

RIDE CONTROL

ADJUSTABLE AIR SPRING SUSPENSION

INSTALLATION INSTRUCTIONS

P/N 59506

MN-247
(12805)
ECN2498

Please read these instructions completely before proceeding the installation. Figure 1 represents a **TYPICAL 4WD NISSAN** installation. **See page 2 for Toyota and Ford/Mazda** instructions. Your vehicle may look slightly different due to make, model or year.

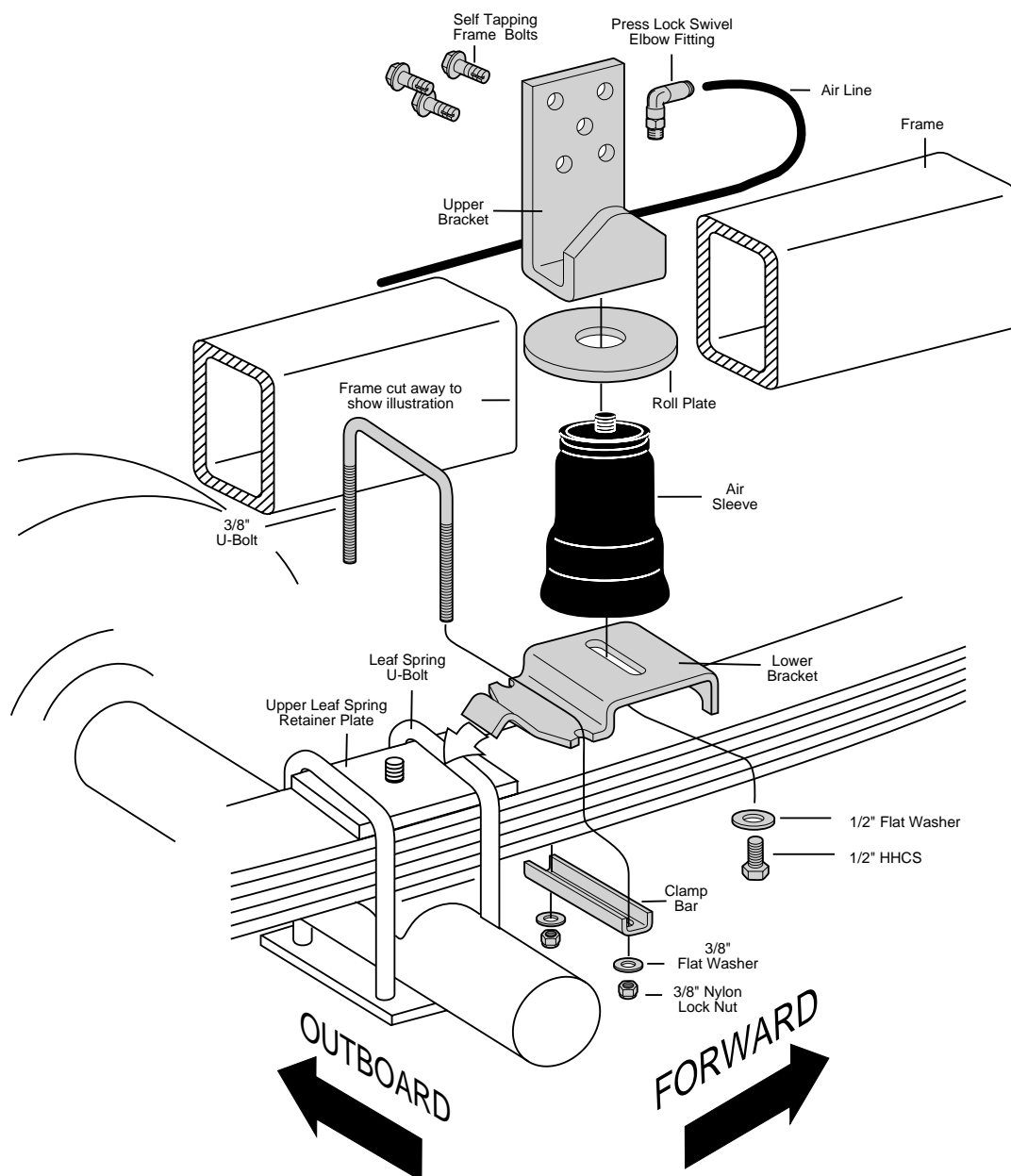


Figure 1

WARNING - DO NOT INFLATE ASSEMBLY IT IS UNRESTRICTED. ASSEMBLY MUST BE RESTRICTED BY SUSPENSION OR OTHER ADEQUATE STRUCTURE. DO NOT INFLATE BEYOND 100 P.S.I. IMPROPER USE OR OVER INFLATION MAY CAUSE ASSEMBLY TO BURST CAUSING PROPERTY DAMAGE OR SEVERE PERSONAL INJURY.

IMPORTANT: Your vehicle may be equipped with a rear brake proportioning valve. ANY type of load assist 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 rear brake proportioning valve or is equipped with an anti-lock type brake system, installation of a load assist product will have NO EFFECT ON 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 the "as delivered condition" (without camper, tool boxes, unusual load, etc.). This measurement should be recorded for later reference. **All AIR LIFT kits are designed to be installed and operated at Normal Ride Height.**

FAILURE TO MAINTAIN CORRECT MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO THE LOAD), BOTTOMING OUT, OVER-EXTENSION, OR RUBBING AGAINST ANOTHER COMPONENT WILL VOID THE WARRANTY. NORMAL RIDE HEIGHT MUST BE MAINTAINED AT ALL TIMES.

Given proper clearance side to side as well as for height, this kit will function in front of or behind the axle. It is permissible to "stagger" the air springs if necessary for fit. **Nissan and Toyota** applications will mount **forward** of the axle and **Ford and Mazda** applications mount **behind** the axle.

