

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 psi. 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 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's side door for maximum loads listed for your vehicle.

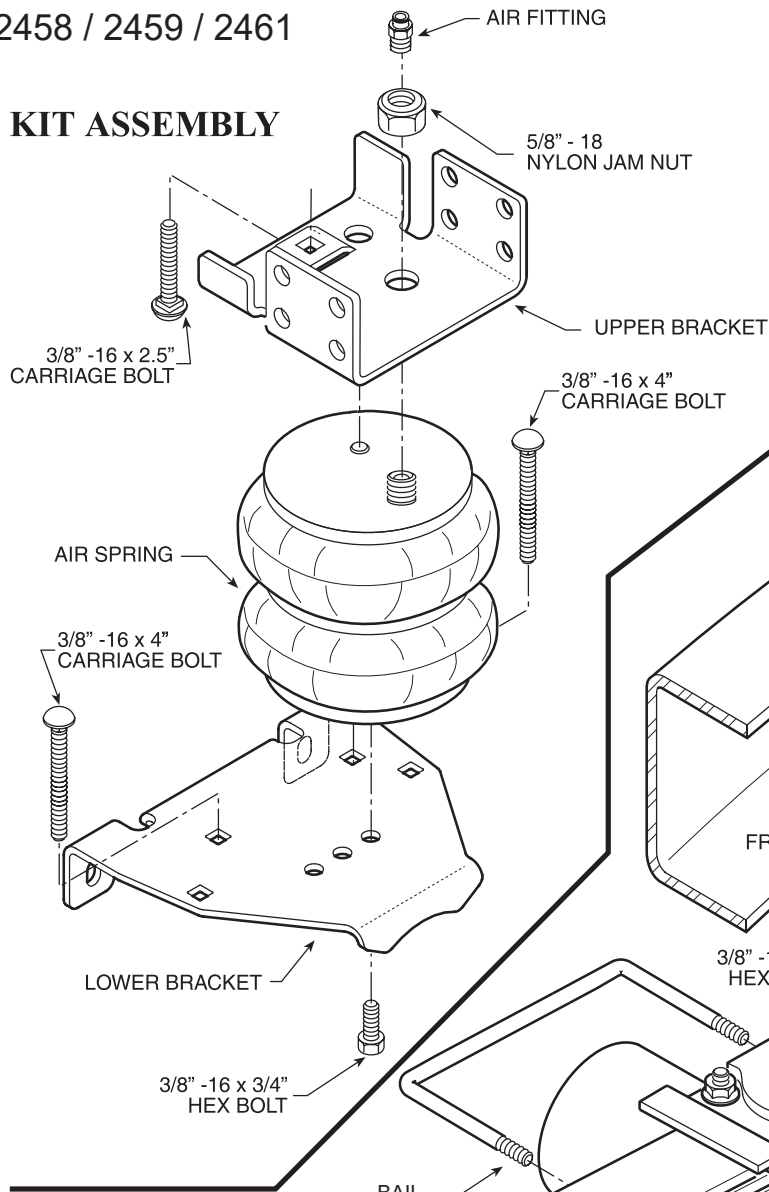
When inflating your Air Helper Springs, add air pressure in small quantities, checking pressure frequently during inflation. The air spring requires much less air volume than a tire and, therefore, inflates much quicker.

