

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 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 P.S.I., this pressure may allow you to carry too great a load on some vehicles. Check your vehicle owner's manual 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.

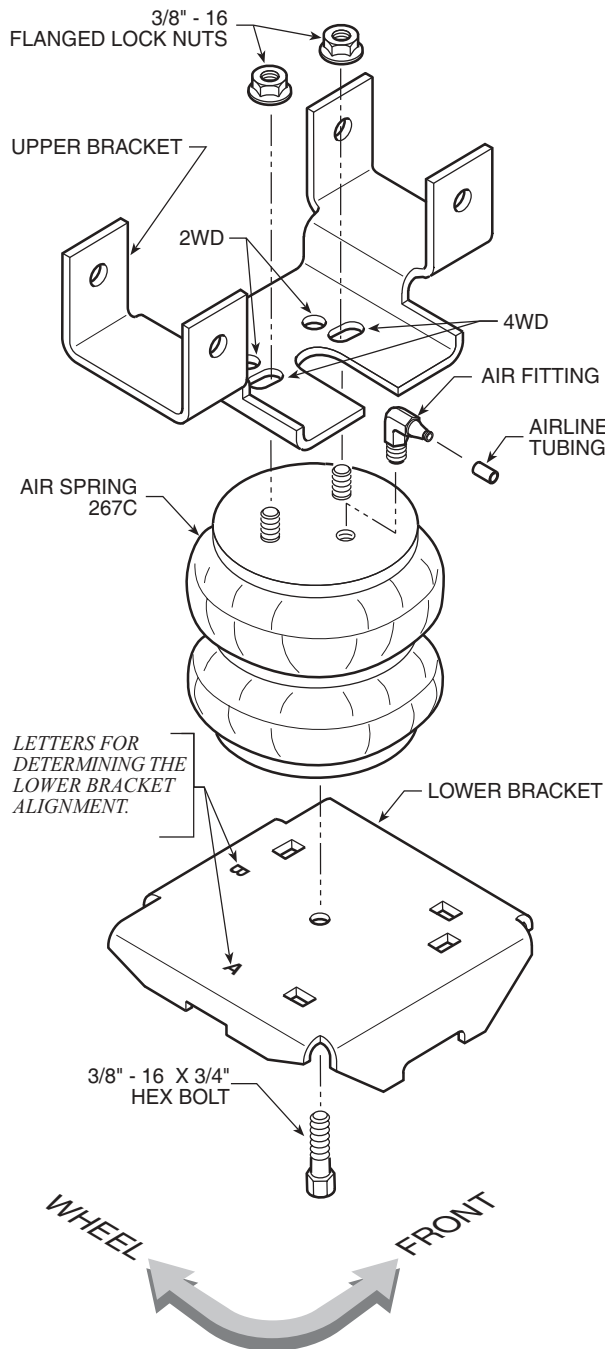
PARTS LIST

AIR SPRING	6781	2	3/8"-16 X 4" HEX BOLT	4
UPPER BRACKET	5178	2	3/8"-16 FLANGE LOCK NUT	12
LOWER BRACKET	5214	2	3/8"-16 X 3/4" HEX BOLT	2
FRAME BRACE	5180	2	3/8"-16 X 7" CARRIAGE BOLT	4
BRACKET CLAMP	5181	2	5/16" FLAT WASHER	4
18 ft. TUBING	0938	1	HEAT SHIELD	1004 1
PUSH-TO-CONNECT INFLATION VALVE	3032	2	THERMAL SLEEVE	0899 2
PUSH-TO-CONNECT ELBOW	3031	2	NYLON TIE	6

