

*Please read these instructions completely before proceeding with the installation.*

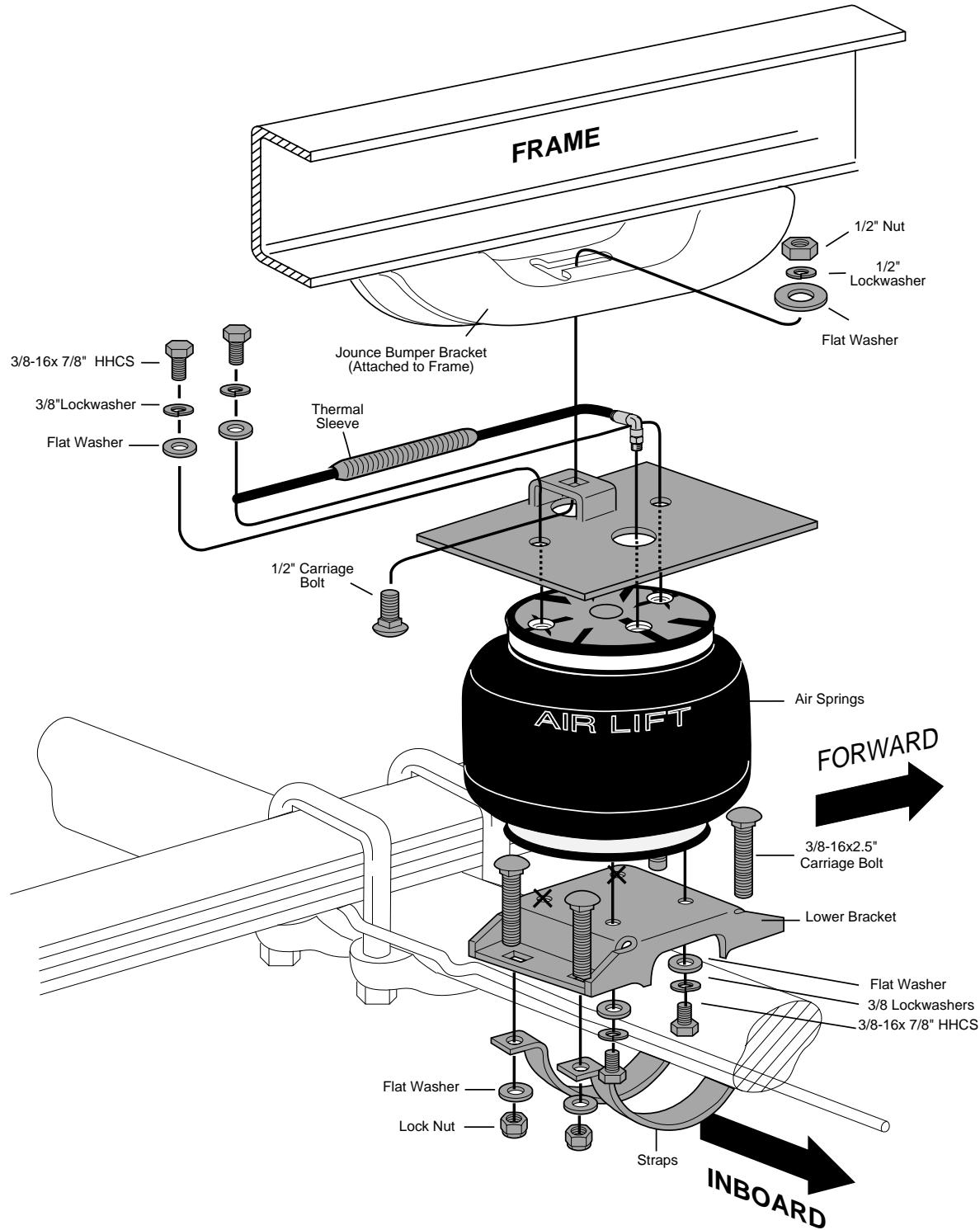


Figure 1

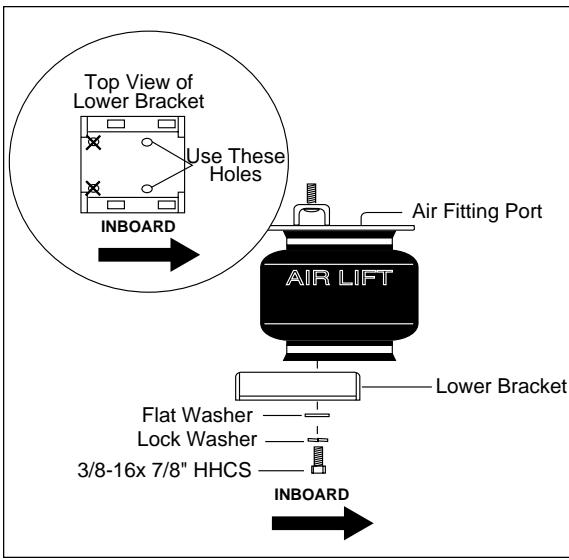


Figure 2

**WARNING:** Do not inflate the bellows when they are unrestricted or not installed. Bellows must be contained by suspension or other adequate structure. Do not inflate beyond 100 p.s.i. Improper use or over-inflation may cause the assembly to burst causing property damage or severe personal injury.

**NORMAL RIDE HEIGHT:** Normal ride height (no load) - This is defined as the distance between the bottom edge of the fenderwell to the center point of the wheel with the vehicle in an "as delivered condition" (without a load, i.e. tool box, camper, etc.) measurements should be taken before beginning the installation. The distance from the bottom edge of the fenderwell to the center point of the wheel should be recorded. All of our kits are designed to be installed and operated at normal ride height.

Measure and record the Normal Ride Height for later reference.

1. Jack up rear of vehicle or raise on hoist. Place safety jack stands under axle.
2. Install the fitting finger-tight plus 1 1/2 turns being careful to tighten on the metal hex nut only.
3. Insert a 1/2 x 1.5" carriage bolt into the square hole of the upper bracket. Attach the upper bracket to the top plate of the air spring with two 3/8" x 7/8" bolts, flat washers and lock washers (Figure 1).
4. Attach the lower bracket to the bottom plate of the air spring using the mounting holes shown in Figure 2. The lower bracket will be offset outboard away from the air fitting (Figure 4). Attach with two 3/8" x 7/8" bolts, flat washers and lock washers. Torque to 20 ft/lbs. Assemble both units.
