



#### Recommended Tools

#### **Components:**

1 31920020 Thomas 319 Compressor

1 31191500 1-Way Electric/Pnuematic Control Panel

#### Wiring & Hardware:

1	31900022	30 amp relay
1	90002924	Fuse holder
1	90001922	20 Amp fuse
_	00404004	10 24 111 1

3 99104001 10-24 x 1" phillips screw

3 99102002 10-24 Nylok nut 3 99103001 #10 SAE flat washer 1 90001916 #10 x 5/16 ring terminal 1 90001913 12-10 butt connector

#### Airline & Fittings:

1 31940002 1/4" DOT airline - 30 ft. roll - compressor system, air springs

1 31952150 1/8"npt x 1/4" tube female straight - compressor

31957003
 Brass Nipple - compressor
 31954400
 1/4" tube "T" fitting - air springs







Compact "overload" style compressor system – used mainly for AirOverLeaf, or overload type applications where speed not important. No tank needed.







These are some general guidelines to follow when installing your new Ridetech 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. We typically mount the control panel where it is within reach of the drivers seat.

#### **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.
- The switch on the control panel will control the compressor. One wire of the switch will need to be wired to a keyed circuit. The other wire of the switch will run to the orange wire of the compressor. A main power wire will be needed to supply the control panel/compressor. Use the guide on Page 4 to help select a wire size. A 20 amp inline fuse is supplied and should be installed between the switched circuit and the control panel as close to the circuit as possible. The black compressor wire should be attached to a good chassis ground.

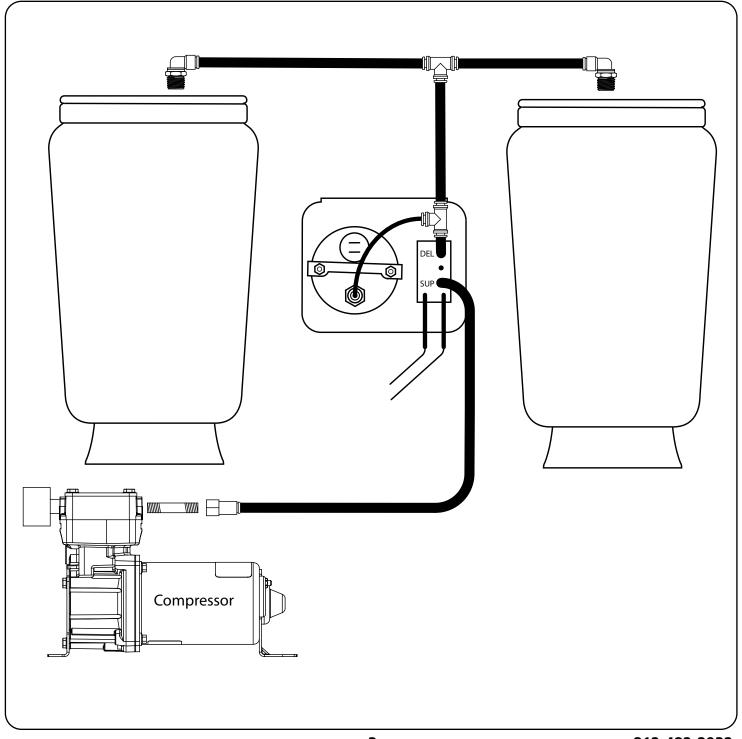
#### **Routing the Airline and Fittings**

- Make all airline cuts with a razor or tubing cutter. It must be clean and straight or it will not seal.
- Most 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 not idiot proof. Keep away from any sharp edges. 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.
- You can use either port on the compressor to supply air to the control panel. The unused port will need to be plugged with the supplied 1/8" NPT plug.





# **Plumbing Diagram**







#### **Compressor Wiring**

• We provided a wire chart below to help select the correct size wire for your install. The air compressor in this kit draws 16 amps max. *Make sure the circuit you wire it to will support the amp draw.* 

Amps @ 13.8 Volts	LENGTH OF WIRE American Wire Gauge (AWG)						
	0-4 ft	4-7 ft	7-10 ft	10-13 ft	13-16 ft	16-19 ft	19-22 ft
15-20	12 ga	12 ga	12 ga	12 ga	10 ga	8 ga	8 ga
20-35	12 ga	10 ga	10 ga	10 ga	10 ga	8 ga	8 ga
35-50	10 ga	10 ga	10 ga	8 ga	8 ga	8 ga	6 or 4 ga

# **Wiring Diagram**

