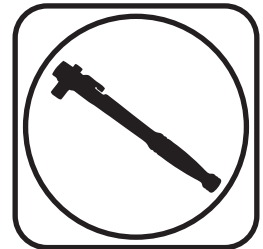
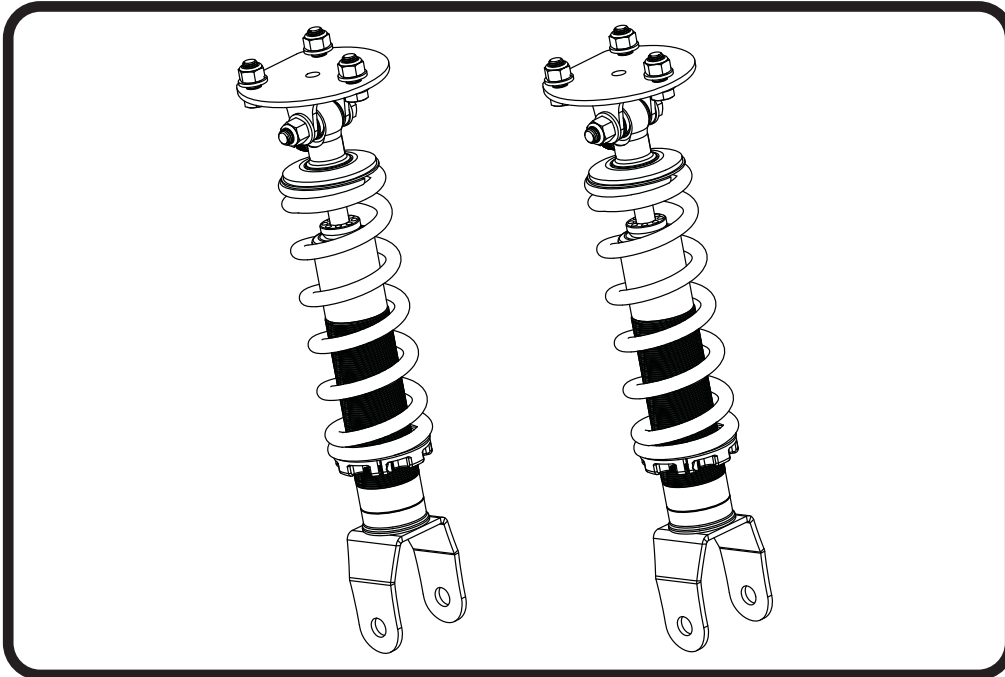




Part # 13133110/13133115 - 2019-2023 Ram 1500 2WD/4WD HQ Front CoilOvers

Recommended Tools



2019-2023 Ram 1500 2WD/4WD Front CoilOvers

Installation Instructions

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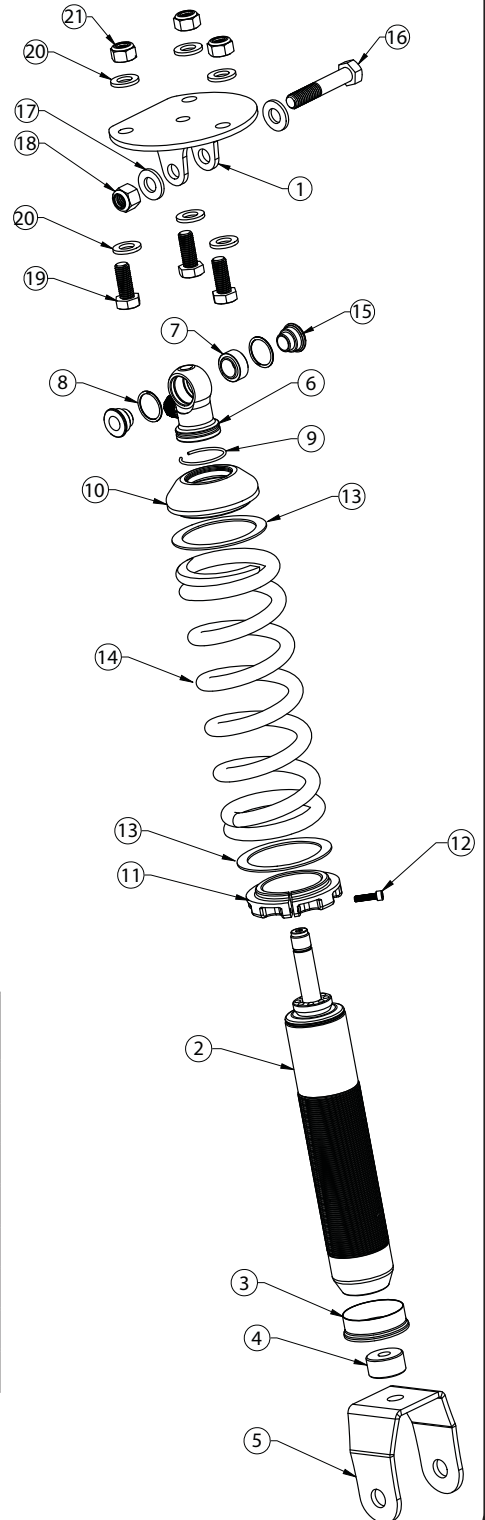
THIS KIT IS DESIGNED TO REPLACE THE OEM SHOCK/SPRING SETUP.





