SUPER DUTY
ADJUSTABLE AIR SPRING SUSPENSION

MN-284
(05711)
ECN2328

KIT #57129 AND #57130

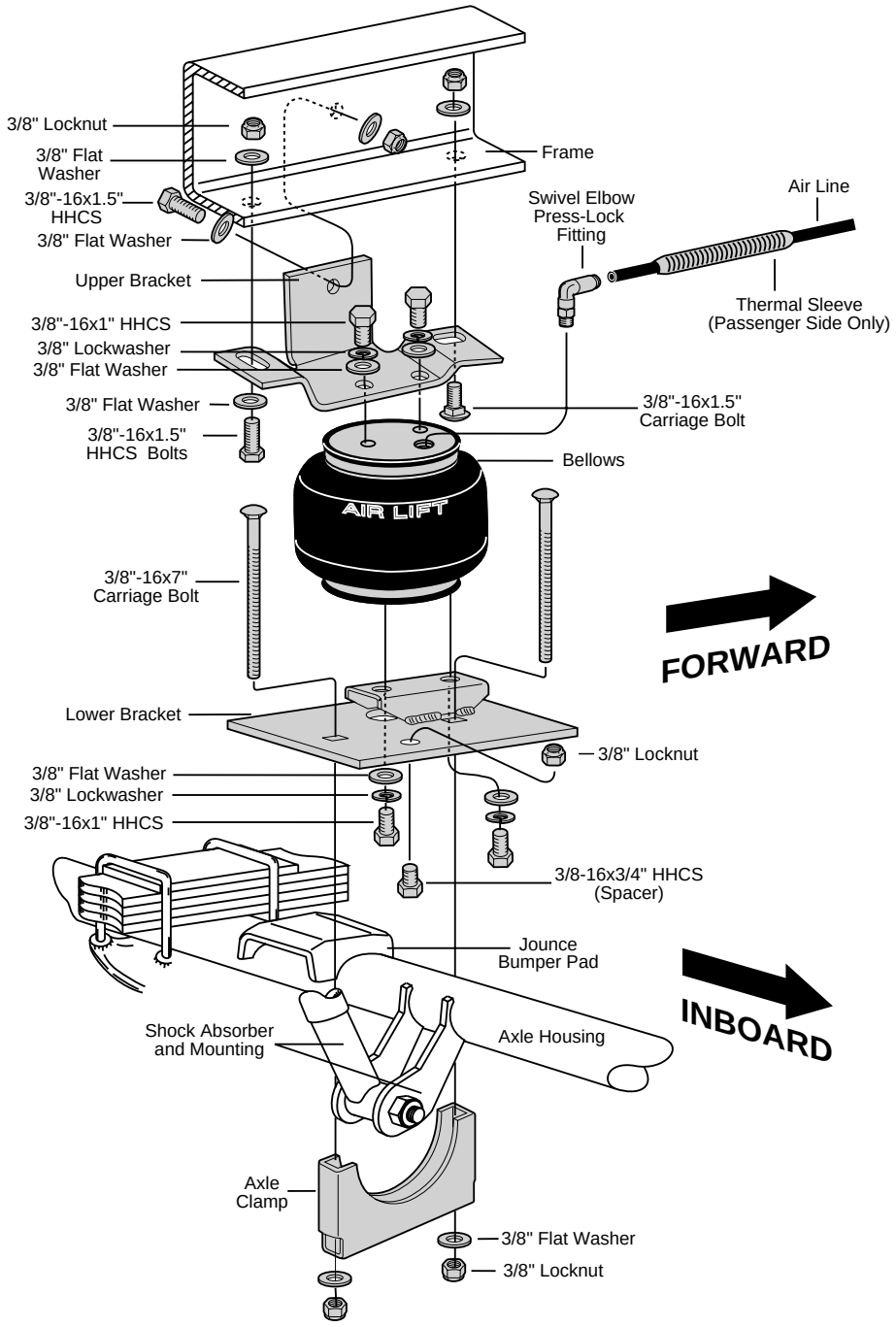

FIGURE 1

AIR LIFT RECOMMENDS THE USE OF LIMITING STRAPS WITH MOST SINGLE CONVOLUTE AIR SPRINGS. CHECK TO SEE WHAT LIMITS (STOPS) THE SUSPENSION WHEN FULLY EXTENDED. IF IT IS THE AIR SPRING, INSTALL LIMITING STRAPS TO PRESERVE THE LIFE OF THE AIR SPRINGS.

