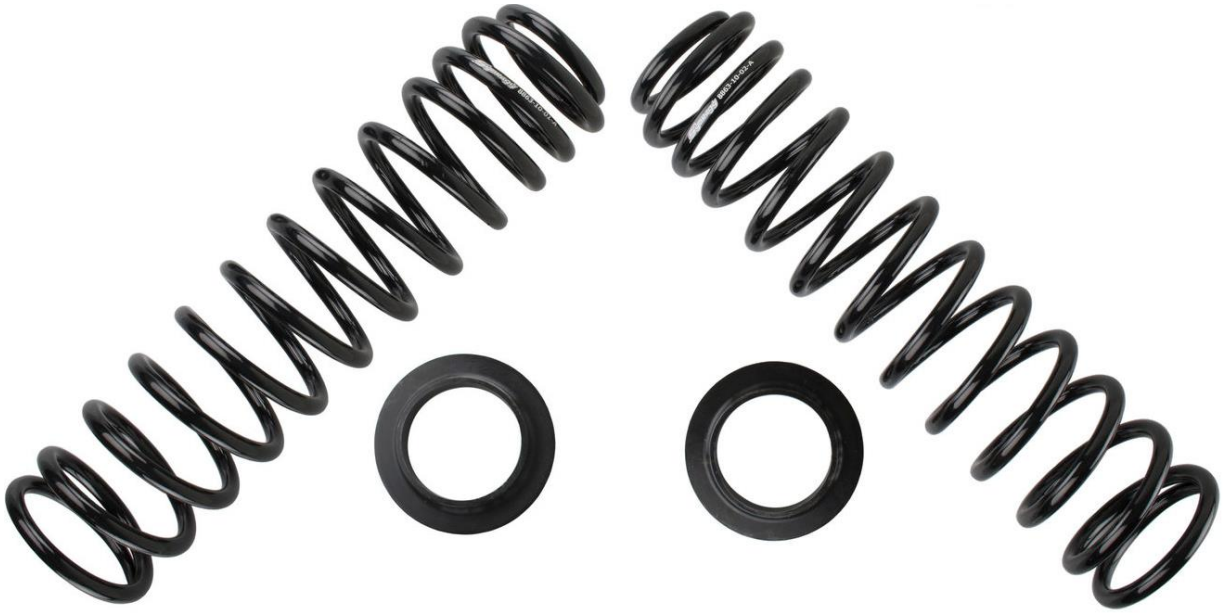
Revisions

Rev.	Description	Date	Approved
A	Initial Release Per ECO 19-010	1/18/19	A.S.
B	Revised Per ECO 19-065	5/7/19	A.S.

Jeep JL Front Coil Springs

Installation Instructions

Applications:
2018+ Jeep Wrangler (JL/JLU)



	TITLE: **JEEP JL FRONT COIL SPRINGS INSTRUCTIONS**	
SIZE **A**	DWG NO: **8863-XX-INST**	REV **B**
	SCALE: N/A	PAGE 1 OF 4

PARTS LIST

8863-XX FRONT COIL SPRINGS		
QTY	**Part Number**	**Description**
1	8863XX-01	Front Coil Spring (Left) (XX denotes 4 door Rubicon lift height)
1	8863XX-02	Front Coil Spring (Right) (XX denotes 4 door Rubicon lift height)
2	886301	Front Coil Spring Lower Isolator

GENERAL NOTES

- These instructions are also available on our website; www.synergymfg.com. Check the website before you begin for any updated instructions and additional photos or videos for your reference
- If these coil springs are being installed as part of a Synergy MFG Suspension System, please refer to the suspension system product page on www.synergymfg.com for complete installation instructions.
- These Front Coil Springs are designed to be used in conjunction with front bump stop spacers. The required minimum bump stop spacer required is shown below:

Synergy Part Number	Required Minimum Bump Stop Spacer
8863-10	**2”**
8863-20	**2”**
8863-30	**2”**

- Springs may be used with up to a ¾” spring spacer without requiring the use of additional bump stop spacer. If more than ¾” of spacer is to be used, the appropriate additional bump stop spacer must be installed.
- Approximate lift heights will vary depending on vehicle configuration, drivetrain and aftermarket components. See our web site for most current lift height information.

