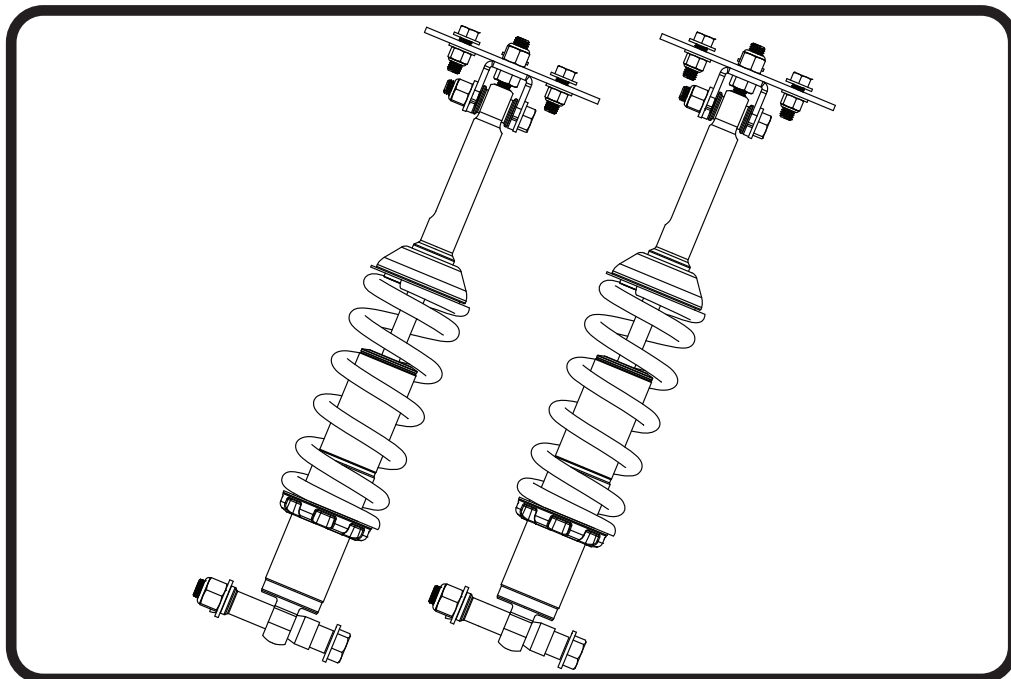
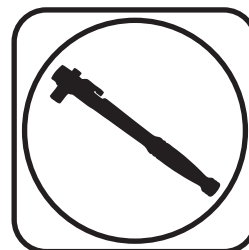
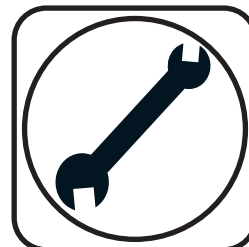