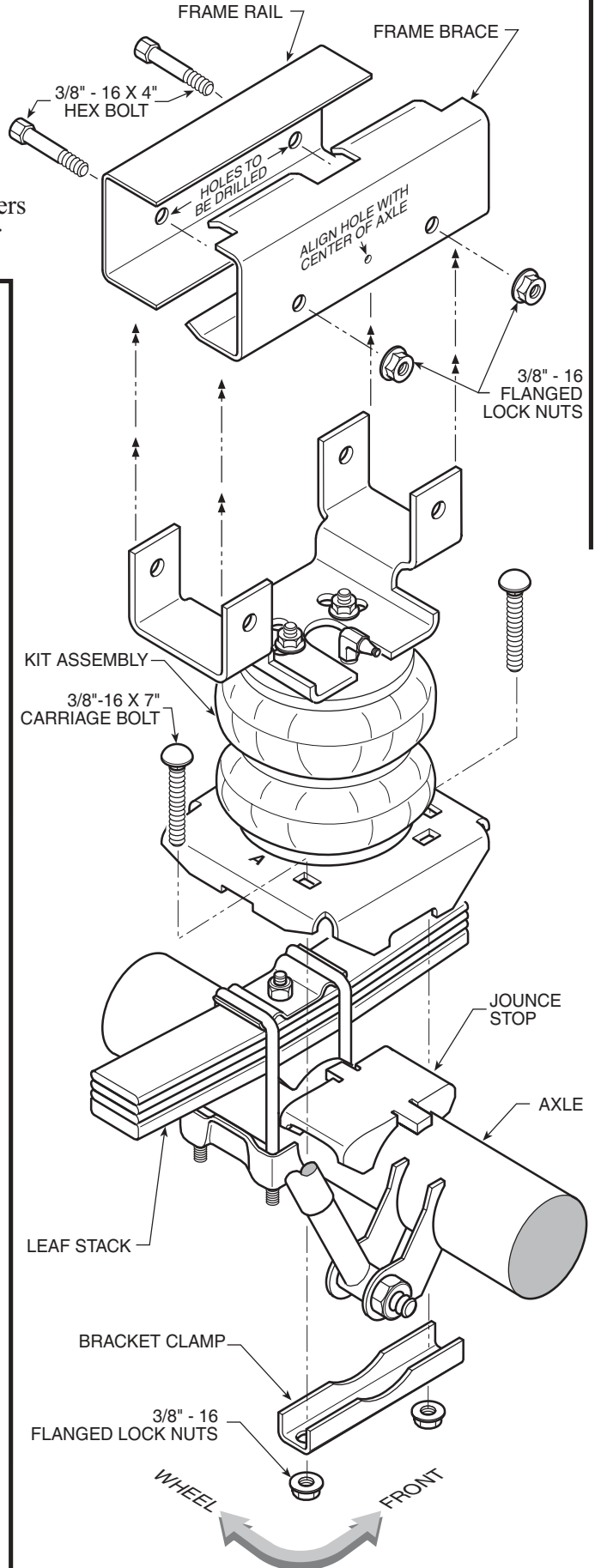
FIGURE "A"

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

KIT ASSEMBLY



KIT TO FRAME ASSEMBLY



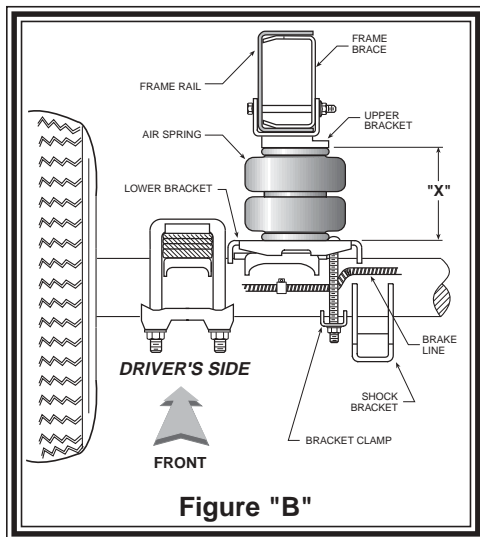


Figure "B"

