

ROUGH COUNTRY

SUSPENSION SYSTEMS®

TOYOTA 2019 - 23 Rav4 Rear Coil Spring Kit

Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.

If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product. Check all fasteners for proper torque. Check to ensure for adequate clearance between all components. Periodically check all hardware for tightness.

Kit Contents:

Coil Springs x2
Rear Shocks x2
Rear Trailing Arm Spacer x2
Rear Subframe Spacer 1.25" x4
Rear Subframe Spacer .25" x4
Rear Subframe Support x2

TOOLS NEEDED:

Jack
Safety Stands
Wheel Chocks
Pliers
Metric Wrench/Socket
10mm
12mm
14mm
17mm
18mm
19mm
22mm

HARDWARE INCLUDED:

10mm Stud Bag
10mm x 55mm Bolt x2
10mm Locking Nut x2
12mm x 35mm Bolt x2
12mm x 60mm Bolt x2
12mm Lock Washer x8
12mm Flat Washer x4
12mm Locking Nut x2
16mm x 80mm Bolt x2
16mm x 160mm Bolt x4
16mm Flat Washer x8
16mm Locking Nut x2

Some hardware may not be used



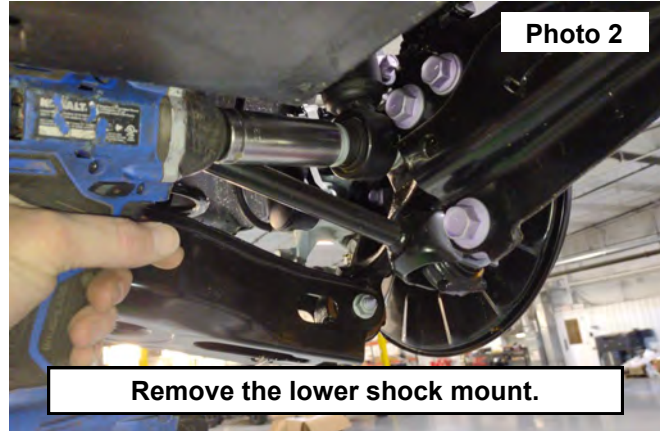
Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16"	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8"	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16"	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2"	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16"	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8"	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4"	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

