EVO Manufacturing

EVO-3028B JL Front Bolt-on Coilover Kit NV2514

READ BEFORE INSTALLATION:

Caution: This kit requires drilling and cutting of both metal and plastic. Wheel backspacing adjustments may be required. Due to so many variations and combinations of ACTUAL tire sizes, wheel widths, tire inflation pressures etc. By purchasing this kit, you are starting the next level of performance. To install this kit requires work and finesse. This high-quality system will truly enhance your vehicle to another level. 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.

- **Installation with Short/Mid Arm Suspension Systems:**

Use with short/mid control arms (EVO MFG Enforcer Arms or other) **requires** additionally EVO-3030F Front Limit Strap Kit (sold separately). Factory front driveshaft compatible with EVO-3030F.

- **Installation with Long Arm Suspension Systems:**

Use with Long Arm kits (EVO MFG JL High Clearance Long Arm or other) **does not** require limit straps, **aftermarket front driveshaft is required in long arm/no limit strap configuration.**

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

Always wear approved safety gear and glasses while performing installations.

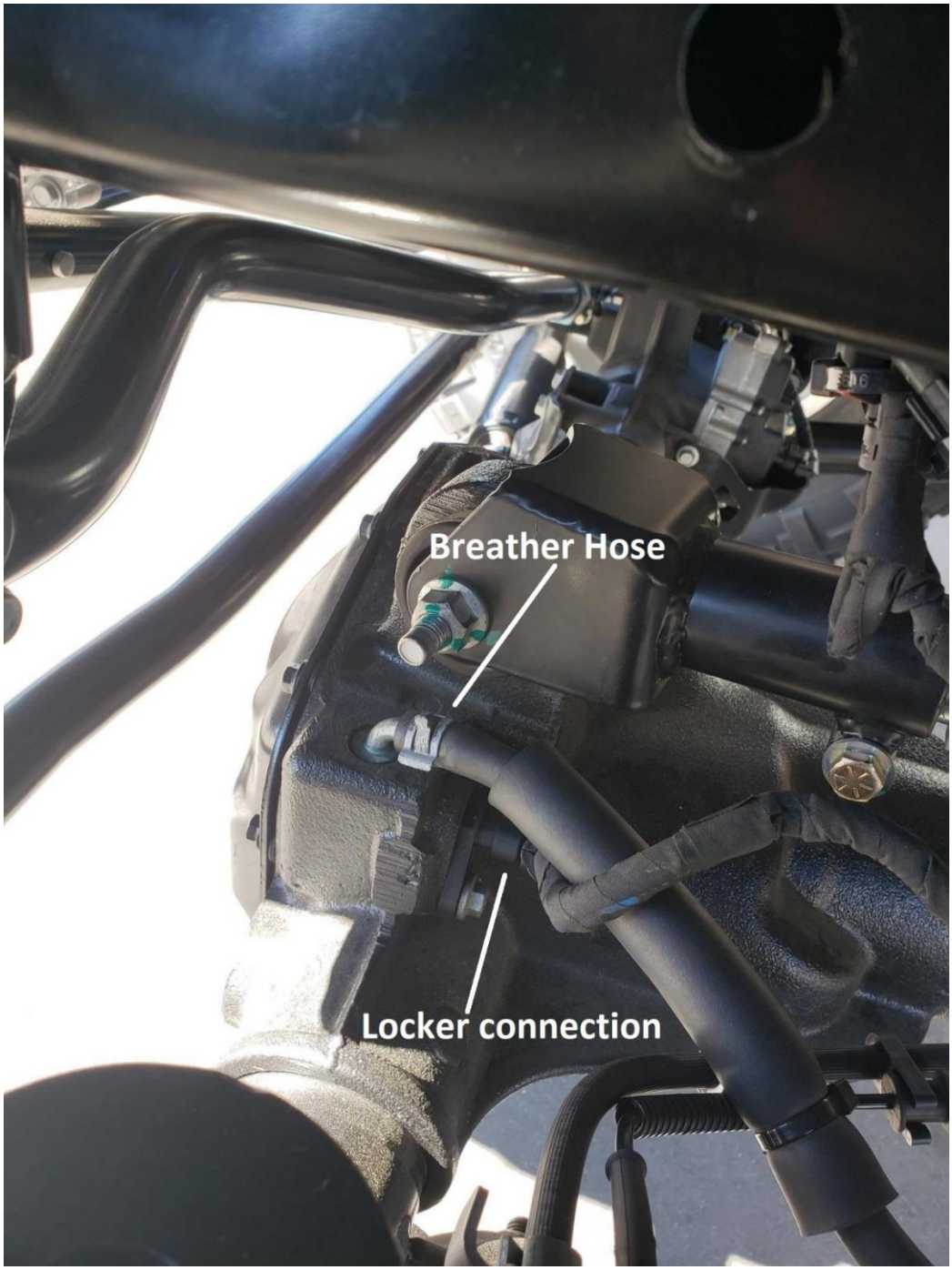
Loosely install all bolts in each part before fully tightening any associated bolts.

