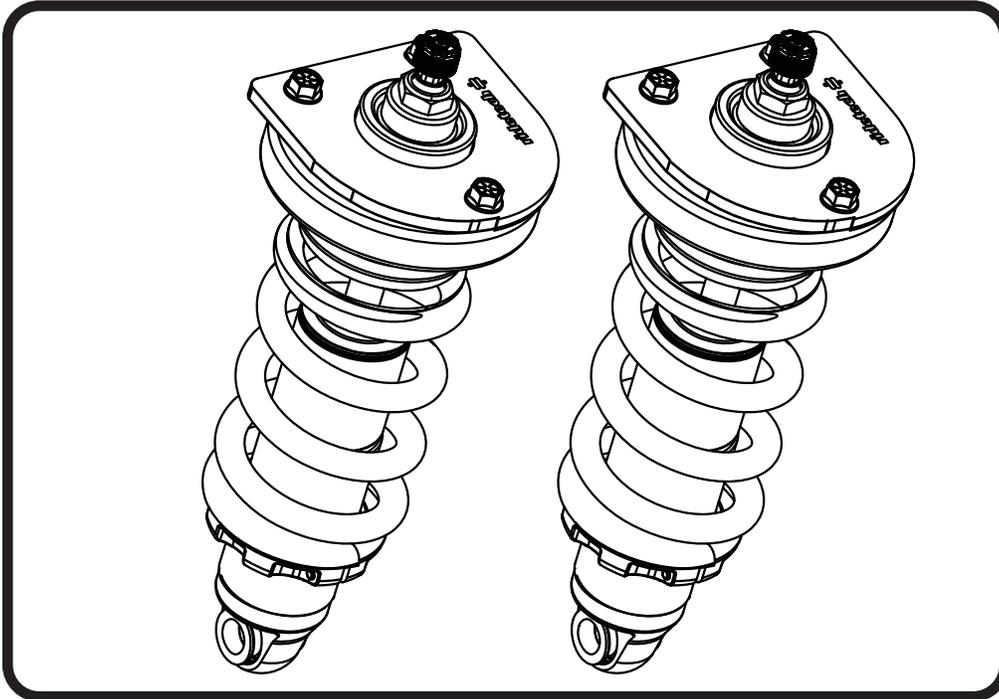




**Part # 12103510** - 67-70 Mustang/Cougar Front HQ CoilOver, for StrongArms

### Recommended Tools



## 1967-1970 Mustang/Cougar HQ Series Front CoilOvers

# Installation Instructions

**THESE COILOVERS ARE DESIGNED TO BE USED WITH RIDETECH STRONGARMS**

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### CoilOver Dimensions:

#### Mount to Mount:

Compressed:	9.40"
Ride Height:	11.00"
Extended:	11.90"

[www.ridetech.com](http://www.ridetech.com)

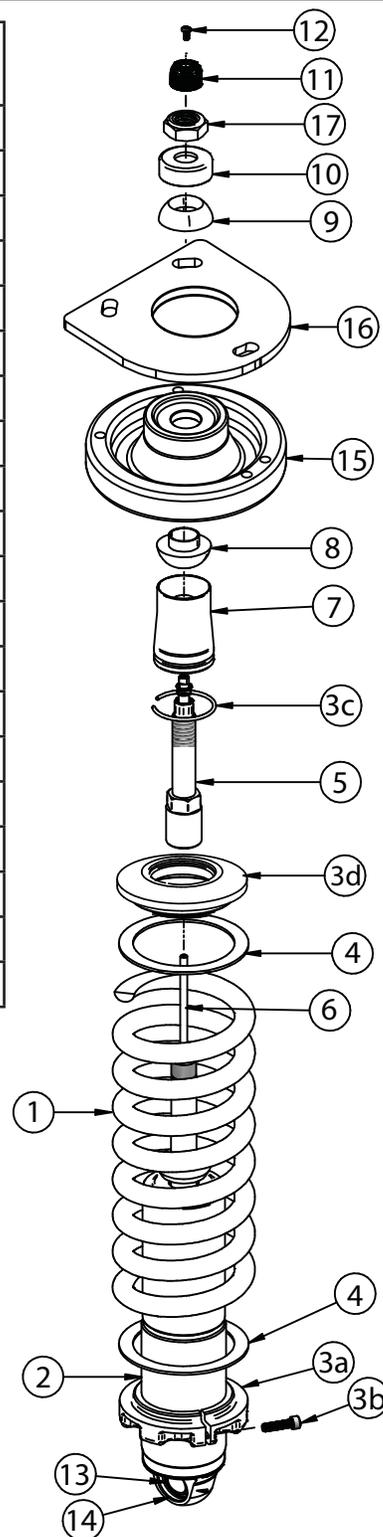


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### Major Components .....In the box

