



RS80451B – 2.5" Lift Front Coil Springs

Fits: 2019-2014 Ram 2500 4WD (DIESEL MODELS ONLY)

Excludes Power Wagon

Requires Rancho Coil Spring Locator Kit RS64453 (MUST BE PURCHASED SEPARATELY)

⚠ WARNING: Carefully read, understand and follow the instructions provided in this manual, and keep it in a safe place for future reference. If you have any doubt whatsoever regarding the installation or maintenance of your Rancho suspension system, please see your retailer for assistance or advice. Failure to follow the warnings and instructions provided herein can result in the failure of the suspension system, or can cause you to lose control of your vehicle, resulting in an accident, severe personal injury or death.

These instructions should remain in the vehicle glove box for future reference.

Do not install lifted coil springs without appropriate extended length shocks, brake lines, brake line brackets, bump stop extensions, sway bar end links, track bars, and drive shafts.

Failure to install these lifted height coil springs along with appropriate components can result in the failure of the suspension system, or can cause you to lose control of your vehicle, resulting in an accident, severe personal injury or death.

This suspension system will enhance the off-road performance of your vehicle. It will handle differently; both on and off-road, from a factory equipped passenger car or truck. Failure to drive this vehicle safely may result in serious injury or death to the driver and passengers. **ALWAYS WEAR** your seat belts, **REDUCE** your speed, and **AVOID** sharp turns and other abrupt maneuvers.

Required Components and Modifications (MUST BE PURCHASED SEPARATELY)

Rancho Coil Spring Locator Kit RS64453

Required to prevent extended length coils centered in upper mount.

Extended length shocks required – Do not reuse OE shocks:
RS999044, RS7044, or RS55044

Parts List

P/N	DESCRIPTION	QTY.
RS830B	2.5" Progressive Coil	2
RS88451	Instructions	1

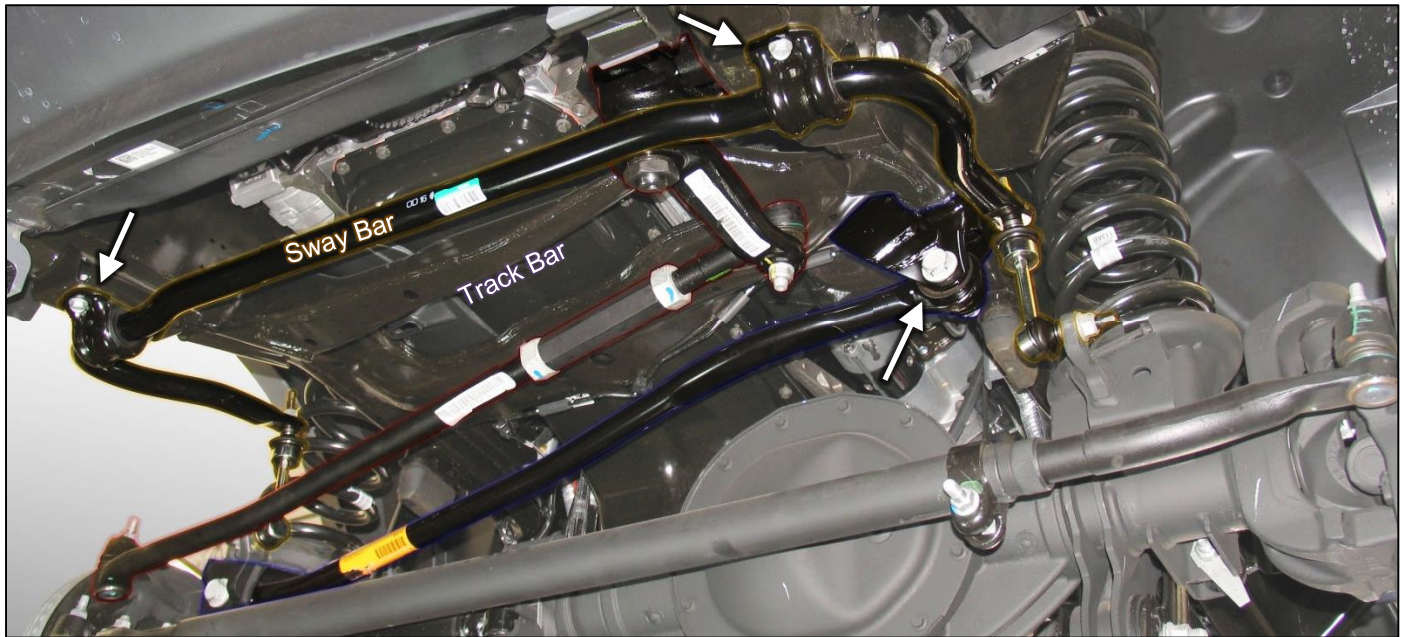
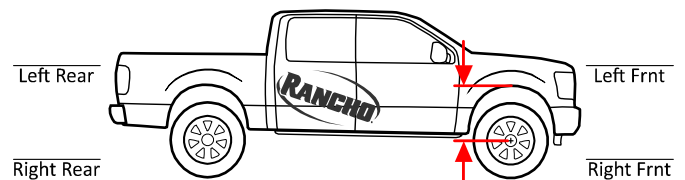