TOOLS REQUIRED

- 10, 15, 18, 21 and 24mm wrenches and sockets
- Torque wrench
- Jack and jackstands (or vehicle lift)
- Spring compressor (recommended) with interchangeable yokes such as the Fairmount 31655 or similar

INSTALLATION

1. Make sure vehicle is parked on a flat level surface with transmission in park or in gear and parking brake set. Chock rear wheels.
2. Raise the front of the vehicle as high as reasonable and support with jackstands under either the control arm mounts or the frame.
3. Remove wheels and tires.
4. Loosen track bar bolts with a 21mm socket and or wrench. *** If not using a spring compressor, remove the frame side track bar bolt so the axle may drop lower ***
5. Remove frame side upper control arm heat shield hardware with a 10mm wrench or socket and remove heat shields.
6. Loosen all front control arm bolts (18mm upper, 21/24mm lower), do not remove hardware.
7. Remove brake line brackets from the lower control arms (15mm) and the axle side spring perches (10mm).
8. Disconnect the electrical plug from the front axle disconnect and the electric locker (for Rubicon models only). Loosen wiring by removing zip ties and clips.
9. Remove front sway bar end links from axle with an 18mm wrench and socket.
10. Place a jack under one side of the axle and remove the lower shock bolt from that side (18mm).
11. Allow axle to droop down making sure not to stress any brake lines or electrical lines.
12. When axle is as low as it will go, place a jack stand under axle. Move jack to other side of the vehicle and repeat.
13. With axle fully lowered, stock springs should come out. Remove the spring by unseating it from the lower spring perch and removing it out the bottom towards the rear of the vehicle.
14. Pay close attention to orientation of upper spring isolators. Do not remove these.
15. Remove lower spring isolators. These are hard plastic and clipped to the axle.
16. Install new Synergy Lower Spring Isolators on axle.
17. The new Synergy springs are stamped with a part number. The last two digits of the part number indicate which side of the vehicle they go on. The -01 is the driver side (left) spring. The -02 is the passenger side (right) spring. The flat end of the spring is the bottom.

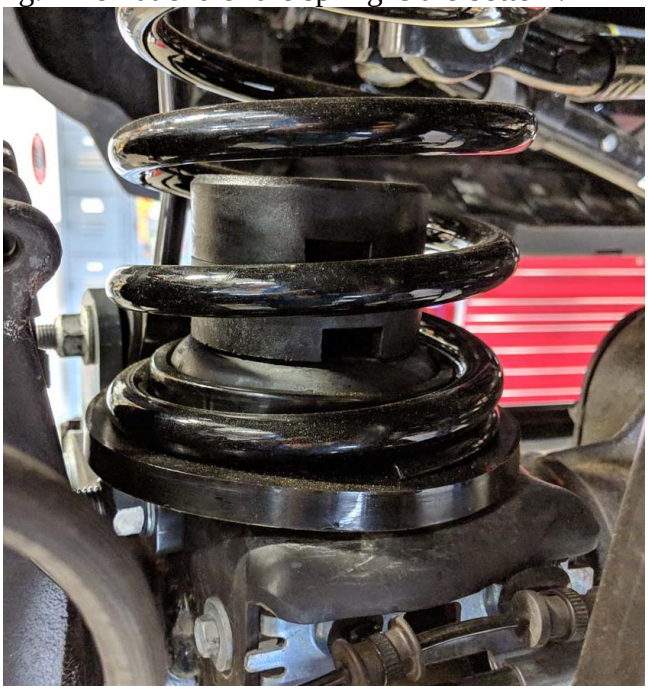


Figure 1. Correctly Installed Lower Spring Isolator

18. Install bump stop spacers in coils following bump stop spacer installation instructions.
19. Install the new Synergy springs, being careful to ensure the upper spring isolators are correctly oriented. There is a 'nub' on the top of the upper spring isolator that must fit into a hole in the spring perch on the frame. Ensure the upper spring isolator is sitting flat against the spring.
20. With the springs in place, raise the axle back up slightly to load the springs. Replace jack stands under axle.

