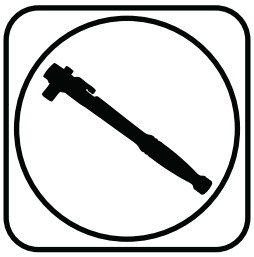
ridetech

Installation Instructions

Part # 13043210 - Mopar LX Platform HQ Front Coil Overs

Recommended Tools



Mopar LX Platform HQ Series Front Coil Overs

05-08 Magnum / 05-Up 300C / 06-Up Charger / 08-Up Challenger

Installation Instructions

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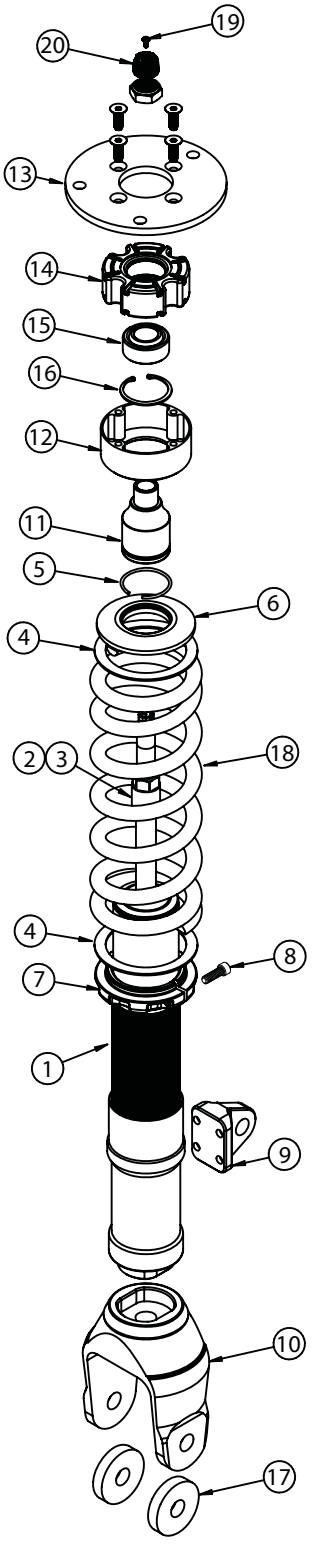
Major Components .....In the box

Item #	Part #	Description	QTY
1	24159997	5.2" Stroke HQ Series Shock	2
2	70012160	2.0" Stud Top Metering Rod (Installed in stud top)	2
3	90009988	2.0" Stud Top Assembly	2
4	70010828	Delrin Spring Washer	4
5	038-01-006-A	Upper Cap Retaining Ring	2
6	234-14-200	Upper Coil Spring Cap	2
7	234-15-200	Lower Coil Spring Preload Ring	2
8	99050001	M5-.8 x 18 mm SHCS - Preload Ring Locking Screw	2
9	90003603	Shock Sway Bar Tab	2
10	90003604	Lower Shock Mount Clevis	2
11	90003605	Coil Spring Cap To Upper Bearing	2
12	90003590	Strut Isolator Retaining Cup	2
13	90003606	Upper Shock Mounting Plate	2
14	70016907	Upper Strut Isolator	2
15	90001042	Upper Strut Bearing	2
16	90000805	Upper Strut Bearing Retaining Ring	2
17	90003607	Lower Shock Mount Spacer - 2005-2010 LX's	2
18	59120325	12" 325lb Coil Spring	2
19	90009969	4-40 x 1/4" Pan Head Torx Cap - Adjuster Knob	2
20	210-35-120-0	Adjuster Knob	2



HARDWARE LIST - Kit # 99010249

Part #	Description	QTY
TOP PLATE TO CAR TOWER		
99371007	3/8"-16 X 1 1/2" Hex Bolt	6
99372001	3/8"-16 Nylok Nut	6
99373002	3/8" SAE Flat Washer	12
SHOCK TO LOWER CONTROL ARM		
99561012	9/16"-18 x 4 1/2" Hex Bolt	2
99562001	9/16"-18 Nylok Nut	2
99566003	9/16" Flat Washer	4

Disassembly

1. Raise the vehicle to a safe and comfortable working height with the suspension hanging freely. You will need a jack under the lower control arm to help support it during the installation.

2. Remove the front wheels to allow access to the front suspension.

3. The front OEM struts will need to be removed from the front of the car.

4. Due to 2 possible lower mount options on this platform, included in the kit are spacers for the narrower width. The lower shock mount is setup for the wide width. If your car is a 2010 or older, it will require a spacer to be used on each side of the OEM lower shock mount. See ***Page 5*** for more details.

