



EVO Manufacturing

Jeep Wrangler JK/JKU

JK/JKU Front Bolt-On Coilover Kit

EVO- 1108B





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 MANUFACTURING. 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 install by a trained professional.**

**\*At a minimum the JK should be equipped with front adjustable lower control arms to adjust castor. Full control arm packages or long arm upgrade kits and steering upgrades are recommended.**

**Front aftermarket driveline required.**

**2012+ may require exhaust spacers, relocation, and /or custom to install.**

**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. \*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 the front portion of JK EVO Enforcer PRO.

Description	#	Part #	Quantity
Driver Shock Mount Tower	1	EVO-11090B	1
Passenger Shock Mount Tower	2	EVO-11091B	1
Pass Lower B/O C/o Mount	3	EVO-11092B	1
Driver Lower B/O C/O Mount	4	EVO-11092DB	1
LWR Res Mount	5	EVO-12022CZ	2
Drill Plate B/O C/O Clear Zinc	6	EVO-12023CZ	2
Brake Line Pack	7	EVO-600067	1
F/ Bolt-On Coilover Hardware	8	EVO-770041	1
3" Front Bumpstop Spacer	9	EVO-20005	2
Thread Cutting Skrew	10	EVO-900333	2
Swaybar Bushing Tube	11	EVO-20032	4
Swaybar Bushing	12	EVO-600077	4
Fr B/O C/O 14 1/2" Swaybar Link	13	EVO-12029B	2
Shock Mounting Hardware Pack	14	EVO-770008	1
BOC Spacer Tube	15	EVO-20031	2
SAE 40 Worm Drive Hose Clamp	16	EVO-900257	4



**Recommended Tools:**

- Allen set
  - Impact with standard sockets
  - Sawzall/Cut off wheel or similar
  - Drill and bit
  - Parking Break Tool
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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 worn 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.
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## **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 tires 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