Part # 12183110 - 2004-2008 Ford F150 HQ Front CoilOvers



Recommended Tools



2004-2008 Ford F150 Front CoilOvers Installation Instructions

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





Major ComponentsIn the box

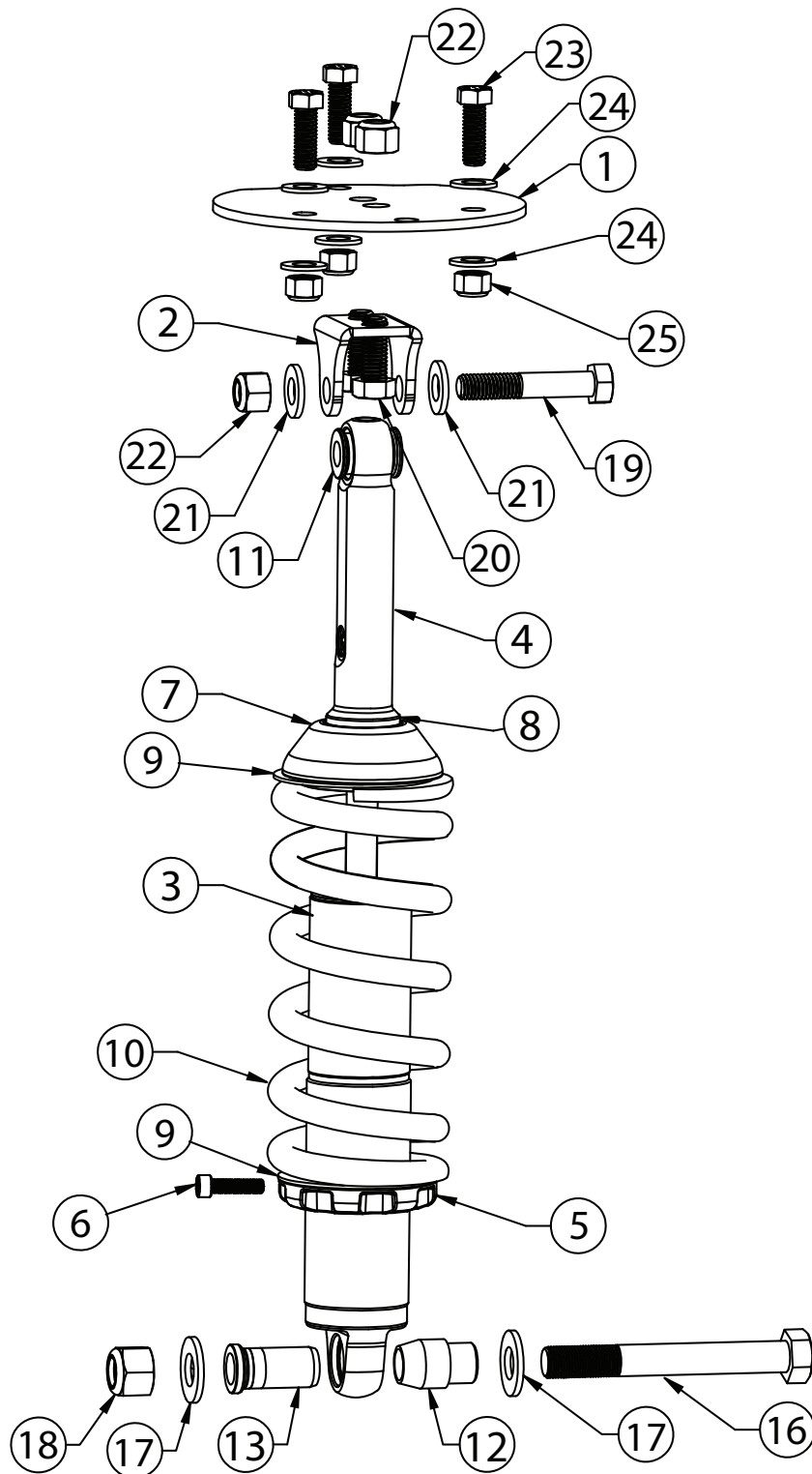
Item #	Part #	Description	QTY
1	90001381	Upper CoilOver Mounting Flange	2
2	90002158	Upper CoilOver Mounting Bracket	2
3	982-10-805	5.2" Stroke HQ Series Shock	2
4	90002156	+3" Shock Eyelet Assembly	2
5	803-00-199(kit)	Lower Spring Adjuster Nut	2
6	803-00-199(kit)	Adjuster Nut Locking Screw	2
7	90002070	Dropped CoilSpring Cap	2
8	803-00-199(kit)	CoilSpring Plate Retaining Ring	2
9	70010828	Delrin Spring Washer	4
10	59100800	CoilSpring 10" 800lb	2
11	90002043	.500 x .365 Upper Shock Bearing Spacer	4
12	90001382	Lower CoilOver Bolt Adapter - T-Bushing	2
13	90001383	Lower CoilOver Bolt Adapter - Push Through	2
14	90001994	5/8" ID Bearing (installed in shock eyelet/body)	4
15	90001995	Bearing Snap Ring (installed in shock eyelet/body)	8

HARDWARE LIST - Kit # 99010143

Item #	QTY	Part Number	Description
FRONT LOWER SHOCK MOUNT			
16	2	99621007	5/8"-18 x 5" Hex Bolt
17	4	99623010	5/8" SAE Flat Washer
18	2	99622001	5/8"-18 Nylok Nut
FRONT UPPER SHOCK MOUNT			
19	2	99501064	1/2"-13 x 2 3/4" Hex Bolt
20	4	99501062	1/2"-13 x 1 1/2" Hex Bolt
21	4	99503014	1/2" SAE Flat Washer
22	6	99502009	1/2"-13 Nylok Nut
23	6	99431021	7/16"-14 x 1 1/4" Hex Bolt
24	12	99433005	7/16" SAE Flat Washer
25	6	99432010	7/16"-14 Nylok Nut



Major ComponentsIn the box





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. Disconnect the sway bar from the control arms. This allows the lower control arm to move easier during the CoilOver installation.
4. If replacing the OEM spindles, replace them in conjunction with the CoilOvers.

