

Installation Guide for Rubicon Express 2.5 in. Standard Coil Lift Kit

Installation Time: 6 Hours

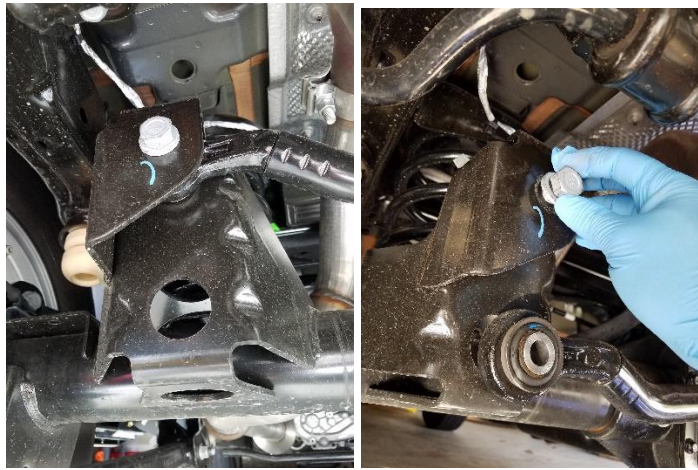
Tools Required

- ✓ Floor Jack
- ✓ Jack Stands
- ✓ Ratchets (¼" and ½") and Ratchet Extension (½")
- ✓ Wrenches (18mm)
- ✓ Sockets (10, 15, 13, 18, 21 and 22mm)
- ✓ Pry Tool
- ✓ Drill Bit (½") for Metal and Drill.
- ✓ Torque Wrench
- ✓ Frame Paint (Optional)
- ✓ Zip tie (Optional)

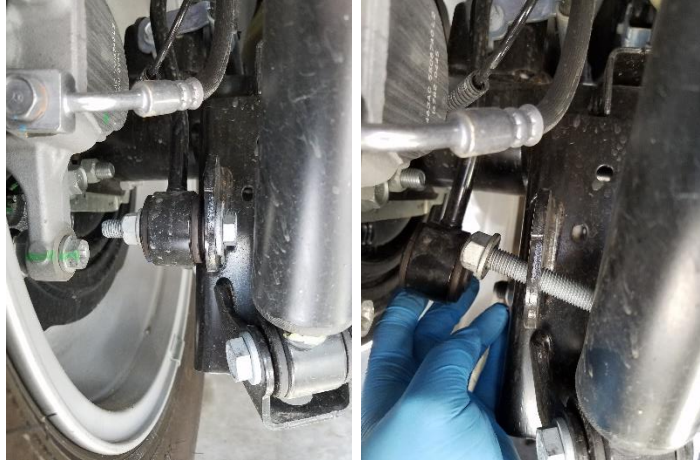
Park the vehicle on a safe and leveled surface and wear protection gear. Although some of the installation steps described below can be performed in a different order, performing the steps the specified order should help leverage the weight vehicle and the axle to your benefit during installation. With that in mind, keep the vehicle on the floor during the first few steps. The instructions will specify the right time to lift your JL.

Installation Instructions for the Rear Axle:

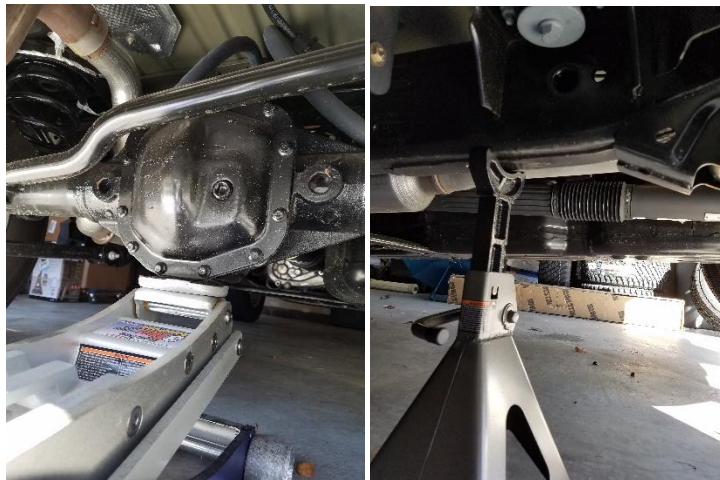
1. With a 21mm socket and the full weight of the jeep on the ground, remove the track bar's bolt from the axle. Keep the factory hardware in the axle.



