EVO Manufacturing

Jeep Wrangler JL/JLU and JT Gladiator

JL/JLU/JT Gladiator Front Bolt-on Coilover Kit

EVO- 3028B

Before starting installation procedure please read http://evomfg.com/Returns-Warranties-Shipping

CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND KEEP FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS ABOUT THE PRODUCT CALL EVO MANUFACTURURING. FAILURE TO FOLLOW GUIDELINES COULD RESULT IN MALFUNCTION OF PARTS OR INJURY. PLEASE HAVE A TRAINED PROFESSIONAL ASSIST WITH OR INSTALL ALL PRODUCTS. INSTALLING EVO MFG PRODUCTS OR KITS DEMANDS SPECIFIC KNOWLEDGE, TOOLS AND EXPERIENCE. GENERAL KNOWLEDGE OF HOW TO USE LATER SPECIFIED TOOLS AND/OR LIMITED EXPERIENCE WITH EVO MFG PRODUCTS MAY NOT BE ENOUGH TO PROPERLY COMPLETE THESE TASKS. SOME OF EVO MFG PRODUCTS MAY REQUIRE TWO OR MORE PEOPLE TO INSTALL SAFELY AND CORRECTLY. DO NOT ATTEMPT ALONE, ALWAYS ENLIST THE HELP OF TRAINED PROFESSIONAL WHEN NEEDED.

Notes: Set Up Before installation

This kit requires drilling and cutting of both metal and plastic.

Wheel backspacing adjustments may be required.

Cutting and Grinding required.

EVO MFG recommends this installation be performed by a trained professional.

Always use approved safety gear/glasses and weight approved jack/jack stands.

Keep all mounting bolts loose (installed but not torqued) we will torque later at the end of complete installation

READ BEFORE INSTALL:

Re-torque all bolts after first 100 miles High Clearance Fenders recommended *Re-torque all bolts every 3000 miles and after every off-road use.

It is generally a good idea to apply Loctite to all threaded bolts.

ALWAYS wear safety glasses and other approved safety gear when working on a vehicle.

All supplied bolts torqued according to chart at end of instruction.

It is recommended all installation be performed by a trained professional. Some modification may have to be done.

Paint all unfinished surfaces after install is complete.

Parts included: Table below shows JL/JLU/JT Gladiator Front Bolt-on Coilover Kit.

Description	#	Part #	Quantity
Coilover Tower Passenger	1	12335B	1
Coilover Tower Driver	2	12336B	1
Coilover Reservoir Mount	3	12342CZ	2
Bushing	4	600077	4
Sway Bar Bushing	5	20032	4
Sway Bar Link Front	6	12027B	2
Coilover Hardware	7	770079	1
Coilover Block Off Plate	8	12337	2
Crush Tube Front Coilover	9	20040CZ	4
Front Coilover Brake Line	10	12360CZ	2
Evo Front Bumper Spacer	11	20005	2
Passenger Front Lower Coilover Mount	12	12340B	1
Driver Front Lower Coilover Mount	13	12341B	1
Front Shock Relocation Hardware	14	770080	1
EVO Spec Coilover Front Pair	15	600124K	1

Recommended Tools:

- Allen set
- Impact with standard sockets
- Sawzall/Cut off wheel or similar
- Drill
- Parking break tool (recommended)
- Rivet tool

Safety Steps for installation

- For installing EVO MFG products always use wheel chokes to block rear tires from rolling.
- Always make sure you have everything necessary ready before install.
- If you have to, carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground, place frame on approved jack stands for vehicle. Verify all lines/wires are not over extended.
- Remove tires if needed for easier install.
- Make sure to wear safety equipment (eye protection, hand protection, foot protection etc.) at all times during installation.
- Make sure all safety precautions have been taken.
- Always check and replace any part of vehicle that is warn or broken before starting install.
- Do not mix anything EVO with weaker alternatives.
- It is generally a good idea to apply liquid threadlock to all bolts.
- Tighten included hardware to torque specifications in bottom table unless it is otherwise specified, factory bolts should be torqued to factory Jeep specifications.

FRONT INSTALL

After parking Jeep on a flat surface, chalk wheels and engage parking brake.