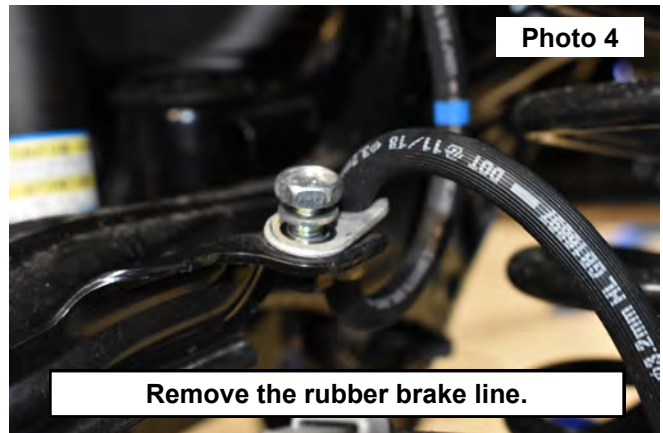


REAR INSTALLATION INSTRUCTIONS

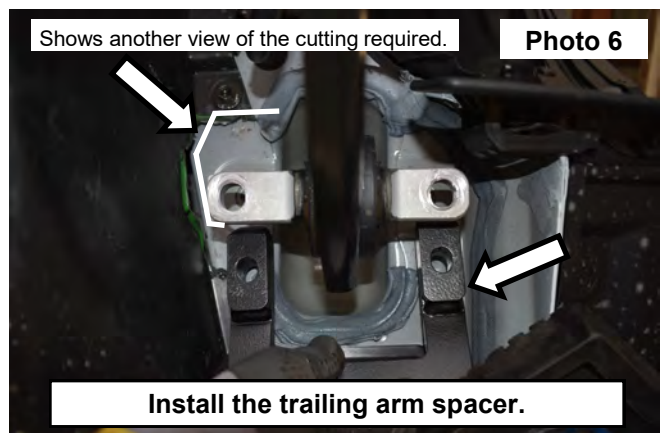
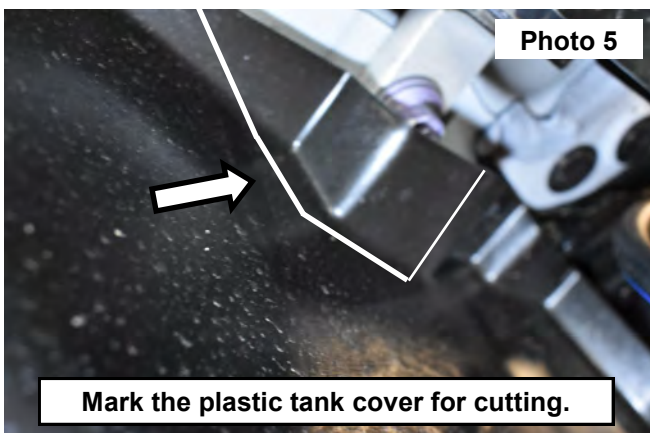
1. Refer to instructions included in 501114 Loaded Strut box for front strut installation.
2. Remove the rear wheels/tires and set aside. Support the lower control arm with a jack.
3. Remove the upper shock from the wheel well using a 14mm socket. **See Photo 1.**
4. Remove the lower shock mount from the knuckle using a 22mm socket. Remove the shock from the vehicle and set aside. Remove the bolt next to the shock using a 19mm socket. **See Photo 2.**



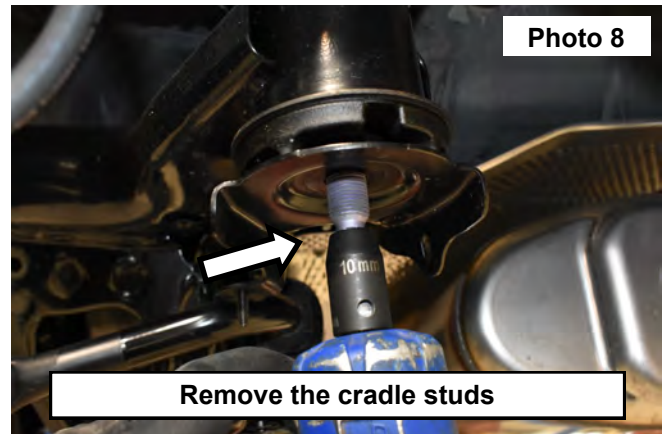
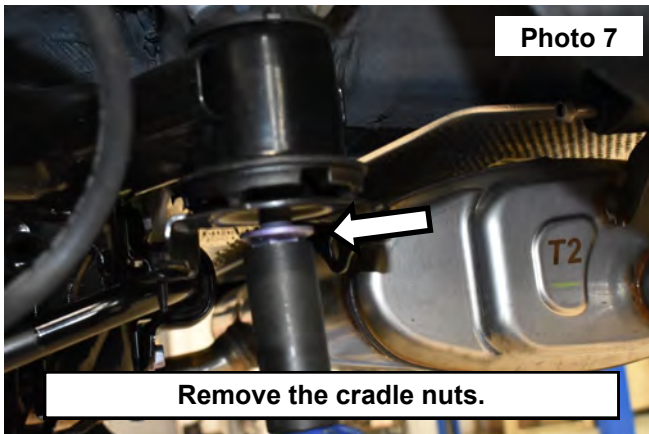
5. Remove the ABS wire bracket from the trailing arm using a 12mm socket and let hang out of the way. **See Photo 3.**
6. Remove the rubber brake line from the trailing arm using a 14mm socket and let hang out of the way. **See Photo 4.**