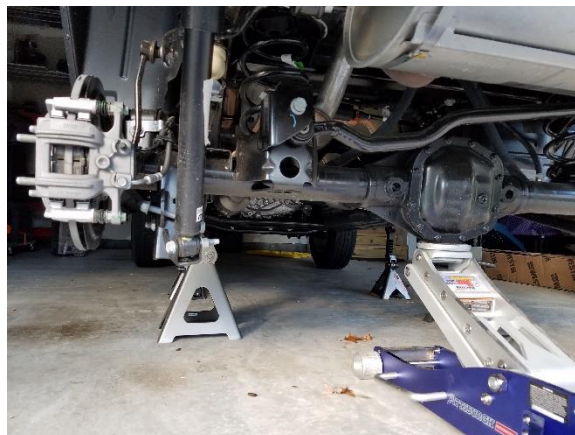
- Using an 18mm wrench and socket, remove the screws securing the lower end of the links to the axle. Keep the factory hardware in the axle as these will be reused when installing the longer links. Perform this step in the driver (shown) and passenger sides.



- Lift the rear end of the jeep from the axle and place two jack stands securely in the frame in the jack points suggested by the manufacturer. The higher you can safely lift the car, the easier it will be to lower the axle during installation. This will allow dropping the axle low enough to pull the coil springs without the need of a spring compression tool.



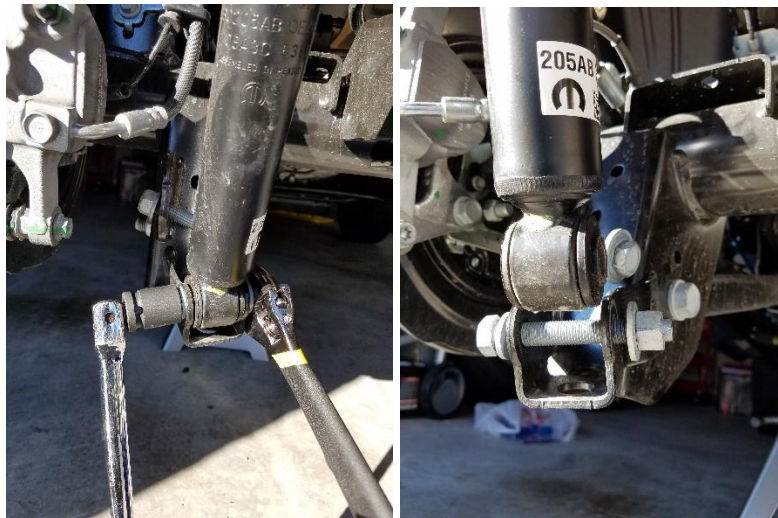
- Remove the rear wheels and keep the jack in place supporting the axle.



- Using an 18mm socket, remove the nut securing the upper end of the links to the sway bar. Keep the factory hardware in the sway bar as these will be reused when installing the longer links. Perform this step in the driver (shown) and passenger sides.



- Using an 18mm wrench and socket, remove the screws securing the lower end of the shocks to the axle. Keep the factory hardware in the axle. Perform this step in the driver (shown) and passenger sides. If new shocks will be installed with this kit, remove the upper screw and remove the shock. Otherwise, the shock can remain attached to the frame as shown below.



7. On Rubicon models only, remove the electric locker plug located in the rear axle differential.
8. Using the floor jack, carefully lower the rear axle using the floor jack. As the axle comes down, pay attention not to over-extend the break and emergency break lines and that the axle is not pulling on any loose parts (e.g. the disconnected wiring harnesses on Rubicon models). Go as low as you can without over extending the break and emergency break lines. In this step the rear coils will separate from the upper spring bucket. Remove the factory coil springs from both the driver and passenger's side.



9. If you are installing new control arms, shocks or shock extensions along with this kit, this would be the time to do so. If installing shock extension brackets, you should only install the bracket to the axle bracket at this point.
10. Using a 14mm wrench and socket, install the rear bump stop extensions (RE1303) in the axle pad with the orientation tab towards the rear of the vehicle. Use the hardware supplied (90-6577). Using the torque wrench, tight to 20 ft-lb. Perform this step in the driver (shown) and passenger sides.



11. Now the new springs can be installed. Position the spring with the small diameter end facing up. Place the factory isolator sitting properly in the higher end of the coil spring. Ensure the index in the factory rubber is properly inserted into the hole on the upper spring bucket. Perform this step in the driver (shown) and passenger sides.



12. Using the floor jack, lift the rear axle until the lower end of the shocks align to the connection points in the axle. Insert hardware. Use the torque wrench and tight to 75 ft-lb of torque. Perform this step in the driver and passenger (shown) sides.