Item #	Part #	Description	QTY
1	59080700	CoilSpring 8" 700lb	2
2	982-10-802	2.9" Stroke HQ Series Shock	2
3a	803-00-199(kit)	Lower Spring Adjuster Nut	2
3b	803-00-199(kit)	Adjuster Nut Locking Screw	2
3c	803-00-199(kit)	CoilSpring Plate Retaining Ring	2
3d	803-00-199(kit)	Upper CoilSpring Retainer	2
4	70010828	Delrin Spring Washer	4
5	90009988(kit)	2.00" Stud Adjuster Assembly	2
6	70012160	2.00" Metering Rod	2
7	90002312	2.00" Stud Top Base	2
8	90001903	Delrin Ball Lower Half	2
9	90001904	Delrin Ball Top Half	2
10	90001902	Delrin Ball Upper Cap	2
11	210-35-120-0	Shock Adjuster Knob	2
12	90009969	Adjuster Knob Retaining Screw	2
13	90001994	5/8" ID Bearing	2
14	90001995	Bearing Snap Ring	4
15	90002356	Upper Shock Mount	2
16	90003357	Upper Shock Mount Top Plate	2
17	99562003	9/16-18" Nylok Nut	2



### Hardware Kit..... #99010195

QTY	Part Number	Description
<b>UPPER PLATE MOUNTING</b>		
6	99371027	3/8"-16" x 1" Carriage Bolt
6	99373003	3/8" SAE Flat Washer
6	99372002	3/8"-16 Nylok Nut
<b>SHOCK MOUNT TO BODY</b>		
6	99311044	5/16"-18 x 1" Button Head
6	99313002	3/8" SAE Flat Washer
6	99313003	5/16" Split Lock Washer
1	90002263	Red Loctite



### Upper Mount Installation



1. Install the Ridetech StrongArms. Also, it is easier to install the ShockWave with the coil spring shield removed.

2. We recommend drilling the holes in the large area of the key hole openings to 3/8". Do this for each key hole in the driver and passenger shock towers.



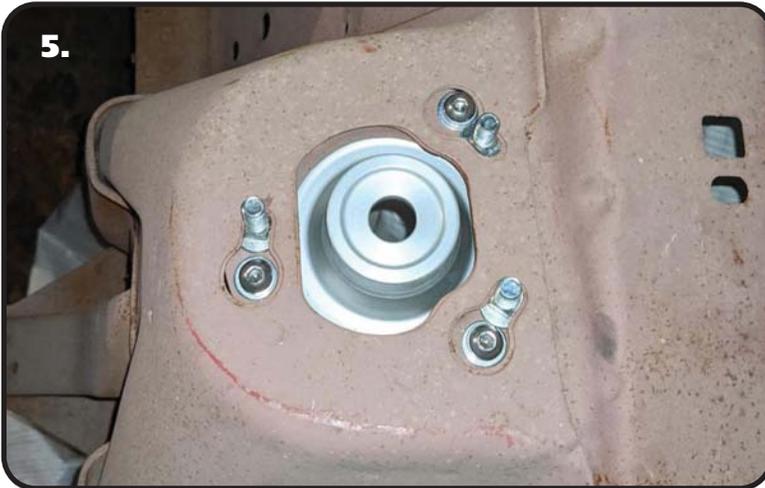
3. Slip the 3/8"-16 x 1" carriage bolts into the slots of the shock tower before bolting in the aluminum mount. **You can NOT slip the carriage bolts in with the upper mount bolted in place.**



4. Hold the aluminum upper mount against the bottom of the shock tower lining up the threaded holes with the holes drilled out in the shock tower.



### Upper Mount Installation



5. Install a 5/16" split lock washer & 5/16" SAE flat washer on each of (3) 5/16"-18 x 1" button head cap screws. Apply red loctite to the threads of each of the bolts. Hold the lower mount in position and thread the mounting bolts into the (3) mounting holes. Torque the bolts to 13 ft-lbs.