1. Jack up rear of vehicle or raise on hoist and remove rear wheels. Assemble the kit. Set roll plate over the thread post. Install the swivel air fitting and tighten finger tight plus two turns. This fitting is precoated with thread sealant. **Use a 7/16" open end wrench being careful to tighten on the metal hex nut only. DO NOT OVER TIGHTEN.** Now thread the upper sleeve mounting into the upper bracket until it is snug. The bracket must be tight and flat to the roll plate on both sides. Hand tight is sufficient (Figure 2).
2. LOOSELY attach the lower brackets to the bottom of the sleeve using the provided 1/2" flat washer, and the 1/2" HHCS bolt as shown in Figure 1.
3. Raise axle or lower frame until the leaf spring is at normal ride height (no load). Now install the lower bracket as shown in (Figure 1 & 3). The bracket will locate over the U-bolt for **Nissan and Toyota (Figure 1)** or over the edge of the upper spring retainer plate for **Ford and Mazda (Figure 3)**. Tighten nuts to 20 ft-lbs.

CAUTION: DO NOT DRILL HOLES INTO THE FRAME UNTIL ANY HYDRAULIC LINES, GAS LINE AND ELECTRICAL WIRES HAVE BEEN MOVED ASIDE ON BOTH SIDES OF FRAME RAIL.

4. To install the upper bracket, lower axle or raise frame until the upper bracket is in line with the lower and on the same angle as the leaf spring. The upper bracket must be parallel and perpendicular to the lower bracket. The upper bracket is designed so that it can be "tilted" for the proper angle (Figure 4). **The bottom of the upper bracket must fit tight to the bottom of the frame rail (Figure 5).** It is necessary to use

