**WARNING!**

Do not inflate this assembly when it is unrestricted. The assembly must be restricted by the suspension or other adequate structure. Do not inflate beyond 100 P.S.I. Improper use or over inflation may cause property damage or severe personal injury.

INSTALLATION INSTRUCTIONS

Congratulations - your new Air Helper Springs are quality products capable of improving the handling and comfort of your vehicle. As with all products, proper installation is the key to obtaining all of the benefits your kit is capable of delivering. Please take a few minutes to read through the instructions to identify the components and learn where and how they are used. It is a good idea to start by comparing the parts in your kit with the parts list below.

The heart of the Air Helper Spring kit is, of course, the air helper springs. Remember that the air helper springs must flex and expand during operation, so be sure that there is enough clearance to do so without rubbing against any other part of the vehicle.

Be sure to take all applicable safety precautions during the installation of the kit. The instructions listed in this brochure and the illustrations all show the left, or driver's side of the vehicle. To install the right side assembly simply follow the same procedures.

Your kit includes separate inflation valves and air lines for each air helper spring. This will allow you to level your vehicle from side to side as well as from front to back. If you would rather have a single valve inflation system, your dealer can supply the required "T" fitting.

IMPORTANT!

For your safety and to prevent possible damage to your vehicle, do not exceed the maximum load recommended by the vehicle manufacturer (GVWR). Although your Air Helper Springs are rated at a maximum inflation pressure of 100 psi, this pressure may allow you to carry too great a load on some vehicles. It is best 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 side door for maximum loads listed for your vehicle.

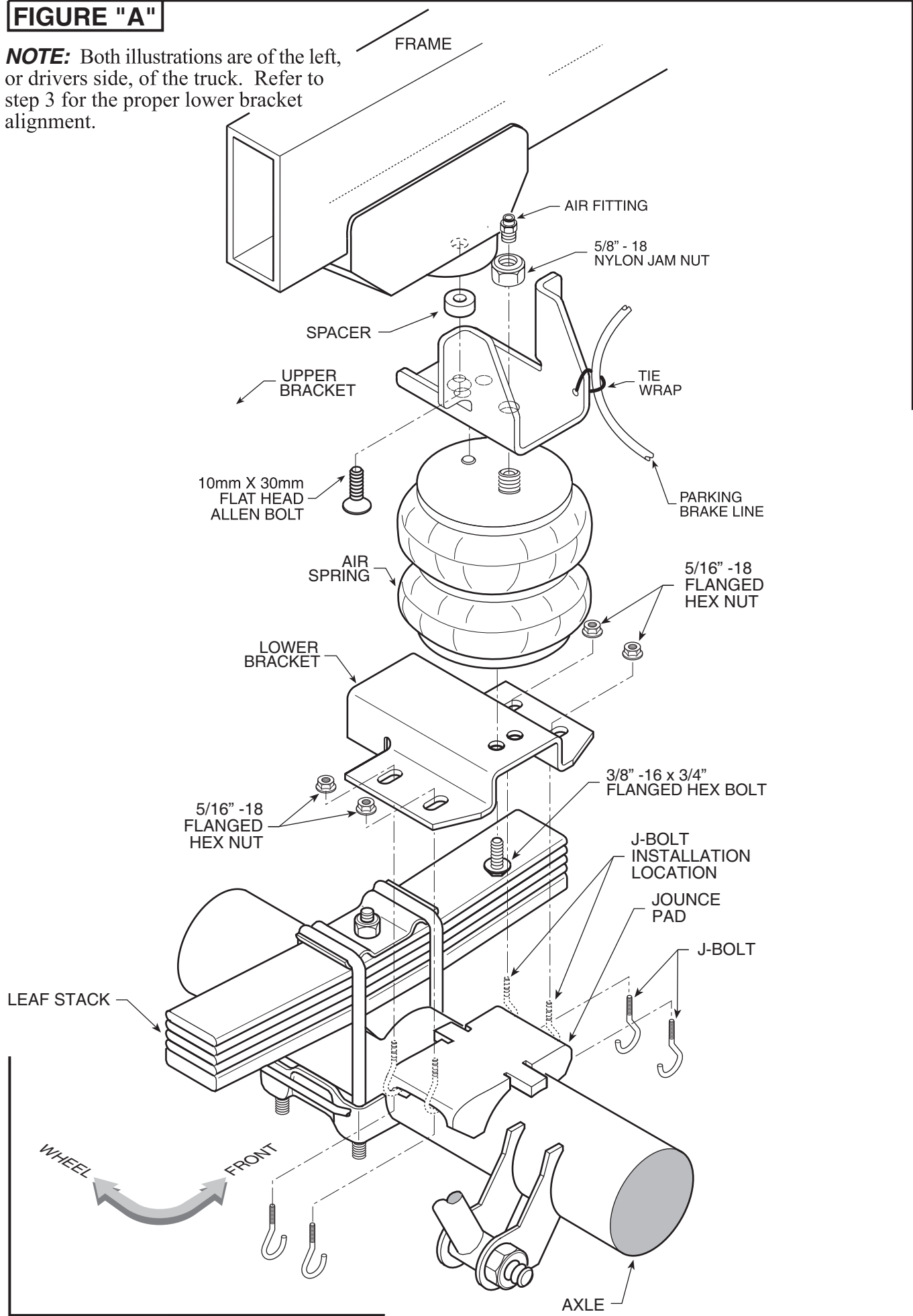
When inflating your Air Helper Springs, add air pressure in small quantities, checking pressure frequently during inflation. The air spring requires much less air volume than a tire and, therefore, inflates much quicker.

