



EVO-1108

EVO MFG Front Bolt-On Coilover Kit



□	1	EVO-11090B	Driver Shock Mount Tower
□	1	EVO-11091B	Pass Shock Mount Tower
□	1	EVO-11092B	Pass Lower B/O C/O Mount
□	1	EVO-11092DB	Driver Lower B/O C/O Mount
□	2	EVO-12022CZ	LWR Res Mount
□	2	EVO-12023CZ	Drill Plate B/O C/O Clear Zinc
□	1	EVO-600067	Brakeline Pack
□	1	EVO-770041	F/ Bolt-On Coilover Hardware Pack
□	2	EVO-20005	3" Front Bumpstop Spacer
□	2	EVO-900333	Thread Cutting Screw for Metal/ Plastic
□	4	EVO-20032	Swaybar Bushing Tube
□	4	EVO-600077	Bushing
□	2	EVO-12029B	Front B/O C/O 14 1/2" Swaybar Link
□	1	EVO-770008	Shock Mounting Hardware Pack
□	2	EVO-20031	BOC Spacer Tube
□	4	EVO-900257	SAE 40 Worm Drive Hose Clamp

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 it requires work and finesse. This high quality system will truly enhance your vehicle to another level. Cutting and Grinding required; not bitching and moaning. This is a toy, it should be fun! EVO 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.**

***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.**

1. Elevate front of vehicle securely
2. Remove front wheels
3. Remove battery from battery tray
4. Secure frame with adjustable jack stands
5. Remove front sway bar end links
6. Remove front shocks
7. Remove front springs
8. Insert front plate over factory bump stop. Align at top with existing hole and centered around bump stop. Mark two holes to be drilled.



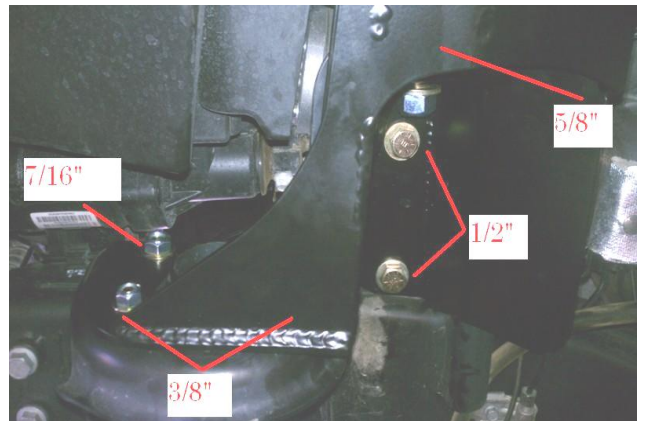
9. Drill marked holes with 7/16" drill
10. Place front coilover tower over upper front bump stop tube.
11. Rotate reward until contact with plastic wheel well. Note where tower makes contact.
12. Make sure all wires and hoses are out of way.



13. 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.



14. Install hardware.



15. Cut lower axle shock mount as shown. This is to give clearance for coilover
16. Install lower axle bracket on the outside (tire side) of factory shock mount.
17. 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.



18. Install EVO lower shock mount with 3/8" hardware on the underside of current shock mount and 5/16" of side of spring mount
19. Remove brake lines.
20. Install new supplied longer brake line and washers to factory hard-line and caliper
21. Install new mounting bracket at frame stacking EVO lower reservoir mount on outside of brake line bracket using factory bolt. Align as shown.



22. Install front coilover where fitting at top of coilover is directed toward rear of JK. Use supplied 1/2" hardware and shock spacers both top and bottom mounts.
23. Use the supplied small spacers for both sides of the top. On the bottom, 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.



24. On both, driver and passenger side, drill a 5/16" hole in the center of the spring mount on axle.
25. 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.
26. Twist and raise shock reservoir and place in mount behind rear of upper coilover tower.
27. Using supplied hose clamps mount shock reservoir to both upper and lower mounts.



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

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



29. Install endlinks, outside of swaybar, inside of axle mount, as shown.
30. Install wheels/tires.
31. Carefully cycle suspension, turning wheels left and right as you go up and down to make sure you have clearance.
32. Follow factory procedures on bleeding brakes.



33. 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). Screw down if you want more lift, screw up for less. Added vehicle weight will make this vary.



34. Torque wheels to factory or aftermarket specifications.
35. Set vehicle onto ground. Move vehicle forward and backwards a few feet each way while turning wheel to right and left to settle vehicle.
36. 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.
37. Repeat previous steps until desired ride height is achieved
38. Torque all supplied bolts to chart below. All factory bolts to factory specifications. Clean and verify no fluid leaks from brake lines after brake application.

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
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

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 have a tendency to make some sliding sounds when installed on the vehicle. We are stepping into race car parts and some level of sound is expected. There are now 2 springs and a coil isolator attached to the shock body that are consistently sliding up and down while in use. 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 the end of the top and bottom coil that rest on the coil isolator are 180 degrees opposite each other. This will help balance the spring isolator and help the springs rub the shock body less. If this is still unsatisfactory for your needs there are aftermarket spring isolators 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 WILL 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 ALL different. Do not be afraid to adjust each coilover spring nut differently on each corner. This is one of the coolest parts of coilovers. You set them up to a lift height that you like. You are not stuck with an amount of lift you get from

whatever springs you end up with. You want it taller turn the coil nut down more or up for less lift. We recommend if 3" or more spring compression is needed to achieve your desired lift height, our HD Coilover Spring set should be used and they are sold separately. Lastly the passenger side is always going to need more spring compression as this side is always heavier due to gas tank and other factory components that are installed passenger side of centerline.

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 so they don't even start the same. General lift increases are made by an average and or an understanding of what a 3" or 4" lift etc should be. Add the added and removed accessories weight (front bumper and winch, 37 out back and no rear seat as an example) and we are all over the map. 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. For more lift, EVO-S101F Front HD Coilover Spring Set or EVO-S101R Rear HD Coilover Spring Set.

Once the desired right height is achieved and is sitting on level ground (all ride height/lift changes and or added or removed weight changes will require this process to be readjusted), lower the 2 secondary coil rings (2 silver rings inside the top coil spring) so that they are about 1/2" from the top of the coil isolator (gap). 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" distance from the spring isolator, screw the 2 rings into each other with O-ring set in internal groove of the secondary ring and tap with flathead screw driver to tension them into each other. This 1/2" is a rough dimension and can be adjusted to your liking.