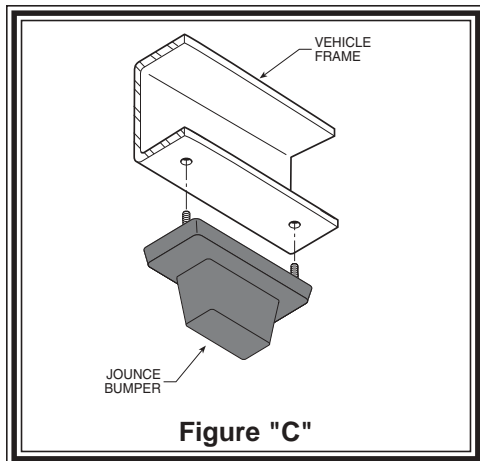


Figure "C"

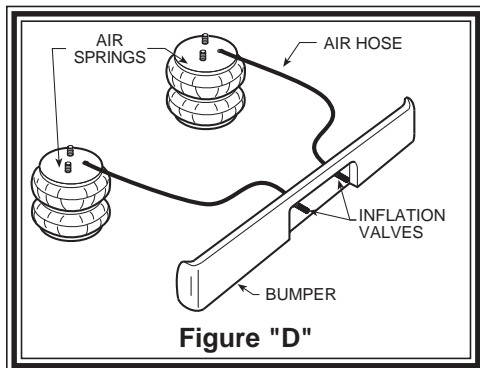


Figure "D"

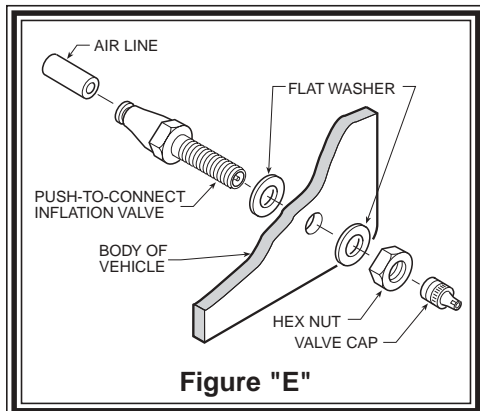


Figure "E"

STEP 1 - PREPARE THE VEHICLE

With the vehicle on a solid, level surface chock the front wheels. Remove the positive battery cable. Raise the vehicle by the axle and remove the rear wheels. After the removal of the wheels lower the vehicle so the axle rests on jack stands rated for your vehicles weight. Remove the jounce bumper located under the frame rail *see Figure "C"*.

STEP 2 - PRE-ASSEMBLE THE KIT

NOTE: The illustrations *see Figure "A"* refer to the assembly of the brackets to the air helper spring for 4WD applications.

Select one air helper spring from your kit. Install the elbow fitting into the air spring. Tighten the air fitting securely to engage the orange thread sealant. Position the fitting to point to the anticipated location of the air inflation valves, *see Figure "A" & "D"*. Install the upper bracket by inserting the air helper spring studs into the slots *see Figure "A"*. To install this kit to 2WD vehicles insert the air helper spring studs in the upper bracket holes *see Figure "A"*. This is done to assure proper air helper spring alignment on 2WD vehicles. Fasten the lower bracket to the air helper spring using a 3/8"-16 hex bolt finger tight *see Figure "A"*. (**NOTE:** *this bolt will be tightened later in this step.*) Note the different lengths of the bracket legs. To determine the position of the lower bracket, pre-fit the kit to the vehicle. Place the kit in position on the driver's side *see Figure "A" & "B"*. Check the "X" dimension *see Figure "B"*. The distance between the upper and lower bracket ("X" dimension) should be between 5"-6 1/2". The lower bracket can be turned so that the long legs or short legs can be used. If the "X" dimension is less than 5" *see Figure "B"*, rotate the bracket so that the letter "A" stamped on the bracket is butted against the leaf stack. Once the lower bracket orientation has been set, tighten the 3/8"-16 x 3/4" hex bolt securely.