Tighten all factory bolts to factory specifications. Tighten all supplied bolts according to table at end of instruction.

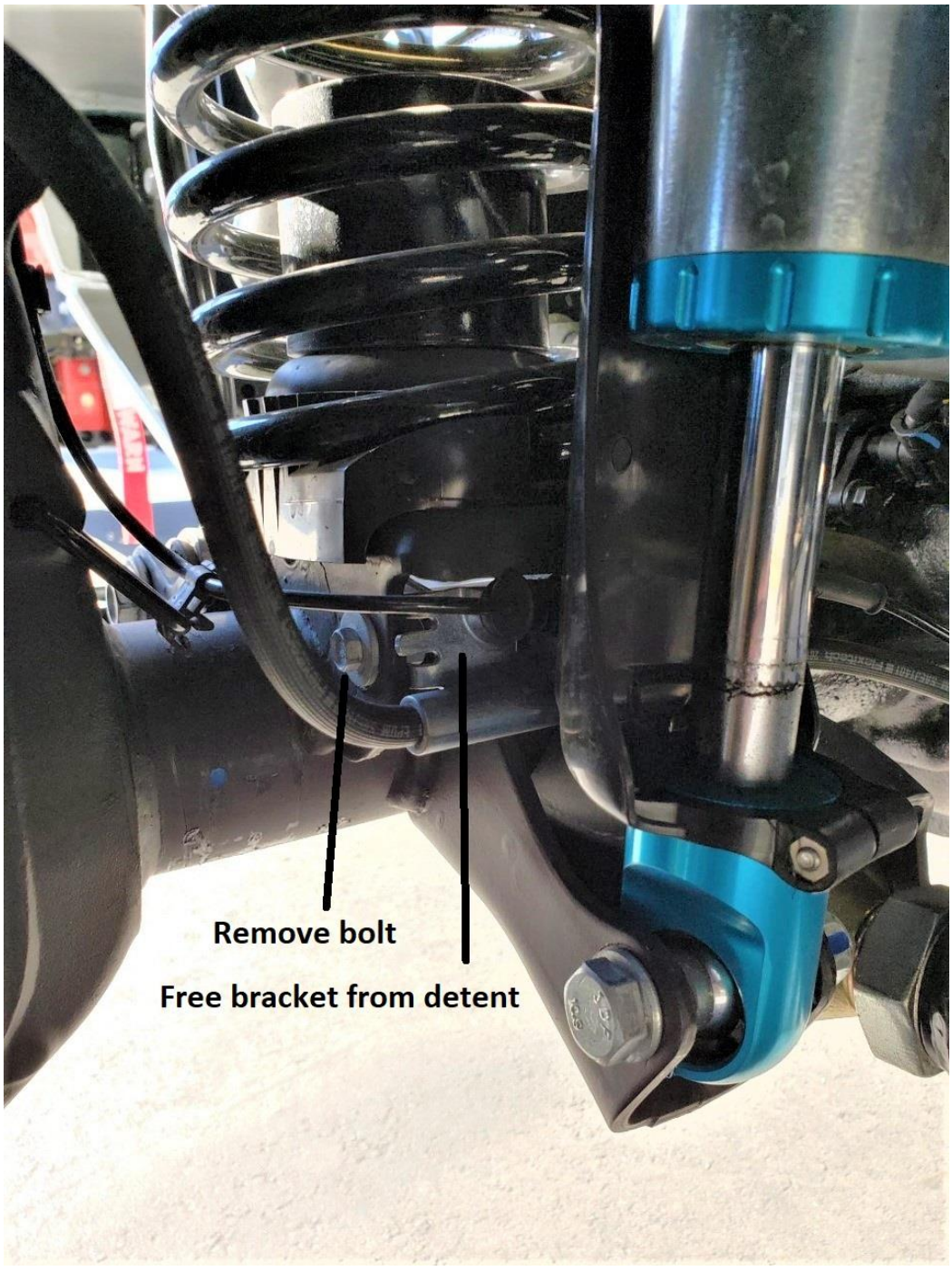
1. Safely park vehicle on level ground.
2. Chalk rear wheels
3. Carefully lift front of vehicle with jack by frame until tires leave the ground by a few inches minimum.
4. Carefully and securely set vehicle on weight approved jack stands. It is important that the vehicle is high enough that the tires are at least few inches from the ground as the axle will need to lowered to remove and install parts.
5. Remove wheels.