NEVER EXCEED THE MANUFACTURES MAXIMUM GROSS VEHICLE WEIGHT RATING. DO NOT INSTALL THE AIR SPRING AS THE PRIMARY SUSPENSION SPRING. THIS PRODUCT IS INTENDED FOR LOAD ASSIST ONLY. ALWAYS USE SAFETY STANDS, WEAR EYE PROTECTION, AND USE PROPER TOOLS WHEN INSTALLING THE SUPER DUTY KIT.

PLEASE READ THESE INSTRUCTIONS COMPLETELY BEFORE ATTEMPTING THE INSTALLATION.

IMPORTANT: Your vehicle may be equipped with a rear brake proportioning valve. **ANY** type of load assist suspension product could affect brake performance. We recommend that you check with your dealer before installing this type of product. If your vehicle **DOES NOT** have a proportioning valve or is equipped with an anti-lock type brake system, installation of a load assist product will have **NO EFFECT ON THE BRAKE SYSTEM PERFORMANCE.**

NORMAL RIDE HEIGHT: Normal ride height is defined as the measured distance from the bottom edge of the fenderwell to the center point of the wheel with the vehicle in "as delivered condition" (without camper, tool boxes, unusual load, etc.). This measurements should be recorded for later reference. All AIR LIFT kits are designed to be installed and operate at normal ride height.

1. Jack up rear of vehicle or raise on hoist. Note: remove rear wheels and support frame with safety stands.

2. Lower axle or raise frame an additional 2 - 3 inches to provide clearance when positioning air spring assembly. NOTE: IF THE VEHICLE IS EQUIPPED WITH A FACTORY SWAY BAR, IT WILL BE NECESSARY TO SET THE LOWER AXLE CLAMP IN PLACE BEFORE LOWERING AXLE (FIGURE 1).

3. Remove the jounce bumper and bracket from the frame rails (may be bolted or riveted).

4. Install the air fitting into the bellows. The threads are precoated with sealant. Install finger tight plus two turns. **Use a 7/16" end wrench being careful to tighten on the metal hex nut only.** Do not over tighten.

5. A spacer is required so that the lower bracket sits level on the axle housing/jounce bumper pad. Insert 3/8-16x3/4" HHCS bolt through lower bracket and secure with 3/8" lock nut (Figure 1). The spacer should sit inboard of the jounce bumper pad (Figure 2).

6. Put the 3/8-16x7" carriage bolts into the rectangle holes in the lower bracket. Attach the bellows onto the upper and lower brackets using the round holes with the 3/8"-16x1" mounting bolts, flat washers, and lock washers. **There are right and left hand units (marked).** Tighten to 15-20 ft-lbs. (Figure 1).

7. Place the assembly on the axle housing, guide the carriage bolts through the axle clamp and align so that the bellows follows the natural arc of the suspension travel. Attach lower bracket to axle housing loosely using axle clamp, flat washers and locknuts (Figure 1 &4).

CAUTION - DO NOT DRILL HOLES INTO THE FRAME UNTIL ANY AND ALL HYDRAULIC, FUEL, OR ELECTRICAL LINES HAVE BEEN MOVED OR SHIELDED.

8. Raise the axle or lower the frame until the axle is in the normal ride height (no load) position. Install the upper bracket. You may be able to use the one or both of the existing holes from the jounce bumper bracket. **If not, use the holes on each end of the upper bracket as a template to mark and drill two 3/8" diameter holes in the bottom of the frame rail (Figure 3).** The holes in the upper bracket are slotted for adjustment. Install the 3/8-16x1.5" HEX HEAD bolt, flat washers and locknut in the REAR hole. Install the 3/8-16x1.5"CARRIAGE bolt in the FRONT hole, flat washer and locknut. LEAVE LOOSE AT THIS TIME.