1. Carefully lift front of vehicle with jack by frame until tire leave the ground by a few inches minimum.

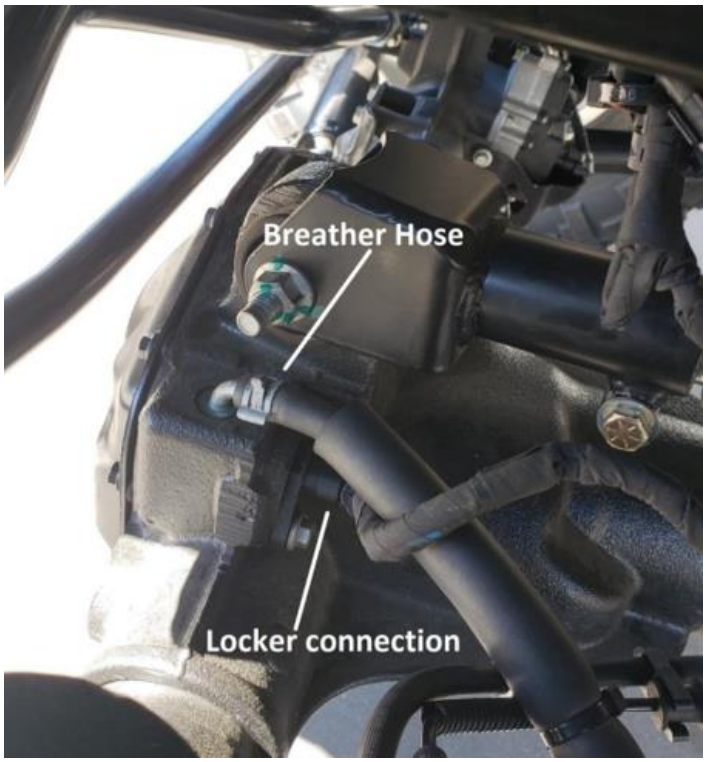
2. Carefully and securely set vehicle on weight approved jack stands. It is important that the vehicle is high enough that the tires are at least few inches from the ground as the axle will need to be lowered to remove and install parts.

3. Remove front wheels/tires.

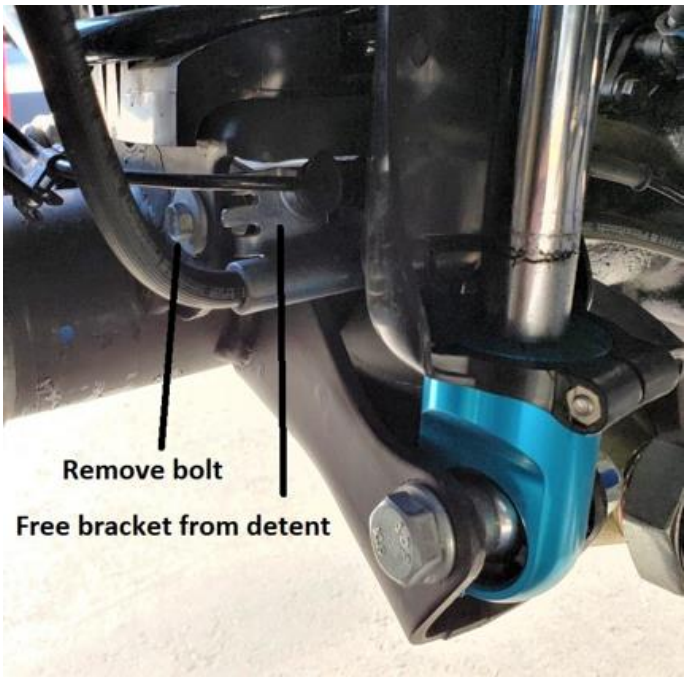
4. Carefully pull outward on grey clip at axle disconnect (FAD) until stops. It should move out about a 1/8". Then depress clip and disconnect clip/connection.

5. Rubicon Models: At differential, carefully pull outward on red clip at axle disconnect until it stops. It should move out about a 1/8". Then depress clip and disconnect clip/connection.