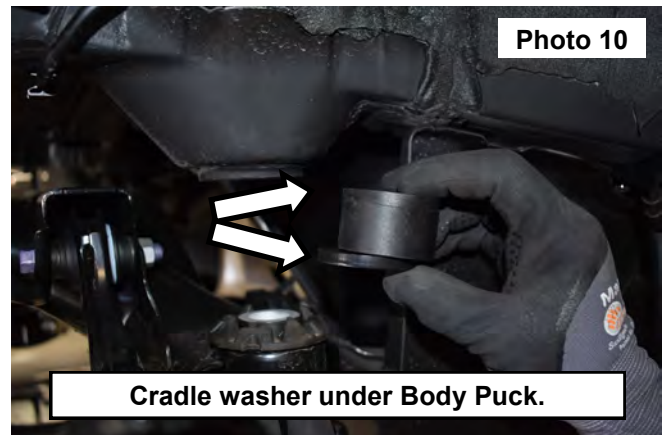
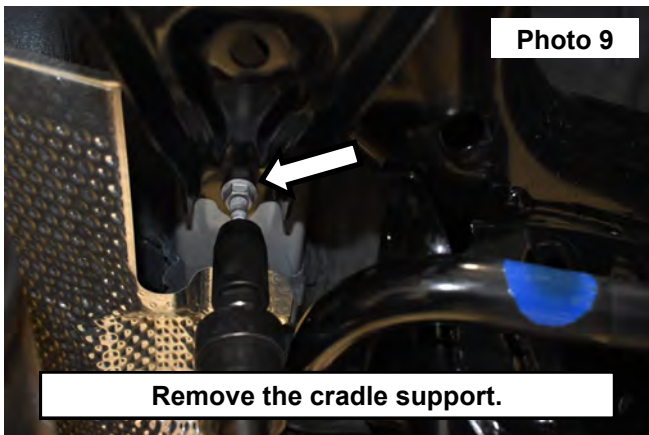
7. When looking up at the trailing arm to unibody mount, you will see the plastic tank cover extends over the inner most bolt. This will need to be trimmed out so that you can remove the trailing arm bolts and install the spacer. Mark the protruding piece of the tank with a paint pen and using a suitable cutting tool, remove this section and discard. There is a wiring harness right behind this cover, make sure you do not cut into it. You can use a razor knife to cut this out using caution to not cut into the tank, wiring harness or yourself. **See Photo 5.**
8. Remove the trailing arm bolts and lower the arm down. Install the trailing arm spacer between the unibody and the arm using the provided 12mm x 60mm bolts, lock washers, and flat washers. The "horseshoe" end will go towards the front of the vehicle. Torque to **75ft-lbs**. **See Photo 6.**



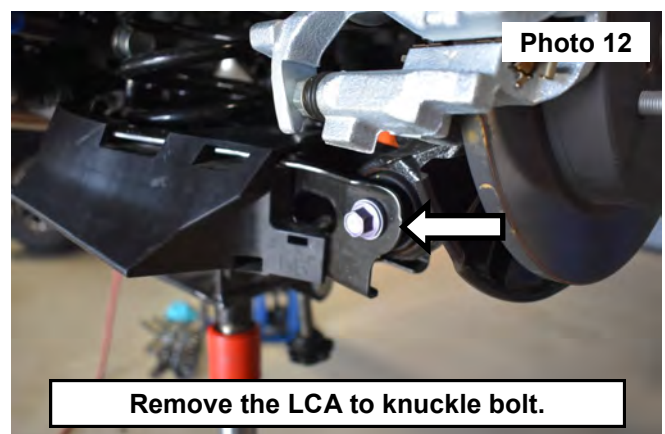
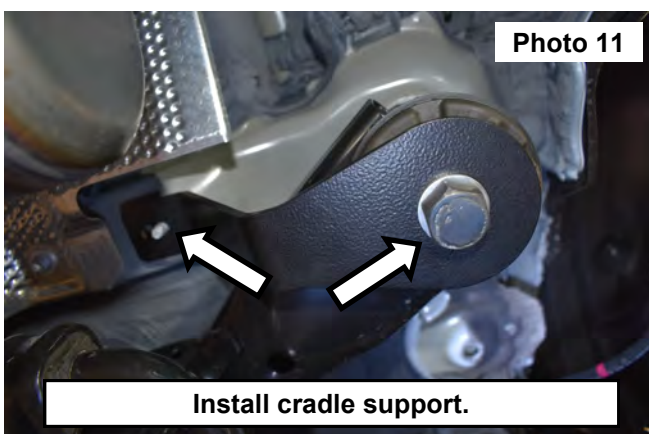
9. Support the rear subframe with a jack. Starting on one side of the vehicle, loosen but do not remove the two cradle nuts on that side using a 18mm socket. On the opposite side, remove the nuts completely. **See Photo 7.**
10. Once the nuts are removed, you will be left with the stud that is screwed into the unibody. These will need to be removed and discarded using a 10mm socket. These will be replaced with new bolts later. **See Photo 8.**