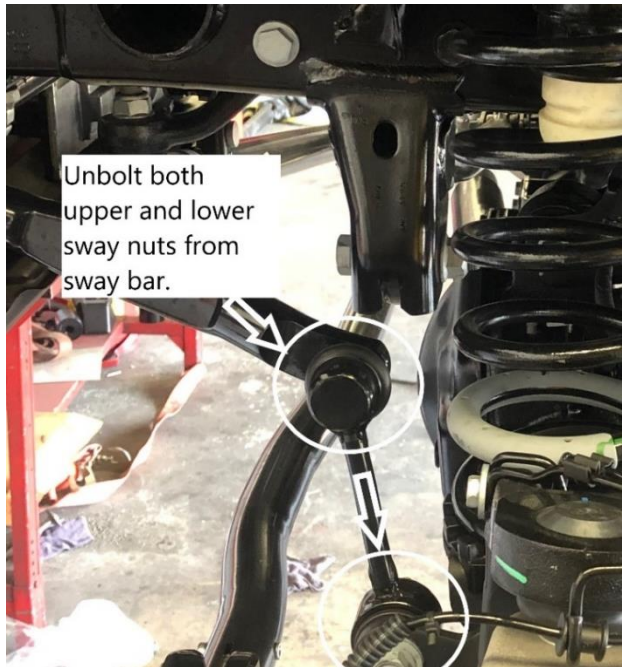
4. Rubicon Models: At differential, carefully pull outward on red clip at axle disconnect until it stops. It should move out about a 1/8". Then depress clip and disconnect clip/connection.
  5. Remove breather hose from differential connection. **Vehicle wiring and hoses vary, make sure all wires, hoses, 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.**
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6. Remove bolt from both driver and passenger side brake line bracket at axle on rear upper control arm bracket. Free bracket from its detent.
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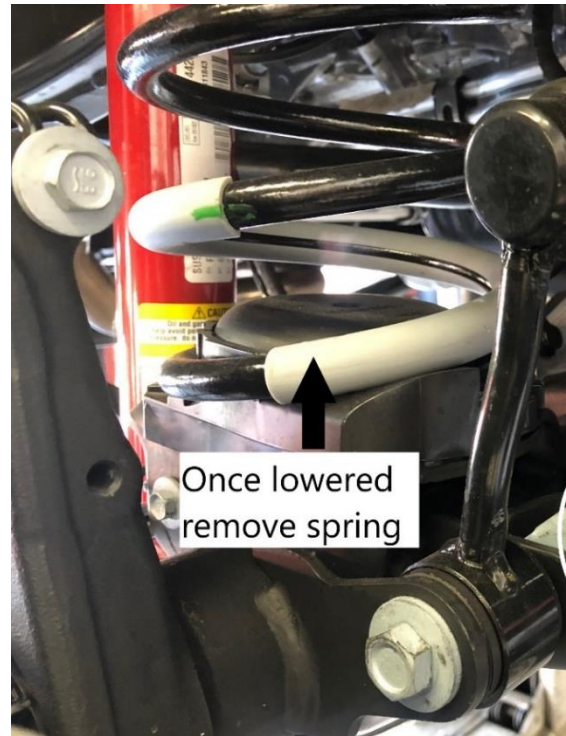
7. Support axle with jacks and remove front sway bar end links from vehicle. (upper stud end on sway bar link has hex key on end of the stud to prevent rotation while removing nut).
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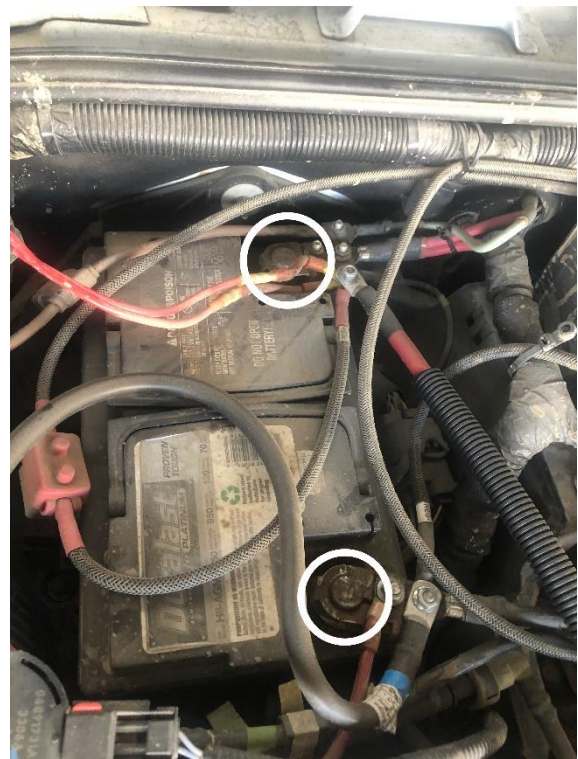
8. Remove both driver and passenger side shocks.
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9. Lower axle until springs can be removed.  
Remove front springs and upper/lower  
coil isolators.
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10. Disconnect and remove battery by  
removing the red and black wires with  
stamped + or - symbols.
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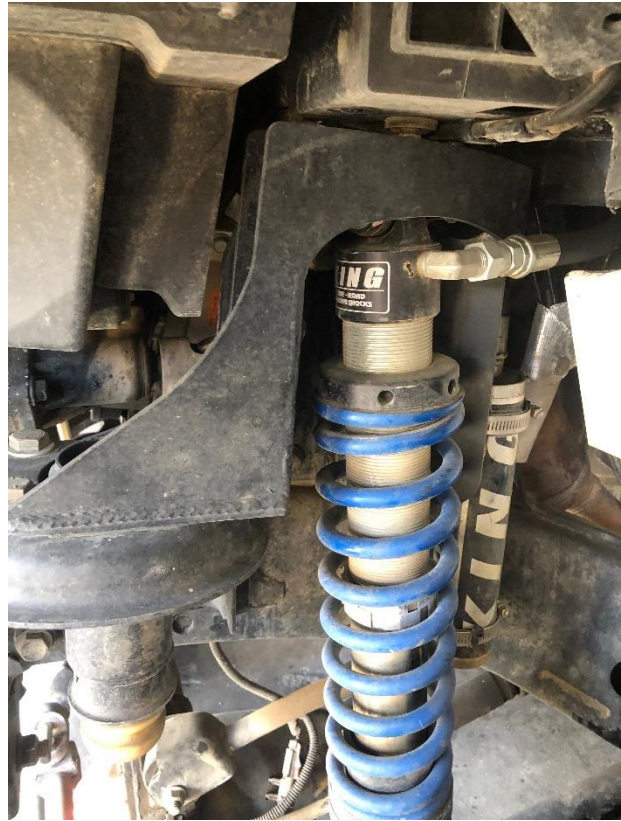
11. Insert front plate over factory bump stop. Align at top with existing hole and centered around bump stop.  
Center punch two holes to be drilled.



12. Drill marked holes with 7/16" drill



13. Place front coilover tower over upper front bump stop tube.
  14. Rotate rearward until contact with plastic wheel well. Note where tower makes contact.
  15. Make sure all wires and hoses are out of way.
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16. Using a grinder, slowly cut away plastic ribs, test tower and repeat. This will take a few iterations of testing, marking and cutting to clean away the plastic. Only the ribs need to be removed. Continue until tower seats onto top of factory spring perch and shock mount.