6. Remove breather hose from differential connection. **Vehicle wiring and hoses vary, make sure all wires, hoses, lines etc from frame to axle are freed up giving ample length to move axle downward as needed before proceeding, verify wiring/hoses etc do not get stretched while lowering axle during this installation.**

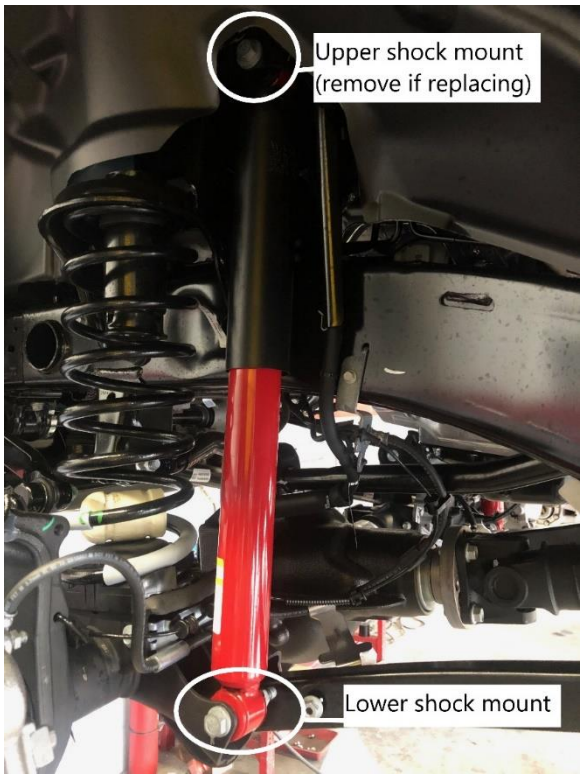


7. Remove bolt from both driver and passenger side brake line bracket at axle on rear upper control arm bracket. Free bracket from its detent.

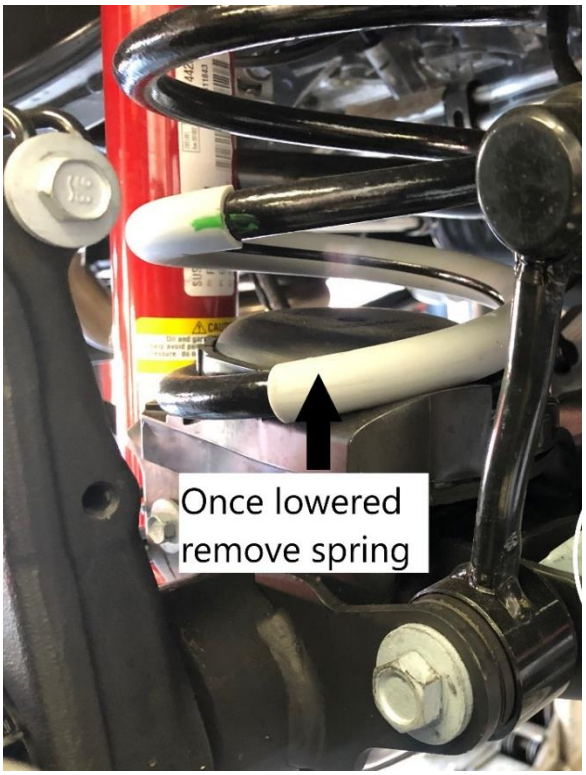


8. Support axle with jacks and remove front sway bar end links from vehicle. (upper stud end on sway bar link has hex key on end of the stud to prevent rotation while removing nut).

9. Remove both driver and passenger side shocks.



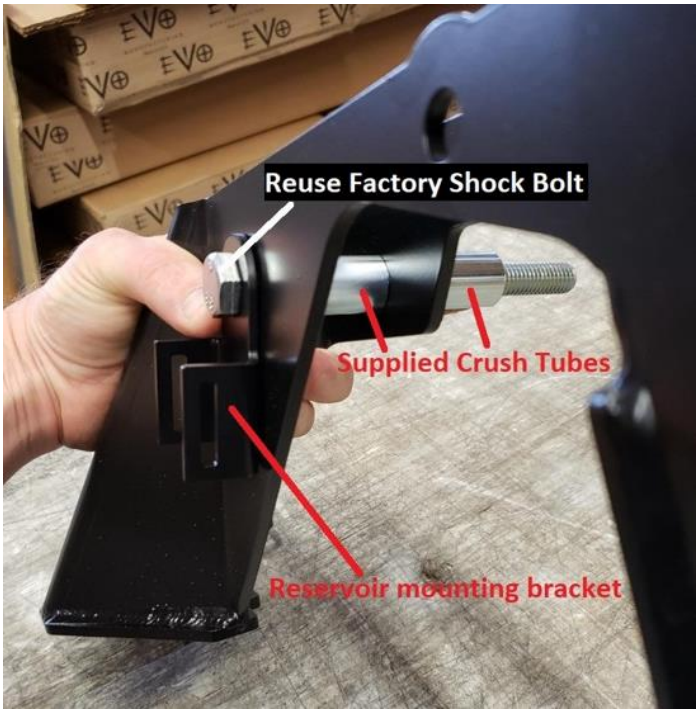
10. Lower axle until springs can be removed. Remove front springs and upper/lower coil isolators.