Getting Started.....

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

CoilOver Assembly...



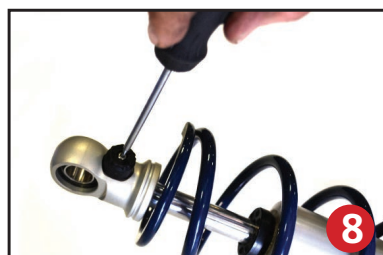
6

First, using the supplied lower adjuster nut (803-00-199) thread the nut onto the shock from the bottom side as seen in figure 6. Remove the plastic pellet that is in the split of the adjuster nut.



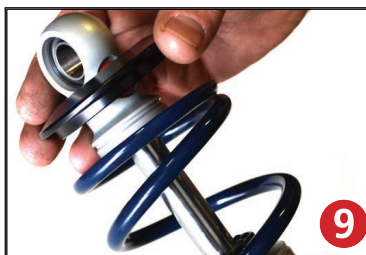
7

Next, install a delrin washer then coil spring over the top of the shock as seen in figure 7.



8

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 8. Then remove the Knob by holding it while removing the center screw.



9

Once the knob is removed slide a Delrin washer over the eyelet. Next, slide the upper spring mount (803-00-199) over eyelet as seen in figure 9.



10

Install upper spring mount retainer clip (803-00-199) into the groove on the upper eyelet as seen in figure 10. Then, reinstall adjuster to complete assembly.

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

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



Assembling Upper Mount

11.



11. Line up the 2 mounting holes in the Upper Mounting Flange with the 2 holes of the Mounting Bracket. It doesn't matter which side of the Upper Mounting Flange that the Upper Bracket is bolted to.

NOTE: The Upper Mounts are not side specific so they are the same for both sides of the truck.

12.



12. Insert a 1/2"-13 x 1 1/12" bolt through each hole of the flange/mount. The bolts need to be installed with the bolt head in the upper bracket. Refer to **Images 12 & 13**.

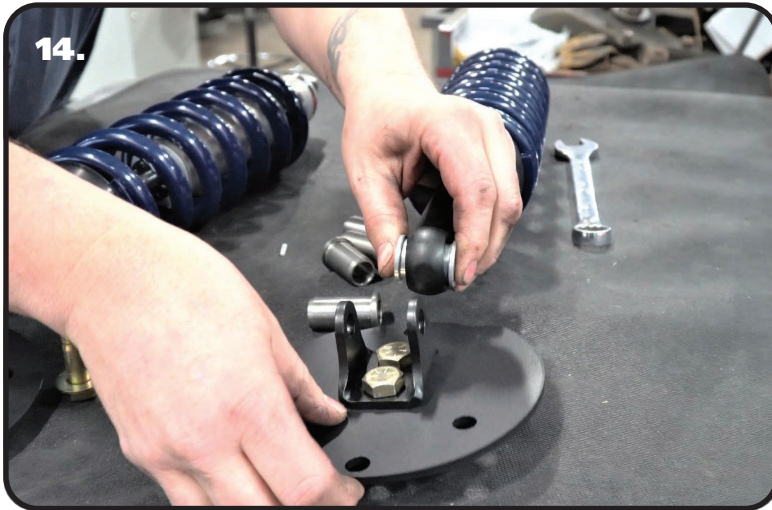
13.



