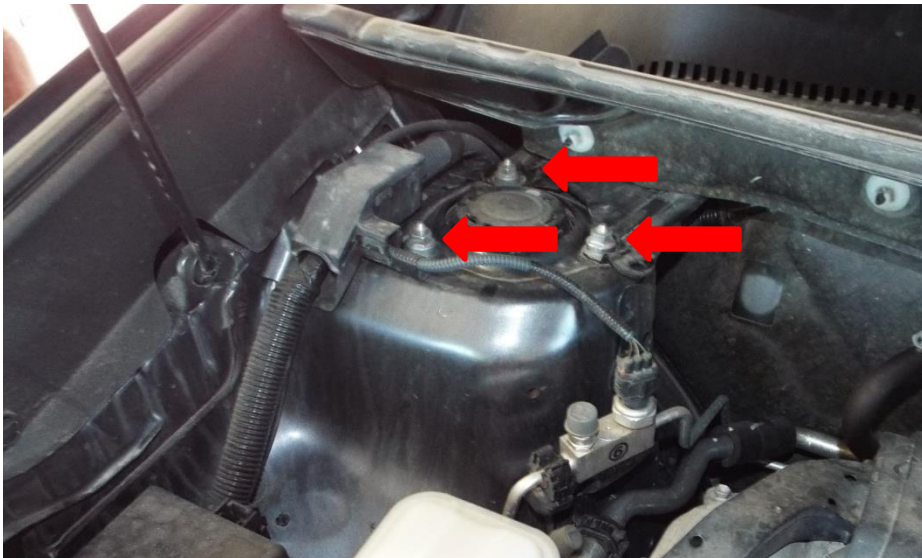
-OR-

FRONT LEVELING PLATE

- Leveling plate 2
- Flange nut, 10mm 6

FRONT STRUT REMOVAL

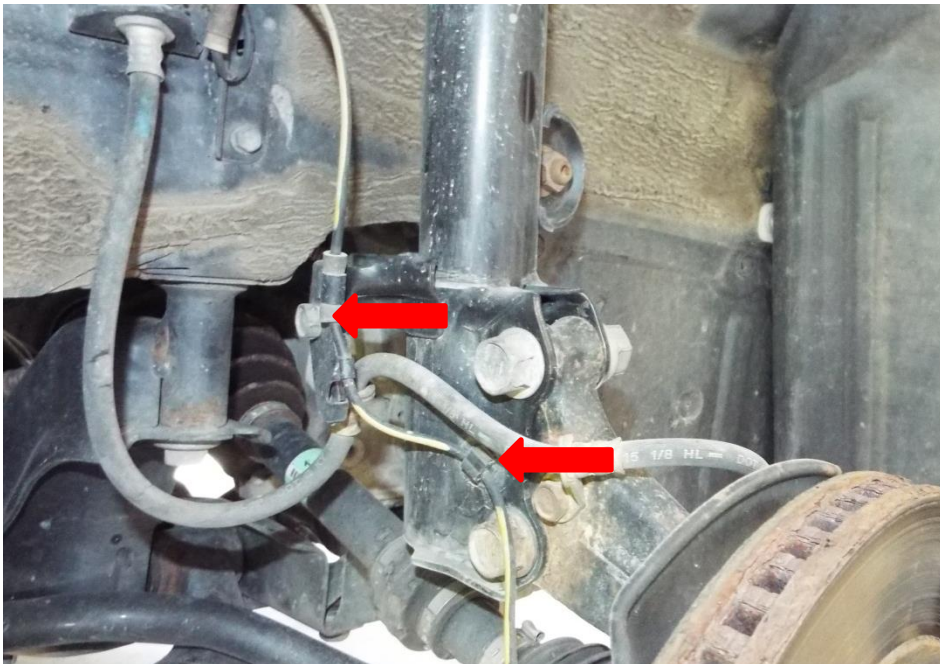
1. From inside the engine bay, remove two of the three strut top retaining nuts (14mm). Loosen the third. Save the nuts for reinstallation.



2. Remove the upper and lower sway bar link bolts (6mm hex and 17mm box end wrench).
Remove the link.



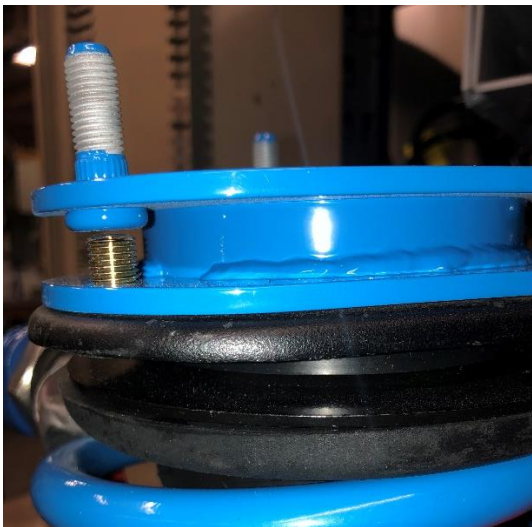
3. Remove the brake line retaining bolt (14mm), and move brake and ABS lines away from the strut body. Using a small screwdriver, open the plastic clip holding the ABS line to the strut body.



4. Remove the two lower strut nuts and bolts (22mm). Support the lower a-arm and spindle assembly from over extending the drive axle.



5. Remove the final strut top retainer nut and remove the strut assembly.
6. All models discard the 22gauge (very thin) metal gasket plate. Adventure models discard the $\frac{1}{4}$ " factory shim plate.
7. Leveling kits—install the plate on top of the strut and reinstall strut. Use provided flange nuts to secure strut to body.
8. On 1" lift spacers, cut the strut top studs to $\frac{9}{16}$ " in total height from the strut top plate. On some strut brands and models, it may be necessary to cut $\frac{1}{4}$ " off top of existing studs. On all installations, verify there is clearance between the top of the strut stud and the bottom of the upper spacer stud.



9. Secure the spacer to the strut using the supplied strut nuts and washers. Use of blue Lock-Tite is recommended. Install the strut, and secure with original nuts with integral base flange.
10. Install the sway bar links.

STRUT INSTALLATION

1. Install the strut aligning the three top studs through the upper mounting frame, and hold in place with one or more upper strut retaining nuts.
2. Install the two lower strut mount bolts.
3. Complete the installation of the three upper strut retaining flange nuts.
4. Torque the upper strut retaining flange nuts to 37 ft-lbs, and the lower strut mounting bolts/nuts to 177 ft-lbs.
5. Install the brake and ABS lines with retaining bolt (14 ft-lbs), and anti-lock brake line in the plastic clip.
6. On 2006-2012 models, bend the body mounted ABS line tab slightly away from the body toward the strut for additional range of motion without sharp bends on the line.
7. NOTE: With installation of the 2" front lift, modification or removal of the vibration damper on the left side front axle shaft may be required. Not all axle shafts have the damper. If there is interference between the lower strut body and the damper donut at full strut extension, remove the two damper clamps and slide the damper up the axle shaft (inboard) about 1" to obtain clearance. This is usually not required on 1-1/2" lifts.



8. Install the sway bar links with nut (55 ft-lbs). This may have to be done simultaneously with the other side for alignment due to the lift.
9. Visually inspect the installation, and check bolt torques.