11. Insert coilover tower backing plate into pocket in tower. Align holes in tower with backing plate. Insert supplied 3/16” pop rivets. Using a rivet tool, complete rivet installation on both towers. If painting/color scheme the block off plate, do so before installing to towers. Holes may need to be clearance drilled with 3/16” bit.

12. Mark cuts on frame side front shock mount as shown in photo. Using Sawzall, cut off wheel or other metal cutting tool, cut outer portion of front shock mount. Rear cut should be done through the middle of the bend in bracket leaving some of the factory bracket attached to frame. Do not remove all of rear portion. See photo of removed piece for reference. Sand all cut metal edges smooth. Paint exposed metal surfaces.

13. Pry out on inner fender liner and install coilover tower behind liner into its mounting location on frame above factory coil mount and outside of trimmed factory shock mount.
14. Loosely install ½" bolt washer and nut at forward most hole through frame coil mount and EVO tower.
15. Using supplied crush tubes, reservoir mount and factory bolt, insert reservoir mount, 1 crush tube inside EVO tower and anther crush tube on the inside side of tower.
16. With factory bolt loosely install into original shock bolt location. At rear of tower where it mates with the frame, loosely install supplied 3/8" bolt, washer and nut in larger hole and 5/16" bolt washer and nut in smaller hole. These holes may need to be enlarged/drilled on the frame.