Illustration 1

COIL SPRING REMOVAL

- 1) Park vehicle on a level surface. Set the parking brake and chock wheels.
- 2) Measure and record the distance from the center of each wheel to the top of the fender opening. Record measurements in space provided.



- 3) Disconnect the track bar from the frame bracket. See Illustration 1.
- 4) Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and set them aside.
- 5) Remove the sway bar mounts at the frame and allow sway bar to hang freely. See Illustration 1.
- 6) Support the front axle with two floor jacks, one under each coil spring.
- 7) Remove the mounting bolts holding the front brake hoses brackets to axle. There are 2 brackets on each side. See Illustration 2.

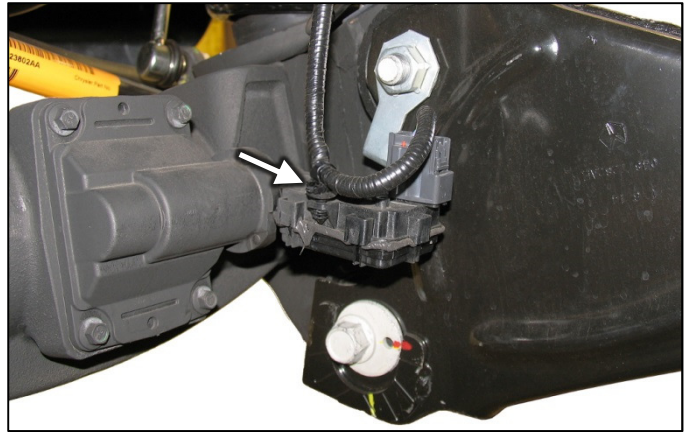


Illustration 3

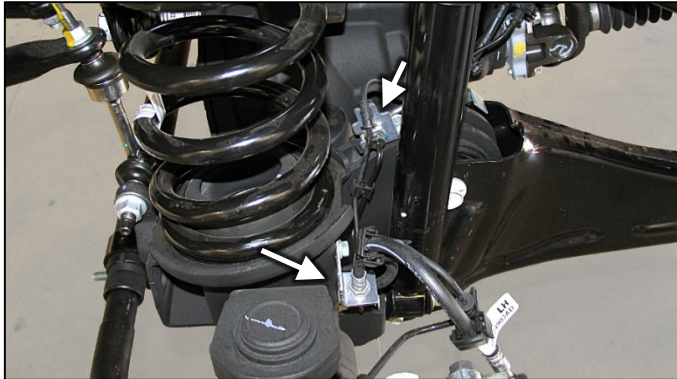


Illustration 2

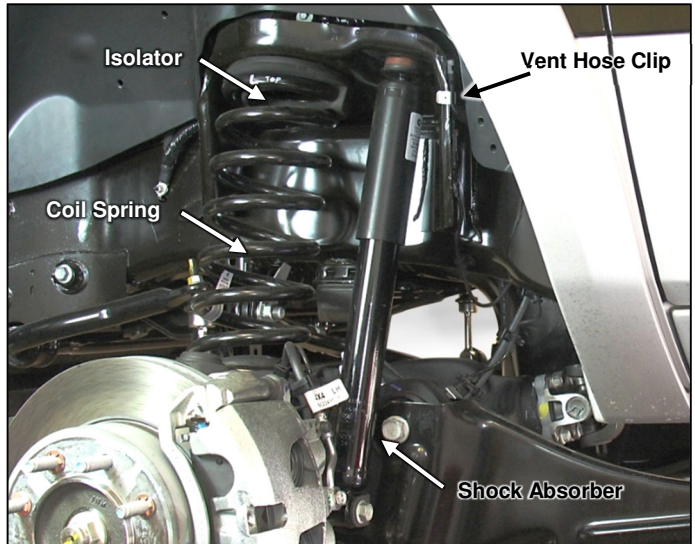


Illustration 4

- 8) Remove clip attaching wire to solenoid on passenger side of axle. See Illustration 3.
- 9) Disconnect the front differential vent hose clip at driver side shock/spring mount tower, and plastic clip on inside of frame rail. See Illustration 4 and Illustration 5.
- 10) Remove the front shock absorbers.