6. 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.

7. Rubicon Models: At differential, carefully pull outward on red clip at axle differential until clip stops. It should move out about a 1/8". Then depress clip button and disconnect clip/connection.
8. Remove breather hose from differential connection by squeezing clip with plyers and pulling on hose. **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.**



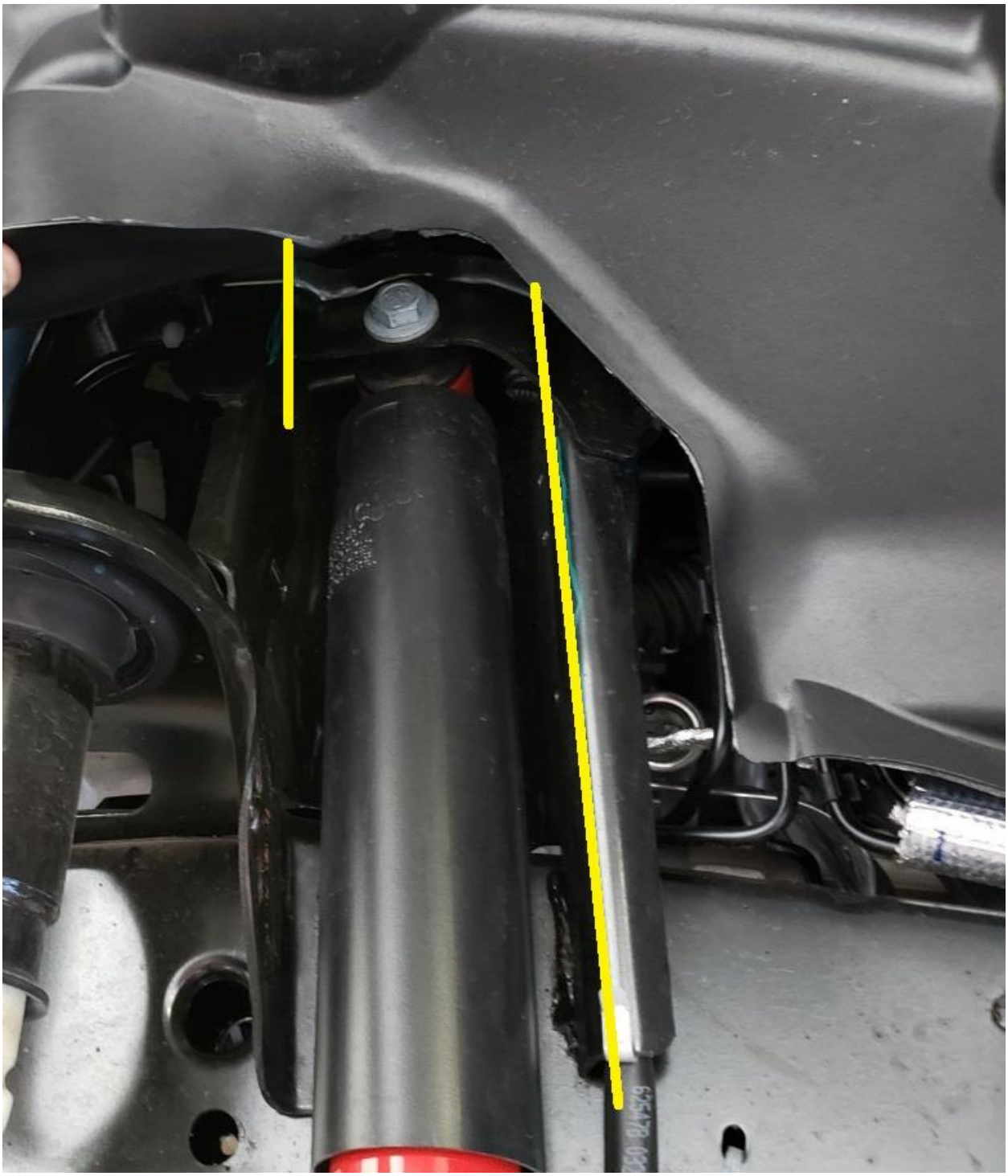
9. Remove bolt from both driver and passenger side brake line bracket at axle under coil mount. Free bracket from its detent.



