INSTALLATION INSTRUCTION RS88116

Rev D

RS6416B Front 2.5" Lift Coil Springs*

Fits: 2006-1997 Jeep Wrangler TJ/LJ

*The addition of aftermarket bumpers, sliders, winches, etc. will net differences in lift height

⚠ 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.

Parts List

P/N	DESCRIPTION	QTY.
RS615B	Front Coil	2
RS88116	Instructions	1

Recommended Rancho Shock Absorbers: (must be purchased separately)	RS999239 RS7239 RS55239 RS5239

COIL SPRING REMOVAL

1) Park vehicle on a level surface. Set the parking brake and chock front wheels.

2) Measure and record the distance from the center of each wheel to the top of the fender opening. See Illustration 1.

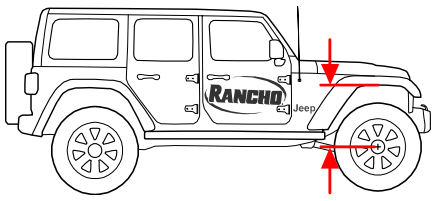

Illustration 1

3) Remove the cotter pin and nut from the ball stud end of the track bar at the frame rail bracket. Separate the ball stud from the bracket with the recommended puller tool. See Illustration 2.

4) From inside the engine compartment, remove the upper stud nut, retainer and grommet from both front shock absorbers.

5) Raise the front of the vehicle and support the frame with jack stands. Remove the front wheels and set them aside.

6) Position a floor jack under the front axle for support. Disconnect both front sway bar end links. See Illustration 3.

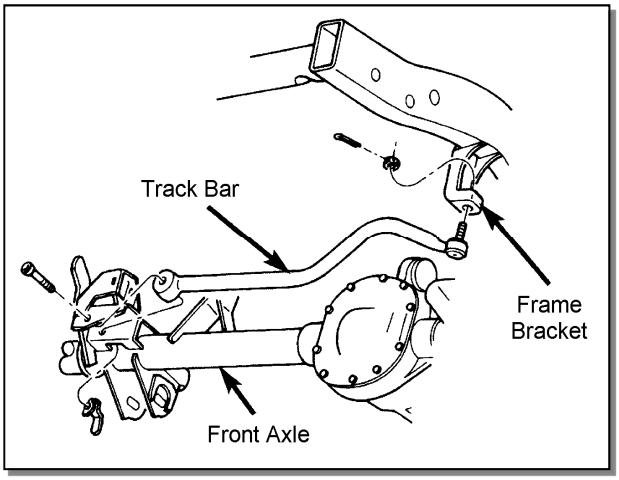

Illustration 2

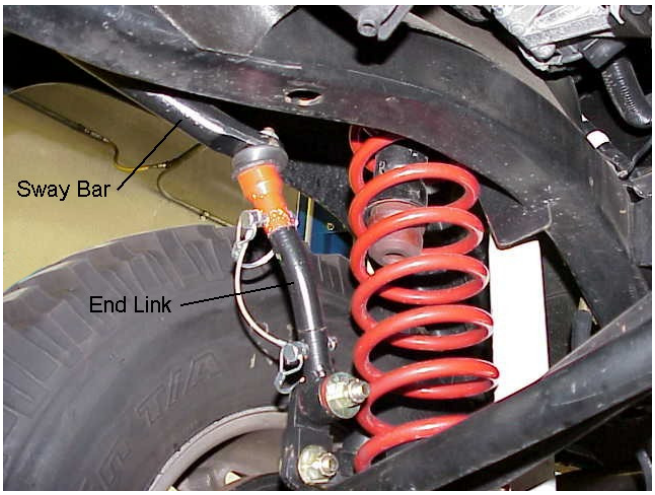

Illustration 3

7) Lower axle and remove floor jack.

8) Remove the shock absorbers if you are replacing the existing shocks.

9) If applicable, remove the coil spring retainer bolt and retainer.

10) Disconnect the rubber bump stop and bump stop perch from inside of the coil to reduce the amount of spring compression needed.

11) Install a quality coil spring compressor like the one shown in Illustration 4. Compress the spring.

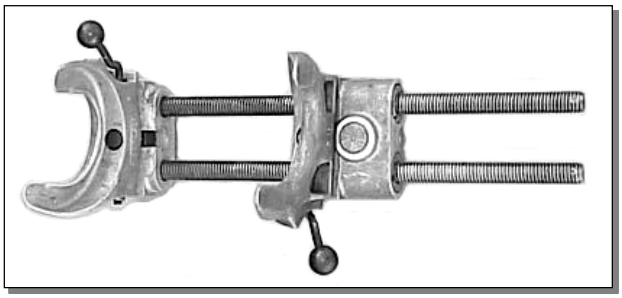

Illustration 4

12) Push down on the axle and remove the coil spring. Carefully remove the spring compressor.

13) Repeat for other side.

COIL SPRING INSTALLATION

1) Compress the new front coil spring to 16 inches in length.

2) Place the rubber bump stop and perch inside the spring.

3) Install the spring into the upper and lower spring pockets. Carefully remove the spring compressor.

4) Rotate spring so pig tail end fits back in spring pocket. Attach spring retainer with self-tapping screw. Tighten the self-tapping screw to 16 lb-ft.

5) Reinstall the rubber bump stop and perch.

6) Repeat steps 1 through 5 for the other side.

7) Position shock stud through upper mounting hole. Install upper shock grommet, retainer and nut. Do not tighten. Repeat for other side.

8) Attach shocks to axle brackets. Tighten bolts to 23 lb-ft.

9) Support the front axle with a floor jack. Reattach the sway bar end links.

10) Attach the track bar end to the frame rail bracket. Do not tighten.

11) 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.

12) Install front wheels and lower vehicle to the ground. Tighten lug nuts to 80--110 lb-ft.

13) Tighten upper shock mounts to 17 lb-ft.

14) Check tire to fender-well measurements. If necessary, remove and adjust the track bar end to duplicate the previous measurements. Refer back to step 3 under coil spring removal.

15) Tighten the ball stud nut to 65 lb-ft. Install a new cotter pin. Tighten the jam nut.

FINAL CHECKS & ADJUSTMENTS

1) Turn the front wheels completely left then right. Verify adequate tire, wheel, and brake hose clearance. Inspect steering and suspension for tightness and proper operation.

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

3) Readjust headlamps. Have vehicle Aligned to manufacturer's specifications.

Alignment Specifications

ADJUSTMENT	PREFERRED	RANGE
Caster	7°	±1.0°
Camber (fixed angle)	-0.25°	±0.63°
Toe-In (each wheel)	0.15°	±0.15°
Thrust Angle	0	±0.15°

Torque Specs

Spring Retainer	16 lb-ft
Shock Absorber Upper Mount	17 lb-ft
Shock Absorber Lower Mount	23 lb-ft
Track Bar Ball Stud Nut	65 lb-ft
Wheels (Lug Nuts)	80-110 lb-ft

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