



350 S. St. Charles St. Jasper, In. 47546  
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[www.ridetech.com](http://www.ridetech.com)

**Part # 11140298**  
**65-70 Buick Fullsize/66-70 Riviera Air Suspension System**

**Front Components:**

1 11142401 HQ Series Shockwave Kit

**Rear Components:**

1 11144099 Rear CoolRide Kit for Stock Lower Arms

1 11140701 HQ Series Rear Shocks



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**Part # 11142401**

**65-70 Buick Fullsize/66-70 Riviera HQ Series Front ShockWaves**  
**255c Bellow – 2.6" Stroke – .5" Bearing/Tall Stud Top**  
For Oem Control Arms

**Shockwave:**

2	24090199	Master Series 255c double convoluted bellow assembly
2	24129999	2.6" stroke HQ Series shock
2	90001628	.5" I.D. bearing
4	90001995	Bearing snap ring
2	90009989	Tall stud top

**Components:**

2	90002313	Tall stud top base (2.75")
2	90001902	Delrin ball cap
2	90001903	Delrin ball top half
2	90001904	Delrin ball bottom half
4	90000706	(A938) Aluminum spacer
2	31954201	1/4" npt x 1/4" tube elbow air line fitting

**Hardware:**

2	99501034	1/2" x 4 1/4" Gr. 8 bolt	Shockwave to lower arm
2	99502009	1/2"-13 Nylok nut	Shockwave to lower arm
2	99562003	9/16" SAE Nylok jam nut	Stud top to frame

# SHOCKwave<sup>®</sup>

by Air Ride Technologies

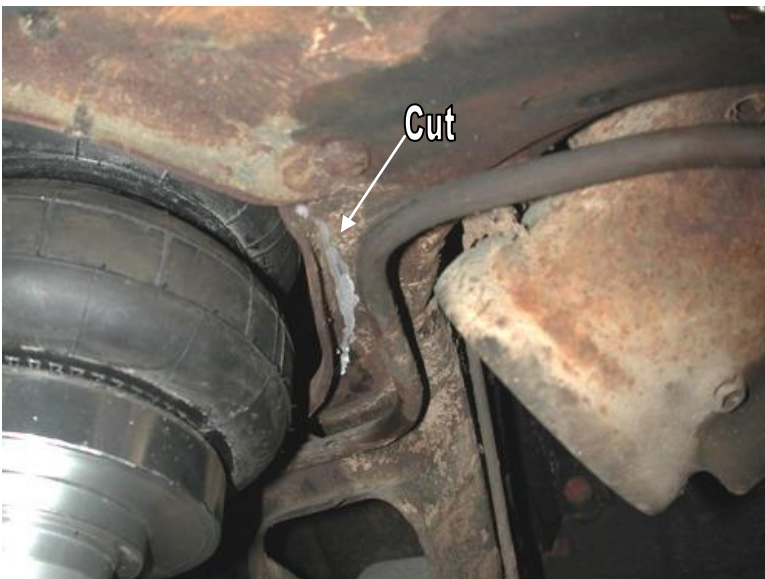
## Installation Instructions for SKW1049SA

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. To allow for proper Shockwave clearance, so trimming must be done the lip around the coil spring pocket. This can be done with a die grinder and cut off wheel.

**Note:** It will be helpful to temporarily install the shockwave before cutting to see exactly what must be trimmed. Mark the frame then remove Shockwave before cutting.



4. Here is another picture of the trimming that must be done. Make sure that there is sufficient clearance between the bellow and the frame through full suspension travel.

**Allowing the Shockwave to rub will result in failure and is not a warrantable situation.**



5. Apply thread sealant to an elbow air fitting and screw it into the top of the Shockwave. The bellow can be rotated to move the air fitting location.

6. **You will most likely have to drill the upper shock mount hole in the frame to  $\frac{3}{4}$ " to fit the Delrin ball setup.** Assemble the Delrin ball setup according to the drawing on the next page. Raise the Shockwave up into the coil spring pocket with the Delrin ball stud top sticking through the factory shock mount hole. Secure with a  $\frac{9}{16}$ " Nylok Jam nut.



