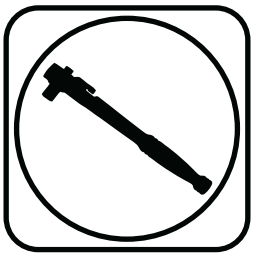
ridetech

Installation Instructions

Part # 13044110 - Mopar LX Platform HQ Rear CoolRide

Recommended Tools



Mopar LX Platform HQ Series Rear CoolRide

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

Installation Instructions

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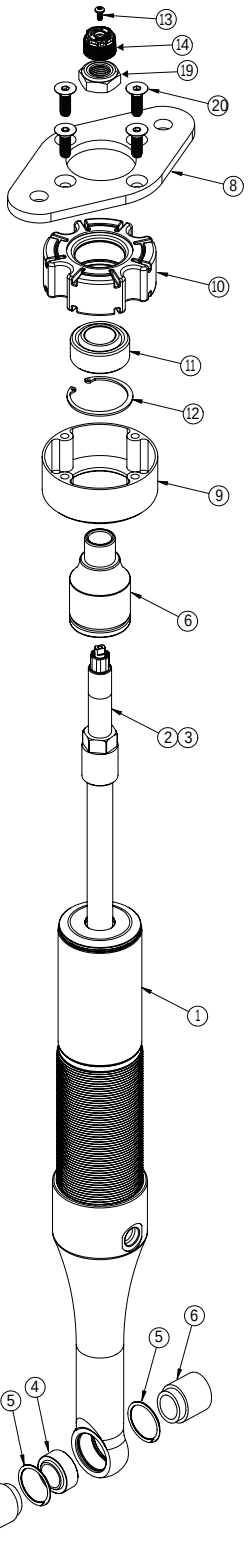
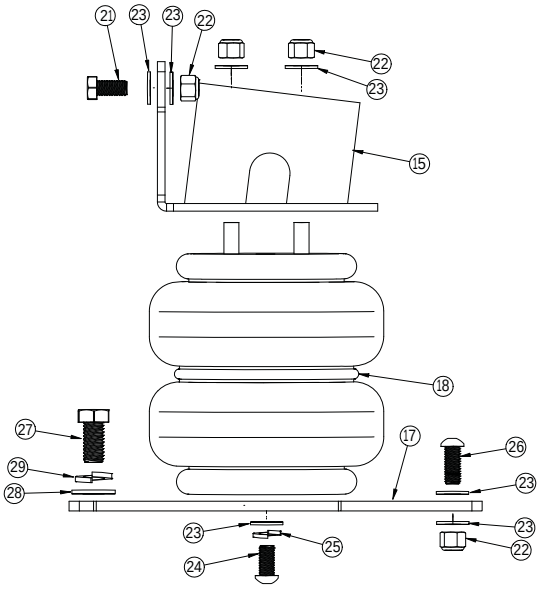
Major Components .....In the box

Item #	Part #	Description	QTY
1	24159998	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	90001994	5/8" ID Bearing	2
5	90001995	Bearing Snap Ring	4
6	90002443	Shock Bearing Spacers	4
7	90003605	Coil Spring Cap To Upper Bearing	2
8	90003609	Upper Shock Mounting Plate	2
9	90003590	Strut Isolator Retaining Cup	2
10	70016907	Upper Strut Isolator	2
11	90001042	Upper Strut Bearing	2
12	90000805	Upper Strut Bearing Retaining Ring	2
13	90009969	4-40 x 1/4" Pan Head Torx Cap - Adjuster Knob	2
14	210-35-120-0	Adjuster Knob	2
15	90000713	Upper Air Spring Bracket - Driver	1
16	90000714	Upper Air Spring Bracket - Passenger - (Not Shown)	1
17	90000715	Lower Air Spring Bracket	2
18	90006781	6.5" Dia Double Convoluted Air Spring	2
19	99562003	9/16"-18 Nylok Jam Nut	2
20	72000008	1/4"-20 x 3/4" Flat Head Socke Cap	8