PARTS LIST

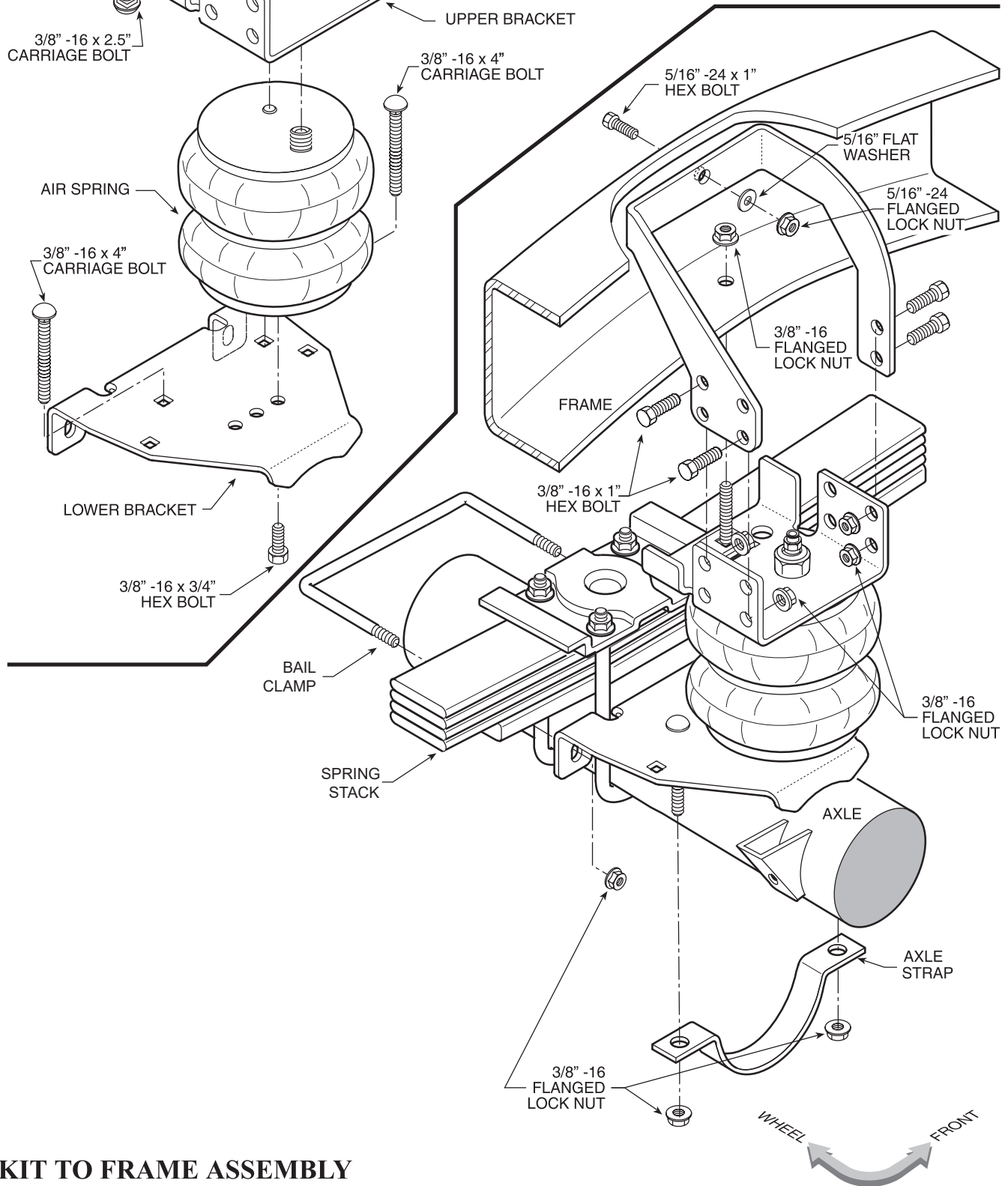
267C1.5 AIR SPRING	6397	2	3/8"-16 x 2.5" CARRIAGE BOLTS	2
LEFT UPPER BRACKET	5440	1	3/8"-16 x 4" CARRIAGE BOLTS	4
LEFT UPPER BRACE	5442	1	5/8"-18 NYLON JAM NUT	2
RIGHT UPPER BRACKET	5441	1	5/16"-24 X 1" HEX HEAD BOLT	2
RIGHT UPPER BRACE	5443	1	5/16"-24 FLANGE LOCK NUT	2
LOWER BRACKETS	5564	2	5/16" FLAT WASHER	4
AXLE STRAP	1163	2	PUSH TO CONNECT	
HEAT SHIELD		1	INFLATION VALVE	2
HOSE CLAMP		2	PUSH TO CONNECT	
AIR LINE TUBING		1	AIR FITTING	2
3/8"-16 BAIL CLAMP		2	THERMAL SLEEVE	2
3/8"-16 FLANGE LOCK NUT		18	NYLON TIE	6
3/8"-16 X 1" HEX BOLT		8	CAUTION TAG	2
3/8"-16 X 3/4" HEX BOLT		2		

