



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

**Part # 11280198**  
**65-70 Impala Level 1 Air Suspension System**

**Front Components:**

- |   |          |   |
|---|----------|---|
| 1 | 11281099 | Front CoolRide Kit for Stock Lower Arms |
| 1 | 11280501 | HQ Series Front Shock Kit w/ Mounts     |

**Rear Components:**

- |   |          |                       |
|---|----------|-----------------------|
| 1 | 11284099 | Rear CoolRide Kit     |
| 1 | 11280701 | HQ Series Rear Shocks |

**Compressor System:**

- |   |          |   |
|---|----------|---|
| 1 | 30154100 | 5 gallon RidePro Compressor Kit (Analog Gauges) |
|---|----------|---|



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**Part # 11281099**  
**65-70 Impala Front CoolRide Kit**

**Components:**

2	90006781	255c air spring
2	90000052	Upper air spring cup bracket (4.5" tall)
1	90000408	Lower air spring plate with shock mount
1	90000409	Lower air spring plate with shock mount

**Hardware:**

2	99435002	7/16" x 8" stud	Upper cup bracket to frame
2	99432001	7/16" USS Nylok nut	Upper cup bracket to frame
2	99433002	7/16" flat washer	Upper cup bracket to frame
8	99372002	3/8" USS Nylok nut	Air spring to cup & lower plate to control arm
4	99371004	3/8" x 1 1/4" uss bolt	Lower air spring plate to control arm
2	99371001	3/8" x 3/4" USS bolt	Air spring to lower plate
14	99373003	3/8" SAE flat washer	Air spring plate
2	99373005	3/8" lock washer	Air spring to lower plate

# COOL RiDE®

## Installation Instructions

\*\*\*\*For use w/ RideTech front shock kit\*\*\*\*



1. Place the lower air spring plate onto the lower control arm as shown in the picture. This is the Drivers side with the shock mount to the rear of the control arm. The plate will index off the rear strut arm bolt. The other two holes must be drilled for 3/8" x 1 1/4" bolts. Install flat washers and Nylok nuts.



2. The coil spring pocket will need to be trimmed for air spring clearance as shown in the picture.
3. Apply thread sealant onto the air fitting and screw into the air spring.
4. Place one of the cup brackets onto the top of the air spring and secure with two 3/8" nylok with flat washers.
5. Thread 7/16" x 8" all thread stud into the nut inside the cup.



6. Install the air spring assembly into the coil spring pocket with the all thread protruding through the factory shock hole. The fitting access hole will be clocked towards the outer tie rod end. Fasten with 7/16" Nylok and flat washer. The airline must be routed at this time.

7. Secure the air spring to the lower plate use a 3/8" x 3/4" bolt, lock washer, and flat washer.

8. Place a jack under the control arm and fully compress the air spring to double check air spring clearance.

9. Reattach the tie rod, spindle, and sway bar. Refer to a factory service manual for proper assemble procedure.

10. The sway bar end link may be shortened to achieve proper clearance. This can be done by shortening the end link and bolt.

11. Double check the air spring clearance through full suspension travel. This air spring should be approximately 5" tall at ride height. This should be around 100psi.

**IT IS THE FINAL RESPONSIBILITY OF THE INSTALLER TO MAKE SURE THE AIR SPRING DOES NOT RUB ON ANYTHING AT ANYTIME!!!**



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**Part # 11280501**  
**65-70 Impala HQ Series Front Shock Kit**  
For Use w/ CoolRide

**Shock:**

2	22949999	HQ Smooth Body Shock Cartridge
4	70011138	3/4" ID Shock Bushing
2	90002103	5/8" ID Inner Sleeve
2	90002102	1/2" ID Inner Sleeve

**Components:**

2	90000011	Upper shock bracket
2	90001617	Shock stud

**Hardware:**

4	99501003	1/2" x 2 1/2" USS bolt	Upper shock mount
4	99502001	1/2" USS Nylok nut	Upper shock mount

**Shock Dimensions:**

Compressed:	10 1/8"
Extended:	14 7/8"



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## Installation Instructions



1. The upper shock mount must be welded to the frame. It may need to be cut down to match the stroke of the air spring and suspension. Make sure that when the suspension is fully compressed the shock is about  $\frac{1}{4}$ " from being fully compressed. Just tack weld the mount for now and install the lower shock stud and shock. The upper mount will use a  $2 \frac{1}{2}$ " x  $\frac{1}{2}$ " bolt and nyloc. **Check to make sure the shock does not bottom out when the suspension is fully compressed.** If the shock bottoms out it could damage the shock or shock mounts.