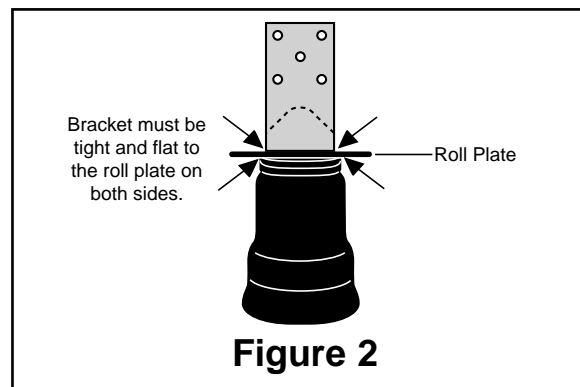


Figure 2

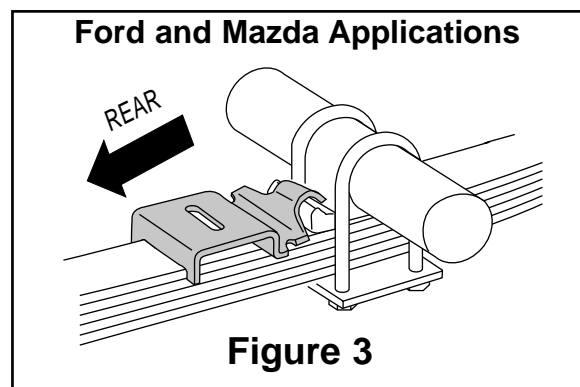


Figure 3

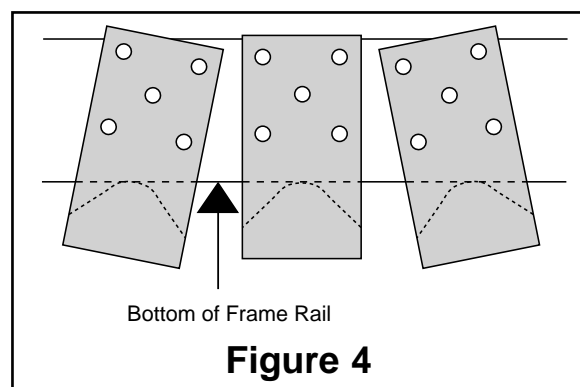


Figure 4

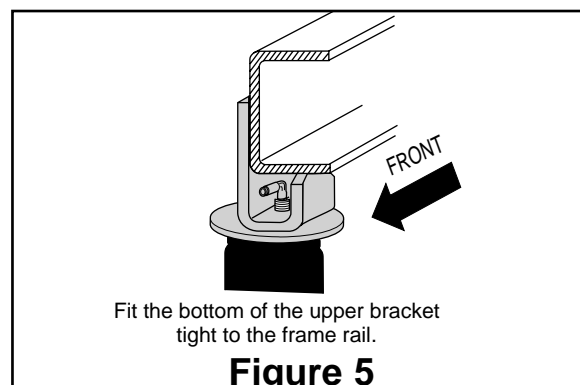
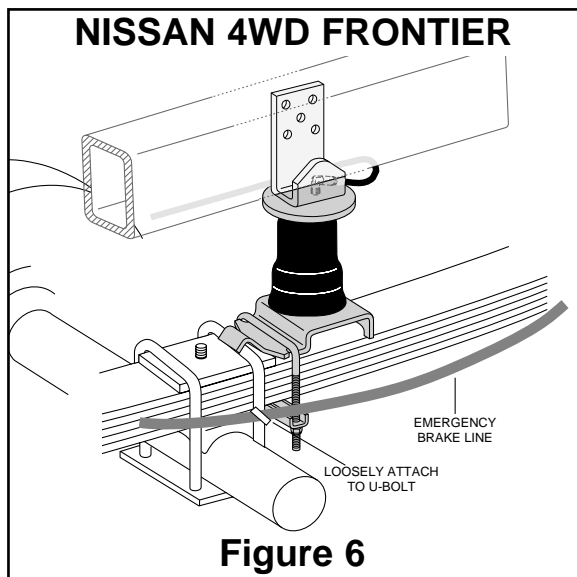
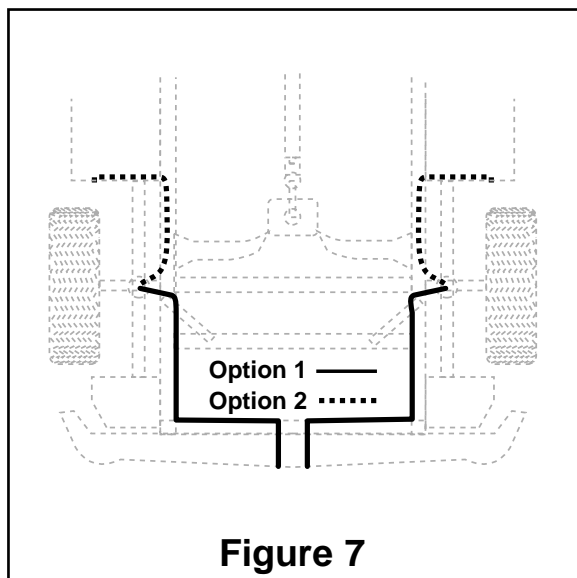


