

### 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.



2

SUSPENSION INSTALLATION INSTRUCTIONS

2013-2018 Toyota RAV4

2006-2012 Toyota RAV4

REAR LIFT BUSHING MATERIAL LIST

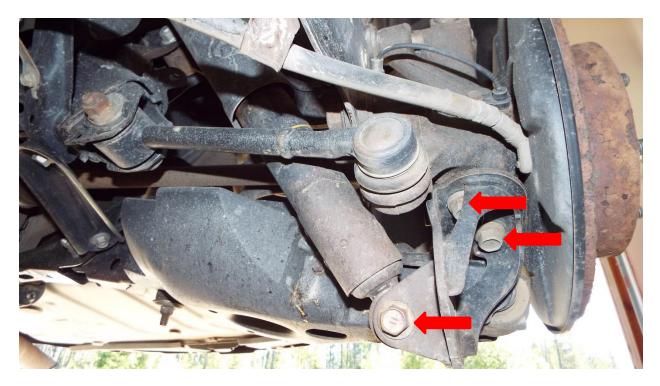
• 2 Rear lift bushings

#### REAR SPRING REMOVAL

1. Remove the two sway bar link lower nuts from each lower A arm.



- 2. Remove the lower shock mount bracket from the spindle.
- 3. Remove the lower shock mounting bolt.



- 4. If the shocks are to be replaced, remove the upper shock bolts and remove the shocks.
- 5. Loosen the inboard lower control arm bolt (loosen from the bolt head side not nut side).
- 6. Support the lower A arm with a jack, and remove the outboard lower control arm bolt.



7. Use the jack to slowly lower the control arm until the spring is no longer in compression. Remove the spring.

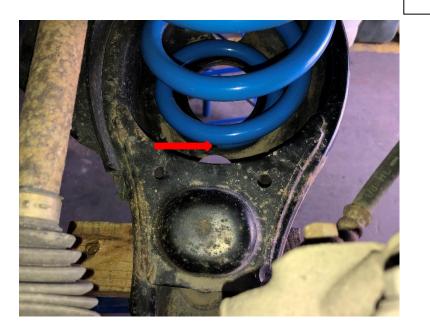
- 8. If rear lift bushing is supplied, install it now. Remove the upper spring perch from the body and install the upper spring perch lift bushing into the top of the spring perch, with the small neck of the bushing facing up. Reinstall the upper spring perch to the body with the bushing installed.
- 9. Clean and inspect all parts. Discard and replace worn or defective parts.
- 10. Reassemble the spring.

# REAR SPRING INSTALLATION

1. Install the Northwoods Performance spring with the OEM spring pads and isolators. New lower spring pads are recommended if they are worn--install the optional new lower spring isolator if provided. Install the lower spring end furthest to the outboard of the vehicle.

Pigtail end of spring shown in small arrow.

Outboard side of RAV



- 2. Align the lower control arm and install the outboard bolt. Use of jack will be required to raise the control arm and slightly load the spring. Do not fully tighten the nut.
- 3. If removed, re-install the upper shock mount with shock.
- 4. Reinstall the lower shock mount bracket.
- 5. Install the lower shock bolt from front to rear (opposite direction from OEM installation).
- 6. Replace the optional lower toe arms, if provided.
- 7. Install the sway bar rod links with bushings and nuts.
- 8. Torque the upper and lower shock mount nuts to 59 ft-lbs.
- 9. Torque the lower shock mount bracket bolts to 66 ft-lbs.
- 10. Torque the sway bar link rod nuts to 22 ft-lbs.

- 11. Lower the RAV to settle on its own weight, roll the vehicle back and forth, and bounce the rear to settle the spring and suspension. Torque the control arm inboard and outboard bolt to 66 ft-lbs. This is to align the bushings to normal ride height.
- 12. Visually inspect the installation, and check bolt torques.