



350 S. St. Charles St. Jasper, In. 47546  
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**Part # 11110298**  
**65-70 Cadillac Air Suspension System**

**Front Components:**

1 11112401 HQ Series Front Shockwaves

**Rear Components:**

1 11114099 Rear CoolRide Kit for StrongArms

1 11110701 HQ Series Rear Shocks



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**Part # 11112401**  
**65-70 Cadillac HQ Series Front Shockwaves**  
For OEM Control Arms

**Shock:**

2	24090199	255c double convoluted bellow assembly
2	24139999	3.6" stroke HQ Series shock
2	90001994	.625" bearing
4	90001995	Bearing snap ring
2	70008913	Locking Ring
2	90009988	(2") stud top

**Components:**

2	90002312	(2") stud top base
2	90001902	Delrin ball cap
2	90001903	Delrin ball top half
2	90001904	Delrin ball bottom half
4	90002043	1/2" bearing spacer
2	90000245	Billet lower Shockwave mount

**Hardware:**

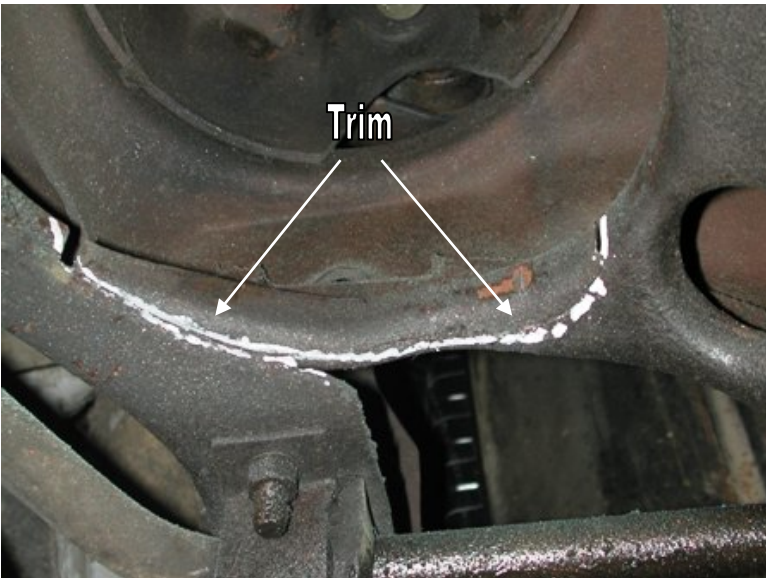
2	99562003	9/16" SAE Jam Nut	Upper stud top
2	99501016	1/2" x 4" SAE bolt	Shockwave to lower arm
2	99502003	1/2" SAE Nylok Jam nut	Shockwave to lower arm
2	99371009	3/8" x 4" USS bolt	Billet mount to lower arm
2	99372002	3/8" USS Nylok nut	Billet mount to lower arm
4	99373003	3/8" SAE flat washer	Billet mount to lower arm

**WARNING: ATTEMPTING TO REMOVE THE AIR FITTING WILL DAMAGE IT AND VOID THE WARRANTY.**

# SHOCKwave®

## 11112401 Installation Instructions

1. Raise and support vehicle at a safe, comfortable working height. Let the front suspension hang freely.
2. Remove the coil spring and shock absorber. Refer to a factory service manual for proper disassembly procedure.

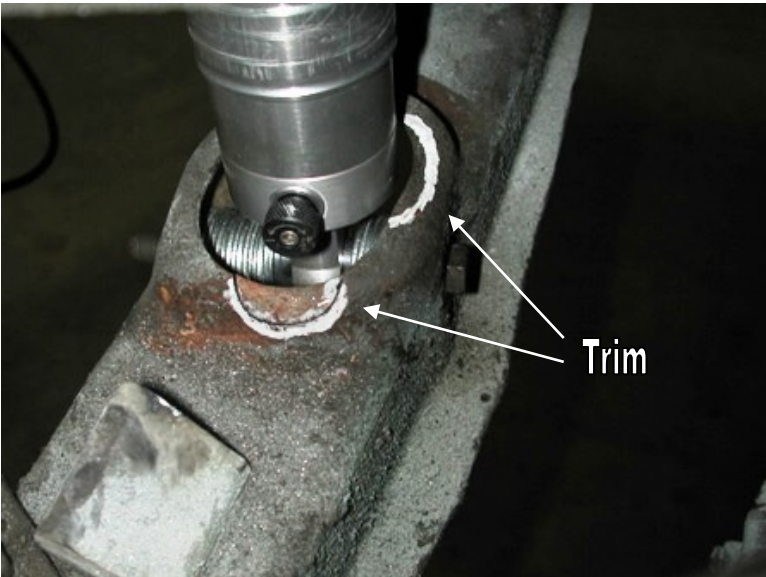


3. The front and outside lip of the coil spring pocket must be trimmed to allow clearance for the Shockwave. This is best done with a die grinder and a cut off wheel.