5. Remove the rubber jounce bumper on the frame rail by pulling it out of the slotted track in the jounce bumper bracket.
6. Set the assembly on the axle housing (Figure 1). Push the threaded portion of the carriage bolt into the jounce bumper track. Loosely attach the upper bracket to the frame with this 1/2x 1.5" carriage bolt, 1/2" flat washer, 1/2" lock washer, and 1/2" nut (Figure 1).
7. Models with disc brakes, make sure that the emergency brake cable is above the upper bracket on the driver's side. Also, remove the bolt holding the cable onto the back-side of the passenger's side axle. Install the supplied spacer between the bracket and the emergency brake cable clip. Insert the supplied bolt and tighten the cable down securely (Figure 3).
8. LOOSELY attach the lower bracket and straps around the axle using 3/8" x 3" carriage bolts, flat washers, and lock nuts. Both straps will be attached between the leaf spring stack and the shock mount bracket (Figure 4).

**NOTE for Models with Disc Brakes:** The inside strap on the passenger-side goes between the emergency brake cable bracket and the shock bracket on the axle (Figure 4).

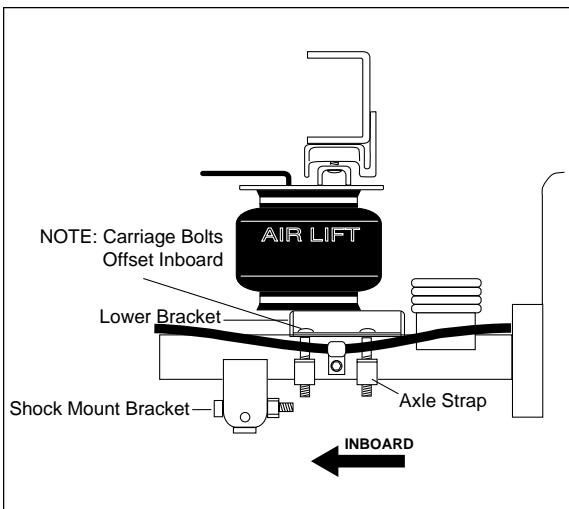


Figure 4

- Align the air spring. With the unit aligned, tighten the lower bracket securely to the axle.

*NOTE: The air spring should have at least a "thumbths width" clearance between it and any interference.*

Tighten the FRONT 3/8" lock nuts first and then the rear nuts to prevent any interference with the brake line. Torque to 20 ft/lbs.

- Tighten the 1/2" nut on the upper bracket to 20 ft/lbs (Figure 1).