HARDWARE LIST - Kit # 99010251

Item #	Part #	Description	QTY
	UPPER MOUNT TO CAR		
21	99371003	3/8"-16 X 1" Hex Bolt	4
22	99372002	3/8"-16 Nylok Nut	4
23	99373002	3/8" SAE Flat Washer	8
	AIR SPRING TO UPPER MOUNT		
22	99372002	3/8"-16 Nylok Nut	4
23	99373002	3/8" SAE Flat Washer	4
	AIR SPRING TO LOWER PLATE		
24	99371017	3/8"-16 X 1" Button Head	2
25	99373005	3/8" Split Lock Washer	2
23	99373003	3/8" SAE Flat Washer	2

Item #	Part #	Description	QTY
	LOWER PLATE TO ARM		
26	99371017	3/8"-16 X 1" Button Head	2
22	99372002	3/8"-16 Nylok Nut	2
23	99373002	3/8" SAE Flat Washer	2
27	99431001	7/16"-14 x 1 Hex Bolt	2
28	99433002	7/16" SAE Flat Washer	2
29	99433003	7/16" Split Lock Washer	2

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 rear wheels to allow access to the rear suspension.

3. The OEM shocks and springs will need to be removed from the rear of the car. Retain the OEM hardware for installation of the new Coil Over.

4. Remove the OEM upper shock mounting bolts. Retain them for reassembly.

5. Remove the OEM lower shock mounting bolt. Retain them for reassembly.

Disassembly

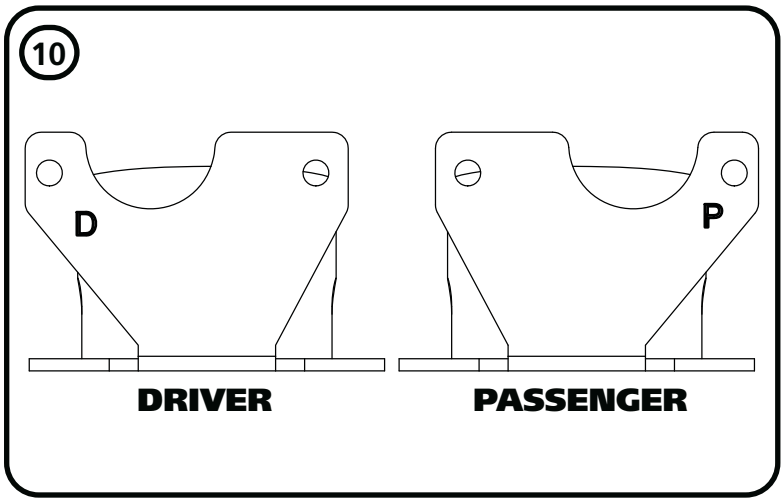
6. Disconnect the sway bar linkage from the suspension knuckle. Retain the OEM hardware for reassembly later.

7. Push down on the brake rotor to pop the coil spring out of the car.

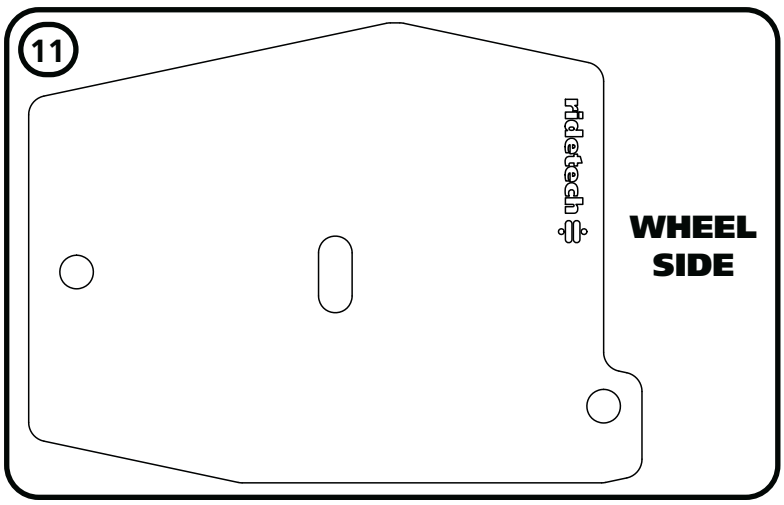
8. Be sure to remove the upper and lower coil spring isolators from the car.

Air Spring Installation

9. The hole being tapped in the picture will be used to bolt the lower air spring plate. A 7/16”-14 USS tap will be needed.