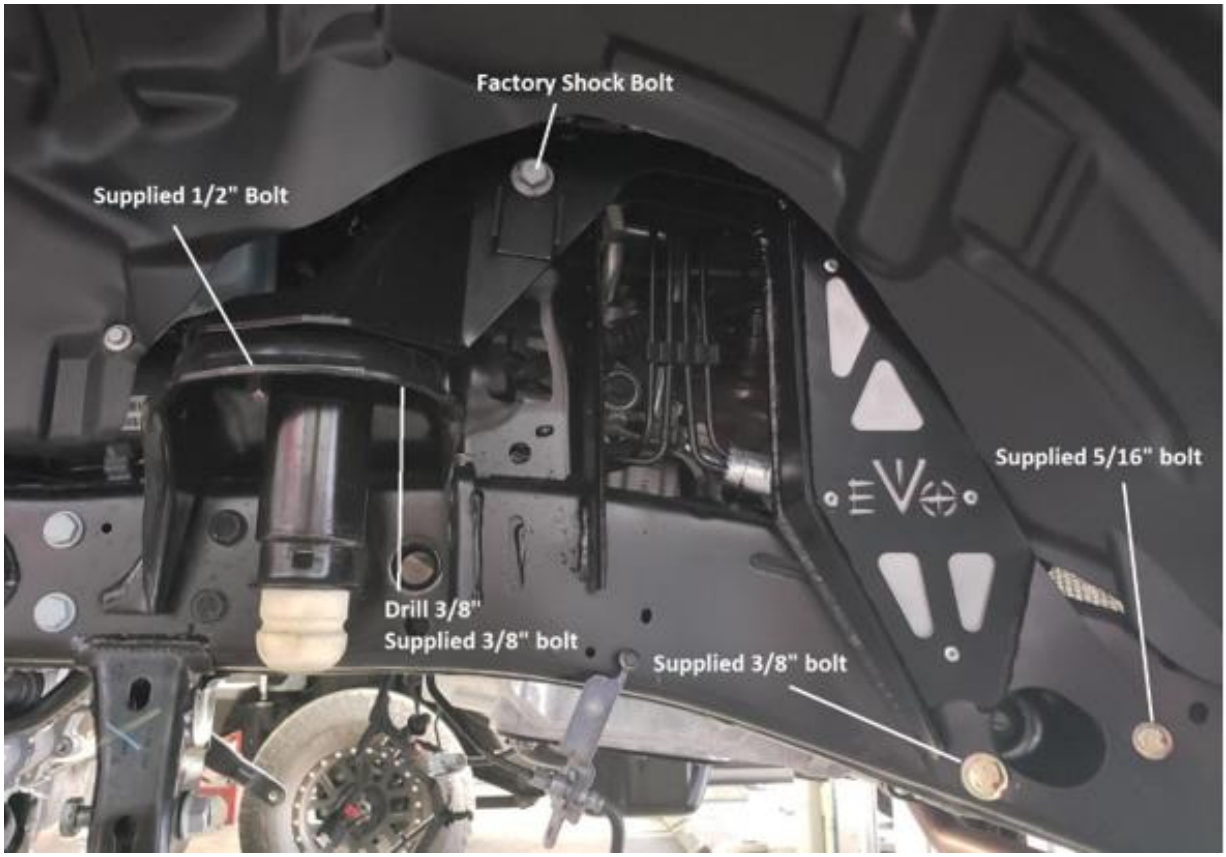


17. With tower now loosely in place. Drill hole from underside on frame coil mount. Use supplied bolt washer and nut.

18. Tighten all tower bolts.

19. Trim inner fender liner to clear EVO Coilover tower bracket.

Repeat tower install steps on opposite side.



20. Using supplied 3/8” x 2” bolt, washers and nut. Install EVO front bumpstop extensions on the top side of the axle coil mount. Insert bolt from top down. Repeat on opposite side.

21. Install supplied shock mounts and brake line extension bracket at axle. Use supplied hardware at axle locations and factory bolt at relocated higher location for brake line.

22. Using supplied M12 hardware install shock into new lower mounting location using factory shock hardware.

Repeat on opposite side.

23. Clearance spring perch to the radius in bracket. Use white line in picture as placement reference for cutting.

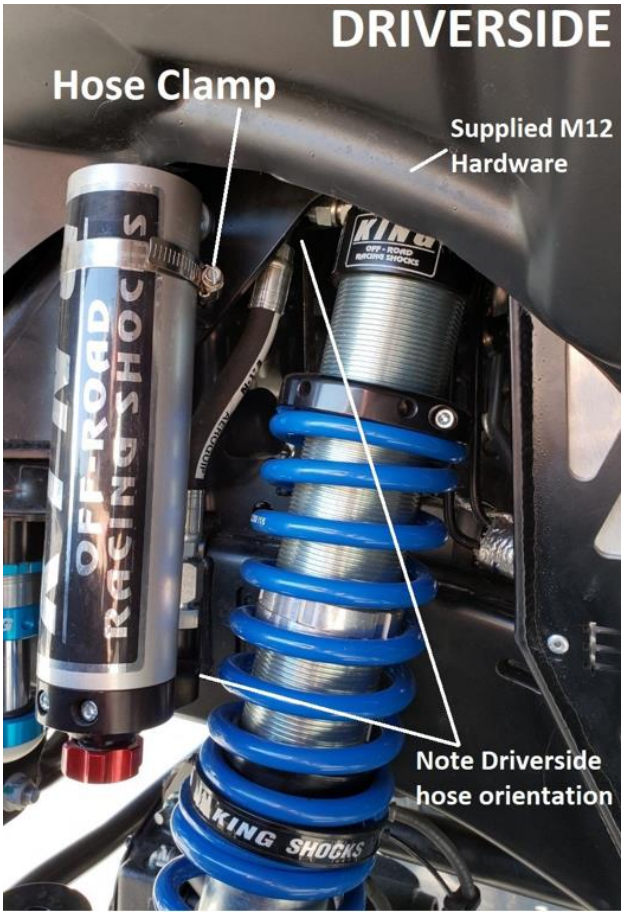
24. Using supplied M12 bolt washers and nut, install coilover at upper tower mounting location.

Coilovers are side specific due to reservoir hose routing. Use photo to verify side.

25. Hose out of reservoir should point towards frame when in place.

26. Using supplied hose clamp and previously installed reservoir mount. Wrap clamp around reservoir body and through slots in mounting bracket. Insert end of hose clamp into screw end. Turn screw on hose clamp to tighten reservoir to tower.

