74071

INSTALLATION INSTRUCTIONS

Thank you for choosing our Air Spring kit. It will improve the overall handling and comfort of your truck and provide trouble free service with proper installation. Please take a few minutes to read through and follow the instructions to identify the components by comparing the parts in your kit with the parts list below. Please keep in mind that the air helper springs must expand during operation, so be sure that there is enough clearance to do so without rubbing against any other part of the vehicle. Air springs are the most important part in this kit so be sure that they have enough space and properly installed. Be sure to take all applicable safety precautions during the installation. The instructions listed in this document and the illustrations show the left, or driver's side of the vehicle. To install the passenger side simply follow the same procedures. Your kit includes two sets of inflation valves and air lines for each air spring. This will allow you to level your vehicle from side to side as well as from front to back.

IMPORTANT!

- This kit requires a minimum of 7-1/2" of clearance between the tire side wall and the frame.
- Do not exceed the maximum load recommended by the vehicle manufacturer (GVWR). Maximum inflation pressure of 100 psi may allow you to carry a load that might exceed this causing possible damage to your vehicle and jeopardize your safety. We recommend you to have your vehicle weighed once it is completely loaded and compare that weight to the maximum allowed. Check your vehicle owner's manual or data plate on driver's side door for maximum loads listed for your vehicle. When inflating your Air Springs, add air pressure in small quantities and check pressure frequently during inflation. The air springs inflate much quicker since they require much less air volume than a tire.
- Do not inflate the air springs without restricting/securing the whole kit. The kit assembly must be restricted by the suspension or other adequate structure.

Do not inflate beyond 100 psi. Improper use or over inflation may cause property damage or severe personal injury.

PARTS LIST:

Air Springs TR6781	2	Hex Bolt (3/8"-16 1")	1
Upper Brackets	2	Flange Hex Bolt (3/8"-16 X 3/4")	2
Lower Brackets	2	Flat Washer (5/16")	4
Bracket Strap / Shim 1/2"	4	Flat Washer (3/8")	12
Bracket Strap / Shim 1"	4	Push To Connect Inflation Valve	2
Brake Line Bracket*	1	Push To Connect Elbow Fitting	2
Carriage Bolts (3/8"-16 x 7")	8	Thermal Sleeve	2
Hex Bolts (3/8"-16 x 1 1/2")	8	Nylon Tie	6
Flange Lock Nut (3/8"-16)	21	Air Line Tubing	

*Optional

Tools Required: (2) 9/16"& (2) 1/2"end wrenches, utility knife, electric drill, 5/16" & 3/8" drill bit.

NOTE: Both illustrations are for the left (driver's) side of the vehicle. Reverse any orientations when assembling and installing the right (passenger) side of the vehicle.

