

Install Guide

Suspension Lift Kit

Toyota RAV4 XA50



Note: These components must be fitted by a qualified person only, as per the manufacturers' service manual. Also, all relevant safety procedures are followed in addition to the following. Photos are an indication and may vary slightly in appearance from the actual product.

Kit Contents:

- 1x Front Left Strut
- 1x Front Right Strut
- 2x Rear Shock
- 2x Rear Spring
- 2x 16mm Camber Adjustment Bolt

What You'll Need:

- Pry Bar
- Trim Clip Remover
- Vehicle Hoist
- Hoist Jack Stand
- Transmission Jack
- 5mm T-tool

Socket/Spanner Sizes:

- 10mm
- 14mm
- 15mm
- 17mm
- 19mm
- 20mm
- 22mm (x2)

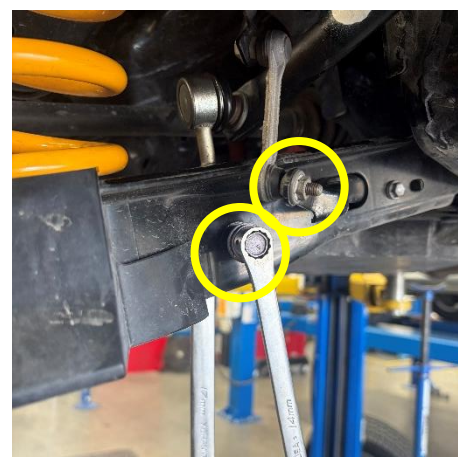
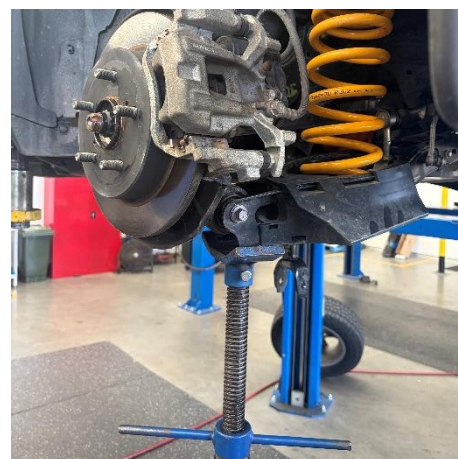
Note: Throughout the rear suspension, Toyota use self-locking nuts. These bolts are designed to be loosened and tightened via the bolt head with the nut held still. These types of nuts can be identified as having a thick washer under the bolt head only. Tightening the nut side can cause damage to both the nut and arm.

The installation of the rear spring can be quite tricky without the correct equipment. If you are using floor jacks, ensure you have adequate ground clearance to allow the rear lower spring arm to swing down fully. Whiteline recommends the use of a 2-post hoist, a jack stand, and a transmission jack (or a standard jack with wheels).

1. Raise the car and support it appropriately. Then remove all 4 wheels.

Rear Installation

2. Support the left hand side rear lower control arm with a transmission jack in the position shown. Only apply light pressure with the jack, do not lift the hub.
3. First remove the ride height sensor bolt circled (if fitted) using a 10mm socket. Then, using a 14mm and 17mm spanner, disconnect the sway bar link from the control arm. Ensure you are loosening the bolt via the bolt head, NOT the nut.



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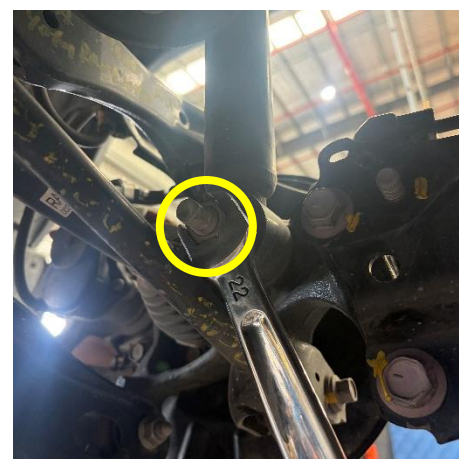
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4. Using a 17mm socket, remove the two upper shock mount bolts.



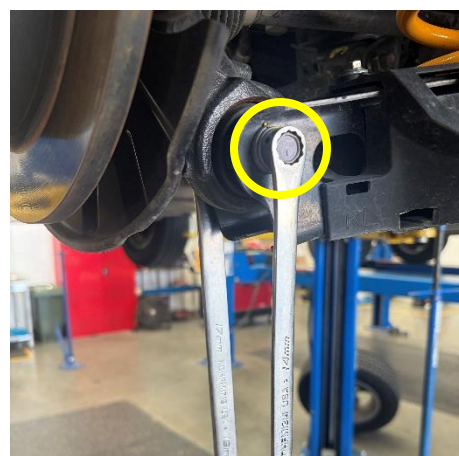
5. Using a 22mm spanner, remove the lower shock bolt.



6. Mark the toe adjuster before loosening it with a 19mm and 22mm spanner. Only loosen it a few rotations.



7. With the arm supported, remove the outer bolt of the lower arm using a 14mm and 17mm spanner. Ensure you are loosening the bolt via the bolt head, NOT the nut.
8. This bolt may be bound up, try positioning a second stand underneath the front blade arm. Adjust both stand to allow the bolt to be removed freely.
9. Brace the spring while carefully lowering the spring arm until the spring is free and can be removed. Note the position of the two rubber insulators. This arm can be left hanging.



