ICON VEHICLE DYNAMICS®
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212500 INSTALLATION INSTRUCTIONS

2-16-2021 REV.B

PART #	DESCRIPTION
212500	03-12 RAM HD 4WD FRONT 2.5" DUAL RATE COIL SPRING KIT

COMPONENTS INCLUDED

(1) 214015 SWAY BAR DROP BRACKETS (DRVR) (1) 214016 SWAY BAR DROP BRACKETS (PASS)	(2) 218200 2.5" DUAL RATE COIL SPRINGS (2) 297040 SNAP-IN BUMPSTOPS

HARDWARE INCLUDED

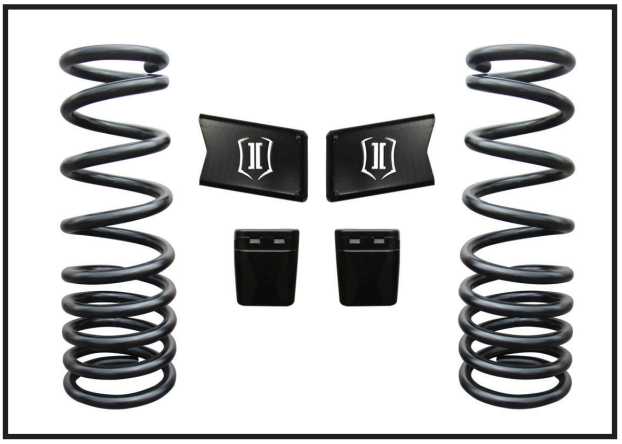
(4) 605203 7/16" X 1" BOLTS (4) 605220 7/16" NYLOCK NUTS	(8) 605230 7/16" FLAT WASHERS

TOOLS REQUIRED

JACK JACK STAND TORQUE WRENCH 8MM SOCKET / WRENCH 13MM SOCKET / WRENCH 15MM SOCKET / WRENCH	18MM SOCKET / WRENCH 21MM SOCKET / WRENCH 9/16" SOCKET / WRENCH 5/8" SOCKET / WRENCH 3/4" SOCKET / WRENCH 3/4" FLEX HEAD RATCHET

TECH NOTES

N/A



WARNING!

*** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!*

*** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.*

*** ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.*

INSTALLATION

1. Using a properly rated jack, raise the front of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.

2. Remove the sway bar links from the sway bar. (Set bushings, washers, and nuts aside.) Leave the links connected to the differential. (15mm socket)

3. Remove the sway bar from the frame. (15mm socket) Mark the passenger side and take note so the sway bar is not accidentally flipped later on during reinstallation.

4. Remove the upper track bar bolt from the frame. (21mm socket & wrench)

5. Open the hood and disconnect both negative battery terminals. (8mm socket)

6. Remove tires and inner fender liners. Fender liners must be removed during this install. (8mm socket)

7. Remove the drag link from the pitman arm on the steering box. (21mm socket or wrench)

8. Support the differential with a heavy duty floor jack. With the housing supported, remove the lower shock mount bolts going through the differential. (21mm socket & extension) THE DIFFERENTIAL IS EXTREMELY HEAVY AND IS LIMITED BY THE SHOCKS; MAKE SURE THE DIFFERENTIAL IS SECURELY SUPPORTED BY THE JACK.

9. Remove upper shock bushing and nut. Then remove the 3 shock tower nuts and remove the shock mount. (15mm socket) The shock can then be guided up through the coil spring and removed from under the hood. REMOVING THE SHOCKS WILL ALLOW THE DIFFERENTIAL TO OVER DROOP (FALL). MAKE SURE THE HOUSING IS SECURELY SUPPORTED BY THE JACK AND CAN BE LIFTED AND LOWERED SAFELY.

10. 5.7L Hemi V8s and 5.9L diesels have enough room to remove the shocks from under the hood. The 6.7L diesel does not. It may be easier to keep the shock inside the coil until the coil is removed.

11. Disconnect the brake line brackets located on each the side of the differential in between the control arms. (13mm socket) (Power Wagon models: disconnect wiring to front differential locker.)