Figure 5



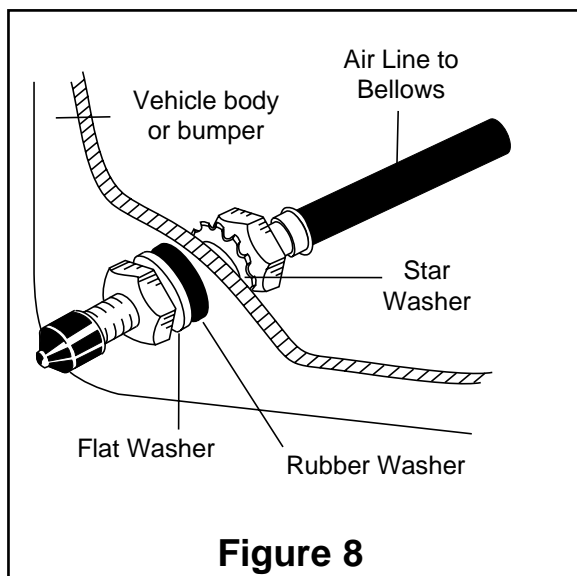
at least three of the five pre-drilled mounting holes in the upper bracket. Any combination of three is permissible. Using the bracket as a template, center punch and drill three 5/16" holes. **The holes must be no larger than 5/16".** Attach the upper bracket using the Self-Tapping Frame Bolts and tighten securely to 15 ft. lbs. (Figure 1). **DO NOT OVER-TIGHTEN.**

IMPORTANT -Your air springs will live much longer if they are not the suspension limiter in either compression or extension. The air spring compresses to 2.2" and extends to 7.1". Keeping the minimum required pressure or a pressure proportional to the load will prevent bottoming out. The shock absorber is usually the limiter on extension. If this is not the case, you should consider the use of limiting straps; especially if the vehicle is used off-road. The maximum inflated diameter of your air spring is 4.6". You must check to see that nothing is rubbing against the air spring within this diameter.