27. Pivot reservoir into clearenced portion of spring perch.

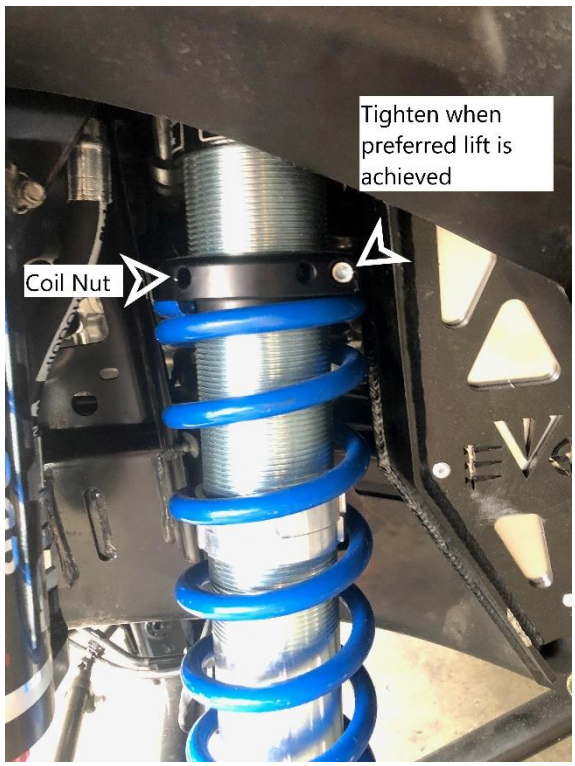


28. Reconnect all disconnected wiring and breather hoses. Verify adequate length of all wiring/hoses at full drop of suspension and adjust as needed.

29. Once vehicle is on ground under its own weight. Access lift requirement/adjustment needed (“I would like it 1” higher/lower”) If changes in lift need to be made. Carefully lift vehicle up by front frame until tires leave the ground, extending suspension fully and carefully set on jack stands. Using Allen wrench, loosen set screw on coil nut, do not remove set screw.

30. Using a spanner tool or similar 5/16” round tool, turn coil nut up to lower the body or turn down to raise the body. At this point additional lift will be roughly 1 to 1 on your previous assessment of lift. Moving coil nut 1” will roughly raise or lower the body the same distance. Most setups will have the coil nut threaded down between roughly 1-2 inches.

31. Tighten coil nut set screw.



32. Carefully lift vehicle, remove jack stands lower vehicle down to the ground.

33. Reassess lift need and adjust accordingly using same steps as previous.

After Install:

- Tighten all bolts securing purchased parts to specified locations.
- After completing installation using provided instructions, go through all steps again to make sure nothing was missed, not tightened or improperly assembled.
- Some components may need to be purchased separately.
- Check turn signals, headlights, fog lights (if applicable), taillights, blinkers and windshield wipers.
- Adjust mirrors, speedometer and headlights if needed.
- Make sure all gauges are fully operational.
- Drive the vehicle slowly for a couple minutes, looking and listening for abnormal noises while driving. After modification of a vehicle there will be differences in driving experiences and capabilities, be mindful of that.
- Inspect and Retorque all Bolts after 500 miles of competed installation and regularly thereafter.
- Some modification may be required.

Set-Up and General Coilover Notes:

Please read **before and after** installation: Included are things you should know before and after installation of coilovers and some final setup tips to maximize the performance advantages of coilovers.

Coilovers can tend to make some sliding sounds while driving. We are stepping into race car parts and some level of sound is to be expected.

Once final adjustments have been made on spring compression and the vehicle is at a lift/ride height that you are satisfied with. Rotate the top and bottom springs so that that each end of the top and bottom coil that rest on the coil slider are 180 degrees opposite each other. This will help balance the coil slider evenly and alleviate some of the associate noises. If this is unsatisfactory for your needs, there are aftermarket spring sliders that can be purchased additionally that will help alleviate this noise. Please give us a call for information on this accessory product.

