



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.



BILSTEIN TERRASPORT SPRING AND STRUT INSTALLATION INSTRUCTIONS

2019+ Toyota RAV4

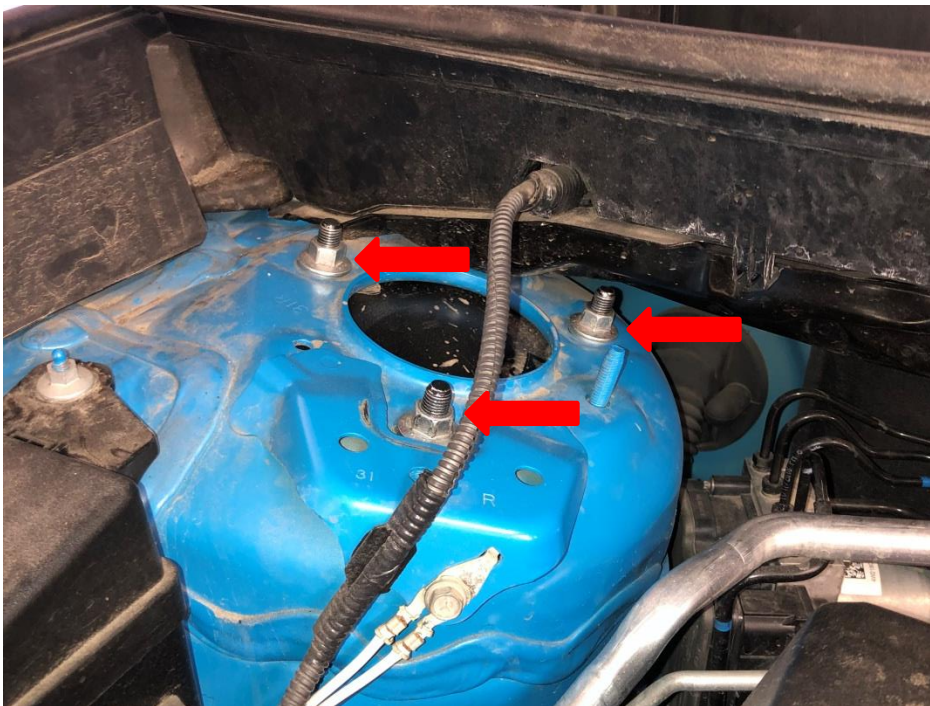
Installation time: 1-2 hours

FRONT SPRING LIFT KIT MATERIAL LIST

- | | |
|---------------------------------|---|
| • Front struts, fully assembled | 2 |
| • Sway bar links | 2 |
| • Flange nuts, 10mm | 6 |

FRONT STRUT REMOVAL

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



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.

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 nut loosely.
2. Install the two lower knuckle to strut bolts.
3. Complete the installation of the three upper strut mount nuts. Install hand tight.
4. Torque 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. Lower the vehicle to the ground and let it settle.
8. Tighten the upper strut retaining nuts in the engine bay to 37 ft-lbs.
9. Visually inspect the installation, and check bolt torques.