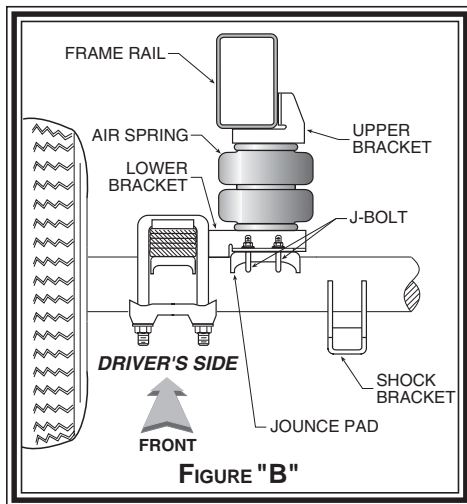
PARTS LIST

AIR SPRING	6397	2	5/16" -18 FLANGED LOCK NUT	8
UPPER BRACKET	5528	2	5/16" FLAT WASHER	4
LOWER BRACKET	5529	2	18 ft. TUBING	0938 1
SPACER	5224	2	INFLATION VALVE	3032 2
10MM X 50MM FLAT HEAD BOLT		2	MALE FITTING	3055 2
3/8" -16 X 3/4" FLANGED HEX BOLT		2	THERMAL SLEEVE	0899 2
J-BOLT		8	NYLONTIES	6
5/8" -18 JAM NUT		2	CAUTION TAG	2

FIGURE "A"

NOTE: Both illustrations are of the left, or drivers side, of the truck. Refer to step 3 for the proper lower bracket alignment.





STEP 1 - PREPARE THE VEHICLE / UPPER BRACKET INSTALLATION

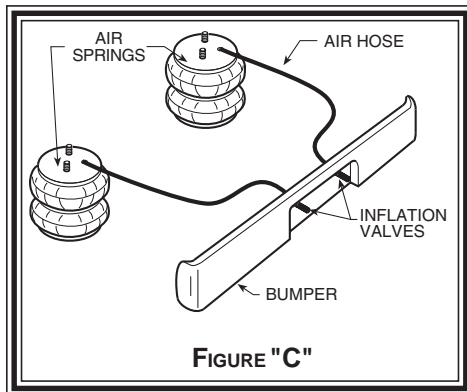
This installation assumes that there is no load in the bed of the truck. It is not necessary to remove the wheels for installation of this kit.

Your vehicle is equipped with rubber jounce bumpers. The bumpers are attached to the frame directly above the axle. Remove these bumpers by unbolting from the frame. This bumper will not be reused with this kit.

Attach the upper bracket to the frame where the jounce bumper was removed using the 10MM X 50MM flat head bolt, placing the spacer between the upper bracket and the frame, as *shown in Figure "A"*.

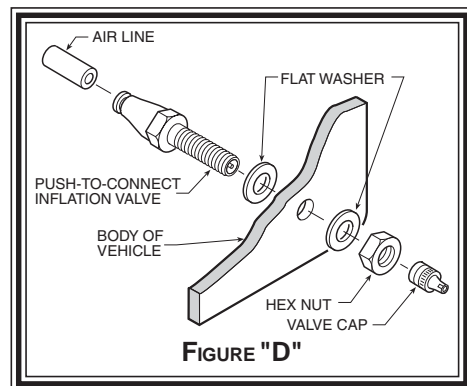
STEP 2 - PRE-ASSEMBLE THE KIT

Pre-assembly will begin with the left (driver's) side of the vehicle. All pictures depict the installation on the left side of the vehicle unless noted otherwise. Attach the lower bracket to the air spring using a 3/4" flange hex bolt. Be sure that the lower bracket is attached to the air spring so that the bracket orientation is perpendicular to the leaf stack. *See Figures "A" & "B"*.