13. On Rubicon models, re-insert the cable connectors to the electric locker the rear axle differential. It might be a good idea to disconnect the electric locker's wiring harness from the frame and loosely secure it to the emergency brake cable with a zip tie (optional). This would provide more slack for the axle to articulate while off-roading.
14. Install the new rear sway bar end links (RE1151) in place of the previously removed, using the supplied hardware (HWC15062) and a 19mm socket and wrench. It might be necessary to drill the sway bar mounting holes to $\frac{1}{2}$ ". If you do, paint the hole (optional) to prevent corrosion.
- For vehicles using factory 17" wheels, secure the link to the sway bar and rear axle. Ensure that the link's bend is at the top and facing towards the *inside* of the vehicle and the bolt heads are facing in towards the frame.

- b. For vehicles using aftermarket wheels with 4.75" of backspacing, secure the link to the sway bar and rear axle. Ensure that the link's bend is at the top and facing towards the outside of the vehicle and the bolt heads are facing towards the outside of the vehicle.

Perform this step in the driver and passenger (shown) sides.



15. Using the torque wrench, tight the link to the upper end to the sway bar to 50 ft-lb of torque and 60 ft-lb of torque on the lower end to the axle.
16. Install the rear wheels. Tight the wheel nuts to 85-95 ft-lb of torque and lower the vehicle to the ground.
17. Re-connect the lower end track's bar to the axle. Use the jack to help yourself. You might need a helper to push the vehicle from the passenger to the driver's side for the track bar to align with the mounting bracket in the axle. Once in place, use the torque wrench and tight to 90 ft-lb of torque.



Installation Instructions for the Front Axle:

1. Optional. Remove the skid plate to gain better access to the track bar and the sway bar links.
 - a. On Rubicon models, use a 13mm socket, remove the bolts. Leave the bolt in the middle to the end. This will help keep the weight of the skid plate balanced for easy removal.
 - b. On non-Rubicon models, you will need the Pry Tool.
2. Using a 21mm socket and an extension and with the full weight of the jeep on the ground, remove the track bar's bolt at the connection point with the axle (passenger's side). This will allow the axle to drop further later in the process and help remove the coil springs easier. Leave the hardware on the axle for later use.



3. Using an 18mm wrench and socket, remove the screws securing the lower end of the links to the axle. Keep the factory hardware in the axle as these will be reused when installing the longer links. Perform this step in the passenger (first row of images) and the driver (second row) sides.



18. With the floor jack, raise the front end of the jeep from the axle and place two jack stands on the jack points according to manufacturer's instructions. The higher you can safely lift the car, the easier it will be to lower the axle during installation. This will allow dropping the axle low enough to pull the coil springs without the need of a spring compression tool. Keep the floor jack as support for the axle.
19. Using an 18mm wrench and socket, remove the screws securing the upper end of the links to the axle. Perform this step in the passenger (shown) and the driver sides.



4. Using a 22mm socket or the factory provided tools, remove the front wheels.
5. Raise the front axle one or two inches to relieve some pressure. This will facilitate removing the hardware. Make sure you don't overdo this step by ensuring that the front jack stands are still making full contact with the frame.
6. Using the 18mm socket and wrench, remove the bolt securing the shock to the axle. Once removed, place the hardware back in the axle mount, as it will be reused to install the new shock or shock extension. Perform this step in the passenger (shown) and the driver sides.



7. If you will install new shocks along with the lift, proceed to remove the bolt on the upper mount of the shock, and discard the stock shock responsibly. If you will keep the existing shocks and use a shock extension instead, you can keep the upper bolt and shock installed.



- Using a 15mm socket remove the nut securing bracket holding the brake and ABS lines attached to the lower control arm. Keep the hardware in the control arm. Perform this step in the passenger (shown) and the driver sides.



- Using a 10mm socket remove the nut securing bracket securing the brake and ABS lines to the frame. Once again, keep the hardware in the frame.