REAR COIL SPRING AND B8 SHOCK INSTALLATION INSTRUCTIONS

2019+ Toyota RAV4

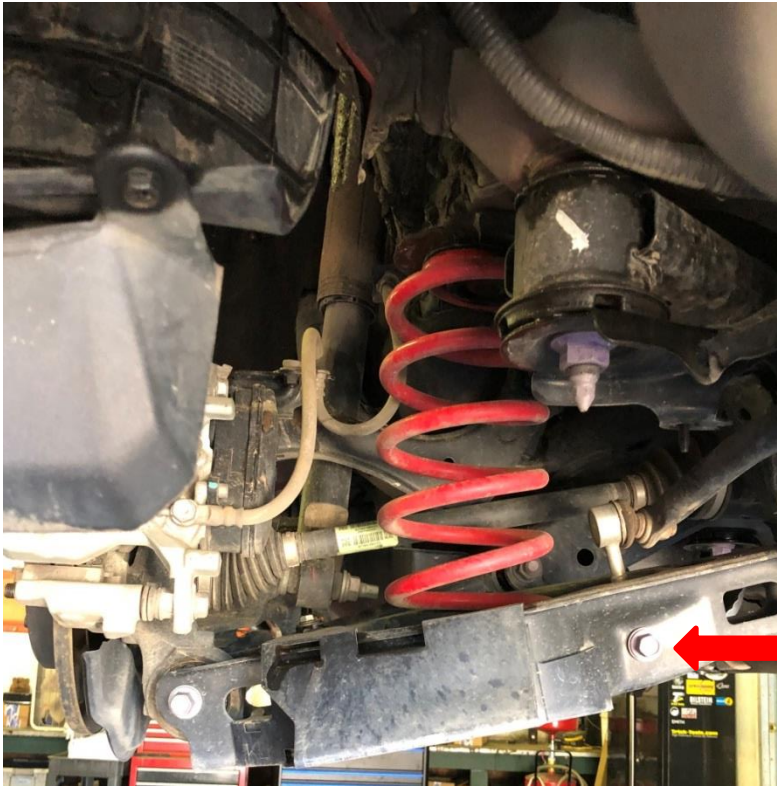
Installation time: 2-3 hours

REAR SPRING LIFT KIT MATERIAL LIST

- Rear springs (spring only purchase) 2
- Rear B8 shocks 2

REAR SPRING REMOVAL

1. Remove both the sway bar links lower bolts. Loosen from the bolt head side. 14 17 mm



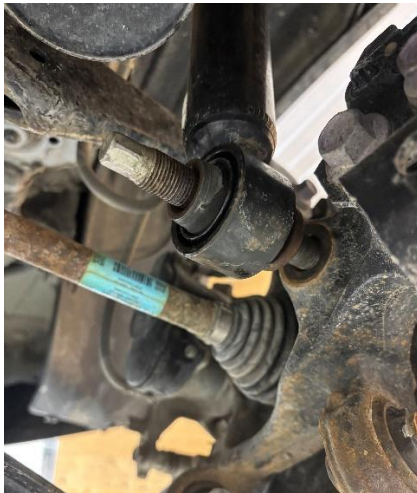
2. Support the outboard side of the lower control arm (LCA) with a jack or jack stand and slight upward pressure. A rolling floor jack also works well.
3. Mark the snail cam of the IB LCA bolt to indicate camber adjustment position. Loosen but do not remove the LCA IB bolt, from the bolt head side.
4. Remove the LCA OB bolt (loosen from bolt head side first).

5. Carefully lower the LCA with the jack to carefully unload the spring. Remove the spring.



REMOVE THE SHOCK ABSORBERS

1. Remove the two upper shock mount bolts. 17mm
2. Remove lower shock nut, 22mm
3. Remove the lower shock stud from the trailing arm. 12mm
4. Remove the shock.



REAR SPRING INSTALLATION

NOTE: When installing the Bilstein B8 Terrasport rear system with Northwoods lift springs, do not use the Bilstein coil spring spacers or body / subframe spacers. Install the Northwoods springs and B8 shocks only.

1. On the workbench, remove the upper shock mounting bracket, and re-install on the B8 shock. 17mm socket, 6mm hex.



2. Install lower shock stud. Tighten fully. Install lower shock onto stud, and shock nut. Assemble loosely.
3. Install the upper shock studs hand tight.
4. Install the Northwoods spring. The smaller end coil diameter installs up. Rotate the spring so the lower pigtail end of the bottom of the spring is towards the outboard side of the vehicle.
5. Carefully compress the spring by raising the end of the LCA with a jack. Install the LCA OB bolt and nut. Do not fully tighten. Grinding a slight taper on the end of the bolt can help installation.
6. Tighten upper shock mount to 55 ft-lbs. Tighten lower shock stud nut.
7. Slowly lower the jack and LCA; let the spring extend to its limit.
8. Repeat the shock mount and spring installation on the other side.
9. Install the sway bar links. Tighten to 22 ft-lbs.
10. Lower the car onto its weight and bounce to settle the suspension. Adjust the IB LCA bolt snail cams to the marked position to get approximate camber adjustment. (A complete alignment will be required after full installation.) Tighten the IB and OB LCA bolts to 66 ft-lbs.

