



Lift & Level Kit
Installation Instructions
2011-2018 WK Grand Cherokee
Part #: RT21054

Kit Contents

- Front Strut Spacer	Qty: 2
- Rear Coil Spring Spacer	Qty: 2
- Rear Shock Absorber Spacer	Qty: 2
- 1/4" Thick Flat Washer	Qty: 2
- 1/2"-13 x 4" Grade 5 Bolt	Qty: 2
- M10-1.5 x 50mm Class 8.8 Bolt	Qty: 4
- 1/2" Flat Washer	Qty: 2
- M10 Split Lock Washer	Qty: 4
- M10 Flat Washer	Qty: 4
- M8 Flat Washer	Qty: 6
- M8-1.25 Nylon Locking Nut	Qty: 6



Required Tools

- 10mm Socket and/or Wrench	- 19mm Socket and/or Wrench	- 32mm Socket	- Pliers
- 13mm Socket and/ or Wrench	- 21mm Socket and/or Wrench	- Screwdriver	- Ft. Lb. Torque Wrench
- 16mm Socket	- 22mm Socket or Lug Wrench	- Pry Bar	- In. Lb. Torque Wrench
- 18mm Socket and/or Wrench	- 24mm Socket and/or Wrench	- Hammer	

NOTE: This kit is designed to work only on vehicles equipped with coil springs. It will NOT fit vehicles equipped with Quadra-Lift Air Suspension.

Ensure that all components in kit are accounted for.

Front Installation

1. Open the hood. Place wheel chocks against the rear tires. Lift the vehicle by the front lower control arms, support the vehicle with jack stands at the frame, and remove the wheels using a 22mm socket.
2. Place a jack under the lower control arm. Raise the suspension a few inches to relieve stress or binding. Raising or lowering the suspension will help in removing or installing components throughout the installation of this kit.
3. Remove the wheel speed sensor from the knuckle using a 10mm socket or wrench. Retain the hardware for re-assembly.
4. Remove the caliper bracket from the knuckle using a 21mm socket or wrench. Retain the hardware for re-assembly. Ensure the caliper doesn't hang from the brake hose.

NOTE: We suggest the brake caliper pistons be slightly compressed using a pry bar or c-clamp. This will allow the brake pads to slide onto the rotor easily during assembly.

5. Remove the o-ring from between the brake rotor and hub assembly. Retain the o-ring for re-assembly. Remove the brake rotor.
6. Remove the axle shaft nut using a 32mm socket. Retain the hardware for re-assembly.
7. Disconnect the sway bar link from the sway bar using a 19mm wrench and 8mm socket or wrench.
8. Remove the tie rod end nut using a 21mm socket or wrench. Loosen the taper using a tie rod end removal tool. Hammering on the side of the knuckle to loosen the taper will also work if a tie rod end removal tool is not accessible. Retain the hardware for re-assembly.
9. Remove the upper ball joint nut using a 21mm socket or wrench. Loosen the taper and separate the upper control arm from the knuckle. Retain the hardware for re-assembly.
10. Remove the lower ball joint nut using a 24mm wrench and 8mm Allen wrench. Loosen the taper and separate the lower control arm from the knuckle. Remove the knuckle. Retain the hardware for re-assembly.
11. Remove the lower control arm to strut bolt using a 21mm and 24mm socket or wrench. Retain the hardware for re-assembly.
12. Remove the 3 upper strut mounting nuts from inside the engine compartment using a 13mm socket or wrench. Remove the strut.

NOTE: Pushing down on the lower control arm should help in removing the strut.

13. Separate the axle shaft from the front differential/axle tube using a pry bar. Remove the axle shaft.
14. Mount a **Front Strut Spacer** to the top of strut using the factory hardware. Tighten using a 13mm wrench.
15. Install the strut & spacer assembly into the Jeep. Mount the upper spacer to the Jeep using the included **M8 Flat Washers** and **M8-1.25 Nylon Locking Nuts**. Torque to 21 ft. lbs.
16. Install the axle shaft into the front differential/axle tube. Verify the axle shaft is fully engaged. Position the axle shaft into the clevis (fork section) of the front strut.
17. Install the strut to the lower control arm using the factory hardware. Do not torque at this time.
18. Slide the knuckle onto the lower ball joint and loosely affix using the factory hardware.
19. Slide the axle shaft into the hub assembly and loosely affix using the factory hardware.
20. Install the upper ball joint to the knuckle and loosely affix using the factory hardware.
21. Raise the Jeep by the lower control arm until it starts to lift the vehicle. This is to ensure the suspension bolts are torqued at ride height. Torqueing the bolts with the suspension fully drooped will result in premature bushing failure.
22. Torque the strut to lower control arm bolt to 173 ft. lbs. Torque the lower ball joint nut to 125 ft. lbs. Torque the upper ball joint nut to 76 ft. lbs.
23. Install the tie rod end to the knuckle using the factory hardware. Torque to 70 ft. lbs.
24. Install the wheel speed sensor to the knuckle using the factory hardware. Torque to 8 ft. lbs. (95 in. lbs.)