- Installation of this kit requires an exhaust heat shield (Figure 5). The shield is attached with stainless steel clamps to the exhaust pipe, with the flanges being bent inward. Shield may be trimmed or bent to attain component clearance. Bend tabs to provide 1/2" dead air space between exhaust pipes and heat shield and maximum clearance with air springs.

- Select a location for the inflation valves in the rear bumper area or rocker panel flange insuring that each valve will be protected and accessible with an air hose (Figure 6).

- Use a standard tube cutter, a razor blade, or a very sharp knife to cut the air line. A clean square cut will ensure against leaks. Cut the air line assembly into the equal parts. Drill 5/16" hole for inflation valves and mount as illustrated. Rubber washer on the outside is for weather seal (Figure 7).

*CAUTION: Leave sufficient hose slack to prevent any strain on valve stem during normal axle motions.*

- Route the air line from the inflation valve location along the frame rail to the air springs. Route the air line so that it will be protected from the direct heat from the muffler or tailpipe and kept away from sharp edges. The air line should not be bent or curved sharply (Figure 6). Attach air line to chassis with the provided plastic straps.

*NOTE: To prevent the air line from melting, keep it at least six inches from the exhaust system. Use the thermal sleeve on the exhaust side (Figure 1).*

- Slide a thermal sleeve onto the air line from the cut end on the tail pipe side of the vehicle.

- Cut off the excess air line squarely and install into the fitting. This is a push to connect fitting. Push and slightly turn the cut end of the air line into the fitting as far as it will go (5/16"). You will hear/feel a definite "click" when the air line is seated. The air line is now installed.

- Repeat process for the other side.

- Inflate the air springs to 60 p.s.i. air pressure. Test for air leaks by applying a soapy solution to all valve cores, fittings and connections.

- This now completes the installation. Before proceeding, check once again to be sure you have sufficient clearance around the air springs.