10. The upper air spring brackets are side specific. They are stamped with the letter D = Driver, P= Passenger.



11. The lower brcket is the same for each side. It will get attached to the air spring with the Ridetech logo on the same side as the air spring.

Air Spring Installation

12. Apply thread sealant to the air fitting and screw it into the top of the air spring. Assemble the upper cup bracket to the air spring, using 3/8"-16 Nylok nuts and 3/8" flat washers. Torque the 3/8" nuts 15-20 ft-lbs.

13. Use **Images 13 & 14** for a reference for bolting the lower plate to the air spring. The air spring will be attached to the lower plate using a 3/8"-16 x 1" button head bolt, lock washer and flat washer. It will get bolted to the middle slot of the lower plate. Leave the attaching bolt loose. It will get tightened later.

14. The lower mounting plate has 2 mounting holes that align with holes in the OEM lower control arm. The holes on the wheel side, align with the hole tapped 7/16"-14 in **Step 9** and uses a 7/16"-14 x 1" hex bolt, 7/16" split lock washer, & 7/16" SAE flat washer. The inner hole will use a 3/8"-16 x 1" hex bolt, (2) 3/8" SAE flat washers, & 3/8"-16 nylok nut.

Air Spring Installation

15. Insert the air spring/bracket assembly into the car. Make sure you have the correct upper bracket on the correct side of the car. These are illustrated in **Step 10**. The "cup" part of the bracket will insert into the coil spring pocket with the vertcal tabs resting against the wheel side of the wheel well.

16. The lower plate will align with the holes in the OEM lower control arm. Insert the attaching bolts into the lower plate mounting holes. Again, the outer holes use a 7/16"-14 x 1" hex bolt, 7/16" split lock washer, & 7/16" SAE flat washer. Install the split lock washer & flat washer on the bolt and thread it into the control arm. Install a 3/8" flat washer on a 3/8"-16 button head bolt and insert it into the inner hole. Install a 3/8" flat washer and 3/8"-16 nylok nut on the threads of the bolt that is sticking through the control arm. Torque the 7/16" bolt to 17 ft-lbs and the 3/8" hardware to 23 ft-lbs.

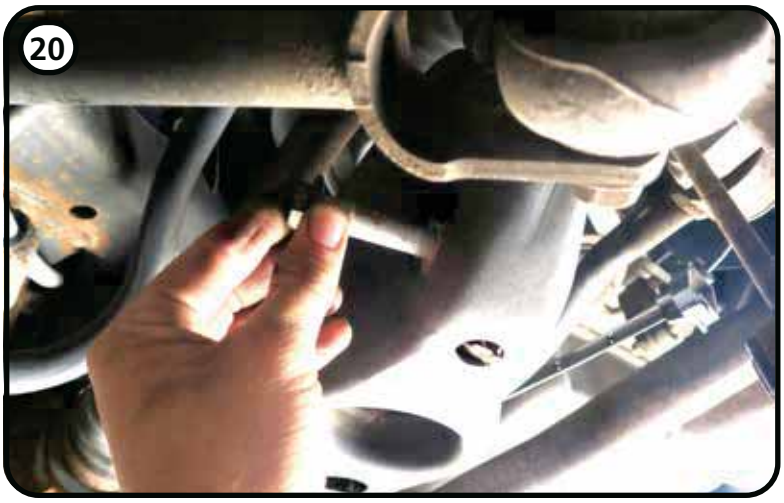
17. The vertical tabs will sit against the flat area on each side of the recess of the wheel well. Clamp the bracket in place with the tabs against the body and the cup sitting tight in the coil spring pocket. The mounting holes will need to be drilled in the body of the car. Use the bracket as a template to drill the 2 mounting holes using a 3/8" drill bit. With the holes drilled, install a 3/8" flat washer on each of (2) 3/8"-16 x 1" hex bolt. Insert the bolt/washer in the mounting holes. Install a 3/8" flat washer ans 3/8"-16 nylok nut. Torque the hardware to 23 ft-lbs.

Note: The air line must be routed at this time.

Air Spring & Shock Installation

18. Make sure the bottom of the air spring is in line with the top of the air spring. Torque the lower air spring bolt to 15-20 ft-lbs.