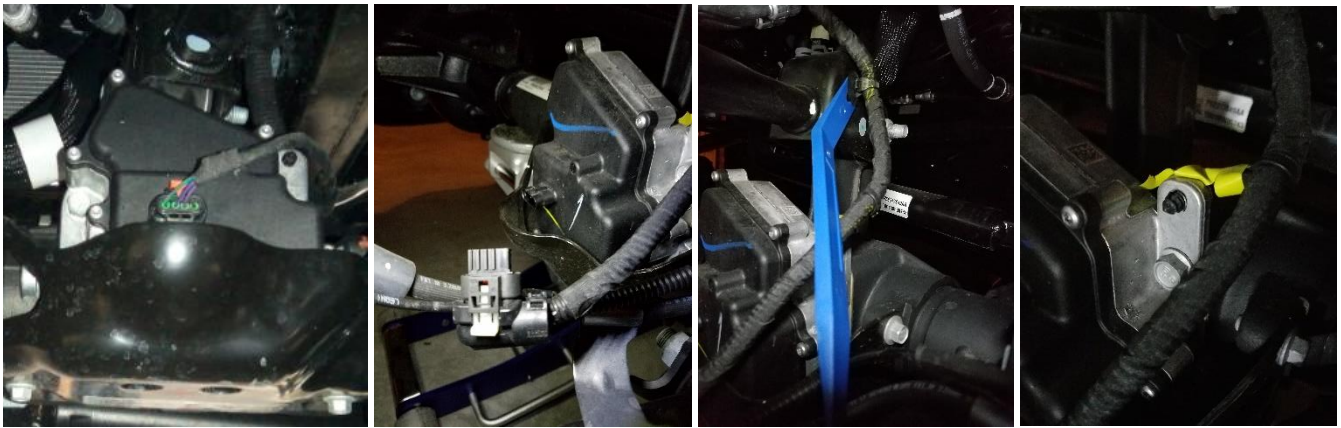


10. Using a 10mm socket, remove the break and ABS lines bracket from the base of the coil spring (only the passenger's side needs to be removed). This will allow to install the bump stop at a later step.



11. On Rubicon models only, remove the electric locker plug located in the front axle differential. There are two brackets attaching the wiring harness to the upper control arm and the frame (driver's side). Remove these with the pry tool.

12. Remove the Front Axle Disconnect (FAD) wiring harnesses. There are three brackets attaching the wiring harness to FAD box, the upper control arm and the frame (passenger's side). Remove these with the pry tool.



13. Using the floor jack, carefully lower the front axle. As the axle comes down, pay attention not to over-extend the break lines and the axle vent. Also make sure that the axle is not pulling on any loose parts (e.g. the disconnected wiring harnesses). Go as low as you can without over extending the break lines and vent. In this step the rear coils will separate from the upper spring bucket. Remove the factory coil springs from both the driver and passenger's side.



14. Once the axle is lowered and the springs have enough clearance, you can lift the spring towards the upper spring bucket and pull it out from the bottom. The rubber isolator from factory will be reused when installing the new coil spring. Perform this step in the driver (shown) and the passenger sides.



20. To install the new springs, position the springs with the small diameter end facing up. Insert the lower bump stops (RE1301) inside the bottom part of the spring. Holding the bump stop and the factory isolator sitting in the higher end, insert the higher end of the spring into the upper spring buckets and over the lower spring cups and bump stop pads. The factory isolators on the front have two indexes each. Ensure that those indexes are properly inserted into the corresponding holes on the upper spring bucket. Perform this step in the driver (shown) and passenger sides.



21. Rotate the coil springs so the end of the coil sits properly in the factory isolators and use a 14mm socket and wrench, secure the lower bump stop using the hardware supplied in the kit (HWC15057). Perform this step in the driver (shown) and passenger sides.



- Using a 10mm socket, re-install the brake and ABS lines bracket from the base of the coil spring previously removed from the passenger's side.



- If you are installing new control arms, shocks or shock extensions along with this kit, this would be the time to do so. If using shock extension brackets, you should only install the bracket to the axle bracket at this point.
- Using the floor jack, raise the front axle until the lower end of the shocks align to their respective connection points. Insert hardware. Use the torque wrench and tight to 75 ft-lb of torque.



- Re-insert the cable connectors to the FAD. On Rubicon models, also re-insert the plugs to the electric locker in the front axle differential. Re-attach wiring the harness to the using the previously removed plugs.
- Re-install the brackets of the brake and ABS lines to the lower control arm and frame. Use the torque wrench and tight to 15 ft-lb of torque.



20. Using a 19mm socket and wrench, install the higher end of the new front sway bar end links (RE1152) using the provided hardware (HWC15025). It might be necessary to drill the sway bar mounting holes to $\frac{1}{2}$ ". Tight to 60 ft-lb of torque. Perform this step in the driver and passenger sides.
21. Install the front wheels, tight the nuts to 85-95 ft-lb of torque and lower the vehicle to the ground.
22. Using a 19mm socket and wrench, attach the lower end of the new front sway bar end links (RE1152) using the provided hardware (HWC15025). Tight to 60 ft-lb of torque. Perform this step in the driver and passenger sides.
23. With the help of someone else inside the vehicle (or with trial an error), turn the wheel until the track bar's lower end aligns with the bracket in the axle and secure with the hardware. Use the torque wrench and tight to 110 ft-lb of torque.



Installation Instructions Written by ExtremeTerrain Customer Duamel Santiago 11/5/2018