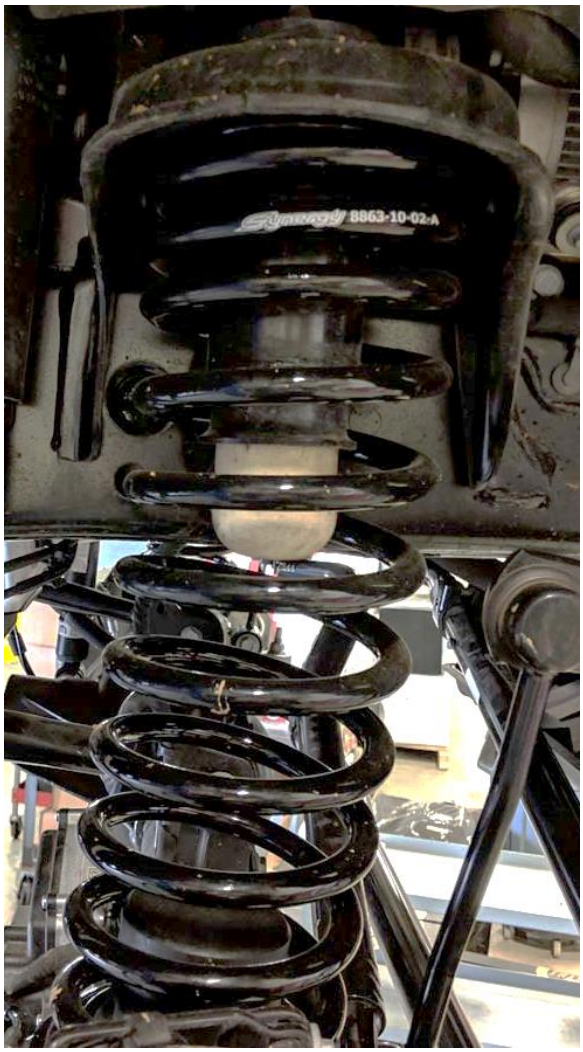


Figure 2. Correctly Installed Front Coil Spring

21. Re-connect brake line brackets, wiring harnesses and clips.
22. Re-install sway bar links, torque to 60 lb-ft.
23. Re-install lower shock bolts, torque to 75 lb-ft.
24. Re-install track bar hardware if removed.
25. Re-install wheels and put the vehicle back on the ground.
26. Torque track bar hardware to 90 lb-ft with the vehicle on the ground at ride height.
27. Torque lower control arm hardware to 190 lb-ft with the vehicle on the ground at ride height.
28. Torque upper control arm hardware to 80 lb-ft with the vehicle on the ground at ride height.
29. Replace upper control arm heat shields. Torque hardware to 40 lb-in.

INSTALLATION IS COMPLETE

CHECK ALL BOLT TORQUES AFTER APPROXIMATELY 100 MILES OF DRIVING, AND AFTER EACH OFF-ROAD TRIP.

Table 1. Jeep Wrangler JL Bolt Torques

Bolted Joint Location	Wrench Size	Torque
Front Upper Control Arm	18mm	80 lb-ft
Front Lower Control Arm	21/24mm	190 lb-ft
Front Brake Mount to Control Arm	15mm	15 lb-ft
Front Track Bar	21mm	110 lb-ft
Front Sway Bar End Links	18mm	60 lb-ft
Front Upper Control Arm Heat Shields	10mm	40 lb-in
Lower Shock (Front and Rear)	18mm	75 lb-ft
Rear Upper Control Arm to Frame	21mm	120 lb-ft
Rear Upper Control Arm to Axle	21mm	95 lb-ft
Rear Lower Control Arm	21mm	90 lb-ft
Rear Sway Bar Link to Axle	18mm	60 lb-ft