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Part # 11053011
58-64 Impala Front TQ Series Shockwaves
For Use w/ StrongArms

ShockWave Assembly:

2	24090199	255c double convoluted bellow assembly
2	24329999	2.6" stroke TQ Series shock
2	70008913	Locking ring
2	90001994	.625" I.D. bearing
4	90001995	Bearing snap ring
2	90009989	2.75" Stud Top - Adjustable

Components:

2	90002313	2.75" Delrin stud top base
2	90001902	Aluminum cap for Delrin ball
2	90001903	Delrin ball upper half
2	90001904	Delrin ball lower half
2	31954201	1/4"npt x 1/4" tube swivel elbows
4	90002221	Reservoir mount
1	85000003	4mm Allen wrench

Hardware:

2	99562003	9/16" SAE Nylok jam nut	Stud top hardware
12	99050000	4mm x .5" socket head cap screw	Reservoir mounts

SHOCKwave®

by Air Ride Technologies

11053001 Installation Instructions

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



3. Viewed to the left is the underside of the coil spring pocket.

4. Apply thread sealant to elbow fitting and screw into the Shockwave.

Note: On some cars the coil spring retainer may also need to be trimmed to ensure that the stud top does not come in contact with it.



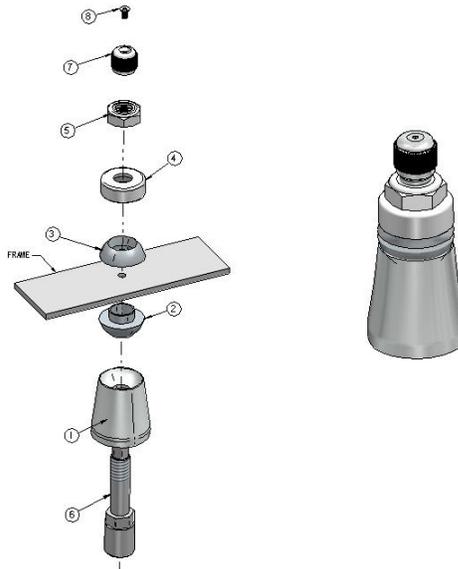
5. The factory shock hole will need to be drilled out to $\frac{3}{4}$ ". Assemble the Delrin Swivel according to the drawing on the previous page and stick through the factory shock hole install the upper ball and cap and secure with a $\frac{9}{16}$ " Nylok nut. **The air fitting must be towards the outside of the car.** The bellow can be rotated separate of the shock to alter the air fitting location.

6. Attach the Shockwave to the lower arm using the hardware and spacers supplied w/ the lower arm.

8. Although cutting the frame is typically not required on this car, check air spring clearances through full suspension travel. **Allowing the air spring to rub will result in failure and is not a warrantable situation.**

9. The best ride quality will occur around 50-60% suspension travel, depending on vehicle weight this typically occurs around 105-110 psi.

1. Stud top aluminum base
2. Delrin ball lower half
3. Delrin ball upper half
4. Aluminum cap
5. 9/16" SAE Nylok jam nut
6. Threaded stud (screwed onto shock shaft)
7. Rebound adjusting knob
8. Screw



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.**
4. Do not let the ShockWave bellows rub on anything. Failure will result. **This is a non warrantable situation.**
5. 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.**

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. CONTINUE ON NEXT PAGE.

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.

Shock adjustment 101- Triple Adjustable

Triple Adjustable:

Step One: High Speed Compression



-High speed compression adjustments are used in both street driving and track tuning.

-Begin with the shocks adjusted to the ZERO high speed compression position (full stiff). Do this by rotating the high speed compression adjuster (large knob) clockwise until it stops.

-Now turn the high speed compression adjuster knob counter clock wise 20 clicks. This sets the shock at 20. (settings 21-24 are typically too soft for street use. For typical street driving the high speed compression adjuster will remain at setting 20.

Step Two: Low Speed Compression

Low speed compression adjustment is what is typically felt during street driving.



-Begin with the shocks adjusted to the ZERO low speed compression position (full stiff). Do this by rotating the low speed compression adjuster (small knob) clockwise until it stops.

-Now turn the low speed compression 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 low speed compression 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 low speed compression knob clock wise 3 additional clicks.

-If the vehicle is too stiff rotate the low speed compression 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.

Step 3:

Adjust rebound according to Single Adjustable instructions.

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.