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**Part # 11284099**  
**65-70 Impala Rear CoolRide Kit**  
For Use w/ Stock Lower Arms

**Components:**

2	90006781	224c air spring
2	90000024	Upper cup bracket
2	90000224	Large upper washer (may not be needed)
2	90000070	Lower air spring roll plate

**Hardware:**

2	99435001	7/16" x 6" stud	Cup bracket to frame
2	99432001	7/16" USS Nylok nut	Cup bracket to frame
2	99433002	7/16" flat washer	Cup bracket to frame
4	99372002	3/8" USS Nylok nut	Air spring to cup bracket
2	99371001	3/8" x 3/4" USS bolt	Air spring to axle
6	99373003	3/8" flat washer	Air spring
2	99373005	3/8" lock washer	Air spring to axle

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\*\*\*\*\*For use w/ RideTech shock kit\*\*\*\*\*



1. If you have a large hole in the coil spring retainer you will need to place the large upper washer on top of the frame to attach the upper cup bracket.



2. You will need to drill a hole in the upper coil spring pocket to route the airline through. Remove all burrs and use a grommet.

3. Apply thread sealant onto the air fitting and screw into the air spring. Place the upper cup bracket onto the air spring and secure with two 3/8" Nylok and flat washers. Thread the 6" stud





4. Place air spring assembly into the coil spring pocket with the stud protruding through the upper washer. The airline must be routed at this time. Secure with 7/16" nut and flat washer.

5. Slide the lower plate between the air spring and the lower arm. It is held tight with a 3/8" x 3/4" bolt with flat washer and lock washer.

6. This air spring should be approximately 5" tall at ride height.

**IT IS THE FINAL RESPONSIBILITY OF THE CUSTOMER TO ENSURE THAT THE AIRSPRING DOES NOT RUB ON ANYTHING AT ANYTIME!!**



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**Part # 11280701**  
**65-70 Impala HQ Series Front 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.

## 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.**



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**Part # 30154100**  
**4100 Series RidePro 4 Way Compressor System**  
5 Gallon Tank – Analog Gauges

**Components:**

2	31920020	Thomas 319 Compressor
1	31194000	RidePro 4 Way analog control panel with rocker switches (Black Face)
1	31915100	5 gallon aluminum tank
1	31934001	RidePro 4 Way valve block
1	31980005	Pressure switch – 135 On / 150 Off

**Wiring & Hardware:**

2	90001924	Fuse holder
2	90001922	20 Amp fuse
2	31900035	Wiring harness - Control panel to valve
2	31900022	30 Amp relay w/ harness
6	99104001	10-24 x 1" phillips screw
6	99102002	10-24 Nylok nut
6	99103001	#10 SAE flat washer
3	90001916	#10 x 5/16 ring terminal
3	90001913	12-10 butt connector
2	90001918	Female spade connector

**Airline & Fittings:**

2	31940002	1/4" DOT airline - 30 ft. roll - valve block to gauges
2	31940000	1/8" DOT airline - 25 ft. roll - valve block to gauges
2	31952150	1/8" npt x 1/4" tube female straight - compressor
2	31957003	2" Brass Nipple - compressor
6	31954201	1/4" npt x 1/4" tube Elbow airline fitting
7	31954000	1/4" npt x 1/4" tube Straight airline fitting
4	31952000	1/8" npt x 1/8" tube Straight fitting - manifold to gauge fitting
3	31957004	1/4" npt plug - to plug unused supply port
1	31954400	1/4" airline tee fitting-compressors to check valve fitting

**THE CHECK VALVE SUPPLIED SCREWS INTO THE AIR TANK WITH AN AIR FITTING  
THREADING INTO IT. THE COMPRESSOR LINE WILL FEED INTO THE CHECK VALVE.**



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## **ARC4100 Compressor System Instructions**

These are some general guidelines to follow when installing your new RidePro air control system. Depending on the vehicle there are many different ways to plumb the system. Start out by planning a lay out of where you want everything to be mounted. Typically we try to keep the compressor, solenoids, tank, and sending units in a central location, but they can be separated to suit your needs.