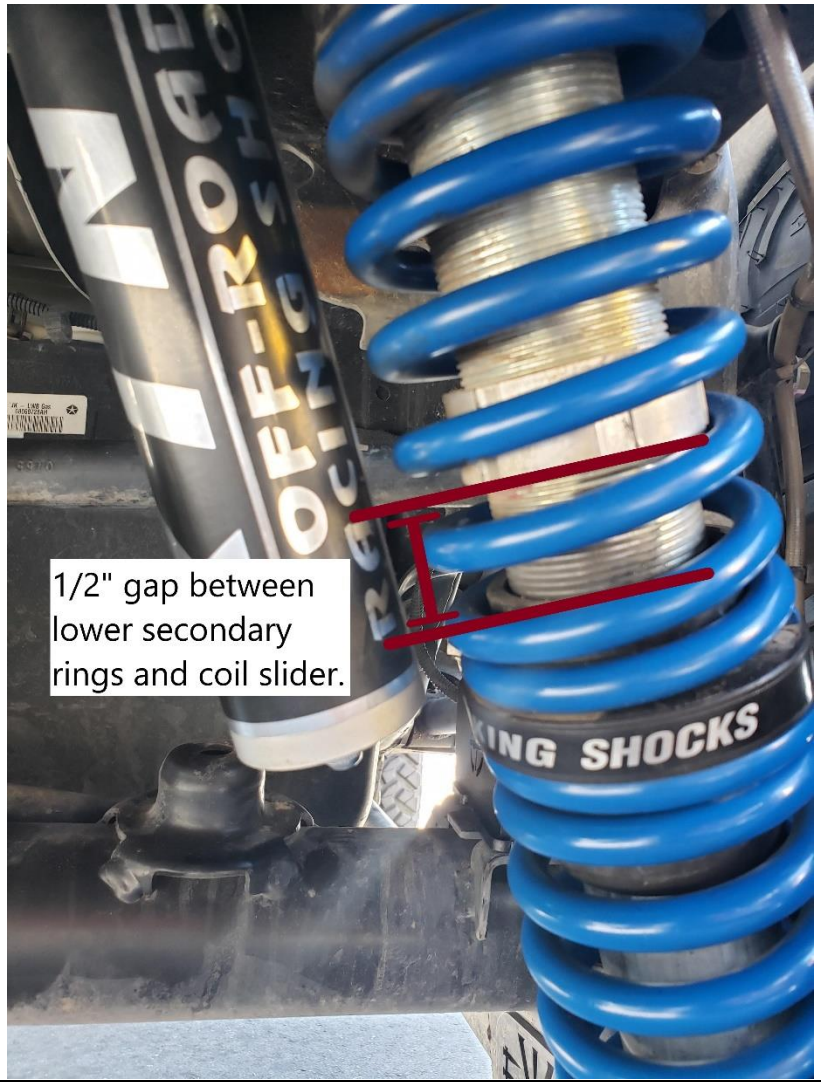
Spring compression applied with the coil nut on top of the springs will VARY between all vehicles and may be different at all 4 corners. This is due to added and or removed weight to the vehicle. The fact that all 4 corners have different weights from the factory, added accessories and or removing factory components all play a part in the vehicles corner weight and are always varying. Do not be afraid to adjust each coilover spring nut differently on each corner.

We recommend if 3" or more spring compression/preload is needed to achieve your desired lift height, our HD Coilover Spring set should be used, they are sold separately, contact EVO MFG for more information. Lastly the passenger side is heavier and will require slightly more spring compression.

Achievable lift height will vary between each vehicle due to the added and/or reduced weight of the vehicle. Additionally, actual lift is subjective. All Jeeps come from the factory with different heights based on accessories and spring packages etc. General lift increases are made by an average and/or an understanding of what a 3" or 4" lift etc. should be. Therefore in order to achieve the desired height you are looking for, spring changes may be needed and are sold separate to our standard kit.

We have done extensive testing on these kits with many variables and know we have an excellent spring package straight out of the box, but your vehicle and/or needs may vary and therefore a spring change may be needed to accomplish your desired setup.

Once the desired right height is achieved, lower the 2 secondary coil rings (2 silver rings inside the top coil spring) so that there is a ½" gap between the bottom of the secondary rings and coil slider. The 2 secondary coil rings can be moved by a tap with a flat head screw driver against the machined groove to break the 2 loose from each other. Once loose, thread them down paying attention that there is a rubber O-ring between that will need to be pushed/rolled down as well. Set the lower ring at about 1/2"-1" distance from the coil slider, tighten the 2 secondary rings towards each other with flathead screw driver and tap of a hammer. This ½"-1" is a rough dimension and can be adjusted to your liking and additional payload carrying requirements.



Recommended Torque:

Size	Grade 2		Grade 5		Grade 8		18-8 S/S	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-
#6*	-	-	-	-	-	-	9.6	-
#8*	-	-	-	-	-	-	19.8	-
#10*	-	-	-	-	-	-	22.8	31.7
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8
5/16	8	9	13	14	18	20	11	11.8
3/8	15	17	23	26	33	37	20	22
7/16	24	27	37	41	52	58	31	33
1/2	37	41	57	64	80	90	43	45
9/16	53	59	82	91	115	129	57	63
5/8	73	83	112	128	159	180	93	104
3/4	125	138	200	223	282	315	128	124
7/8	129	144	322	355	454	501	194	193
1†	188	210	483	541	682	764	287	289