12. Slowly lowering the differential will begin to unload the coil springs.

13. The OEM upper control arms may bind on the frame before the suspension becomes completely unloaded. Remove the front bolt on both of the upper control arms to allow suspension to droop far enough to remove the coil spring. This may require some effort as the links might still be under a small amount of load. REMOVING THE UPPER ARMS WILL ALLOW THE HOUSING TO ROTATE FORWARD AND BACK, PROPERLY SUPPORT THE HOUSING USING (2) JACKS AS NEEDED. (18mm wrench, 21mm socket)

14. The differential will now only be supported by the lower control arms and jack, the differential is extremely heavy and extreme care must be taken when positioning the differential.

15. Continue to slowly lower the differential; the coils will become fully unloaded from the mount, slowly lower the jack until the coil springs become loose enough to slip them out. Remove the coil isolator and stud ring.

NOTE: If the ICON Coilover Conversion Kit has been purchased, refer to coilover instructions for installation.

16. Slide the new springs into place. Be sure the coil isolator is installed on the top of the coil and the appropriate stud ring is in place.

17. Slowly lift the differential until just before the springs start to compress.

18. Connect the upper links and tighten ALL link bolts. (18mm wrench & 21mm socket)

NOTE: If the ICON Shock Tower has been purchased, refer to coilover instructions for shock tower install portion.

19. Lower the ICON shock into the coil from under the hood. Connect and tighten the lower shock mount. This may be difficult to position by reaching through the coil. Make sure the lower shock spacers are spacing the shock forward. The longer spacer should go toward the back.(21mm socket & extension)

20. Then position the shock tower over the shock. Tighten the tower to the coil bucket. (15mm socket) Then tighten the stem top and bushings of the shock onto the shock tower. (3/4" ratcheting wrench or socket & flex head ratchet) Depending on which shock was purchased, it may be easier to mount the shock tower to the shock before mounting to the coil bucket.

21. If the ICON Adjustable Track Bar Kit was purchased, replace the factory track bar with the new ICON Adjustable Track Bar, making sure the side with the rod end adjustment is connecting to the differential. Adjust the collar and heim so there are 1/4" more threads showing on the heim than the collar. (This makes it more accessible to adjust after installation. Use the correct bearing spacers and heim spacers for your truck. Check the bolt size to determine which spacer is needed. Only insert the bottom bolt. (21mm socket)

22. Install the sway bar drop brackets. (15mm wrench) The open side goes toward the center of the truck with the shields pointing down.

23. Then mount the sway bar to the bracket using the supplied hardware. (5/8" socket & wrench) Make sure to reinstall in the same orientation as was removed.

24. Connect the sway bar to the sway bar links using the stock bushings and washers. (15mm socket)

25. Go back through and torque all the partially installed hardware.

26. Re-install the inner fender well. (8mm socket)

27. (Reservoir shocks only) Mount the reservoir to reservoir mount on top of the shock tower using the supplied hose clamps. (8mm socket)

28. Re-install the tires and lower vehicle to the ground.

29. With the vehicle on the ground, use the steering to move the frame until the upper track bar holes line up and install the bolt. Center the front axle by adjusting the track bar adjusting collar (If applicable). Tighten the adjusting collar pinch bolts, alternating between the two bolts, back and forth 2-3 times in order to evenly apply pressure to secure the collar. (If the OEM track bar is used, there will be no need for centering the axle).

30. This lift will affect caster and steering wheel alignment.

31. Point the tires straight ahead, make sure the steering column is not locked, loosen the clamps on the drag link turn buckle and rotate the turn buckle to center the steering wheel. Without the use of alignment equipment you may need to test drive the vehicle and re-center the wheel if it is off slightly.

32. The steering wheel being off center can affect computer sensor readings which will effect traction control. A full alignment should be performed by professional technicians.

33. Check the torque on all hardware. Drive the truck 1-2 miles and re-torque all nuts, bolts and lugs. Re-center the steering wheel if necessary.

34. If the shock was discharged during installation, charge the shock reservoir accordingly with pure nitrogen.

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.

ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

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