### **Mounting the Compressor/ Pressure Switch**

- **Remove the negative battery cable before beginning installation.**
- All of our compressors are sealed for moisture and dust resistance so they can be mounted anywhere on the vehicle. Although it is best to mount it in a place out of direct contact with rain and snow. It is OK to mount it underneath the vehicle but keep it inside the frame rails away from water and debris thrown off the tire.
- This is a dry compressor; therefore it is maintenance free and can be mounted in any position.
- It is best if mounted to something solid to reduce vibration and noise. If mounting it to sheet metal or the bed of a truck, use sound deadening material between the compressor and the mounting surface.
- Use the rubber grommets supplied on the feet of the compressor to reduce vibration.
- Apply thread sealant to the pressure switch and screw into the tank.
- 20 amp fuses/holders are supplied and must be installed within 1 ft. of the battery.

### **Mounting the Air Tank**

- The air tank can be mounted anywhere on the vehicle in any position.
- A template is supplied to aid in drilling the holes. Check the template with the tank before drilling the holes.
- If your air system is used frequently you may want to remove the tank once a season to drain any excessive accumulation of water.

## Mounting the RidePro Air Valves

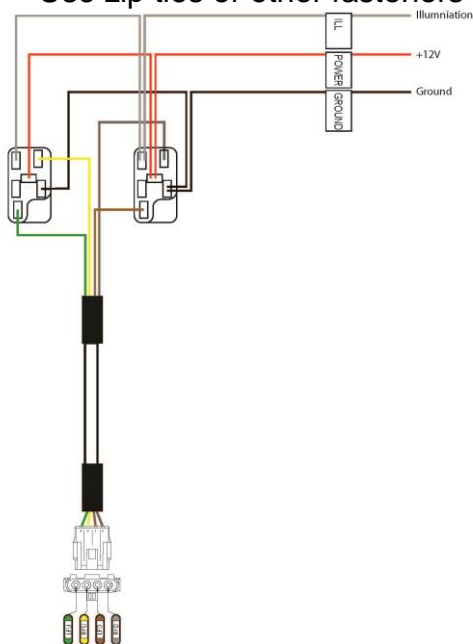
- The valves, like the compressor, are sealed and can be mounted in the same locations. Although if the vehicle will be exposed to freezing temperatures it is a good idea to mount them in the engine bay if possible to reduce the possibility of freezing.
- They can be mounted in any position.
- Mount the valves higher than the tank to avoid moisture build up. This could cause the air pressure sensors to give a faulty reading.
- Attach the ground strap to a good, clean ground (preferably the frame).
- The exhaust port will be left open.
- The valve is held closed with the pressure in the tank. If tank pressure drops below air spring pressure they will equalize deflating all 4 air springs.
- 

## Wiring Harness

- Red Wire- The red wire on the harness will connect to 12 volt switched.
- Gray Wire- This power for the light in the switch- this wire goes to the light circuit(dash lights) of the vehicle. This wire needs 12 volt when the lights are on or the key is on. The gauge light should be hooked to the same circuit as this wire.
- Black Wire- This wire is ground for the light in the switch. It goes to a good ground.

## Routing the Airline and Fittings

- Make all airline cuts with a razor or tubing cutter. It must be clean and straight or it will not seal.
- All fittings are DOT approved push-to-connect style. They are very simple to use and are reusable. Firmly push the airline into the fitting to attach. To release the airline pull the collar on the fitting back towards the fitting and pull the airline out.
- Use thread sealant on all fittings.
- Do not over tighten the fittings. This could result in breaking the fitting or damaging the air spring.
- All of our airlines are DOT approved so they are very strong. But keep them away from any sharp edges. Also when passing through a hole in the frame use a grommet.
- Keep away from intense heat including mufflers and exhaust manifolds.
- Use zip ties or other fasteners to secure the airline.