Kit Assembly

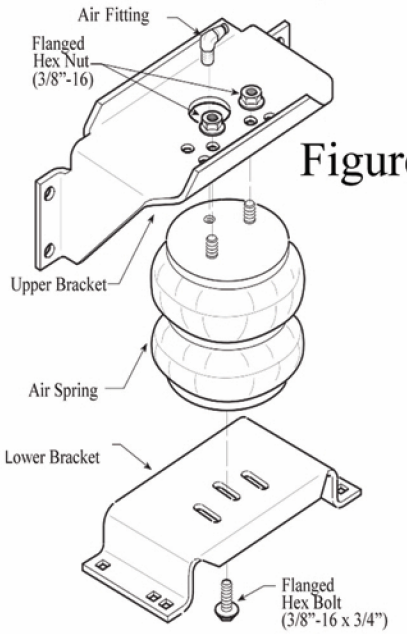
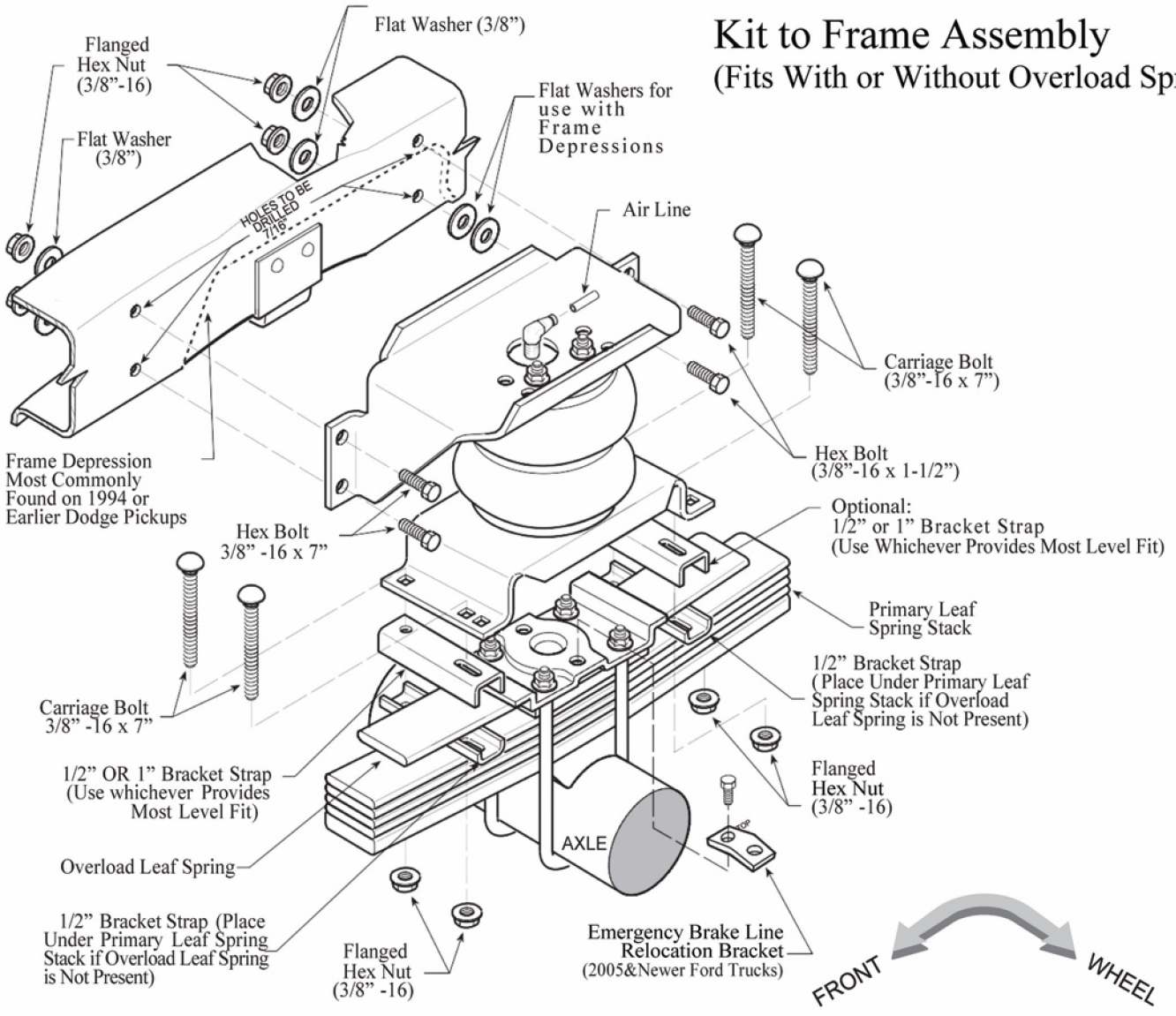


Figure 1

Notice for 1973-1987 2WD Chevrolet and GMC Pickups: The lower bracket needs to be reversed so that the lip on the side of the bracket is facing toward the center of the vehicle. The rotation of the lower bracket is to ensure proper air spring alignment. This application also is used on some Ford and Dodge Pickups.

Kit to Frame Assembly
(Fits With or Without Overload Springs)



1: Preparation

Remove the negative battery cable. Make sure there is no load in the bed of the truck. Chock the front wheels of the vehicle on solid level surface. Lift up the rear of the vehicle and remove the rear wheels. Lower the vehicle to rest on jack stands. Remove any jounce bumper bracket that is not level with frame. See “Figure 2”. Jounce bumpers located under the frame rail could be left in place.

Note for 2005 and newer for Ford Trucks: Emergency brake line bracket must be relocated with bracket using the same screw that was previously removed screws. Fasten the emergency brake line bracket to the relocation bracket using the 3/8" X 1" bolt and a 3/8" nut.