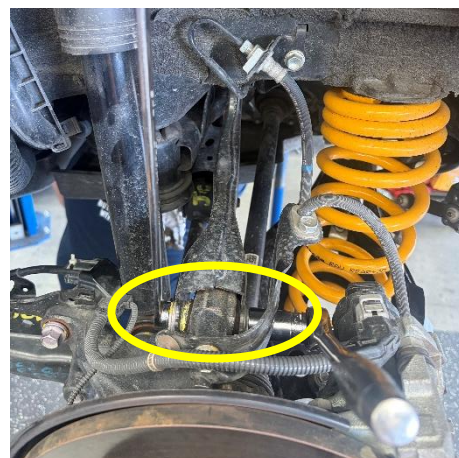
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10. To remove the shock absorber, you may need to remove the upper control arm outer bolt. Use a 17mm and 14mm spanner. Ensure you are loosening the bolt via the bolt head, NOT the nut. If you are replacing the upper arm, do it now. If you are retaining the original arm, Loosen the inner bolt to allow free movement.
11. This bolt may be bound up, try adjusting the stand underneath the front blade arm to allow the bolt to be removed freely.
12. Lower the hub so it hangs freely. The shock should now be easily removed.



Rear Installation

13. Transfer the upper mount, plastic cover, bump stop and dust boot from the original shock to the new one.
14. First, remove the plastic cover using a trim remover or screwdriver. Then remove the shaft nut using a 17mm spanner and 5mm t-tool. Transfer the whole bump stop, boot and top mount assembly over to the new shock and tighten the nut to the manufactures recommended torque. Once tight, fit the plastic cover as before.
15. Fit the new assembled shock to the vehicle by first mounting it on the lower stud and hand tighten the nut.
16. Fit the new springs onto the lower control arm reusing both the original rubber spring insulators and support using a transmission jack.
17. Carefully raise the arm, compressing the spring, until the bolt holes line up. Ensure you do not lift the car off the hoist. The hub should have enough play to pull down towards the arm and line up the bolt. Reposition the second jack under the blade arm and adjust if needed. Fit the bolt through the arm and hand tighten the nut.
18. Using the jack stands, carefully position the hub to allow the upper control arm bolt to be refit freely and hand tighten the nut.
19. Line up the toe adjustment with the mark made earlier and tighten the nut using a 19mm and 22mm spanner.
20. Refit the sway bar link bolt and ride height sensor nut and hand tighten.
21. Repeat steps 2-20 for the right-hand rear.



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Front Strut Removal

22. With both front wheels off, remove the black plastic cover on the sway bar link nuts, then remove the nut using a 19mm socket and disconnect the link from the shock. Right hand side shown.
23. Crack loose the front LCA inner forward bolt.
24. Remove the brake line bolt using a 10mm socket and push the brake line and speed sensor wire out of the way.
25. Support the hub using a jack stand. Only apply light pressure with the jack, do not lift the hub.



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26. Remove the speed sensor clip from the lower shock and place out of the way.



27. Using two 22mm sockets, remove the two lower shock bolts. Image is example only, bolts may differ.



28. Lift and support the bonnet. Then remove the three upper strut mount bolts using a 14mm socket. Ensure you support the shock while removing the final nut.

29. The original strut may now be removed and replaced with the new complete strut.

Front Strut Installation.

30. Begin installation by aligning and hand tightening the upper strut mount nuts using a 15mm socket.
31. Align the lower shock mount to fit over the hub, then fit the original lower shock bolt through the lower position and hand tighten.



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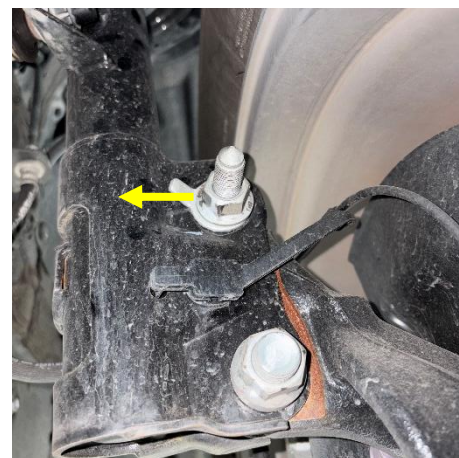


32. Fit one of the supplied adjustable camber bolts through the upper bolt position. Ensure to correctly fit each locator washer on both ends of the bolt before tightening to prevent damaging the locator. The small tab should fit within the shock bolt hole, and the washer should fit flush with the shock face. The large tab should be facing out of the shock and towards the middle of the car. Hand tighten the nut.
33. Re-fit the black speed sensor brackets and brake line brackets with the original bolt to the manufacture's recommended torque.
34. Re-attach the sway bar link and tighten the nut to the manufacture's recommended torque setting. Refit the plastic cover.
35. Repeat steps 22-33 on the remaining side.
36. Refit the wheels and gently lower the car to the ground. With the car at its new ride height, tighten every remaining bolt and nut to the manufactures recommended torque spec.
37. Perform a front and rear wheel alignment. Be sure to mention the fitment of front adjustable camber bolts.

It is extremely important to wheel align the car as soon as possible to avoid dramatic tyre wear and unstable handling characteristics.

Post installation:

- Re-tension all fittings after a settling-in period, but not later than 100kms (60miles) after installation.
- For noise and friction free operation, carry out periodic inspections and maintain proper bushing lubrication.



Front Bolt Checklist:

- ☐ 6x upper strut mount nuts
- ☐ 2x lower shock mount bolts (lower)
- ☐ 2x lower shock mount camber adjustment bolts (upper)
- ☐ 2x lower control arm forward bolts
- ☐ 2x brake line bracket bolts
- ☐ 2x sway bar link nuts

Rear Bolt Checklist:

- ☐ 4x upper shock mount bolts
- ☐ 2x lower shock mount nuts
- ☐ 2x lower inner control arm (toe adjuster) bolts.
- ☐ 2x lower control arm outer bolts
- ☐ 2x sway bar link bolts
- ☐ 2x ride height sensor nuts
- ☐ 2x upper control arm inner bolts
- ☐ 2x upper control arm outer bolts