STEP 3 - INSTALLING THE ASSEMBLY TO THE VEHICLE

Place the assembly on the driver's side on top of the axle housing *see Figures "A" & "B"*. Visually align the air spring so that it is aligned over the axle. Slide the upper bracket onto the frame rail and use the holes in the bracket as a template to mark the holes to be drilled in the frame rail. *Before drilling the holes make sure all electrical, brake and fuel lines are cleared from the path of the drill.* In order to prevent any damage to these lines it is recommended to remove the supports holding these lines and place a thin piece of wood between the frame rail and the existing lines. After drilling the holes re-attach the line supports.

Insert the frame brace being careful not to pinch any of the existing lines inside the frame rail. Slide the upper bracket onto the frame rail and frame brace making sure that all the holes line up *see Figures "A" & "B"*. Attach the upper bracket with the 3/8"-16 x 4" hex bolts.

With the pre-assembly attached to the frame rail the next step is to attach the lower bracket to the axle housing using the 3/8"-16 x 7" carriage bolts and bracket clamp *see Figures "A" & "B"*.

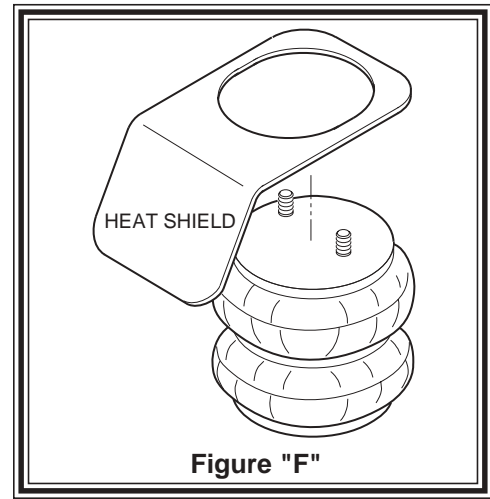
STEP 4 - INSTALLATION OF THE PASSENGER'S SIDE ASSEMBLY

Follow steps 1-5 for assembly and installation of the passenger's side assembly. **Note:** *The use of a heat shield is required on the passenger's side of the vehicle see Figure "F"*. The heat shield will mount between the upper bracket and the air helper spring. Angle the heat shield so it will fall halfway between the air helper spring and the closest point on the exhaust. Be sure that the heat shield will not contact any other component as the suspension compresses. (*i.e.* brake lines, shock absorbers, lower bracket assembly)

STEP 5 - INSTALL THE AIR LINE AND INFLATION VALVE

Uncoil the air tubing and cut it into two equal lengths. *DO NOT FOLD OR KINK THE TUBING*. Try to make the cut as square as possible. Insert one end of the tubing into the elbow fitting installed in the top of the air helper spring. Push the tubing into the fitting as far as possible *see Figure "A"*.

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 maintain accessibility for the air chuck *see Figure "D"*. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports *see Figure "E"*. 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 as illustrated *see Figure "E"*.



STEP 6 - CHECK THE AIR SYSTEM

Once the inflation valves are installed inflate the air helper springs to 70 P.S.I. and check the fittings for air leaks with an applied solution of soap and water. If a leak is detected at a tubing connection then check to make sure that the tube is cut as 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 elbow fitting screws into the spring, remove the tubing, then screw the elbow into the spring one additional turn or until the leak stops. Reinstall the tubing and reinflate the air springs and check for leaks as noted above.

This now completes the installation. Install the wheels and torque the lug nuts to the manufacturer's specification. Raise the vehicle by the axle and remove the jack stands. Lower the vehicle to the ground. Re-attach the positive 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 P.S.I. of inflation pressure (per pair). For example, 50 P.S.I. of inflation pressure will support a load of 2500 lbs. per pair of air helper springs. *FORBESTRIDE* 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 improvement in handling that is possible. ***TO PREVENT POSSIBLE DAMAGE MAINTAIN A MINIMUM OF 10 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.