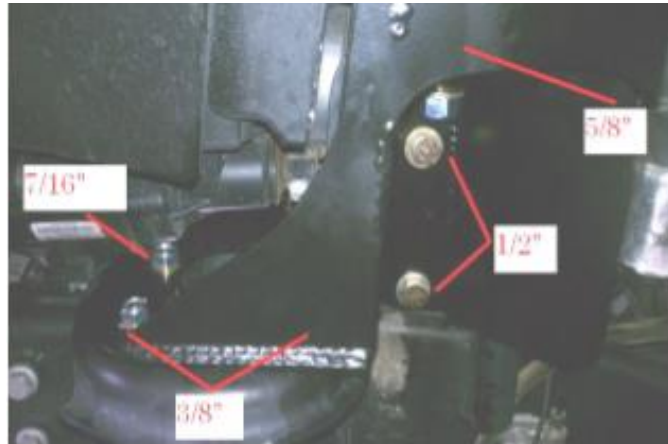


Be very careful not to grind through plastic completely.

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### 17. Install hardware

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18. Cut lower axle shock mount as shown. This is to give clearance for coilover.

19. Install lower axle bracket on the outside (tire side) of factory shock mount.

20. Holes on underside of factory shock mount and side of spring mount may need to be enlarged with drill. Passenger side will need one hole drilled completely.



21. Install EVO MFG lower shock mount with 3/8" hardware on the underside of current shock mount and 5/16" of side of spring mount

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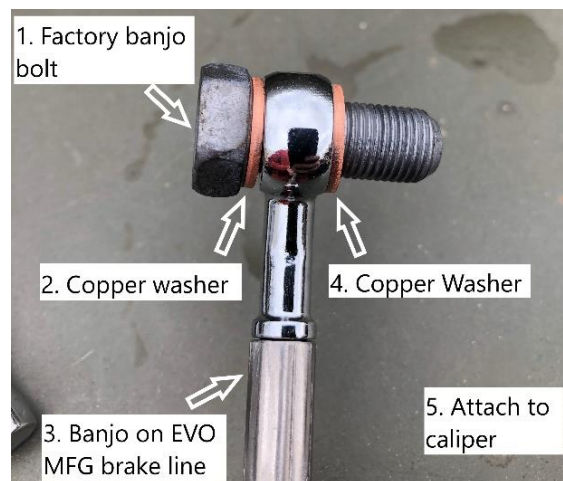
22. Moving swiftly/carefully separate the hard line from the bracket/hose on frame by holding hardline with a wrench and unscrewing the rubber hose.
  23. Use a wrench to hold hardline and a wrench to secure your new stainless steel brake line to mounting bracket.
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**Note:** Bleeding brakes is extremely important to be done properly. Follow factory specifications in doing so. Consultation/should be performed by a trained professional mechanic.

24. Install new copper crush washers on to the factory banjo bolt, Insert the factory banjo bolt with copper crush washer on through the banjo of the new stainless-steel brake line, then slip another copper crush washer on.
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**Note:** **Carefully** move line. Do not crimp/pinch line. Always check for leaking fluids and that brakes work correctly.

25. Using a socket, secure your new stainless steel break line to the break caliper using factory hardware, tighten the banjo bolt to 276 in. lbs. of torque (**at caliper hard line elbow extends towards rear of vehicle and angled up as much as possible.**)
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26. Install front coilover where fitting at top of coilover is directed toward rear of JK. Use supplied ½" hardware and shock spacers both top and bottom mounts.

27. Use the supplied small spacers for both sides of the top shock bracket. On the bottom shock bracket, either use 2 small spacers, or 1 small spacer on the outside and 1 big spacer on the inside depending on factory variances of your specific vehicle.

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28. On both, driver and passenger side, drill a 5/16" hole in the center of the spring mount on axle.

29. Using supplied self-threading bolt, place the bump stop extensions over the drilled hole on the axle and thread through the center with supplied self-threading bolt on both driver and passenger sides. Press down on bolt firmly while threading.

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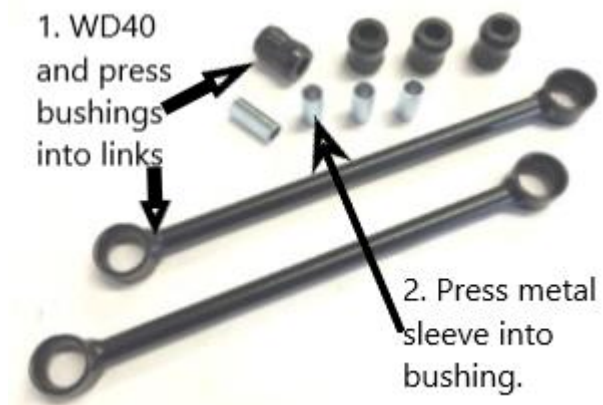
30. Install new mounting bracket at frame stacking EVO lower reservoir mount on outside of brake line bracket using factory bolt. Align as shown.
31. Twist and raise shock reservoir and place in mount behind rear of upper coilover tower.
32. Using supplied hose clamps mount shock reservoir to both upper and lower mounts.

