



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 SPRING AND STRUT INSTALLATION INSTRUCTIONS

2019+ Toyota RAV4

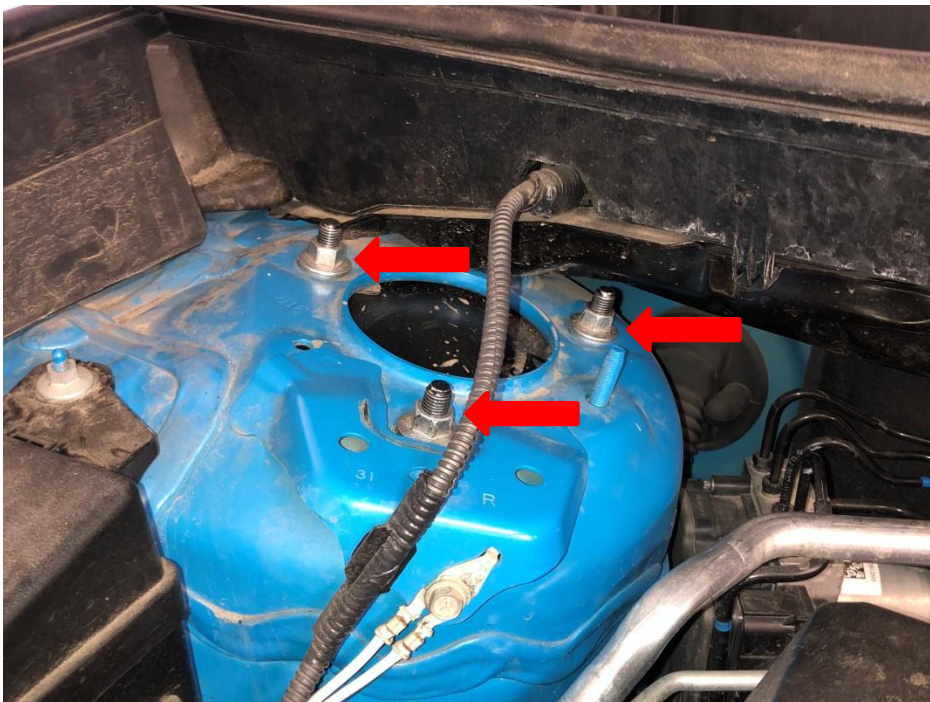
Installation time: 2-3 hours

FRONT SPRING LIFT KIT MATERIAL LIST

- Hex nut, 10mm 6
- Washers, 10mm, small 6
- Washers, 10mm, thick 6
- Front Lift Spacers with studs 2
- Front springs 2
- Sway bar links 2

FRONT STRUT REMOVAL

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



2. Remove the upper and lower sway bar link bolts (18mm nut, 6mm hex). Remove the link.



3. Remove the brake line retaining bolt (14mm), remove the ABS line clip from the strut with a screwdriver, and move brake and ABS lines away from the strut body.



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



5. Remove the final strut mount top retainer nut and remove the strut assembly.

SPRING ASSEMBLY ON EXISTING STRUTS

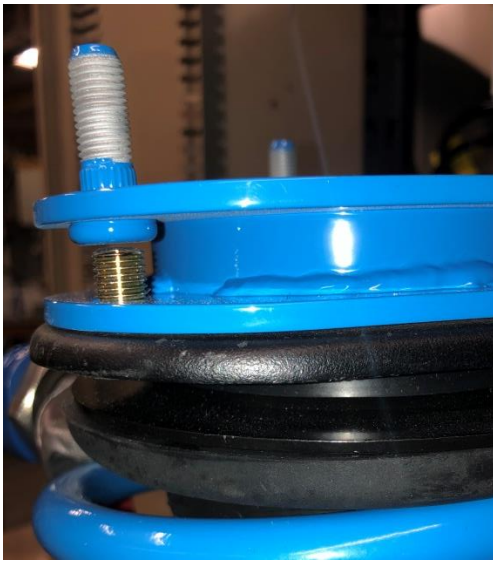
Northwoods recommends installing the kit and tuned springs with new struts and hardware for best performance.

Northwoods recommends spring and strut assembly be performed only by a qualified automotive shop using dedicated spring compression tools such as a Strut Tamer II. Northwoods does not recommend the use of single rod spring compressors or other spring clamping devices.

1. Using a dedicated strut compression tool, compress the spring.
2. Remove the top plate retaining nut.
3. Disassemble the strut.
4. Clean and inspect all parts. Discard and replace worn or defective parts.
5. Assemble the strut with the lower spring pad, Northwoods performance spring, rubber damper and boot, upper spring pad, and top strut mount assembly. Use a new locking stem nut. Torque to factory specifications. On complete assembly, release the spring tension to fully load the strut.
6. Cut the top crown off the 3 strut mount studs.



7. Install the Northwoods lift spacer plate on to the strut mount. Verify there is clearance between the strut mount studs and the lift spacer studs.



8. Complete spacer installation with the provided nuts and small washers. Use of a thread locking compound is recommended.

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. Rotate the strut mount if required. Install a provided 10mm thick washer under each of the OEM strut mount nuts.
2. Install the two lower strut mount bolts.
3. Complete the installation of the three upper strut retaining nuts.
4. Torque the upper strut retaining 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. Install the provided 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.
7. Visually inspect the installation, and check bolt torques.