STEP 3 - INSTALL THE ASSEMBLY TO THE VEHICLE

Place the air spring assembly on top of the jounce bumper pad on the axle housing, with the narrow end inserted inbetween the axle u-bolts. Insert the large stud on the air spring into the large hole in the upper bracket. *See Figures "A" & "B"*. The alignment pin on the air spring will be inserted into one of the small holes in the upper bracket. Use which ever hole provides the best alignment. Secure the air spring to the upper bracket using the 5/8" jam nut. Install the air fitting into the large stud on the air spring and tighten it enough to engage the orange thread sealant, *see Figure "A"*. **On the driverside only, the parking brake line will need to be tie-wrapped to the upper bracket, *see Figure "A"*.**



With the assembly attached to the frame rail, the next step is to attach the lower bracket to the jounce pad on the axle housing. Center the lower bracket on the jounce pad. Use the J-bolts and 5/16" -18 flanged lock nuts to secure the lower bracket to the jounce pad *see Figures "A" & "B"*. Spin the nuts on as far as possible by hand. While making sure that the lower bracket stays centered on the jounce pad, tighten each nut two turns at a time with a wrench, switching to opposite nuts to ensure that the bracket is mounted evenly on the jounce pad.

Important: *In order for the air spring to function properly, there must be a minimum of 1/2" of clearance around the air spring.*

STEP 4 - INSTALL THE PASSENGER'S SIDE ASSEMBLY

Follow steps 2 - 5 for assembly and installation of the passenger's side assembly.

STEP 5 - INSTALL THE AIR LINE AND INFLATION VALVE

Uncoil the air tubing and cut it in two equal lengths. **DO NOT FOLD OR KINK THE TUBING.** Make the cut as square as possible. Insert one end of the tubing into the push-to-connect male fitting installed in the top of the air helper spring as far as possible.

Select a location on the vehicle for the air inflation valves. The location can be on the bumper or the body of the vehicle, as long as it is in a protected location so the valve will not be damaged, but still maintain accessibility for the air chuck *see Figure "C"*. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports *see Figure "D"*. Run the tubing from the air helper spring to the valve, routing it to avoid direct heat from the engine, exhaust pipe, and away from sharp edges. Thermal sleeves have been provided for these conditions. The air line tubing should not be bent or curved sharply as it may buckle. Secure the tubing in place with the nylon ties provided. Push the end of the air line tubing into the inflation valve *see Figure "D"*.

STEP 6 - CHECK THE AIR SYSTEM

Once the inflation valves are installed, inflate the air helper springs to 70 *psi* and check the fittings for air leaks. Using a spray bottle, apply a solution of soap and water to the fittings. If a leak is detected at a airline tubing connection then check to make sure that the airline tube is cut as square as possible and that it is pushed completely into the fitting. The airline tubing can easily be removed from the fittings by exhausting all the pressure in the air springs and then pushing the collar towards the body of the fitting and then, with a pull, remove the airline tubing. Reinstall the tubing and reinflate the air springs and check for leaks as noted above. If a leak is detected where the air fitting screws into the spring, just screw the air fitting into the air spring until the leak stops.

This now completes the installation. Reattach the negative battery cable and remove the wheel chocks from the front wheels. Before proceeding, check once again to be sure you have proper clearance around the air springs. With a load on your vehicle and the air helper springs inflated, you must have at least 1/2" clearance around the air springs. As a general rule, the air helper springs will support approximately 50 lbs. of load for each psi of inflation pressure (per pair). For example, 50 psi of inflation pressure will support a load of 2500 lbs. per pair of air helper springs. *FOR BEST RIDE* use only enough air pressure in the air helper 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.

NOTE:

Too much air pressure in the air helper springs will result in a firmer ride, while too little air pressure will allow the air helper spring to bottom out over rough conditions. Too little air pressure will also not provide the possible improvement in handling. ***TO PREVENT POSSIBLE DAMAGE, MAINTAIN A MINIMUM OF 5 P.S.I. IN THE AIR HELPER SPRINGS AT ALL TIMES.***

NOTE:

Once the air helper springs are installed, it is recommended that the vehicle not be lifted by the frame, as over-extension may occur, resulting in damage to the air helper springs. However, should it become necessary to raise the vehicle by the frame, deflate both air helper springs completely.

NOTE:

MIN PRESSURE 5 PSI

MAX PRESSURE (LOADED) 100 PSI



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