Repeat on other side.



When installing in conjunction with an EVO Draglink Flip kit use factory rear swaybar endlinks on the front swaybar to axle connections. If not installing with EVO Draglink Flip kit use supplied swaybar endlinks.

33. Assemble front swaybar endlinks. Tap hourglass into endlink ends with mallet. Insert sleeve into center of hourglasses.



34. Install endlinks, outside of swaybar, inside of axle mount, as shown.
  35. Install wheels/tires.
  36. Carefully cycle suspension, turning wheels left and right as you go up and down to make sure you have clearance.
  37. Follow factory procedures on bleeding brakes.
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38. Turn spanner nut on top of coil spring, compressing the spring until the distance of the threaded portion between the shock end cap and the spanner is approximately 1.25". This is a starting point. This will vary on a lot of factors (added weight and desired lift height). Screw down if you want more lift, screw up for less. Added vehicle weight will make this vary.
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39. Set vehicle onto ground. Move vehicle forward and backwards a few feet each way while turning wheel to right and left to settle vehicle.

40. Verify desired ride height. If ride height is undesirable, carefully lift front of vehicle by frame until wheels are off the ground and secure it. Turn spanner up to lower ride height, down to raise ride height

Repeat previous steps until desired ride height is achieved

### **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.

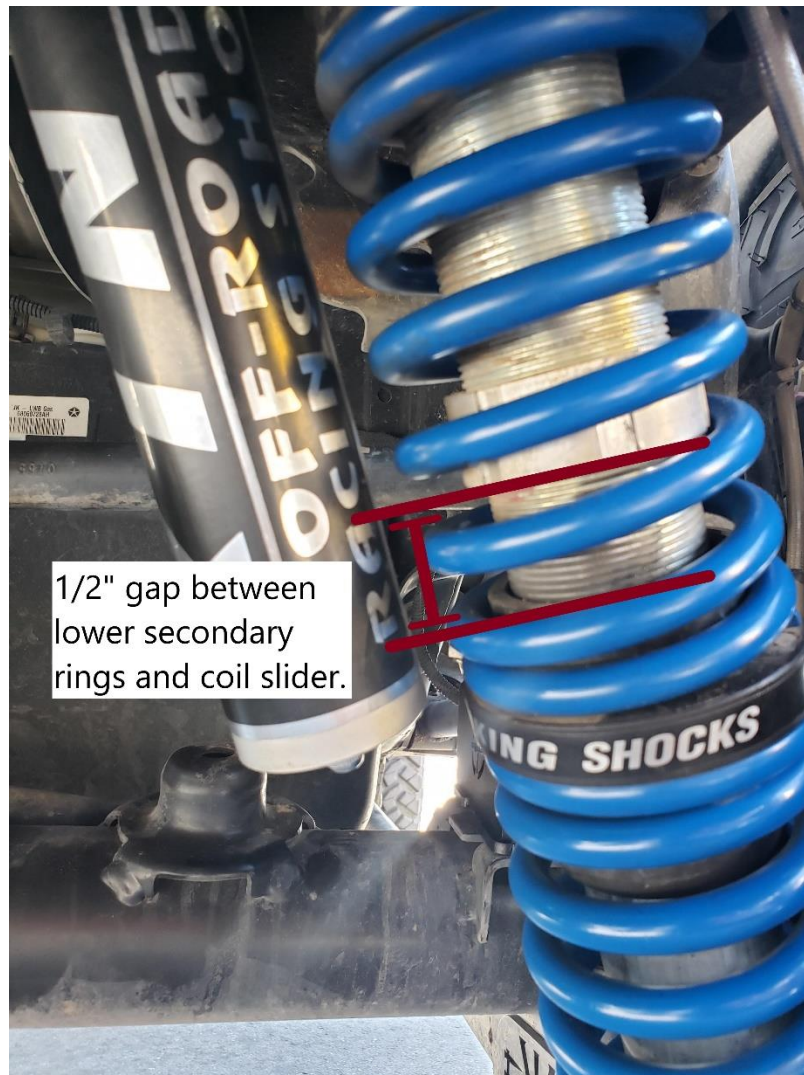
We recommend if 3" or more spring compression/preload is needed to achieve your desired lift height, our HD Coilover Spring set should be used, they are sold separately, contact EVO MFG for more information. Lastly the passenger side is heavier and will require slightly more spring compression.

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 1/2" 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 1/2"-1" is a rough dimension and can be adjusted to your liking and additional payload carrying requirements.





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 completed installation and regularly thereafter.
- Some modification may be required.

Recommended Torque:

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