- 11) Carefully lower the axle enough to relieve the tension on the coil springs and remove coils.

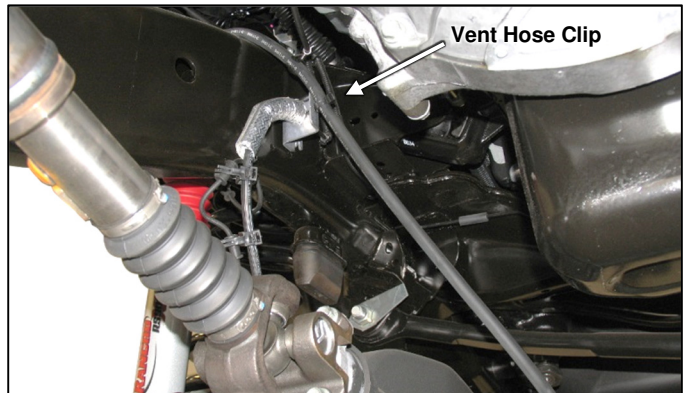


Illustration 5

⚠ WARNING: Do not allow the axle to hang by any hoses or ABS cables. You could damage the hoses or ABS cables, without this damage being visible to you, resulting in sudden and unexpected failure of a hose or ABS system, and an accident.

COIL SPRING & SHOCK ABSORBER INSTALLATION

NOTE: Both springs will have to be rotated 90° clockwise (when looking from the top)

- 1) Remove the upper spring isolators and cut off locating tabs. See Illustration 6.
- 2) Mark, center punch, and drill a 1/4" hole on the outside of the upper spring mount dimple, 1/4" from the lower edge of the dimple. De-bur inside of hole with a round or half-round file. See Illustration 7.



Illustration 6

3) Install spring locator RS176741 into hole of upper spring mount. While holding locator up against spring mount drill a 1/4" hole through locator using previously drilled 1/4" hole as a guide.

4) Install spring locator RS176741 using 1/4" hardware supplied in kit RS8860782. Install with button head out, and washer under nut. See Illustration 8.