5. Remove the OEM upper strut cap from the top of the strut tower.

6. Remove the 3 upper strut mounting nuts.

7. Disconnect the sway bar linkage from the strut. Retain the OEM hardware for reassembly later.

Disassembly and Coil Over Installation

8. Remove the lower strut mounting bolt.

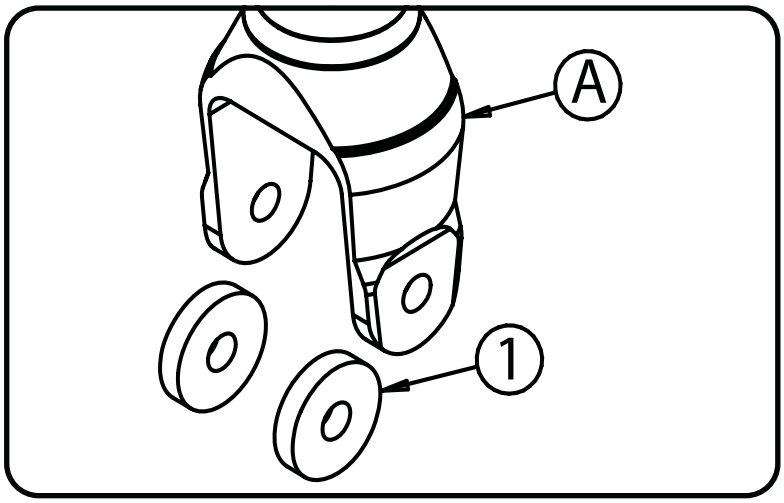
9. The upper ball joint will need to be disconnected from the spindle so the strut can be removed from the car. ***You need to put a jack under the lower control arm to help support it. You do NOT want to put any stress on the brake line or ABS wires.*** Remove the ball joint nut and disconnect the ball joint from the spindle. You can use a ball joint separator or tap the spindle with a hammer.

10. Remove the OEM strut from the car.

11. Insert the Ridetech assembly into the car. The sway bar tab should point to the engine. Align the upper mounting holes with the OEM holes of the strut tower. Install a 3/8" flat washer on each of (3) 3/8"-16 x 1 1/2" hex bolts. Insert the bolt in from the bottom with the threads pointing up. You will have to hold each bolt in place while putting a flat washer and nut on them.

Coil Over Installation

12. Install a 1/2" flat washer and 3/8"-16 nylok nut on the threads of each bolt. Torque to 35 ft-lbs.



The LX platform had 2 different widths of lower shock mounts depending on the year of the car. 2005-2010 have a narrow mount. The 2011 and newer have a wide lower shock mount. The lower mount on the Ridetech shock is the width of the wide lower mount. If your car has the narrow lower mount, spacers are supplied for it. A spacer will need to be used on each side of the OEM lower mount.

13. Align the lower shock mount with the OEM mount in the lower control arm. If your car has a narrow lower mount, insert a spacer in each side. Install a 9/16" flat washer on a 9/16"-18 x 4 1/2" hex bolt. Insert the bolt in the aligned mounting holes.

Coil Over Installation

14. Install a 9/16" flat washer and 9/16"-18 nylok nut on the threads of the bolt. Torque to 128 ft-lbs.

15. Reattach the upper ball joint to the spindle. Torque the nut to 35 ft-lbs + 90 degrees of stretch.

16. Attach the sway bar linkage to the new shock mount. Torque the nut to 45 ft-lbs.

17. The strut cover can be reinstalled on the new shock setup. Keep in mind, the cap will need to be removed to adjust the shock.

Coil Spring Adjustment

18. Preload the springs of the Coil Over 3/4" to start. **Steps 18a - 18e** 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 vehicle has been sat on the ground.

18a. Verify the adjuster nut locking screw is installed in the adjuster nut, but not tight.

18b. Thread 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 stud.

18c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

18d. Using a spanner wrench, thread the adjuster up the shock the additional amount specified in Step 18 (from the measurement you took in step 18c) to preload the spring.

18e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

19. Reinstall the front wheels and tires and set the front of the vehicle back on the ground.

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

21. If you determine you need to adjust the ride height of the front suspension after getting the vehicle on the ground, **Steps 21a - 21e** will assist you in adjusting the ride height.

21a. 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 Coil Over.

21b. Loosen the locking screw in the adjuster nut, but do not remove the locking screw.

21c. Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

21d. 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.

21e. Lock the adjusting nut in place by tightening the adjuster nut locking screw.

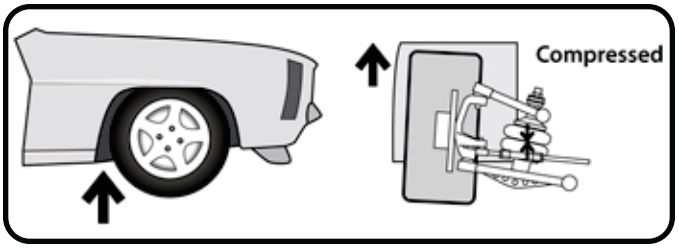
22. Turn the steering wheel until the front wheels are straight and set the front of the vehicle back on the ground.