4. After double checking Shockwave clearance grind all edges smooth and paint exposed metal.

**Note:** Recheck Shockwaves clearance after driving. The bellow will expand when inflated.



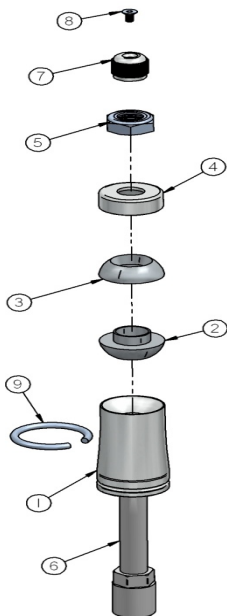
5. The lower control arm must be clearance as well to allow clearance for the shock body and the adjustment knob.

**Note:** The adjustment knob will face the wheel.

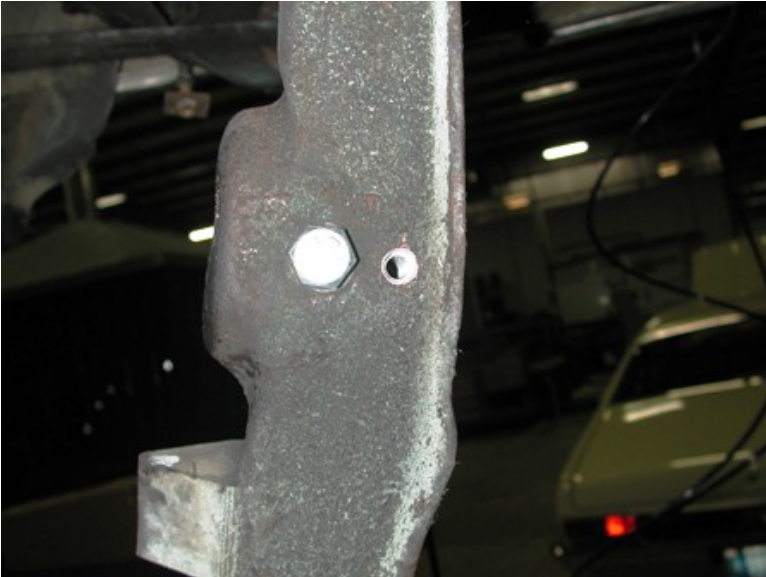


6. Grind edges smooth and paint exposed metal on lower control arm.

7. The airline must be routed at this time. Be sure to leave some slack in the airline as the top Shockwave will move slightly.



1. Stud top base
2. Lower Delrin ball half
3. Upper Delrin ball half
4. Aluminum cap
5. 9/16" Nylok jam nut
6. Threaded stud
7. Adjustment knob (SA Only)
8. Screw (SA Only)



9. Drill the factory shock hole in the lower control out with a 1/2" bit.

10. Exactly 1 1/8" below this hole, drill a pilot hole with a 1/8" bit. Then drill it out to 3/8".

**Note:** It may be easier to only drill the 3/8" hole on one side then install the billet mount and use a long 3/8" bit to drill the opposite side.



11. Bolt the billet mount to the lower control arm use a 3/8" x 4" bolt, Nylok nut and flat washers.

12. Fasten the Shockwave to the billet mount using a 1/2" x 4" bolt and Nylok jam nut.



13. Double check Shockwave clearance through full suspension travel. **Allowing the Shockwave to rub will result in failure** and is not a warrantable situation.

14. Ride height on this car will occur around 100-110 psi. This will vary to vehicle weight and driver preference.

## 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 soft setting of 20.



-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 20 clicks. This sets the shock at 20. (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.

## The care and feeding of your new ShockWaves

1. Although the ShockWave has an internal bumpstop, **DO NOT DRIVE THE VEHICLE DEFLATED RESTING ON THIS BUMPSTOP. DAMAGE WILL RESULT.** The internal bumpstop will be damaged, the shock bushings will be damaged, and the vehicle shock mounting points may be damaged to the point of failure. **This is a non warrantable situation.**
2. Do not drive the vehicle overinflated or "topped out". Over a period of time the shock valving will be damaged, possibly to the point of failure. **This is a non warrantable situation!** If you need to raise your vehicle higher than the ShockWave allows, you will need a longer unit.
3. The ShockWave is designed to give a great ride quality and to raise and lower the vehicle. **IT IS NOT MADE TO HOP OR JUMP!** If you want to hop or jump, hydraulics are a better choice. This abuse will result in bent piston rods, broken shock mounts, and destroyed bushings. **This is a non warrantable situation.**
3. Do not let the ShockWave bellows rub on anything. Failure will result. **This is a non warrantable situation.**
4. The ShockWave product has been field tested on numerous vehicles as well as subjected to many different stress tests to ensure that there are no leakage or durability problems. Failures have been nearly nonexistent unless abused as described above. If the Shockwave units are installed properly and are not abused, they will last many, many years. **ShockWave units that are returned with broken mounts, bent piston rods, destroyed bumpstops or bushings, or abrasions on the bellows will not be warrantied.**