7. The lower shock mount hole will be used to mount the Shockwave. This hole must be drilled out to  $\frac{1}{2}$ ".



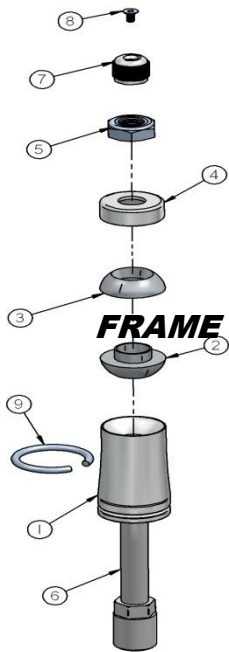
Bolt the Shockwave to the lower arm using a  $\frac{1}{2}$ " x  $4 \frac{1}{4}$ " bolt and Nylok nut. An aluminum spacer must be installed on each side of the Shockwave.

9. Double check Shockwave clearance through full suspension travel.

10. Driving height will be approximately 110-115 psi.

# SHOCKwave<sup>®</sup>

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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
9. Snap ring (Coil Over Only)

## 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 # 11144099**  
**65-70 Buick Fullsize & 66-70 Riviera Rear CoolRide**

**Components:**

2	90009002	Tapered sleeve air spring
2	90000708	Upper air spring cup bracket
2	90000224	Upper washer (Medium)
2	90000291	Lower washer (Small)
2	90000290	Air spring roll plate (Large)
1	90000707	Carrier bearing spacer

**Hardware:**

2	99435005	7/16" x 3 3/4" stud	Upper mount to frame (Cut down to 2 1/2")
2	99432001	7/16" Nylok nut	Upper mount to frame
2	99433002	7/16" SAE flat washer	Upper mount to frame
4	99371001	3/8" x 3/4" USS bolt	Air spring to upper mount
2	99371003	3/8" x 1" USS bolt	Air spring to lower mount
6	99373005	3/8" lock washer	Air spring
6	99373003	3/8" SAE flat washer	Air spring
4	99311002	5/16" x 1 1/4" USS bolt	Carrier bearing
4	99312003	5/16" USS Nylok nut	Carrier bearing
8	99313002	5/16" SAE flat washer	Carrier bearing



# COOL RiDE<sup>®</sup>

by Air Ride Technologies

## Installation Instructions

1. Raise the vehicle to a safe and comfortable working height with the suspension hanging freely.
2. Remove the factory shock absorbers and coil spring. Refer to a factory service manual for proper disassembly procedures.

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



3. To allow the lower piston of the air spring to seat down into the coil spring retainer, the top of the retainer must be trimmed off.



4. Apply thread sealant an elbow air fitting and screw it into the top of air spring.

5. Bolt the upper bracket to the top of the air spring using two 3/8" x 3/4" USS bolts, lock washers and flat washers. Then bolt the fasten the upper bracket to the frame using the 2 1/2" stud, Nylok nut and flat washer.

6. Place the 5 1/4" OD x 2 3/4" ID plate over the coil spring retainer. Then slide the lower piston of the air spring down over the coil spring retainer. Secure the assembly with the 2 1/2" washer, a flat washer, lock washer and 3/8" x 1" bolt.



7. Replace the factory shocks with the new ones supplied.

8. To correct the drive line angle we have supplied carrier bearing spacers. These will be installed between the carrier bearing cross member and the frame. 5/16" x 1 1/4" bolts flat washers and Nyloks are also supplied.

9. Ride height on this air spring is approximately 8" tall.

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**Part # 11140709**  
**65-70 Buick Fullsize & 66-70 Riviera**  
**RQ Series Rear Shock Kit**

**Shock:**

2	22989999	HQ Smooth Body Shock Cartridge
2	70011139	5/8" ID Shock Bushing
2	70011138	3/4" ID Shock Bushing
2	90002103	5/8" ID Shock Sleeve
2	90002068	Wide Trunnion

**Components:**

2	90000471	Aluminum shock spacer
2	90001619	Shock stud

**Hardware:**

4	99311001	5/16" x 1" USS bolt	Shock to frame
8	99313002	5/16" SAE flat washer	Shock to frame
4	99312003	5/16" USS Nylok nut	Shock to frame



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## Installation Instructions



1. Attach the upper T-bar to the frame in the OEM location using the supplied 5/16 x 1" USS bolts, washers and Nylok nuts.



2. Attach the shock to the axle using the new cantilever pin supplied.

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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.