6. Lay the upper plate on top of the shock tower with the ShockWave mount protruding through the large center hole.

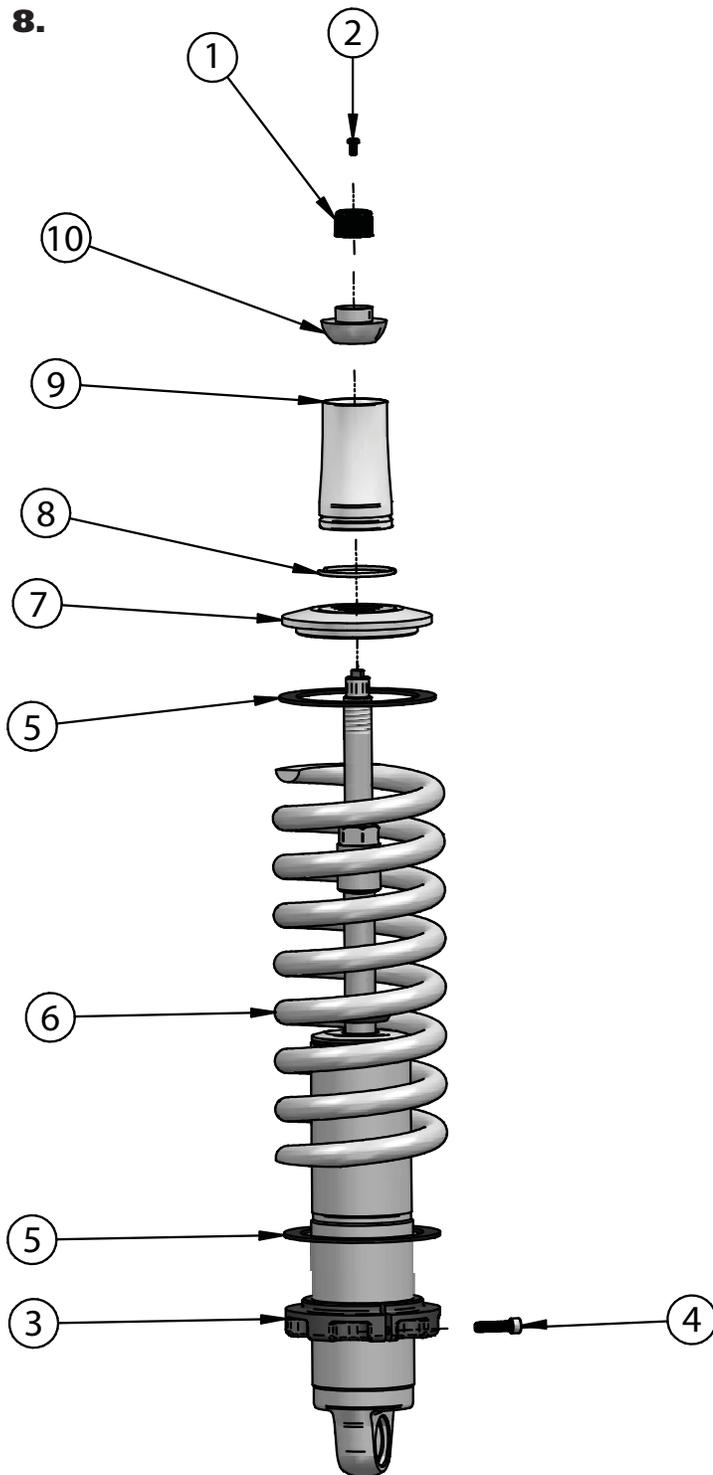


7. Install the export brace on the bolts sticking through the top plate. Install a 3/8" SAE flat washer & 3/8"-16 nylok nut on the threads of each of the bolts. Torque the nylok nuts to 15 ft-lbs.



### CoilOver Assembly

8.



8. To Assemble the CoilOver you need to:

**a.** Remove Screw (2) from center of Adjustment Knob (1) and remove Adjustment Knob.

**b.** Remove Nylok Nut, Delrin Upper Cap, Delrin Upper and Lower Balls, along with the base from the Coilover stud.

**c.** Thread Adjuster Nut (3) onto the CoilOver body. Once it is threaded on the shock body, lightly thread in the locking screw (4) into the Adjuster Nut.