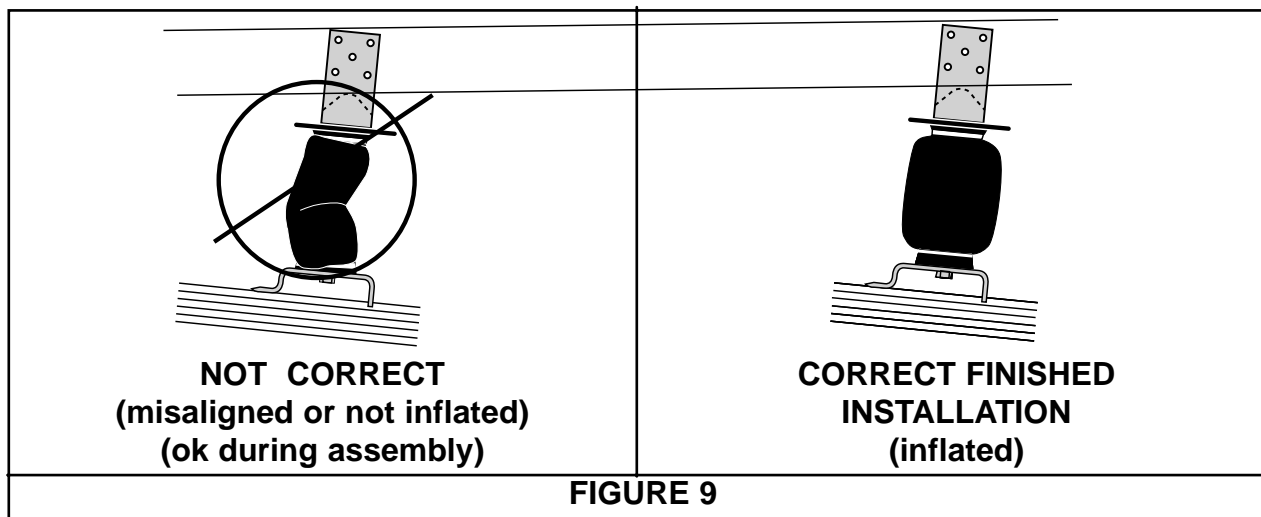


5. Select a location for the inflation valves in the rear bumper area or rocker panel flange insuring that each valve will be protected and accessible with an air hose (Figure 7).
6. Use a standard tube cutter, a razor blade, or very sharp knife to cut the air line in two equal lengths. A clean square cut will ensure against leaks. Drill 5/16" hole for inflation valve and mount as illustrated. Rubber washer on outside is for weather seal (Figure 8).
7. Route air line along frame desired inflation valve location to the air fitting (Figure 1 & 7). Attach air line to chassis with the provided plastic straps.
8. Cut off excess air line squarely and install the air line 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. You will hear/feel a definite "click" when the air line is seated (9/16" if fitting body is black).
9. Repeat process for right side.

NISSAN FRONTIER 4WD-The emergency brake line must be secured to prevent it from rubbing the air spring. Use one of the provided tie straps and LOOSELY secure to the leaf spring u-bolt (Figure 6).



10. **VERY IMPORTANT** - With the bottom still loose, inflate the sleeve to approximately 10 p.s.i. By using the slotted adjustment, center the sleeve so that it is in line with the upper and lower bracket and that there is a symmetrical cushion of air around the lower piston of the sleeve to prevent side load wear (Figure 9). Sleeve diameter grows to 4.6" at maximum inflation, check to be sure there is sufficient clearance around the sleeve when it is inflated. Tighten the lower sleeve mounting bolt to 10 ft-lbs. Do not overtighten.
11. Inflate to 30 p.s.i. Check all fittings and valve core with a soapy water solution for leaks. Recheck air pressure after 24 hours. A 2-4 p.s.i. loss after initial installation is normal. If pressure has dropped more than 5 lbs. re-test for leaks with soapy water solution. Please read and follow the Maintenance and Operating Tips. **(Make sure that the sleeve rolls down over the piston.)**



**FAILURE TO MAINTAIN MINIMUM PRESSURE, BOTTOMING OUT, OR OVER
EXTENSION WILL VOID THE WARRANTY**

MAINTENANCE/OPERATION	
MINIMUM AIR PRESSURE 10 P.S.I.	MAXIMUM AIR PRESSURE 100 P.S.I.
<p style="text-align: center;">MAINTENANCE</p> <ol style="list-style-type: none"> Check pressure weekly. Always maintain at least 10 p.s.i. air pressure to prevent chafing. If you develop an air leak in the system, use a soapy water solution to check all hose connections and the inflation valve core before removing sleeve. <p style="text-align: center;">OPERATING TIPS</p> <ol style="list-style-type: none"> 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 you are carrying a payload it will be helpful to increase the tire inflation pressure in proportion to any overload condition. <p style="text-align: center;">NOTE</p> <ol style="list-style-type: none"> IMPORTANT: For your safety and to prevent possible damage to your vehicle, do not exceed maximum load recommended by the vehicle manufacturer. Although your air springs are rated at maximum inflation pressure of 100 p.s.i., this pressure may represent too great of load for some vehicles. Check your vehicle owner's manual and do not exceed maximum loads listed for your vehicle. When inflating your air springs, add pressure in small quantities, checking pressure frequently during inflation. The air springs require much less air volume than a tire and therefore inflate much quicker. Should it become necessary to raise the vehicle by the frame, make sure the system is at minimum pressure (10psi) to reduce tension on suspension/brake components. Check to see that the sleeve rolls back down over the bottom piston after the vehicle is lowered (Figure 9). 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.). 	
<div style="display: flex; justify-content: space-between; align-items: center;">  <div style="text-align: center;"> <p><i>Thank you for purchasing Air Lift Products</i></p> <p>AIR LIFT COMPANY P.O. BOX 80167 Lansing, MI 48908-0167</p> </div> </div>	
<p>FOR TECHNICAL ASSISTANCE CALL 1-800-248-0892</p>	
<p>Caution: DO NOT EXCEED THE VEHICLE MANUFACTURERS MAXIMUM GROSS VEHICLE WEIGHT RATING.</p>	