2: Preassembling the Kit

Attach the upper bracket to the air spring by aligning mounting holes and the studs of the air spring. Air inlet must be visible through the large hole in the upper bracket. Using the 3/8”-16 lock nuts fasten the upper bracket to the air spring. See Figure 1. Install the elbow fitting into the air spring through the large access hole in the upper bracket. Tighten the air fitting securely by positioning the fitting to point to the anticipated location of the air inflation valves, see Figure "1" & "5". Position the lip of one lower bracket next to the tire, see Figure "1". Fasten the lower bracket using a 3/8"-16 x 3/4" flange hex bolt by hand through the center slot into the threaded hole in the air spring.

3: Mark and Drill Holes

Position the preassembled air spring kit on the leaf spring. The lower bracket must straddle the leaf spring retainer and the upper bracket mounting flanges should level against the frame. The lower bracket may have to be raised depending on the interference with "U"-bolts, leaf spring retainer, brake drum, etc. Kit included two sets of bracket straps. These are included to provide additional clearance for the air spring and lower bracket, as well as, any other component on the vehicle. One set is 1/2" tall while the other set is 1" tall. Use the 1" shim between the lower bracket and the leaf spring stack in order to raise the air spring assembly to its maximum height. Remaining 1/2" shim will be used to clamp the assembly to the leaf spring stack, see Figure "4". The use of bracket shims is optional they may be interchanged or not used, to provide proper air spring height. Furthermore, the shims can be mixed (i.e. use the 1/2" on one side and the 1" or none on the other) to adjust for leaf spring angle.

Once the height of the lower bracket has been established, adjust the position of the upper bracket so that the mounting flanges are lined against the frame rail. You can slide the air spring over the lower bracket along its slotted connection in order to evenly level against frame. Once the brackets aligned properly and the air spring in proper alignment, tighten the 3/8"-16 x 3/4" hex bolt securing the lower bracket to the air spring.

Mounted height of the air spring should be between 5.00" - 6-1/2", that there should be at least 1-1/2" between the edge of the hole and the inside of the upper and lower frame flange, and the upper and lower brackets must be as parallel as possible, see Figure "4".

Now you can mark the four holes to be drilled with a center punch using the upper bracket as a template, then remove the air spring assembly.

Warning: Make sure all electrical, brake and fuel lines are cleared from the path of the drills. Use a piece of wood between the frame rail and any lines in the path of the drill if necessary in order to avoid any damage to the lines. Drill four holes in the frame rail using a 3/8" drill bit, see Figure "1".

4: Installation

Place the assembled air spring back on the leaf stack making sure the lower bracket is placed over the retainer, see Figure "1" & "3". Ensure Ford trucks have a 1/2" of clearance between the air spring and the emergency brake line bolt, this bolt may have to be cut down for clearance. Install the 3/8"-16 x 1 1/2" hex bolts through the upper bracket holes and the holes that were drilled in the frame rail. Fasten the upper bracket to the frame rail using the 3/8"-16 flange lock nuts and flat washers to the back side of the frame rail, Figure "1". The next step is to attach the lower bracket to the leaf spring assembly.

Use the bracket strap/shim that is not being used as a spacer or 1/2" spacer/shim if no spacer is required, and fasten the air spring assembly to the leaf stack using the 3/8"-16 x 7" carriage bolts and 3/8"-16 flanged lock nuts, see Figure "1". Insert the carriage bolt through the inner square hole on the lower bracket for narrow leaf springs. In order to install the passenger side assembly reverse the orientations and repeat the same steps.

5: Installing the Air Line and the Inflation Valve

Cut the air line tubing into two equal lengths without folding or twisting it. Cut should be as even as possible. Insert one end of the tubing into the elbow fitting installed in the top of the air spring. Push the tubing into the fitting as far as possible, see Figure "1".
Select a location on the vehicle for the air inflation valves; this could be on the bumper or the body of the vehicle, as long as the valve is not in a place that it could get damaged. Valves should be accessible for inflation, see Figure 5. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports, see Figure 6. Run the tubing from the air spring to the inflation valve, make sure it is not exposed to direct heat from the engine, exhaust pipe, and it is away from sharp edges. You can use the thermal sleeves that are inside the kit for additional protection against heat. If a thermal sleeve is necessary simply slide the sleeve over the air line tubing to the location requiring protection. The air line tubing should not be bent or curved sharply. You can secure the tubing in place with the nylon ties provided with the kit. Push the end of the air line tubing into the inflation valve as illustrated, see Figure "6".

