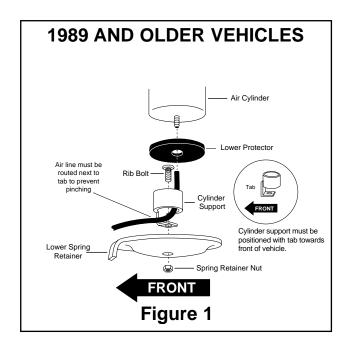
# AIRLIFT 1000

P/N 60738



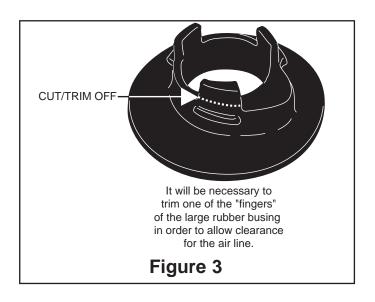


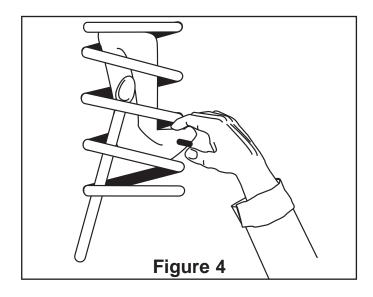
1990 AND NEWER VEHICLES Cylinder Lower Protector Air line must be Rib Bolt routed next to Cylinder pinching Cylinder support must be positioned with tab towards Lower Spring Retainer front of vehicle "Finge Trimmed Off Isolator Bushing - Spring Retainer Nut **FRONT** Figure 2

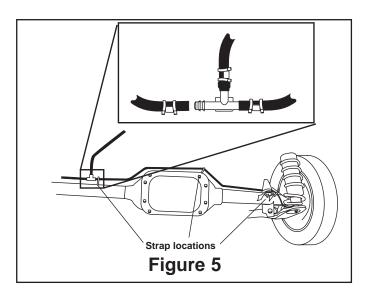
 Raise vehicle on hoist or jack. Position jack stands under outside frame rails, one on each side at the rear of axle. Remove rear tires, lower jack or hoist to engage frame stands and unload coil spring.

(If necessary, additional clearance between the spring coils may be obtained by removing the lower shock absorber attachment).

- 2. Observe the lower spring retainer orientation so it can be reinstalled in the same location.
- 3. Loosen and remove the lower spring retainer nut. Remove the retainer from the spring.
- 4. Loosely-assemble the spring retainer nut to the shoulder bolt. Turn spring retainer upside down, so that the nut is up, tap the nut with a hammer to remove the rib bolt. Disassemble nut from rib bolt (Figure 1 and 2).
- Position rib bolt through the cylinder support (Figure 1 and 2) and seat bolt shoulder to cylinder support tab with a hammer and drift pin (If a vise is not available use a deep well socket).
- 6. LATE MODELS-Under the lower spring retainer will be a rubber bushing. It will be necessary to trim one of the "fingers" of the large rubber bushing in order to gain clearance for the line (Figure 3).
- 7. Reinstall the lower spring retainer to its original orientation. Position the cylinder support shoulder bolt through the spring retainer (and rubber bushing is it applies) and the lower control arm holes (Figure 1 and 2). NOTE: Cylinder support tab must be forward (Figure 1) and spring retainer must be oriented correctly. LATE MODELS-Cylinder support may not sit flat on the rubber bushing, may sit on an angle, this is acceptable.
- 8. It will be necessary to use channel locks to hold the lower cylinder support while tightening the nut to the manufactures spec. (41-65 FT-LBS).
- Air cylinders are shipped in the "as molded" shape.
   For ease of installation remove plastic cap from barbed stem on end of cylinder. Push on air cylinder to evacuate as much as possible. It may be rolled up toward valve stem. Replace cap on stem to maintain flat shape.







- 10.Insert flattened air cylinder into lowest opening in the coil spring with stem at the bottom (Figure 4).
- 11. Push the cylinder up within the coil by hand or with a BLUNT instrument such as a spoon-type tire iron (Figure 4). When the cylinder is completely within the coil, remove the cap and allow the cylinder to assume it's "as molded" shape.
- 12.Repeat steps 2 through 10 for opposite side of vehicle installation.
- 13. Determine air line routing. A tee air line installation is recommended unless the vehicle weight varies from one side to the other and unequal pressures are needed to level the load. Dual air lines are used in this case.

**CAUTION:** Leave sufficient air line slack to prevent any strain on fitting during axle movements.

#### 14. Right rear air cylinder air line routing

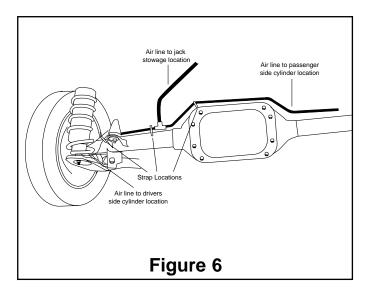
Thread the air line through the opening between the lower cylinder support tab and the lower spring retainer then insert lower protector (Figure 1 and 2). Install (1) air line clamp approximately 3/4" from end of air line. Center the air cylinder inside the coil, push the air line onto the brass barbed stem covering all barbs. With the channel locks or pliers, slide and center the air line clamp over the barbed stem. Remove "slack" air line from inside spring and cylinder support to eliminate "kinks".