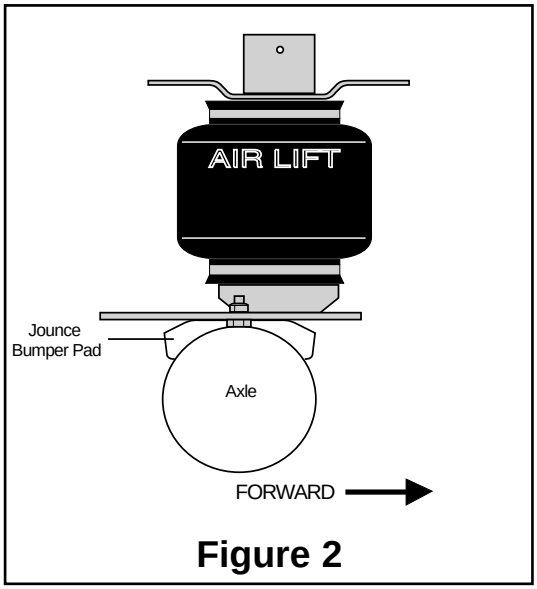

Figure 2

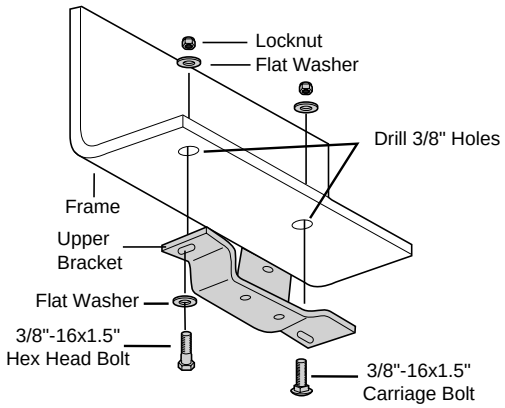

Figure 3

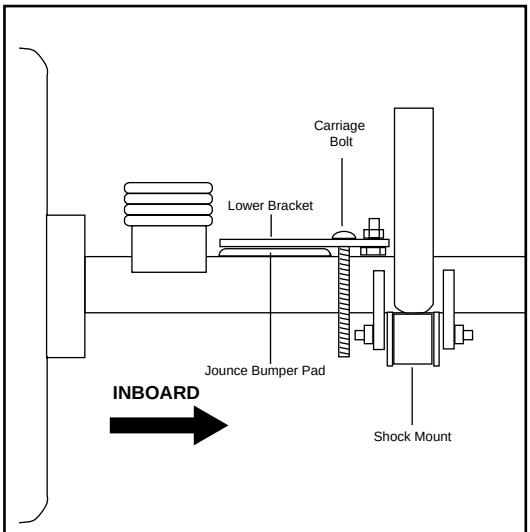

Figure 4

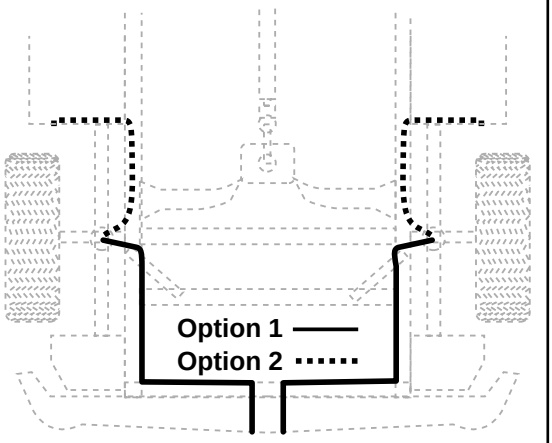

Figure 5

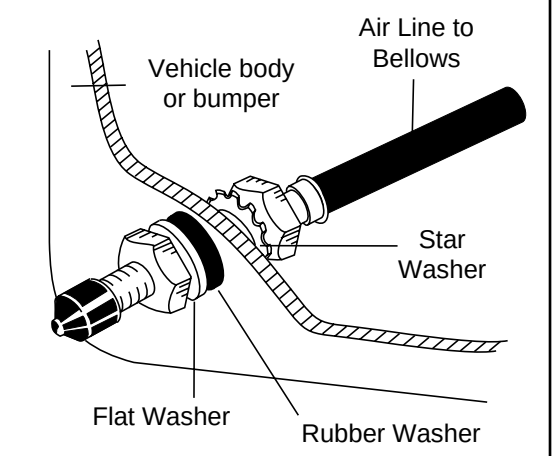

Figure 6

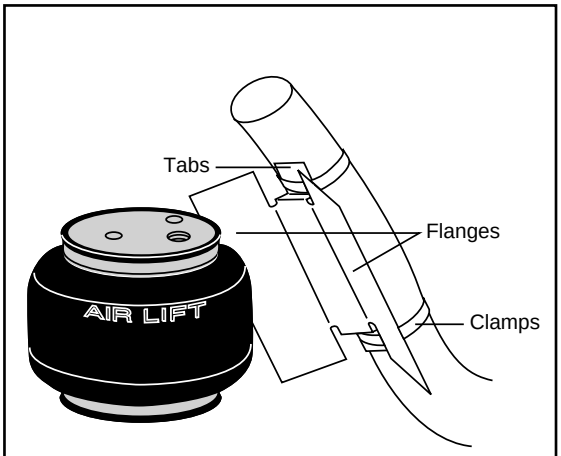

Figure 7

9. With the upper bracket in this position, and using the bracket as a template, mark and drill the 3/8" hole on the OUTBOARD side of the frame rail though the upper bracket. Install the 3/8-16x1.5" HHCS bolt, flat washer and locknut and tighten to 20 ft.lbs. Tighten the two bolts previously installed (Figure 1).

10. Again, check the alignment of the assembly and tighten the lower mount down. Tighten to 20 ft-lbs.

DUAL AIR LINE ROUTING

A. 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 5).

B. Use a standard tube cutter, a razor blade, or very sharp knife to cut the air line assembly into two equal parts. A clean square cut will ensure against leaks. Drill 5/16" hole for inflation valves and mount as illustrated. Rubber washer on outside is for weather seal (Figure 6).

CAUTION: LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON VALVE STEM DURING NORMAL AXLE MOTIONS.

C. Route air line from inflation valve location along frame rail to bellows. 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 5). Attach air line to chassis with the provided plastic straps.

TO PREVENT AIR LINE FROM MELTING, KEEP IT AT LEAST TWELVE INCHES FROM EXHAUST SYSTEM. USE THERMAL SLEEVE ON EXHAUST SIDE (FIGURE 1).

D. Cut off excess air line squarely and install into the fitting. This is a self locking fitting. Push and slightly turn the cut end of the air line into the fitting as far as it will go (approximately 9/16"). You will hear/feel a definite "click" when the air line is seated. The air line is now installed.

E. Repeat process for other side.

11. Installation of this kit requires an exhaust heat shield (Figure 7). The shield is attached with the 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 bellows.

12. Remount rear wheels. Inflate air springs to 40 p.s.i. air pressure. Test for air leaks by applying a soapy solution to all valve cores, fittings and connections.