Major ComponentsIn the box

Item #	Part #	Description	QTY
1	90003553	Upper CoilOver Mount	2
Coil Over Shock Assembly			
2	986-10-124	5.2" Stroke HQ Series Shock	2
3	90002398	Lower Shock Ring	2
4	90002397	Lower Shock Puck	2
5	90003554	Lower Shock Mount	2
6	815-05-022-KIT	1.7" Shock Eyelet Assembly	2
7	90001994	5/8" ID Shock Bearing	2
8	90001995	Shock Bearing Snap Ring	4
	99501031	1/2" -13 x 3/4" Button Head Bolt	2
	99503006	1/2" SAE Flat Washer	2
9	038-01-006-A	CoilSpring Plate Retaining Ring	2
10	90002070	Dropped CoilSpring Cap	2
11	234-15-200	Lower Spring Adjuster Nut	2
12	99050001	Adjuster Nut Locking Screw	2
13	70010828	Delrin Spring Washer	4
14	59100750 (2WD) or 59100850 (4WD)	CoilSpring 10" (2WD) 750lb - 2WD or CoilSpring 10" (4WD) 850lb - 4WD	2 or 2
15	90002043	.500 x .365 Shock Bearing Spacers	4
	85000000	Spanner Wrench	1



HARDWARE LIST - Kit # 99010240

Item #	Part #	Description	QTY
SHOCK TO SHOCK MOUNT			
15	99501050	1/2" -13 x 2 1/2" Hex Bolt	2
16	99503014	1/2" SAE Flat Washer	4
17	99501064	1/2" -13 Nylok Nut	2
LOWER MOUNT TO CONTROL ARM			
18	99121005	M12-1.75 X 30mm Hex Bolt	6
19	99123002	M12 Flat Washer	12
20	99122009	M12-1.75 Nylok Nut	6



Disassembly

This CoilOver System is Designed to replace the factory Shocks and Springs.

The front OEM Shock and Spring assemblies will need to be removed from the front of the truck. **DO NOT DISASSEMBLE THE SHOCK/SPRING ASSEMBLY, THE COILSPRING IS UNDER COMPRESSION AND COULD CAUSE BODILY INJURY!**

1. Raise the vehicle and support it by the frame, allowing the suspension to hang freely. Remove the wheels.
2. Remove the shock/spring assembly from both sides of the truck. **DO NOT DISASSEMBLE THE SHOCK/SPRING ASSEMBLY, THE COILSPRING IS UNDER COMPRESSION AND COULD CAUSE BODILY INJURY!**
3. If replacing the OEM upper control arms, replace them in conjunction with the CoilOvers.



4. Disconnect the sway bar from the control arms. This allows the lower control arm to move easier during the CoilOver installation.



5. Unbolt the brake line from the frame, but retain the OEM hardware. This allows the lower control arm to move easier during the CoilOver installation.



6. Detach the ABS wire from the upper control arm.



Disassembly



7. The upper control arm will need to be disconnected from the steering knuckle. If you are installing Ridetech CoilOvers, the upper arm can be removed.