19. Insert the shock assembly into the OEM location. Align the mounting holes of the upper plate with the OEM shock mounting holes. Install the OEM hardware that you removed during disassembly. Torque to 46 ft-lbs.



20. It helps to put a jack under the lower control arm to help support the suspension during the installation of the lower shock bolt. Align the mounting holes with the lower shock bearing/spacers. Insert the OEM bolt from the front side with the threads pointing to the rear of the car.

Shock Installation

21. Install the OEM nut on the bolt. Torque to 96 ft-lbs.

22. Reattach the sway bar linkage to the suspension knuckle. Align the mounting holes and insert the OEM bolt.

23. Install the OEM nut on the sway bar linkage bolt. Torque the nut to 45 ft-lbs.

Finishing

24. Reinstall the rear wheels.

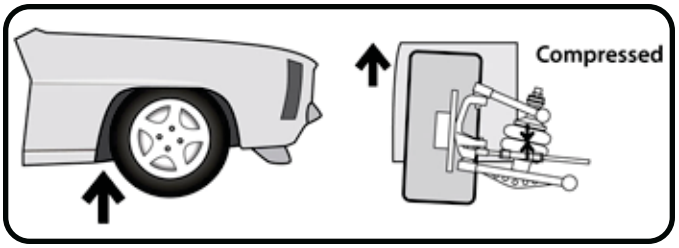
25. Set the vehicle back on the ground.

26. Double-check air spring clearance through full suspension travel. Allowing the air spring to rub will cause air spring failure and is not a warrantable situation.

27. Ride height on this air spring is 5" tall. This will be achieved at around 100psi but will vary to driver preference & vehicle weight.

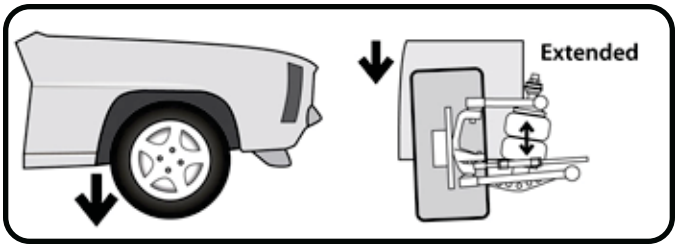
TUNING GUIDE
SINGLE-ADJUSTABLE SHOCKS

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.



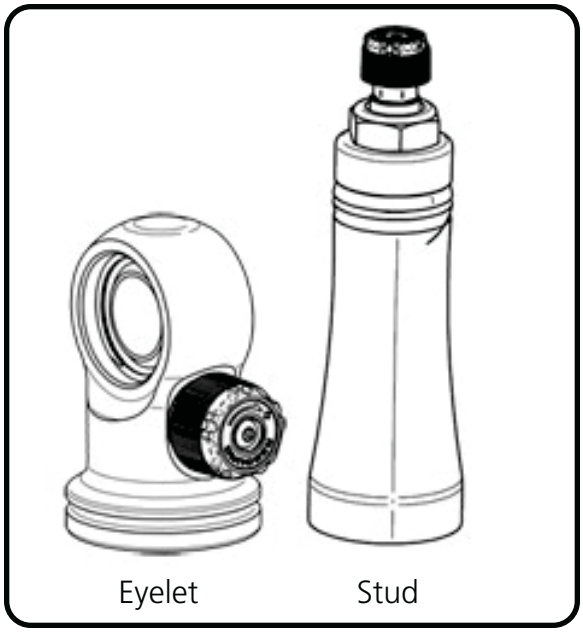
REBOUND

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?

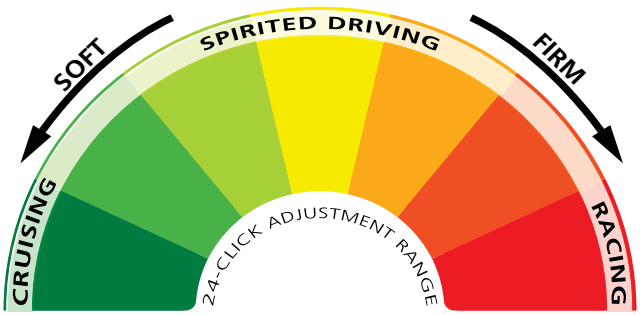
HQ Series Shocks

- **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.