10. 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).
11. Remove both driver and passenger side shocks.
12. Lower axle until springs can be removed. Remove front springs and upper/lower coil isolators.

13. 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.

14. 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.



Removed section, Driver side inside of bracket shown:

15. 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. Loosely install ½" bolt washer and nut at forward most hole through frame coil mount and EVO tower. 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. With factory bolt loosely install into original shock bolt location. At rear of tower where is 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.

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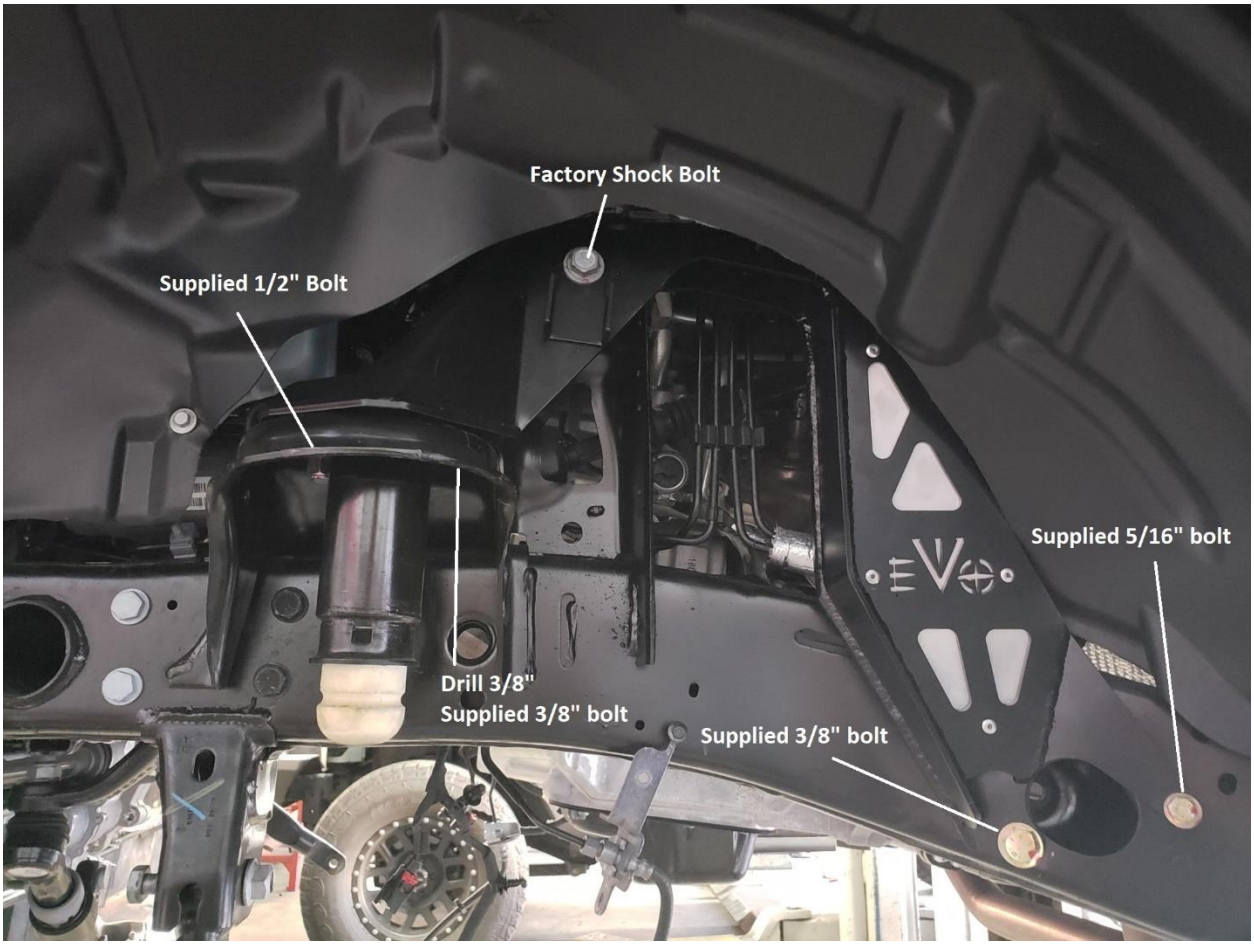
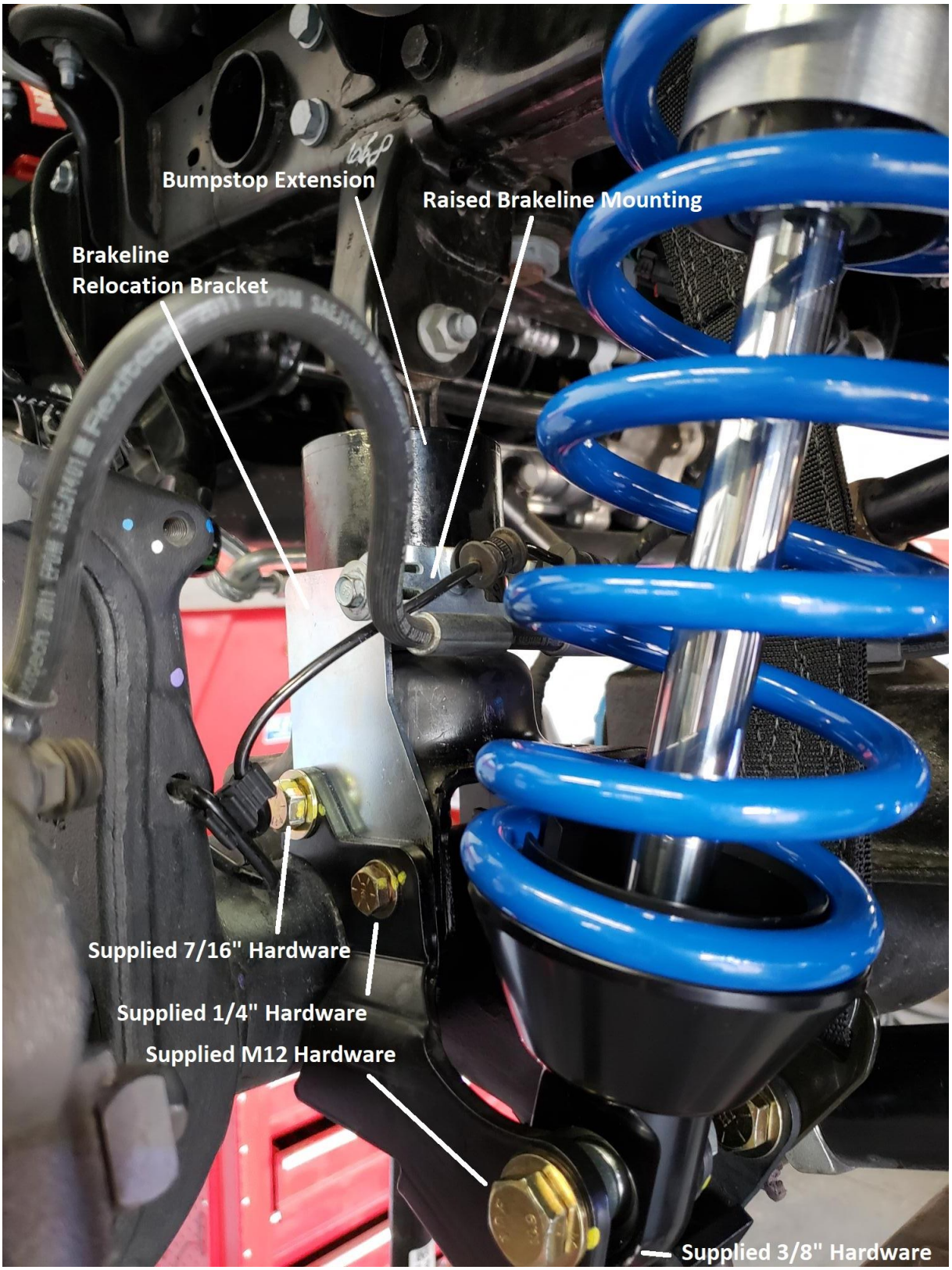
16. With tower now loosely in place. Drill hole from underside on frame coil mount. Use supplied bolt washer and nut.
17. Tighten all tower bolts.
18. Trim inner fender liner to clear EVO Coilover tower bracket.