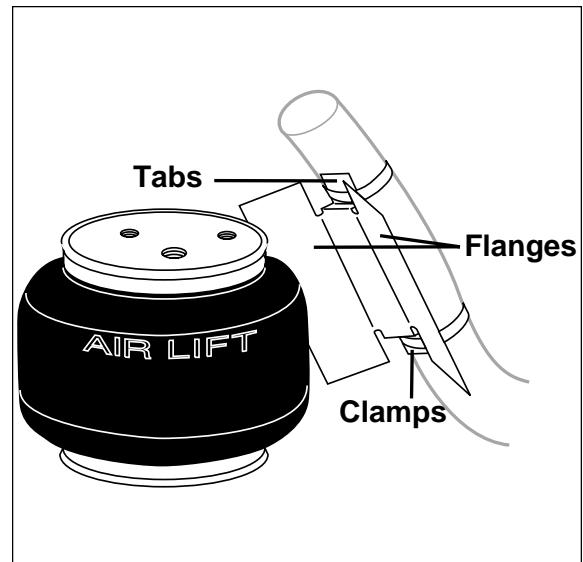


Figure 5

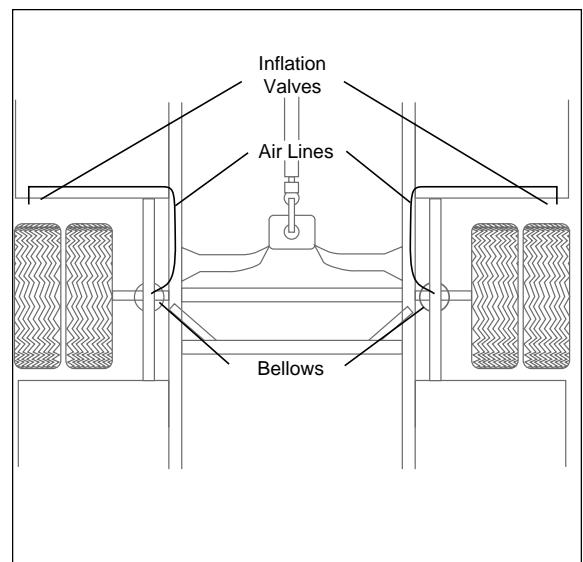


Figure 6

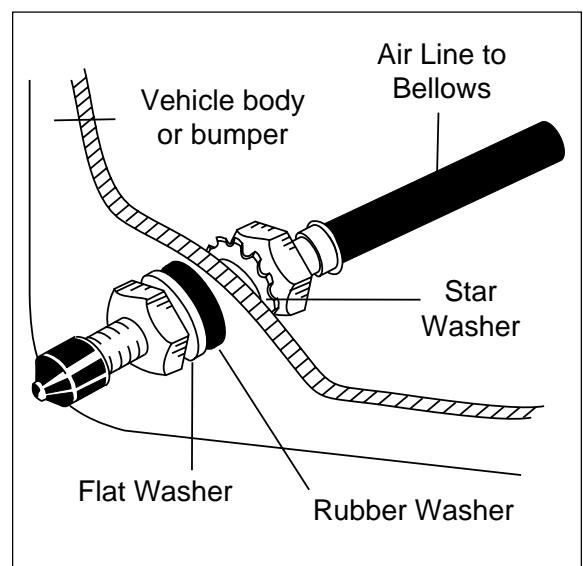


Figure 7

20. Lower the vehicle to the ground. Inflate the air springs until Normal Ride Height measurement is restored. Regardless of the load, the air pressure should always be adjusted so that the Normal Ride Height is maintained at all times.

A 5-7 p.s.i. loss after initial installation is normal. If pressure has dropped more than 7 lbs. re-test for leaks with soapy water solution.

21. For best ride, use only enough air pressure in the air springs to maintain Normal Ride Height. inflate/deflate the air springs to maintain the height under various conditions of load.

*NOTE: Too much air pressure in the air springs will result in a stiffer ride, while too little air pressure will allow the vehicle to bottom out. Too little air pressure will also not provide the improvement in ride and handling that is possible.*

## Checking for Leaks

1. Inflate the bellows and check the fittings for air leaks with a solution of soap and water.
2. Raise vehicle and remove safety jack stands. Lower vehicle to ground.
3. This now completes the installation. Before proceeding, check once again to be sure you have proper clearance around the bellows. With a load on the vehicle and the helper springs inflated, there must be at least 1/2" clearance all around the bellows.
4. Recheck air pressure after 24 hours. A 5-7 p.s.i. loss after initial installation is normal. If pressure has dropped more than 7 p.s.i. retest for leaks with a soapy water solution.
5. For best ride use only enough air pressure in the air springs to level the vehicle when viewed from the side (front to rear). Inflate/deflate the air springs to maintain this height under various conditions of load. NOTE: Too much air pressure in the air springs will result in a stiffer ride, while too little air pressure will allow the vehicle to bottom out. Too little air pressure will also not provide the improvement in handling that is possible.

## Maintenance and Operations

Minimum Air Pressure	Maximum Air Pressure
20 p.s.i.	100 p.s.i.
<i>Failure to maintain correct minimum pressure (or pressure proportional to load), bottoming out, over-extension, or rubbing against another component will void the warranty.</i>	

*By following these steps, vehicle owners will obtain the longest life and best results from their air springs.*

1. Check the air pressure weekly and always maintain at least 10 p.s.i. air pressure.
2. If you develop an air leak in the system, use a solution of  $\frac{1}{5}$  dish soap to  $\frac{4}{5}$  water to check all air line connections and the inflation valve core before removing sleeve.
3. Inflate your air springs to 60 p.s.i. before adding the payload. After vehicle is loaded, adjust your air pressure to level the vehicle and for ride comfort. When increasing load, always adjust the air pressure to maintain the Normal Ride Height. Increase or decrease pressure from the system as necessary to attain Normal Ride Height for optimal ride and handling. Remember that loads carried behind the axle (including tongue loads) require more leveling force (pressure) than those carried directly over the axle.
4. When carrying a payload it will be helpful to increase the tire inflation pressure in proportion to any overload condition. We recommend a 2 p.s.i. increase above normal (not to exceed tire manufacturer maximum) for each 100 lbs. total overload on the axle.
5. *IMPORTANT:* For your safety and to prevent possible damage to your vehicle, *do not exceed maximum Gross Vehicle Weight Rating (GVWR), as indicated by the vehicle manufacturer.* Although your air springs are rated at a maximum inflation pressure of 100 p.s.i. The air pressure actually needed is dependant on your load and GVWR, which may be less than 100 p.s.i. Check your vehicle owners manual and do not exceed the maximum load listed for your vehicle.
6. Always add air to springs in small quantities, checking the pressure frequently. Sleeves require less air volume than a tire and inflate quickly.
7. *Should it become necessary to raise the vehicle by the frame, make sure the system is at minimum pressure (10 p.s.i.) to reduce the tension on the suspension/brake components.* Check to see that the sleeve rolls back down over the bottom piston after the vehicle is lowered (Figure 8). If sleeve fails to roll back down over the piston, add air pressure until sleeve "pops" back over piston (do not exceed 100 p.s.i.).



***Thank you for purchasing Air Lift Products***

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