25. Install the o-ring, rotor, and caliper with bracket using the factory hardware. Torque the caliper bracket to knuckle bolts to 148 ft. lbs.
26. Torque the axle shaft nut to 229 ft. lbs. Applying the brakes should help to prevent the axle shaft from spinning during this process. **DO NOT USE AN IMPACT WRENCH.** Proper axle shaft nut torque is imperative to ensure the bearings in the hub assembly are loaded properly. Failure to do so will cause the hub assembly to wear out or fail prematurely.
27. Repeat steps 2-26 on the other side.
28. Install the sway bar link to knuckle on both sides using the factory hardware. Torque to 81 ft. lbs.
29. Install the wheels and tires and lower the vehicle to the ground. Torque all lug nuts to 130 ft. lbs.

Rear Installation

1. Place wheel chocks against the front tires. Lift the vehicle by the rear lower control arms, support the vehicle with jack stands at the frame, and remove the wheels.
2. Place a jack under the lower control arm. Raise the suspension a few inches to relieve stress or binding. Raising or lowering the suspension will help in removing or installing components throughout the installation of this kit.
3. Loosen (do not remove) the 4 sway bar bracket mounting bolts using an 18mm socket or wrench.
4. Remove the brake hose retaining clip and separate the brake line from the frame.
5. Remove the wheel speed sensor to knuckle mounting bolt using a 10mm socket or wrench. Let the ABS line hang from the upper control arm clip. Retain the hardware for re-assembly.
6. Disconnect the ride height sensor arm from the rear of the lower control arm (if necessary).
7. Disconnect sway bar link from the sway bar using an 18mm wrench and 8mm socket and or wrench. Retain the hardware for re-assembly.
8. Remove the bottom bolt from the shock absorber using a 21mm and 24mm socket or wrench. Retain the hardware for re-assembly.
9. Remove the bolts holding the toe link, camber link, and tension link from the knuckle using an 18mm socket or wrench. Retain the hardware for re-assembly.
10. Remove 3 plastic push clips from the back side of the fender liner for easier access to upper shock mounting bolts.
11. Remove the upper shock mount bolts using a 16mm socket. Remove the shock and shock mount.
12. Remove the coil spring.
13. Remove the plastic coil spring retainer from the lower control arm. Separate the rubber section from the plastic coil spring retainer and save for later use.
14. Place a **Rear Coil Spring Spacer** on top of the coil spring mounting location on the lower control arm with the coil spring mount facing up. Place a **1/2" Flat Washer** followed by a **1/4" Thick Washer** on a **1/2"-13 x 4" Grade 5**

- Bolt.** Thread the bolt into the **Rear Coil Spring Spacer** from under the lower control arm. Torque the bolt to 65 ft. lbs.
- 15.** Mount the rubber portion of the coil spring retainer from Step 13 to the Rear Coil Spring Spacer. Index the coil spring into the tab of the Rear Coil Spring Spacer. Install the coil spring into the upper coil spring mount.
 - 16.** Place the **Rear Shock Absorber Spacers** on top of the shock mount. Install the upper shock mount to the vehicle using the **M10-1.5 x 50mm Class 8.8 Bolts, M10 Split Lock washers, and M10 Flat Washers.** Torque to 36 ft. lbs.
 - 17.** Loosely affix the shock absorber to lower control arm using the factory hardware.
 - 18.** Install the 3 plastic push clips into the fender liner that was removed in Step 10.
 - 19.** Loosely affix the Toe Link, Camber Link, and Tension Links to the knuckle using the factory hardware.
 - 20.** Raise the Jeep by the lower control arm until it starts to lift the vehicle. This is to ensure the suspension bolts are torqued at ride height. Torqueing the bolts with the suspension fully drooped will result in premature bushing failure.
 - 21.** Torque the shock absorber to lower control arm bolt to 173 ft. lbs. Torque the Toe Link, Camber Link, and Tension Link to knuckle hardware to 79 ft. lbs.
 - 22.** Connect the sway bar link to the sway bar using the factory hardware. Torque to 78 ft. lbs.
 - 23.** Connect the ride height sensor arm to the lower control arm (if necessary).
 - 24.** Connect the brake hose to the frame using the factory retaining clip.
 - 25.** Connect the wheel speed sensor to the knuckle using the factory hardware. Torque to 8 ft. lbs. (95 in. lbs.)
 - 26.** Repeat steps 4-25 on the other side.
 - 27.** Torque the 4 sway bar bracket mounting bolts to 81 ft. lbs.
 - 28.** Install the wheels and tires and lower the vehicle to the ground. Torque all lug nuts to 130 ft. lbs.

Check torque on all bolts after 100 miles of driving.

While every attempt is made to ensure that the information contained in these instructions are correct, no liability can be accepted by the authors for loss, damage or injury caused by any errors in, or omissions from the information given. All service should be performed by qualified mechanics. Crown Automotive Sales Co., Inc. cannot be held responsible for any mechanical work performed. Standard and accepted safety precautions and equipment should be used in every procedure. This modification will cause the vehicle to handle differently than with stock suspension. Unusual maneuvers could cause loss of control. Care must be taken at all times.