19. 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.



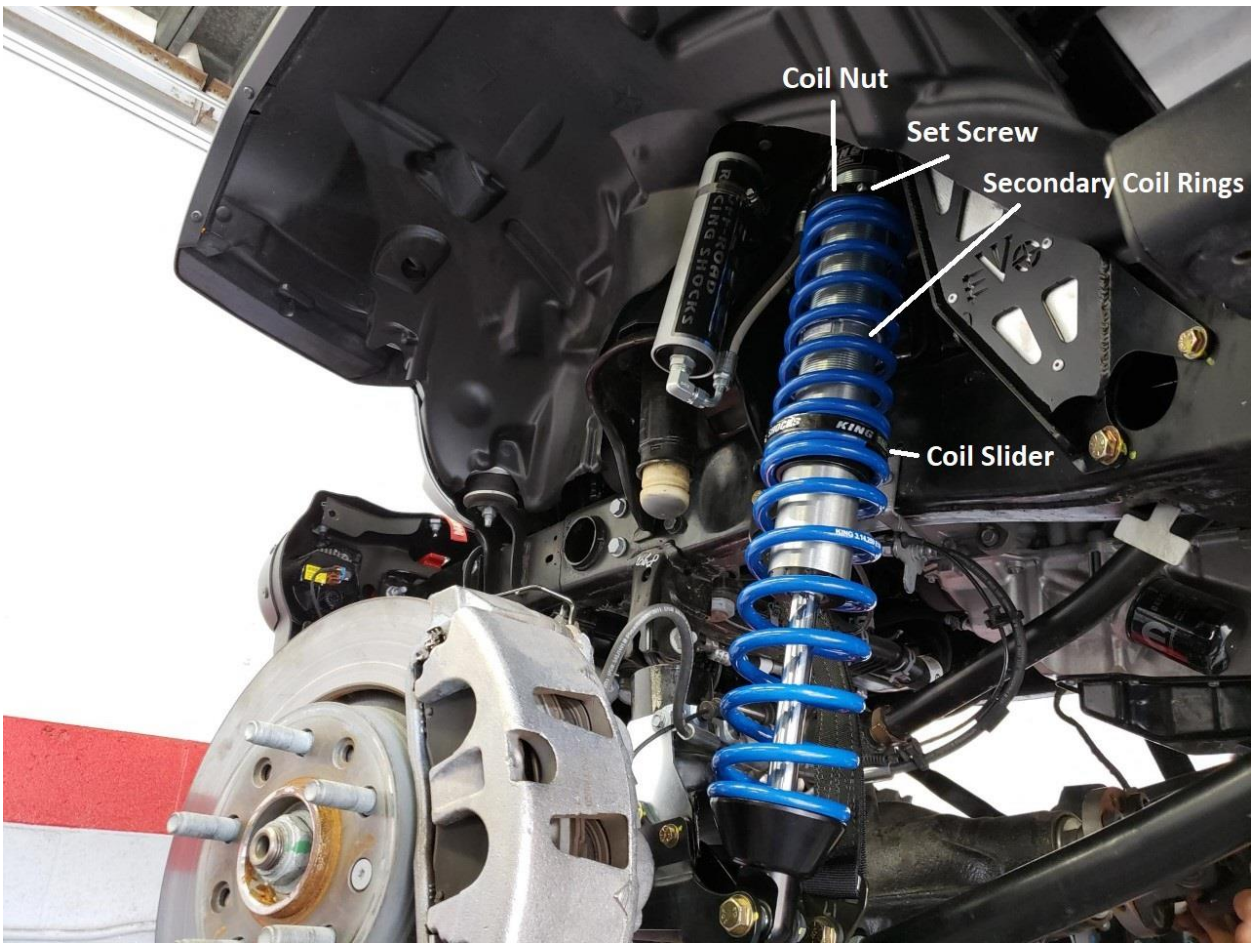
22. Repeat on opposite side.
23. Using supplied M12 bolt washers and nut, install coilover at upper tower mounting location. Coilovers are side specific due to reservoir hose routing. Use photo to verify side. Hose out of reservoir should point towards frame when in place.

24. 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.
25. Axle may need to be lowered, using supplied M12 hardware install shock into new lower mounting location using factory shock hardware.
26. Torque all factory bolts to factory specifications. Torque all supplied hardware to chart on last page of this instruction.
27. Reconnect all disconnected wiring and breather hoses. Verify adequate length of all wiring/hoses at full drop of suspension and adjust as needed.
28. Install wheels.
29. Carefully lift vehicle from jack stands and set on ground.
30. Torque wheels to manufacturer/factory specification.
31. 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.
32. 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.
33. Tighten coil nut set screw.
34. Carefully lift vehicle, remove jack stands lower vehicle down to the ground.
35. Reassess lift need and adjust accordingly using same steps as previous.