6: Checking the Air System

Inflate the air springs to 75 psi and check the fittings for air leaks by applying a mix of soap and water. If a leak is detected at a tubing connection then check to make sure that the tube is cut as even/square as possible and that it is pushed completely into the fitting. The tubing can easily be removed from the fittings by pushing the collar towards the body of the fitting and then pulling out the tube. If a leak is detected where the brass fitting screws into the spring, remove the tubing by pushing the collar towards the body of the fitting and then pulling out the tube, then screw the brass fitting into the air spring one additional turn or until the leak stops. Reinstall the tubing and reinflate the air springs and check for leaks as noted above. Once the system is leak proof install the wheels and torque the lug nuts to the manufacturer's specifications. Raise the vehicle by the rear axle and remove the jack stands and lower the vehicle back onto the ground. Re-attach the negative battery cable and remove the wheel chocks from the wheels. Before proceeding, check once again that there is proper clearance around the air springs. With a load on your vehicle and the air springs inflated, you must have at least 1/2" clearance around the air springs. As a general rule, the air springs will support approximately 40 lbs. of load for each psi of inflation pressure (per pair). For example, 60 psi of inflation pressure will support a load of 2400 lbs. per pair of air springs.

Use only enough air pressure in the air springs to level the vehicle when viewed from the side (front to rear). This amount will vary depending on the load, location of load, condition of existing suspension and personal preference.

WARNING:

- **To prevent possible damage maintain a minimum of 5 psi in the air springs all the time.**
- Too little air pressure will allow the air spring to bottom out. Too little air pressure will also not provide the improvement in handling that is possible.
- Too much air pressure in the air springs will result in a firmer ride also air springs should never be inflated beyond 100psi.