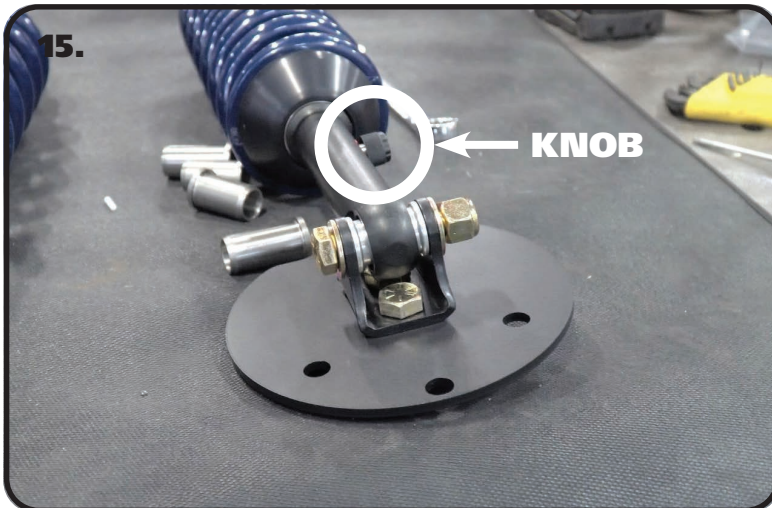
13. Install a 1/2"-13 nylok nut on the threads of each bolt that is sticking through the mount. Torque to 75 ftlbs.



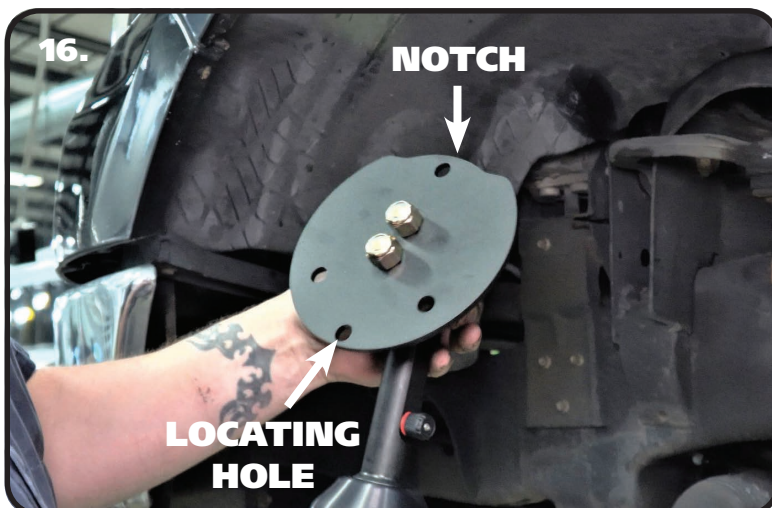
Assembling CoilOver



14. 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.



15. Insert the shock eyelet into the upper mount. **Install each CoilOver in the upper mount with the Adjusting Knob on opposite sides of each other.** Line up the shock bearing/spacers hole with the mounting holes of the upper mount. Install a 1/2" flat washer on a 1/2"-13 x 2 3/4" 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.



16. The upper mount has 4 holes in the perimeter of the flange. 3 of these holes are mounting holes, 1 is a locating hole. The flange is also notched out on the side opposite of the locating hole. The upper mount needs to be installed in the truck with the locating hole toward the wheel of the truck. The notch will be to the frame.



Installation of CoilOver Assembly



17. Position the mount/coilover in the truck. It will be placed in the OEM location. Line up the locating hole and 3 mounting holes.



18. Install a 7/16" flat washer on each of (3) 7/16"-14 x 1 1/4" hex bolts. Install the bolt/washer in the frame/mount from the top side with the threads pointing down. Install a 7/16" flat washer and 7/16"-14 nylok nut on the threads of each bolt sticking through the frame. Torque the hardware to 50 ftlbs. Repeat steps 11-18 on the remaining side.



19. Insert the T-Bushing (90001382) into the front side of the REAR TAB of the OEM shock mount. The REAR TAB IS THE THICKER TAB. This T-bushing is Tapered on the CoilOver side. Insert the small OD into the control arm with the taper away from the control arm.