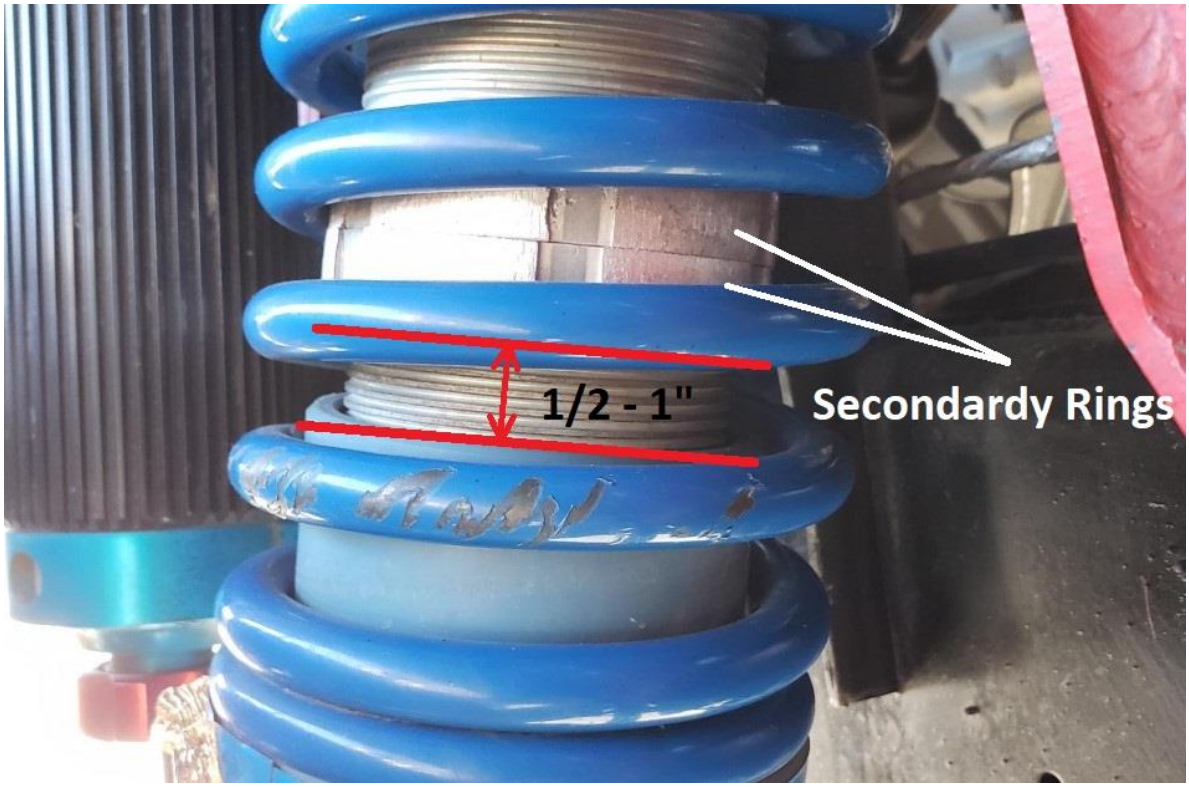
Set-Up and General Coilover Notes:

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.



Size	Recommended Torque											
	Grade 2		Grade 5		Grade 8		18-8 S/S		Bronze		Brass	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-	4.8	-	4.3	-
#6*	-	-	-	-	-	-	9.6	-	8.9	-	7.9	-
#8*	-	-	-	-	-	-	19.8	-	18.4	-	16.2	-
#10*	-	-	-	-	-	-	22.8	31.7	21.2	29.3	18.6	25.9
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8	5.7	7.3	5.1	6.4
5/16	8	9	13	14	18	20	11	11.8	10.3	10.9	8.9	9.7
3/8	15	17	23	26	33	37	20	22	18	20	16	18
7/16	24	27	37	41	52	58	31	33	29	31	26	27
1/2	37	41	57	64	80	90	43	45	40	42	35	37
9/16	53	59	82	91	115	129	57	63	53	58	47	51
5/8	73	83	112	128	159	180	93	104	86	96	76	85
3/4	125	138	200	223	282	315	128	124	104	102	118	115
7/8	129	144	322	355	454	501	194	193	178	178	159	158
1†	188	210	483	541	682	764	287	289	265	240	235	212