Getting Started.....

8. The CoilOvers need to be assembled before putting the shocks in the mounts. Assemble the shocks and springs using the instructions below.

CoilOver Assembly...



First, using the supplied lower adjuster nut (234-15-200) thread the nut onto the shock from the top of shock as seen in figure A. Remove the plastic pellet that is in the split of the adjuster nut.



Once the knob is removed slide a Delrin washer over the eyelet. Next, slide the upper spring mount (9000-2070) over eyelet as seen in figure D.



Next, install a delrin washer then coil spring over the top of the shock as seen in figure B.



Install upper spring mount retainer clip (038-01-006-A) into the groove on the upper eyelet as seen in figure E. Then, reinstall adjuster to complete assembly.



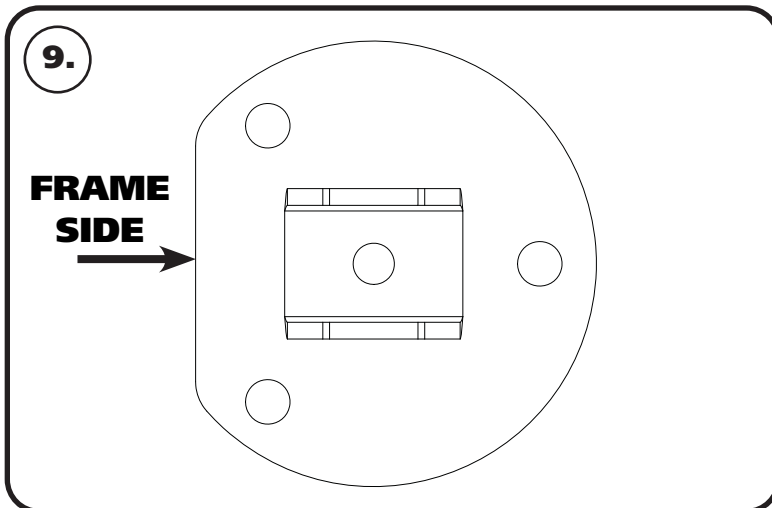
Before the upper spring mount can be installed screw the adjuster knob on the upper eye mount to the firmest setting (clockwise) as seen in figure C. Then remove the Knob by holding it while removing the center screw.

Install the locking screw in the adjuster nut before setting spring preload, but DO NOT tighten until the spring preload has been set.

NOTE: Remember to adjust the shock valving before driving, the shock is currently set to full stiff.



CoilOver Installation



9. Image 9 illustrates the upper coil over mount. The flat side of the mount will need to be positioned to the frame.



10. Position the upper coil over mount in the OEM location with the flat side positioned to the frame. Install a M12 flat washer on each of (3) M12-1.75 x 30mm hex bolts. With the mounting holes aligned, insert a bolt/washer in each hole. Install a M12 flat washer & M12-1.75 nylok nut on each bolt. Torque the bolts to 69 ft-lbs.



11. Install the 1/2" I.D. bearing spacers into the bearing in the shock eyelet. These spacers have a through hole that is 1/2" diameter. The small diameter of the spacers will insert into the shock bearing.



CoilOver Installation



12. Insert the shock eyelet into the upper mount. **Install each CoilOver in the upper mount with the Adjusting Knob facing the wheel of the truck.** Line up the shock bearing/spacers hole with the mounting holes of the upper mount.



13. Install a 1/2" flat washer on a 1/2"-13 x 2 1/2" bolt. Insert a bolt/washer through the mount/shock. Install a 1/2" flat washer and 1/2"-13 nylok nut on the threads of the bolt that are sticking through the mount. Torque the upper mounting hardware to 75 ftlbs.



14. Use a jack under the lower control arm to raise the control arm. Align the OEM shock mount with the lower shock mount of the coil over.



CoilOver Installation



15. Install the OEM lower shock bolt. We recommend installing the bolt with the threads to the rear of the truck. Install the OEM nut on the threads of the bolt. Torque the shock bolt to 125 ft-lbs.



If installing upper control arms, install them at this time.