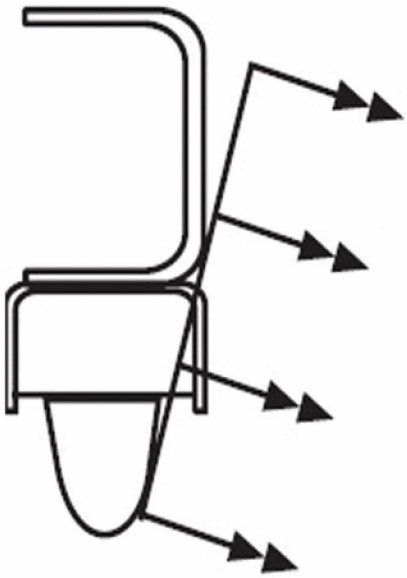


Figure 2

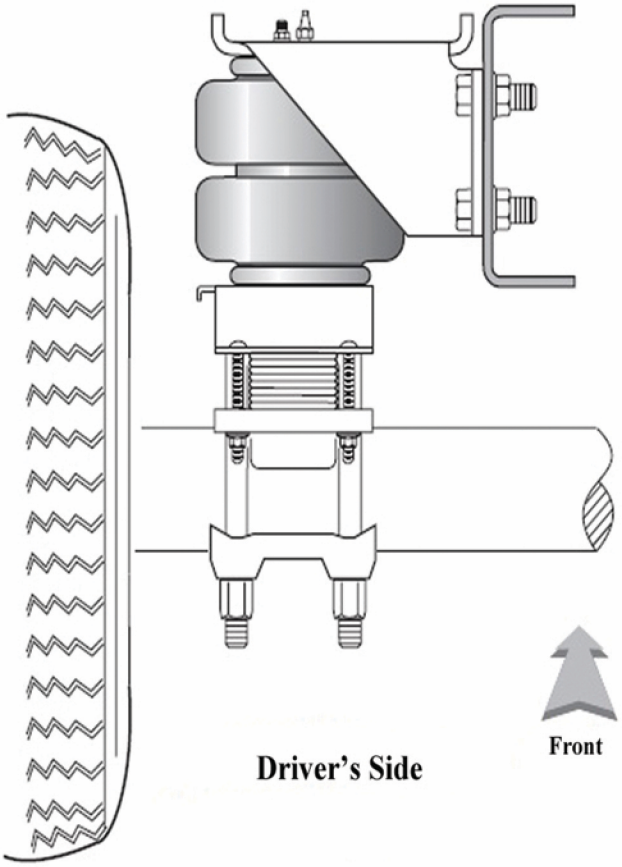


Figure 3

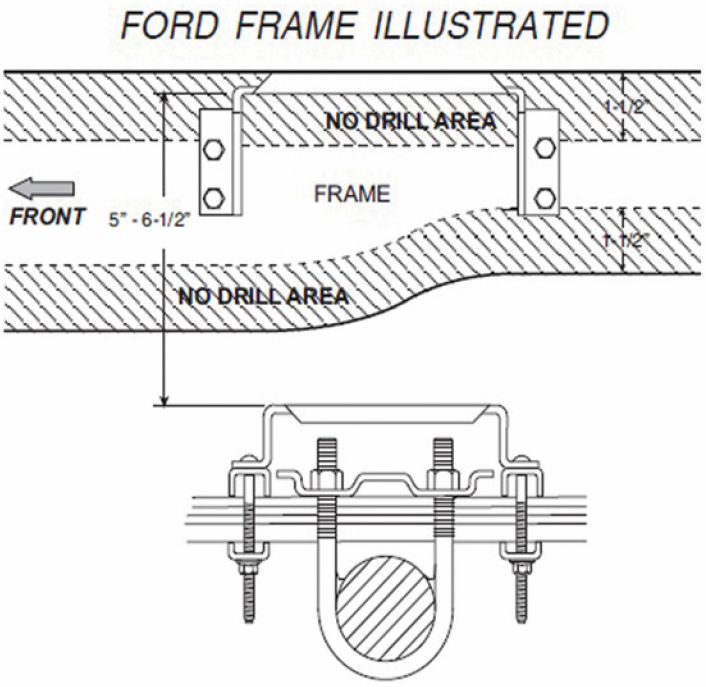


Figure 4

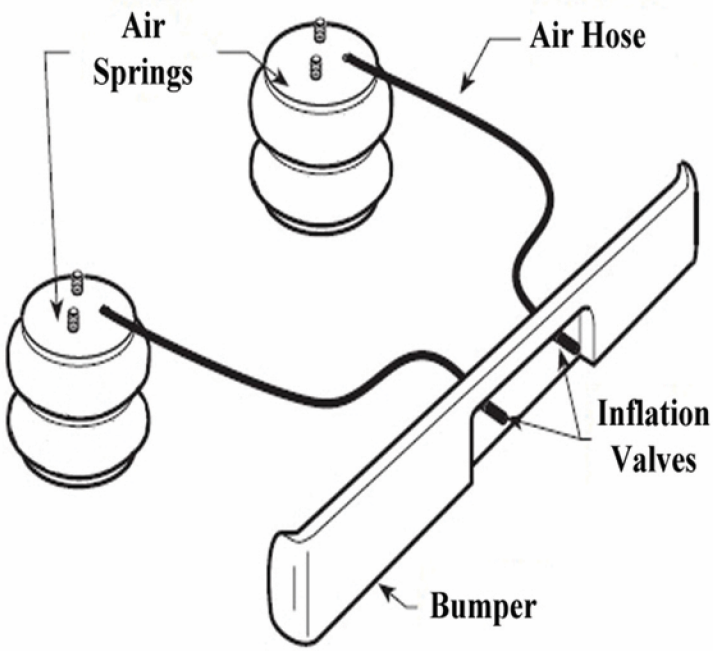


Figure 5

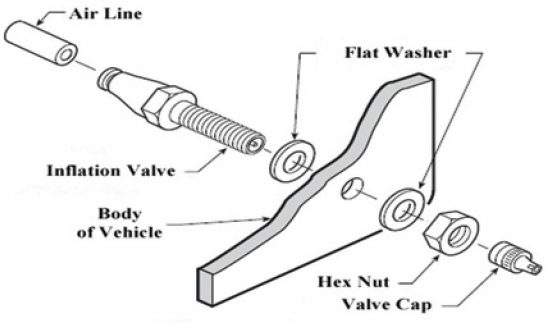


Figure 6