FIGURE "A"

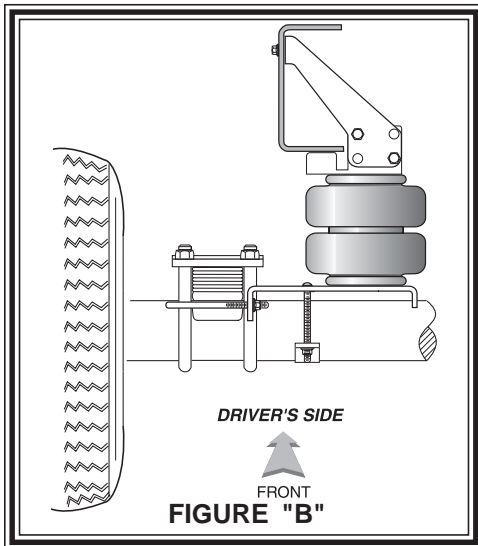
KIT ASSEMBLY



NOTE: Both illustrations are of the left, or drivers side, of the vehicle. Reverse any orientations when assembling and installing the right, or passenger, side of the vehicle.



KIT TO FRAME ASSEMBLY

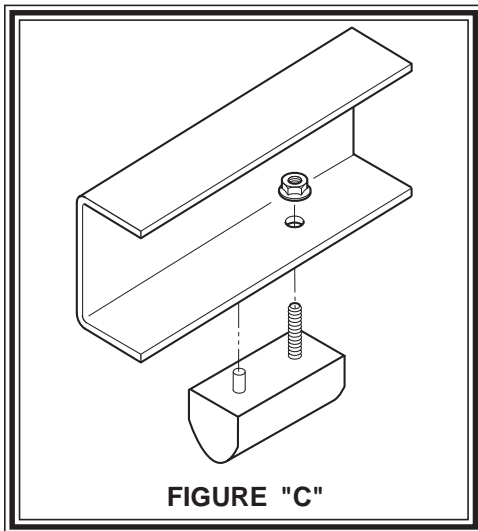


STEP 1 – PREPARE THE VEHICLE

With the vehicle on a solid, level surface chock the front wheels. Remove the jounce bumper located under the frame rail, *see Figure “C”*. The jounce bumpers and nuts will not be reused with this kit.

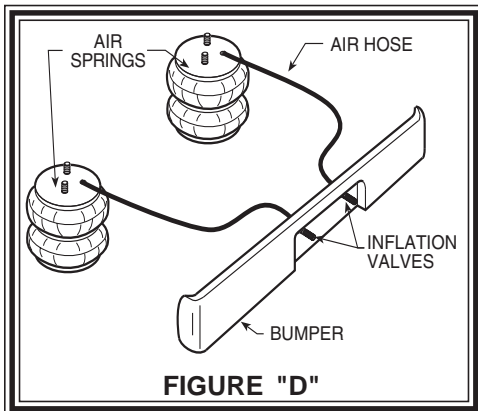
STEP 2 – PRE-ASSEMBLE THE KIT

This kit contains two different upper brackets, one for the left side and one for the right side. Preassembly will begin with left side of the vehicle. All pictures depict the installation on the left side unless noted otherwise. Install one 3/8" -16 x 2-1/2" carriage bolt into the upper bracket, *see Figure “A”*. Next, select one of the air springs and install the upper left bracket using the 5/8" -18 Nylon jam nut. Install the air fitting as shown in *Figure “A”*. Tighten the air fitting securely to engage the orange thread sealant. Select a lower bracket and then insert two 3/8" -16 x 4" carriage bolts through the square holes towards the center of the bracket. Next, secure the lower bracket to the air spring assembly using the 3/8" -16 x 3/4" hex head bolt as shown in *Figure “A”*. Double check the orientation of both brackets before attempting installation.