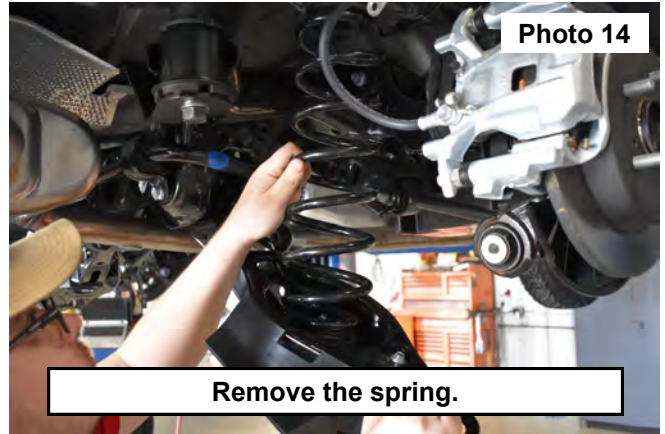
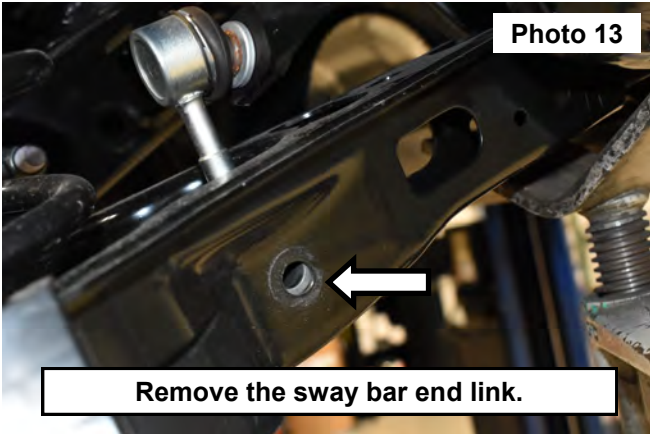
11. Remove the cradle support from the unibody using a 10mm socket. Discard the brace but save the nut. **See Photo 9.**
12. Lower the cradle down low enough to install a 1.25" body puck spacer and .25" thick cradle washer. You will install the cradle washer under the body puck spacer. **See Photo 10.**



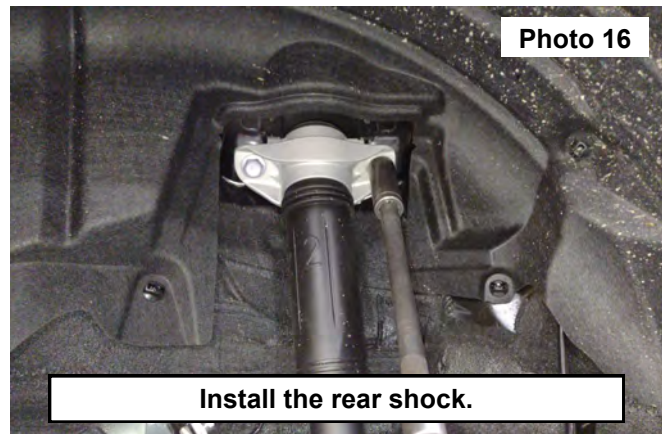
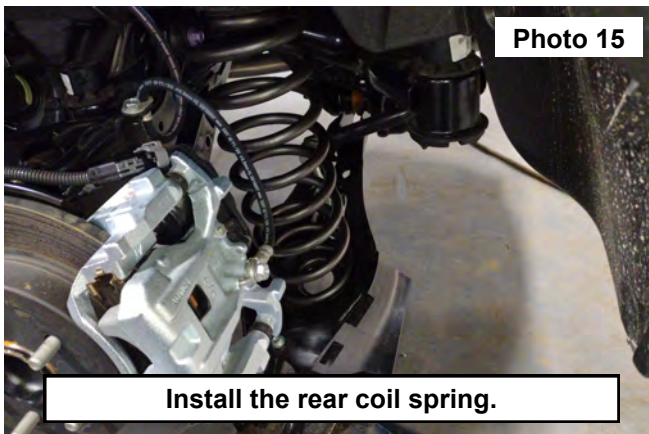
13. Raise the cradle enough to hold all in place. Install the new cradle support to the unibody using the factory nut using a 10mm socket and the supplied 16mm x 160mm bolt and flat washer using a 22mm socket. Do not fully tighten at this time. Repeat the cradle installation steps for the opposite side. Once all spacers have been installed, make sure the cradle is square under the unibody and torque the 16mm bolts to **165 ft-lbs**, and the cradle support nut to **45 ft-lbs**. **See Photo 11.**
14. Support the lower control arm with a jack. Remove the lower control arm to knuckle bolt using a 14mm socket and wrench. Loosen but do not remove the lower control arm at the subframe. **See Photo 12.**