16. Insert the ball joint stud into the spindle. Install (2) M14 flat washers on the ball joint stud. Next, install the ball joint nut and torque to 50 ft-lbs. Tighten the nut until a slot in the nut aligns with the hole in the ball joint pin. **NEVER LOOSEN THE NUT TO ALIGN THE HOLE!**



17. Install the supplied cotter pin. Bend the tabs of the cotter pin.



18. Insert the OEM ABS clip into the tab of the control arm.



CoilOver Installation



19. Reattach the sway bar linkage. The lower sway bar linkage nut is torqued to 75 ft-lbs.

20. Repeat steps 4-19 on the other side of the truck.

21. Verify all the hardware is tight before continuing to coilspring adjustment.

CoilSpring Adjustment

22. Preload the springs of the CoilOver 3/4" to start. **Steps 19a - 19e** will assist you with preloading the coilspring. You may need to adjust the amount of preload in the spring, but this will be determined after the truck has been sat on the ground.

22a. Verify the adjuster nut locking screw is installed in the adjuster nut, but not tight.

22b. Screw the spring adjuster nut up the shock body until it is snug against the spring. You should NOT be able to move the spring up and down on the shock (0 preload). Verify the dropped upper coilspring cap is seated correctly on the upper shock eyelet.

22c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

22d. Using a spanner wrench, thread the adjuster up the shock an additional 3/4" (from the measurement you took in step 2) to preload the spring.

22e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

23. Reinstall the front wheels and tires and set the front of the truck back on the ground.

24. After entire weight of truck is on the wheels, jounce the suspension and roll the truck forward and backward to alleviate suspension bind. **THIS IS NECESSARY BEFORE MEASURING RIDE HEIGHT.**

25. If you determine you need to adjust the ride height of the front suspension after getting the truck on the ground, **Steps 25a - 25e** will assist you in adjusting the ride height.

25a. Raise the vehicle and support it by the frame, allowing the suspension to hang freely. You do NOT need to remove the front wheels, but you may want to turn the steering wheel to gain better access to the CoilOver.

25b. Loosen the locking screw in the adjuster nut, but do not remove the locking screw.

25c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

25d. Using a spanner wrench, thread the adjuster up or down the shock to obtain the correct ride height. One complete revolution of the adjuster nut is approximately 1/8" at the wheel. Threading the adjuster nut up the shock will raise the ride height, threading it down will lower the ride height.



Alignment

- 25e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.
- 26. Turn the steering wheel until the front wheels are straight and set the front of the truck back on the ground.
- 27. After entire weight of truck is on the wheels, jounce the suspension and roll the truck forward and backward to alleviate suspension bind. **THIS IS NECESSARY BEFORE MEASURING RIDE HEIGHT.**
- 28. Recheck your ride height. If you need to readjust, repeat **Steps 24-27.**
- 29. Any time you replace front suspension components, you should have the alignment checked.

Suggested Alignment Specs:

Camber: -.5 degrees
 Caster: +3.0 to + 5.0 degrees
 Toe: 1/16" to 1/8" toe in

Shock Adjustment 101- Single Adjustable

Rebound Adjustment:

How to adjust your new shocks.

The rebound adjustment knob is located on the top of the shock absorber protruding from the eyelet. You must first begin at the ZERO setting, then set the shock to a medium setting of 12.



-Begin with the shocks adjusted to the ZERO rebound position (full stiff). Do this by rotating the rebound adjuster knob clockwise until it stops.



-Now turn the rebound adjuster knob counter clock wise 12 clicks. This sets the shock at 12. (settings 21-24 are typically too soft for street use).

Take the vehicle for a test drive.



-if you are satisfied with the ride quality, do not do anything, you are set!

-if the ride quality is too soft increase the damping effect by rotating the rebound knob clock wise 3 clicks.

Take the vehicle for another test drive.



-if the vehicle is too soft increase the damping effect by rotating the rebound knob clock wise 3 additional clicks.



-If the vehicle is too stiff rotate the rebound adjustment knob counter clock wise 2 clicks and you are set!

Take the vehicle for another test drive and repeat the above steps until the ride quality is satisfactory.

Note:

One end of the vehicle will likely reach the desired setting before the other end. If this happens stop adjusting the satisfied end and keep adjusting the unsatisfied end until the overall ride quality is satisfactory.