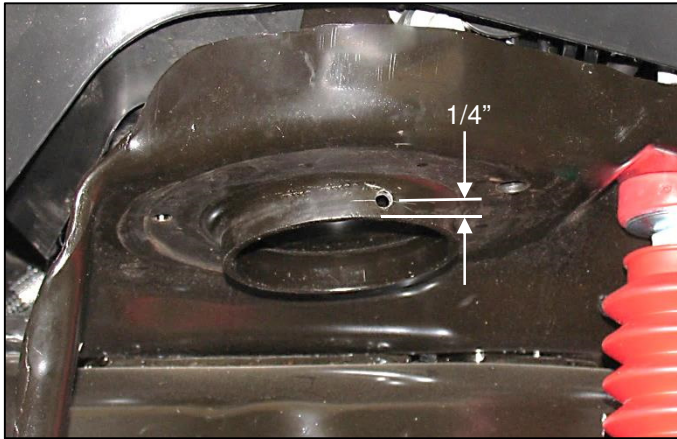


Illustration 7

5) Re-install the passenger side upper spring isolator with the coil stop to the rear of the vehicle. See Illustration 9.

6) Place new Rancho coil spring in the lower and upper mounts. The top of the spring will have a small flat section on the edge. Align the upper pigtail to the isolator. See Illustration 9.

7) Raise the passenger side of the axle just enough to keep the spring from falling out.

8) Re-install the driver side upper spring isolator with the coil stop to the outside of the vehicle. See Illustration 10.

9) Place new Rancho coil spring in the lower and upper mounts. The top of the spring will have a small flat section on the edge. Align the upper pigtail to the isolator. See Illustration 10.

10) Raise the driver side of the axle just enough to keep the spring from falling out.

11) Loosely install the shocks on the lower mounts.

12) Carefully raise the axle enough to install the shocks on the upper mounts. Torque lower mounts to 89 lb-ft and upper mount to 30 lb-ft.

13) Install other required components following manufacturer's warnings and instructions.

14) Reinstall wires, hoses, clips and brake line brackets using relocation hardware as needed.

15) Reinstall sway bar using relocation hardware as needed.

16) Torque all fasteners to manufacturers recommended torque.

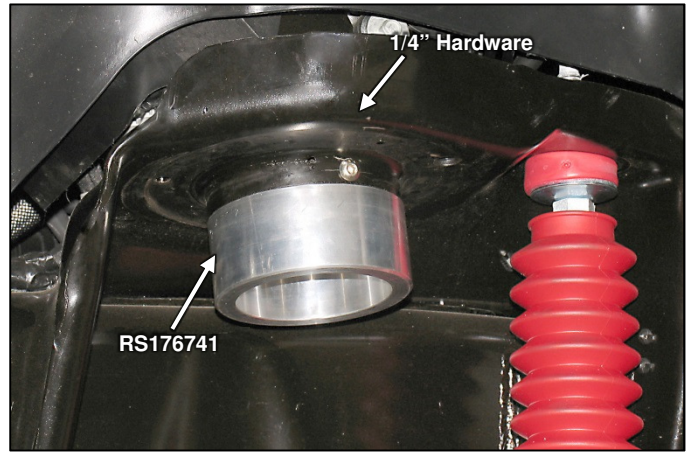
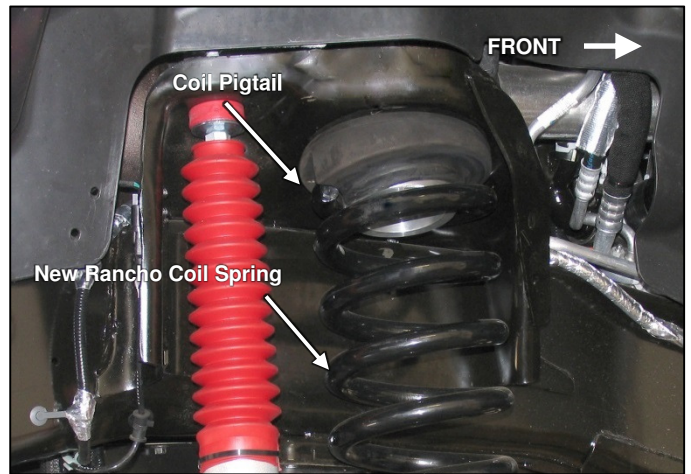
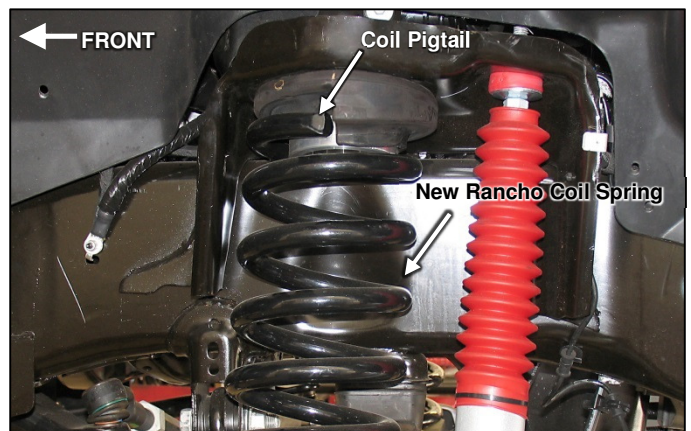