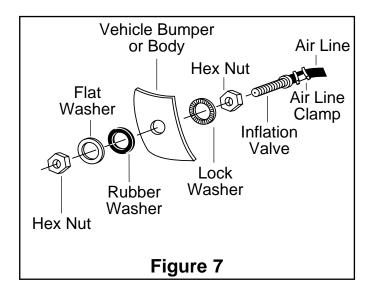
15. Route the opposite end of the air line forward, then inboard, following the brake line. Secure the air line to the brake line with (3) plastic straps (Figure 5). Use the axle vent air line as the center line for the air line tee. Cut the air line 3/4" shorter than vent air line center line.

### 16. Left rear air cylinder air line routing

Thread the air line through the opening between the lower cylinder support tab and the lower spring retainer then insert protector (Figure 1 and 2). Install (1) air line clamp approximately 3/4" from end of air line. Center the air cylinder inside the coil, push the air line onto the brass barbed stem covering all barbs. With the channel locks or pliers, slide and center the air line clamp over the barbed stem. Remove "slack" air line from inside spring and cylinder support to eliminate "kinks".

17. Route the opposite end of the air line forward, then inboard, following the brake line. Secure the air line to the brake line with (2) plastic straps (Figure 5). Cut the air line 1/2" shorter than the right hand air line.





- 18.Install (1) air line clamp approximately 3/4" from end of each cylinder air line. Connect the tee fitting pushing each air line over the barbed stem (be sure to cover all barbs). With channel locks, slide and center each air line clamp over the barbed stem.
- 19. Connect the remaining piece of air line to the tee connection with a clamp using the installation procedure from step 18.
- 20. Route the supply air line up the axle vent air line and secure with (1) plastic strap 1" up from air line clamp. Route the air line outboard past the frame rail then rearward above the upper rear spring support.
- 21. Route air line along frame toward desired inflation valve location in the license plate well or rear bumper area. Keep air line away from heat (exhaust system, etc.) and moving objects, securing it to chassis with plastic straps provided. Insure that the valve will be protected and accessible with air line. Drill 5/16" hole for inflation valve and mount (Figure 7).
- 22.Remove slack air line from inflation valve routing and cut off excess air line. Keep air line away from exhaust system and moving chassis components.
- 23. Install one of the hex nuts 3/4" on valve stem, and install the star washer. Install the inflation valve through the 5/16" hole (Figure 7) and assemble the rubber washer, flat washer and the other hex nut, and tighten nut till rubber washer starts to expand.
- 24. Inflate the air springs to 30 p.s.i. and check all connections for leaks by using a soap solution in a squeeze bottle or equivalent.
- 25.INSTALL HEAT SHIELD KIT. (Note: Separate instructions are included in heat shield package.)
- 26.Replace wheels, remove safety stands and carefully lower vehicle to ground.
- 27.Recheck air pressure after 24 hours. A 2-4 psi loss after initial installation is normal. If pressure has dropped more than 5 lbs. re-test for leaks with soapy water solution.

Thank you for purchasing Air Lift products



## **Product Use Information**

## Frequently asked questions

#### Q. Will installing air springs increase the weight ratings of a vehicle?

No. Adding air springs will not change the weight ratings (GAWR, GCWR and/or GVWR) of a vehicle. Exceeding the GVWR is dangerous and voids the Air Lift warranty.

#### Q. Is it necessary to keep air in the air springs at all time and how much pressure will they need?

The minimum air pressure should be maintained <u>at all times</u>. The minimum air pressure keeps the air spring in shape, ensuring that it will move throughout its travel without rubbing or wearing on itself.

#### Q. Is it necessary to add a compressor system to the air springs?

No. Air pressure can be adjusted with any type of compressor as long as it can produce sufficient pressure to service the springs. Even a bicycle tire pump can be used, but it's a lot of work.

#### Q. How long should air springs last?

If the air springs are properly installed and maintained they can last indefinitely.

#### Q. Will raising the vehicle on a hoist for service work damage the air springs?

No. The vehicle can be lifted on a hoist for short-term service work such as tire rotation or oil changes. However, if the vehicle will be on the hoist for a prolonged period of time, support the axle with jack stands in order to take the tension off of the air springs.

### Tuning the air pressure

Pressure determination comes down to three things — level vehicle, ride comfort, and stability.

#### 1. Level vehicle

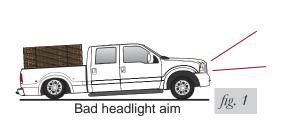
If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (fig. 1). Raise the air pressure to correct either of these problems and level the vehicle.

#### 2. Ride comfort

If the vehicle has a rough and harsh ride it may be due to either too much pressure or not enough (fig. 2). Try different pressures to determine the best ride comfort.

#### 3. Stability

Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess (fig. 3). Tuning out these problems usually requires an increase in pressure.



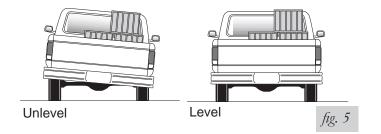




### Guidelines for adding air:

- 1. Start with the vehicle level or slightly above.
- 2. When in doubt, always add air.
- 3. For motorhomes, start with 50-100 PSI in the rear because it can be safely assumed that it is heavily loaded.
- 4. If the front of the vehicle dives while braking, increase the pressure in the front air bags, if equipped.
- 5. If it is ever suspected that the air bags have bottomed out, increase the pressure (fig. 4).
- 6. Adjust the pressure up and down to find the best ride.
- 7. If the vehicle rocks and rolls, adjust the air pressure to reduce movement.
- 8. It may be necessary to maintain different pressures on each side of the vehicle. Loads such as water, fuel, and appliances will cause the vehicle to be heavier on one side (fig. 5). As much as a 50 PSI difference is not uncommon.





AIR LIFT SYSTEMS SUSPENSION SYSTEMS