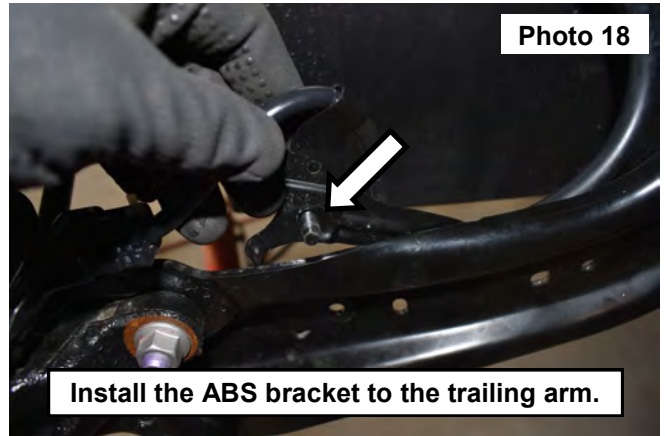
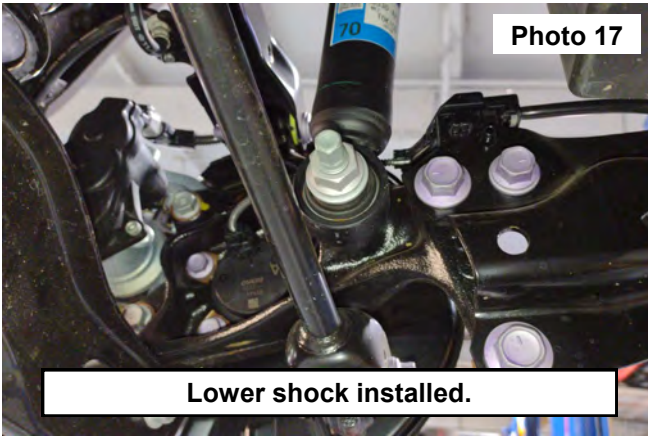
15. Remove the sway bar end link hardware from the lower control arm using a 14mm socket and wrench. Swing the sway bar up and out of the way. **See Photo 13.**
16. Lower the jack supporting the lower control arm slowly and remove the spring. Retain the upper isolator for reinstallation later. **See Photo 14.**



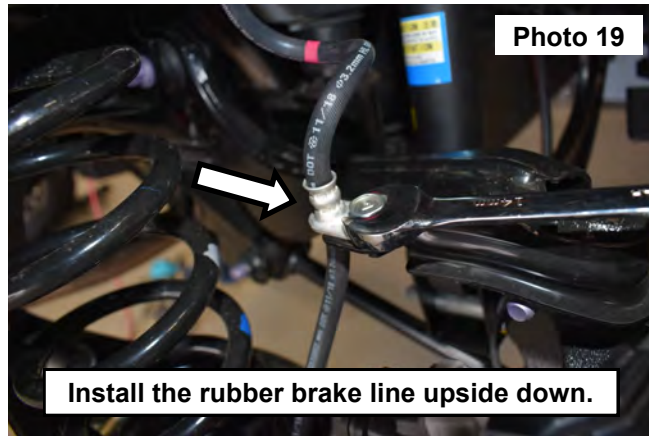
17. Install the new coil spring and raise the lower control arm up to install the knuckle using the factory hardware. Do not tighten at this time. Reinstall the sway bar end links to the lower control arm using the factory hardware. Do not tighten at this time. **See Photo 15.**
18. Remove the upper shock mount from the OE shock and install onto the new RC shock using the supplied hardware.
19. Install the shock on the lower mount using OE hardware. Then insert the upper shock assembly into the upper mount and tighten using the OE hardware. **See Photos 16 and 17.**



20. Lower shock shown installed. **See Photo 17.**
21. Reinstall the ABS wire bracket to the trailing arm using the factory hardware, 12mm socket and torque to **5 ft-lbs.**
See Photo 18.



22. Install the rubber brake line to the trailing arm using the factory hardware while flipping the bracket upside down. Torque to **5 ft-lbs.** **See Photo 19.**



23. Install the wheels/tires and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs.
24. Roll the vehicle backwards and forwards a few feet to get the suspension to settle to the new ride height.
25. Torque the rear lower shock to **75 ft-lbs.** Control arm to knuckle and subframe to **95 ft-lbs,** the lower shock mount to **120 ft-lbs,** and the sway bar end link to **75 ft-lbs.**

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