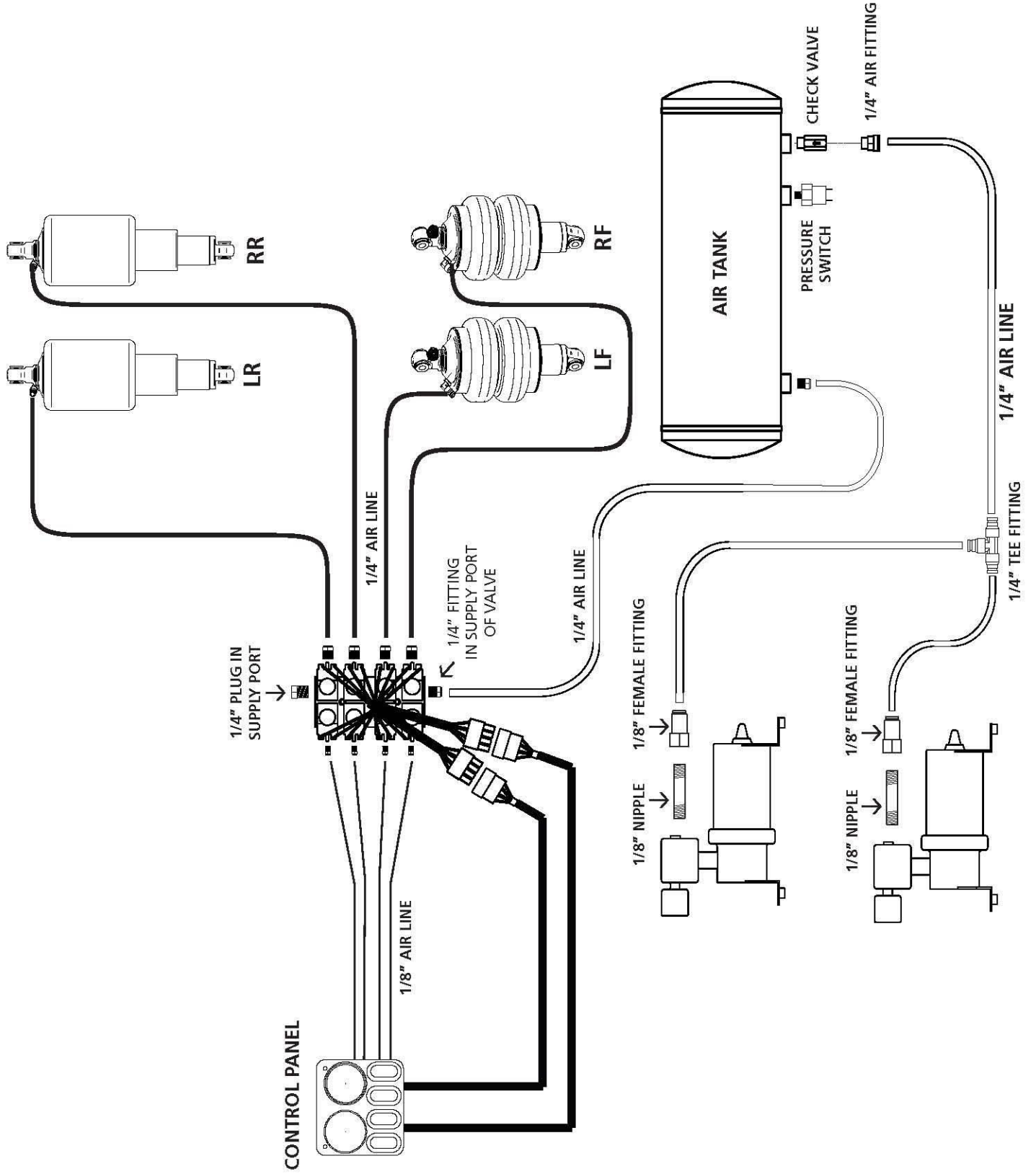
**Illumination (Gray)** - This wire provides power to the switch lights. It should be hooked up to a light circuit in the vehicle (dash lights) or it can be hooked up to a 12 volt switched source.

**+12V (Red)** - This wire is the main power for the valves. It should be hooked up to a 12 volt switched circuit. It needs 12 volt with the key on and should have no power with the key off.

**Ground (Black)** – This wire provides ground to the switch lights. It should be hooked up to a good ground source.

**Note:** The Illumination and Ground wires do not have to be hooked up for the switches to work. They do have to be hooked up for the lights in the switches to work.

# Plumbing diagram





# Dual Compressor Wiring Diagram