STEP 3 – INSTALL ASSEMBLY ON THE VEHICLE

Insert the 2-1/2" carriage bolt from the upper bracket assembly through the hole provided by the removal of the jounce bumper. Make sure that the brake line bracket is inserted over the carriage bolt. Place the lower bracket on top of the axle and position it so that it is flush against the spring stack, and around the U-bolts that secure the axle. Once properly positioned, fasten the upper bracket to the frame using a 3/8" -16 flange lock nut. Attach the upper left brace to the upper bracket using four 3/8" -16 x 1" bolts and 3/8" -16 flange lock nuts as shown in *Figure “A”*. Next, insert the 5/16" -24 X 1" hex bolt and flat washer in the upper left brace through the frame. Secure using a 5/16" -24 flanged lock nut. Insert the 3/8" -16 bail clamp from the outside of the spring stack, into the holes in the legs of the lower bracket. Secure the bail clamp to the lower bracket using two 3/8" -16 flange lock nuts. Attach the lower bracket to the axle using the 3/8" -16 x 4" carriage bolts installed earlier, a axle strap, and two 3/8" -16 flange lock nuts, as shown in *Figure “A” and “B”*.

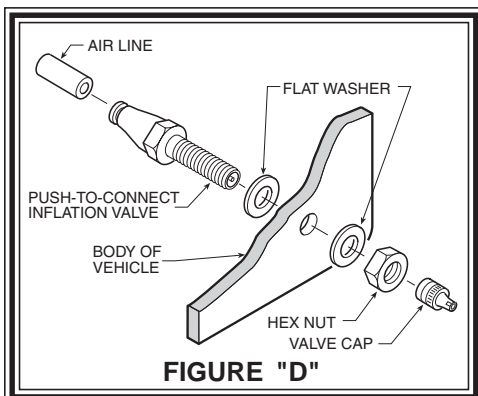


STEP 5 – INSTALLATION OF PASSENGER'S SIDE

Follow steps 1-3 for assembly and installation of the passenger's side assembly. *Note, reverse any orientations for the passenger's side installation.*

STEP 6 – INSTALL THE AIR LINE AND INFLATION VALVE

Uncoil the air line 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; please refer to *Figure “A”*.



Select a location on the vehicle for the air inflation valves. The location can be on the bumper or on 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, please see *Figure "D"*. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports, please see *Figure "E"*. Run the air line from the air helper spring to the inflation valve, routing it to avoid direct heat from exhaust pipe and away from sharp edges. The air line should not be bent or curved sharply as it may buckle with age. Secure the air line in place with the nylon ties provided. Push the end of the air line into the inflation valve as illustrated in *Figure "E"*.

STEP 7 – CHECK THE AIR SYSTEM

Once the inflation valves are installed inflate the air helper springs to 50 psi 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 air line can easily be removed from the fittings by pushing the collar towards the body of the fitting and then pulling out the air line. If a leak is detected where the fitting screws into the air spring, remove the air line then screw the fitting into the spring until the leak stops. Re-install the air line and re-inflate the air spring and check for leaks as noted above.

This now completes the installation. 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 30 lbs. of load for each psi of inflation pressure (per pair). For example, 50 psi of inflation pressure will support a load of approximately 1500 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 road conditions. Too little air pressure will also not provide the improvement in handling that is possible. **TO PREVENT POSSIBLE DAMAGE MAINTAIN A MINIMUM OF 5 PSI IN THE AIR HELPER SPRINGS AT ALL TIMES.** Once the 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