Illustration 8



Passenger side coil spring after rotating 90° from OE position
Illustration 9



Driver side coil spring after rotating 90° from OE position
Illustration 10

17) With the suspension at maximum extension (full droop), inspect and rotate all axles and drive shafts. Check for binding and proper slip yoke insertion. Check for adequate length of any wires, hoses and links. Turn the front wheels completely left then right. Verify adequate tire, wheel, brake hose and ABS wire clearance. Inspect steering and suspension for tightness and proper operation.

18) With vehicle on ground at ride height, re-attach track bar to frame with. Torque to 285 lb-ft.

19) Repeat step 17 with suspension at ride height and full articulation.

20) Ensure that the vehicle brake system operates correctly. Verify that each hose and wire allows for full suspension movement.

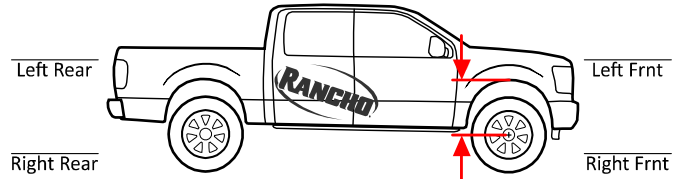
21) Ensure that the vehicle brake system operates correctly. Verify that each hose and wire allows for full suspension movement.

22) Readjust headlamps.

23) Center steering wheel and axle.

24) Have vehicle aligned to manufacturer's specifications.

25) Park the vehicle on a level surface. Measure and record the distance from the center of each wheel to the top of the fender opening. Record measurements in space provided.



Vehicle Torque Specifications

Upper Shock Mount	30 lb-ft.
Lower Strut Mount	89 lb-ft.
Sway bar Mount	43 lb-ft.
Track Bar	285 lb-ft.
Wheel Lug Nuts	140 lb-ft.

STANDARD BOLT TORQUE AND IDENTIFICATION

INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9	Class 12.9
5/16	15 LB-FT	20 LB-FT	M6	5 LB-FT	9 LB-FT	12 LB-FT
3/8	30 LB-FT	35 LB-FT	M8	18 LB-FT	23 LB-FT	27 LB-FT
7/16	45 LB-FT	60 LB-FT	M10	32 LB-FT	45 LB-FT	50 LB-FT
1/2	65 LB-FT	90 LB-FT	M12	55 LB-FT	75 LB-FT	90 LB-FT
9/16	95 LB-FT	130 LB-FT	M14	85 LB-FT	120 LB-FT	145 LB-FT
5/8	135 LB-FT	175 LB-FT	M16	130 LB-FT	165 LB-FT	210 LB-FT
3/4	185 LB-FT	280 LB-FT	M18	170 LB-FT	240 LB-FT	290 LB-FT

<p>5-Grade-8</p>	<p>1/2-13 x 1.75 HHCS</p>	<p>D = Nominal Diameter TPI = Threads Per Inch P = Pitch (Thread Width, mm) L = Length X = Description (Hex Head Cap Screw)</p>	<p>10.9 Class</p>	<p>M12-1.25 x 50 HHCS</p>
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