Installation of CoilOver Assembly



20. The T-bushing should look just like **Image 20** after it is installed.



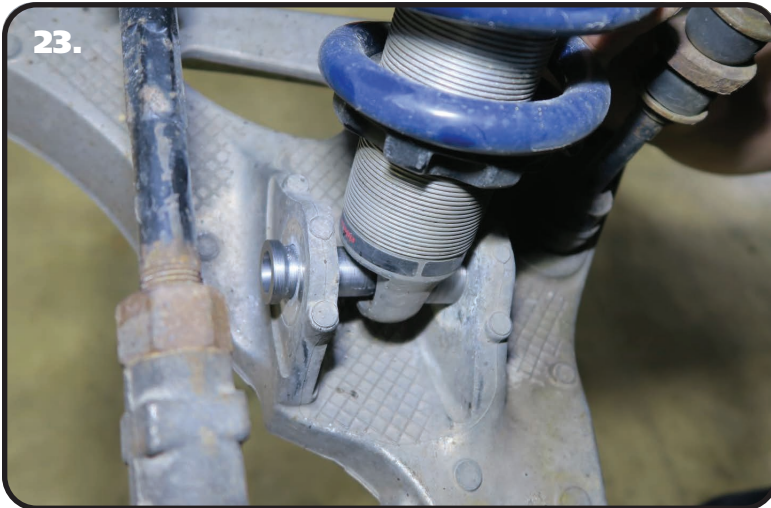
21. The kit includes a 2nd T-bushing (90001383) that has a long straight OD. This bushing goes in from the front side of the front tab of the OEM shock mount. The larger OD at the very end will be to the front of the truck.



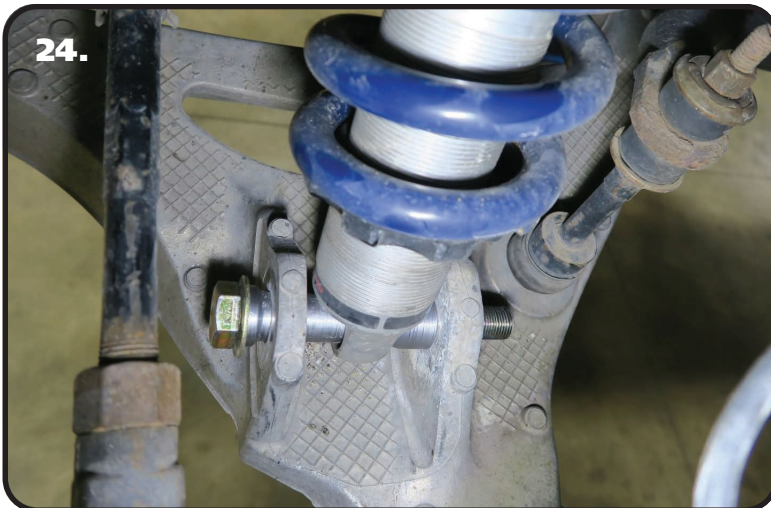
22. You will need to jack up the lower control arm to do the next few steps. Jack up the control arm until the bottom bearing of the coilover is aligned with the rear t-bushing.



Installation of CoilOver Assembly



23. Slide the front t-bushing in as far as you can by hand.



24. Install a 5/8" flat washer on a 5/8"-18 x 5" hex bolt. Insert the bolt in from the front side with the threads to the rear of the truck. Insert it through the t-bushings and shock bearing.



25. Install a 5/8" flat washer and 5/8-18" nylok nut on the threads of the bolt that are sticking out of the rear control arm tab. Torque to 115 ftlbs.

26. Repeat steps 19-25 on the other side of the truck.

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



CoilSpring Adjustment

28. Preload the springs of the CoilOver 5/8" to start. **Steps 28a - 28e** will assist you with preloading the coil spring. 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.

28a. Verify the adjuster nut locking screw is installed in the adjuster nut, but not tight.

28b. 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 coil spring cap is seated correctly on the upper shock eyelet.

28c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

28d. Using a spanner wrench, thread the adjuster up the shock an additional 5/8" (from the measurement you took in step 2) to preload the spring.

28e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

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

30. 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.**

31. If you determine you need to adjust the ride height of the front suspension after getting the truck on the ground, **Steps 31a - 31e** will assist you in adjusting the ride height.

31a. 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.

31b. Loosen the locking screw in the adjuster nut, but do not remove the locking screw.

31c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

31d. 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.

31e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

32. Turn the steering wheel until the front wheels are straight and set the front of the truck back on the ground.

33. 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.**

34. Recheck your ride height. If you need to readjust, repeat **Steps 31-33**.



Alignment

35. 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.