**d.** Install a Delrin Spring Washer (5) onto the Adjuster Nut.

**e.** Slide the CoilSpring (6) onto the CoilOver.

**f.** Install another Delrin Spring Washer (5) on top of the CoilSpring.

**g.** Install the Upper CoilSpring Plate (7) onto the CoilSpring.

**h.** Install the CoilSpring Retaining Ring (8) onto the Stud Top Base (9). It fits into the groove in the base.

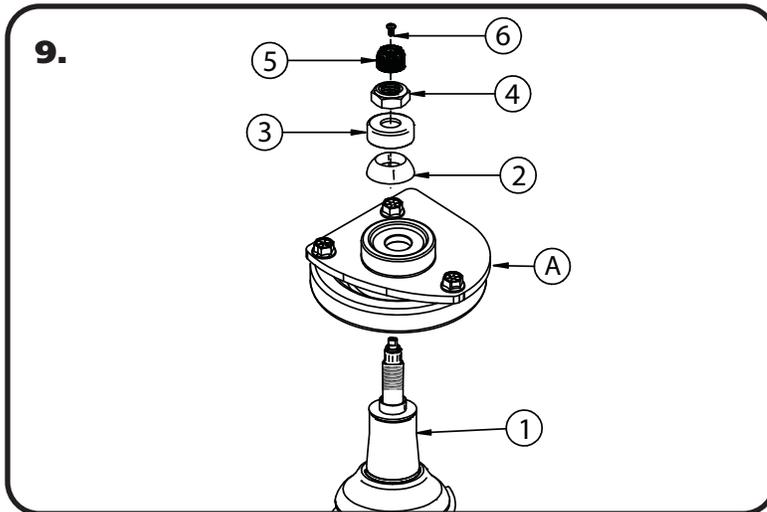
**i.** Slide the Stud Top Base onto the shock until it bottoms out on the stud. It may be necessary to thread the Adjuster Nut down the shock body (to lower the spring) if the base will not slide all the way down onto the stud.

**k.** Slide the Lower Delrin Ball (10) (it has the collar sticking up around the center hole) on to the Stud Top.

Repeat on second CoilOver.



### CoilOver Installation



**9.** Place the CoilOver into the coil spring pocket with the stud sticking through the Aluminum upper mount (A). See assembly **Diagram 9**.

- 1. CoilOver Assembly
- A. Upper Shock Mount
- 2. Delrin ball upper half
- 3. Aluminum cap
- 4. 9/16" SAE Nylok jam nut
- 5. Rebound adjusting knob
- 6. Screw

**TIGHTENING THE TOP 9/16"-18 NUT:** SNUG THE NUT DOWN AGAINST THE TOP CAP. YOU NEED TO BE ABLE TO ARTICULATE THE SHOCK BY HAND. WE TORQUE THE NUT TO 80 INLBS USING A 7/8" CROWS FOOT WRENCH ON A TORQUE WRENCH.



**10.** Install the a Bearing Spacer in each side of the Bearing. The SMALL part of the spacer inserts into the Inside Diameter of the shock bearing. Raise the lower arm up to the CoilOver and bolt them together using the 1/2" x 2 1/4", & Nylok Nuts supplied with the StrongArms. Torque to 50 ftlbs.

**11.** Reattach the outer coil spring shield.



### CoilSpring Adjustment

**12.** Preload the springs of the CoilOver 1" to start. **Steps 12a - 12e** 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 vehicle has been sat on the ground.

**12a.** Verify the adjuster nut locking screw is installed in the adjuster nut, but not tight.

**12b.** 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 coil spring cap is seated correctly on the upper shock stud.

**12c.** Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

**12d.** Using a spanner wrench, thread the adjuster up the shock an additional 1" (from the measurement you took in step 2) to preload the spring.

**12e.** Lock the adjusting nut in place by tightening the adjuster nut locking screw.

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

**14.** 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.**

**15.** If you determine you need to adjust the ride height of the front suspension after getting the vehicle on the ground, **Steps 15a - 15e** will assist you in adjusting the ride height.

**15a.** 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.

**15b.** Loosen the locking screw in the adjuster nut, but do not remove the locking screw.

**15c.** Measure from the bottom of the adjuster nut to the flat of the shock. You may want to write the measurement down.

**15d.** 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.

**15e.** Lock the adjusting nut in place by tightening the adjuster nut locking screw.

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

**17.** 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.**

**18.** Recheck your ride height. If you need to readjust, repeat **Steps 15-17.**



### Shock Adjustment

#### 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.**