13. This now completes the installation. Before proceeding, check once again to be sure you have sufficient clearance around the bellows at maximum inflated diameter of 7.0".

14. Lower vehicle to the ground and deflate the air springs until the vehicle sits level when viewed from the side. 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 lbs. re-test for leaks with soapy water solution.

15. 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.

FAILURE TO MAINTAIN CORRECT MINIMUM PRESSURE (OR PRESSURE PROPORTION TO LOAD), BOTTOMING OUT, OVER EXTENSION OR RUBBING AGAINST ANOTHER COMPONENT WILL VOID THE WARRANTY

MAINTENANCE/OPERATION

MINIMUM AIR PRESSURE	MAXIMUM AIR PRESSURE
5 P.S.I.	100 P.S.I.

MAINTENANCE

1. Check pressure weekly.
2. Always maintain at least 5 p.s.i. air pressure to prevent chafing.
3. If you develop an air leak in the system, use a soapy/water solution to check all air line connections and the inflation valve core before removing sleeve.

OPERATING TIPS

1. 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.
2. When you are 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.

NOTE

1. IMPORTANT: For your safety and to prevent possible damage to your vehicle, do not exceed maximum load recommended by the vehicle manufacturer. Although your bellows are rated at maximum inflation pressure of 100 p.s.i., this pressure may represent too great of load on some vehicles. Check your vehicle owner's manual and do not exceed maximum loads listed for your vehicle.

2. When inflating your Air Lift bellows, add pressure in small quantities, checking pressure frequently during inflation. The bellows require much less air volume than a tire and therefore inflate much quicker.

3. Should it become necessary to raise the vehicle by the frame, make sure the system is at the minimum (5psi) to reduce the tension on suspension/brake components. **Use of on board hydraulic leveling systems or routine tire changes DO NOT require deflation or disconnection.**

Thank you for purchasing Air Lift Products

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Caution: DO NOT EXCEED THE VEHICLE MANUFACTURERS MAXIMUM GROSS VEHICLE WEIGHT RATING.

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