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

24. Recheck your ride height. If you need to readjust, repeat **Steps 21-23**.

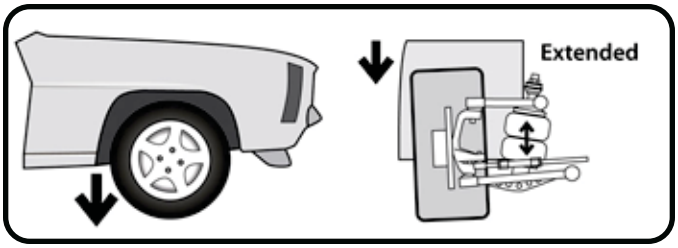
TUNING GUIDE
SINGLE-ADJUSTABLE SHOCKS

The Basics...



COMPRESSION

This typically occurs when you hit a bump in the road. The bump forces the wheel/tire/suspension assembly to "compress" or move upwards into the car.



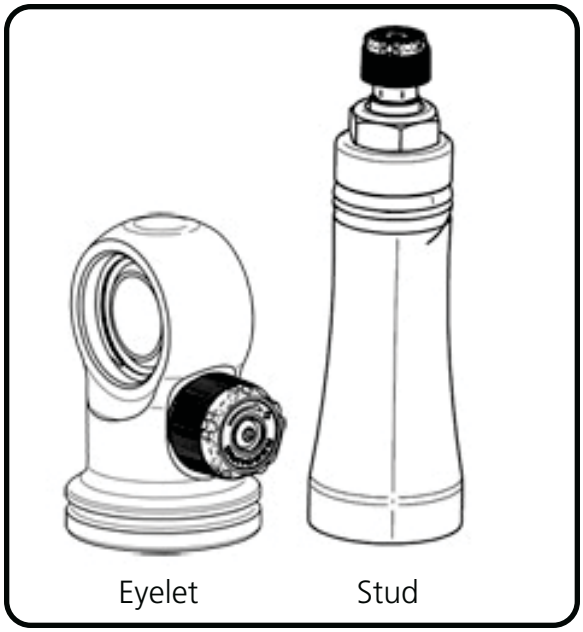
REBOUND

Rebound is the opposite of compression. This occurs when the wheel/tire/suspension assembly falls into a pothole, or simply "rebounds" from being compressed.

Where Are The Knobs?

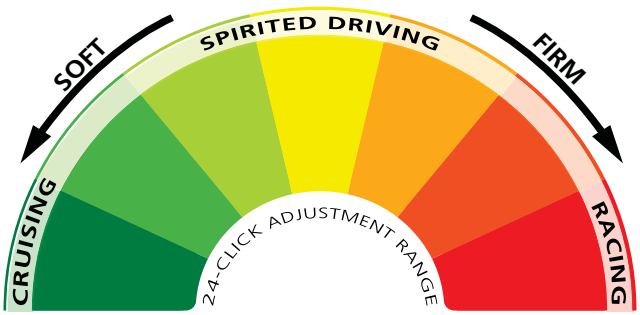
HQ Series Shocks

- **The adjustment knob is located on the top of the shock, either protruding from the side of the eyelet, or atop the stud.**
- **This knob provides rebound adjustment only.**



Knob Function

Counterclockwise = Softer



Clockwise = Firmer

TUNING GUIDE
SINGLE-ADJUSTABLE SHOCKS

Initial Rebound Setting

NOTE: Before jumping straight to a middle-of-the-road shock setting, we recommend you experience the full range of adjustment potential of your new shocks by first driving your vehicle at both the "full stiff" and "full soft" settings. Understanding how your shocks behave at these extremes will provide recognizable reference points as you attempt to dial in your settings.

1. Begin by setting your shocks to the "full stiff", or minimal rebound position. You do this by turning the adjustment knob clockwise until it stops.

2. Now turn the adjustment knob counterclockwise 12 clicks. This is the approximate center of the adjustment range.

3. Take the vehicle for a test drive. Try to determine if you are experiencing any of the unwanted behaviors found at the extremes of the adjustment range. If you are satisfied with the ride quality and handling, you're all set. Enjoy the ride!

4. If the vehicle feels too "floaty" or soft, turn the knob a few clicks clockwise to increase the damping effect.

If the ride quality is still too harsh or stiff, turn the knob a few more clicks counterclockwise to decrease the damping effect.

5. Take the vehicle for another test drive. If necessary, repeat the steps above until your desired optimal ride quality has been acheived.

General Guidelines

- The rear shocks typically have the the most influence on ride quality. This is due to your seating position being closer to the rear than the front.
- Adjustments to the front shocks will generally require 3-4 clicks in any direction to be noticable, while adjustments to the rear shocks may only require 1-2 clicks to be felt.
- Don't be afraid to turn the knobs and experience the full adjustment range. You are not going to hurt anything and you can always go back if you adjust too far one way or the other.