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**Part # 11114099**  
**65-70 Cadillac Rear CoolRide**

**Components:**

2	90002018	Rolling sleeve air spring – 91mm
2	90000243	Upper air spring washer (4.5" O.D.)
2	90000548	Lower air spring roll plate (7.25" O.D. x 2.75" I.D.)
2	90000244	Lower air spring washer
2	90000504	Upper mounting stud
2	90002284	Large cotter pin – Air spring to frame

**Hardware:**

2	99371004	3/8" x 1 1/4" USS Bolts	Air spring to axle
2	99373005	3/8" lock washer	Air spring to axle
2	99373003	3/8" SAE flat washer	Air spring to axle

# COOLRiDE®

## Installation Instructions

1. Raise and support vehicle at a safe and comfortable working height.
2. Support the axle then remove coil spring and shock. Refer to service manual for proper disassembly procedure.

**\*\*\* Must Use RideTech Shock Kit \*\*\***



3. To allow the air spring to sit flat on top of the axle mount, the coil spring retainer must be cut down to about  $\frac{1}{4}$ " tall. Leave just enough of this retainer to locate the air spring roll plate, but make sure it is short enough not to contact the air spring piston.

**Note:** Be sure to use the factory bump stops to avoid bottoming out the air spring.



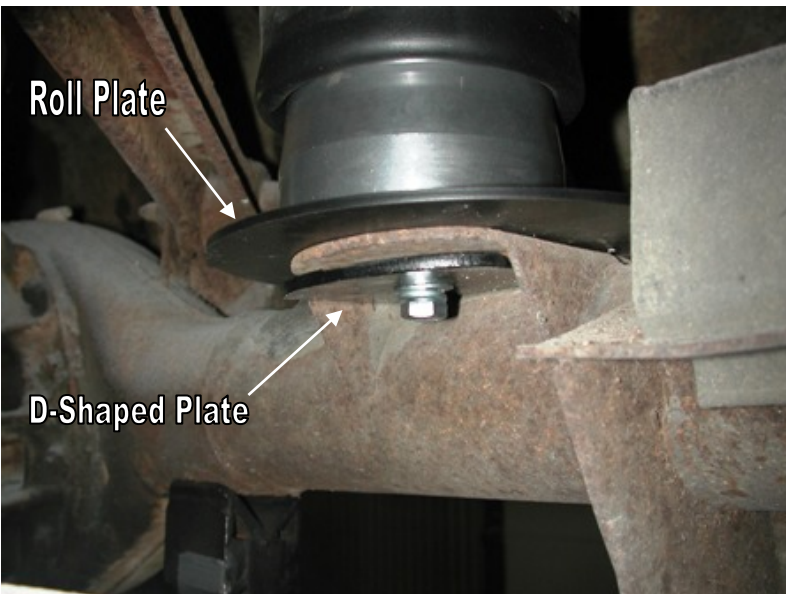
3. Apply thread sealant to a 90 degree air fitting and screw it into the top of the air spring.

4. Screw the mounting pin into top of the air spring.



5. Place the 4.5" diameter washer on top of the coil spring pocket, between the frame and the body.

6. Place the air spring up into the spring pocket inserting the mounting pin through the hole in the upper plate. Secure the assembly with the large cotter pin.



7. Place the 7.25" air spring roll plate over the cut down coil spring retainer. Pull the lower piston down to the plate.

8. Secure the air spring to the axle using the D-shaped plate, 3/8" x 1 1/4" bolt, flat washer and lock washer.

9. Remove the factory shocks and studs and replace with the new ones supplied. The larger stud should be installed into the axle.

**10. Check air spring clearance through full suspension travel. Allowing the air spring to rub will result in failure and is not a warrantable situation.**

11. The designed ride height of this air spring is approximately 10.5" tall; this should occur around 55 psi but may vary to vehicle weight and driver preference.



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## Part # 11110701 65-70 Cadillac Rear HQ Series Shock Kit

### Shock:

2	22999999	8.35" Stroke HQ series Shock
4	70011138	3/4" ID Shock Bushing
4	90002103	5/8" ID Shock Sleeve

### Components:

4	90001617	5/8" shock stud
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### 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 or stud top. You must first begin at the ZERO setting, then set the shock to a street 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.