**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 kit is, of course, the air springs. Remember that the air 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.

**PARTS LIST**

AIR SPRINGS	6781	2	PUSH TO CONNECT		
UPPER BRACKETS	5289	2	INFLATION VALVES	3032	2
LOWER BRACKETS	5267	2	PUSH TO CONNECT		
BRACKET STRAPS	5086	2	ELBOW FITTINGS	3031	2
18' AIR LINE TUBING		1	NYLON TIES		6
3/8"-16 X 1-1/2" HEX BOLTS		8	THERMAL SLEEVES		2
3/8"-16 FLANGE LOCK NUTS		16			
3/8"-16 X 3/4" HEX BOLTS		2			
3/8" SPECIAL FLAT WASHERS		8			
3/8"-16 X 3-1/2" CARRIAGE BOLTS		4			
5/16" FLAT WASHERS		4			

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.

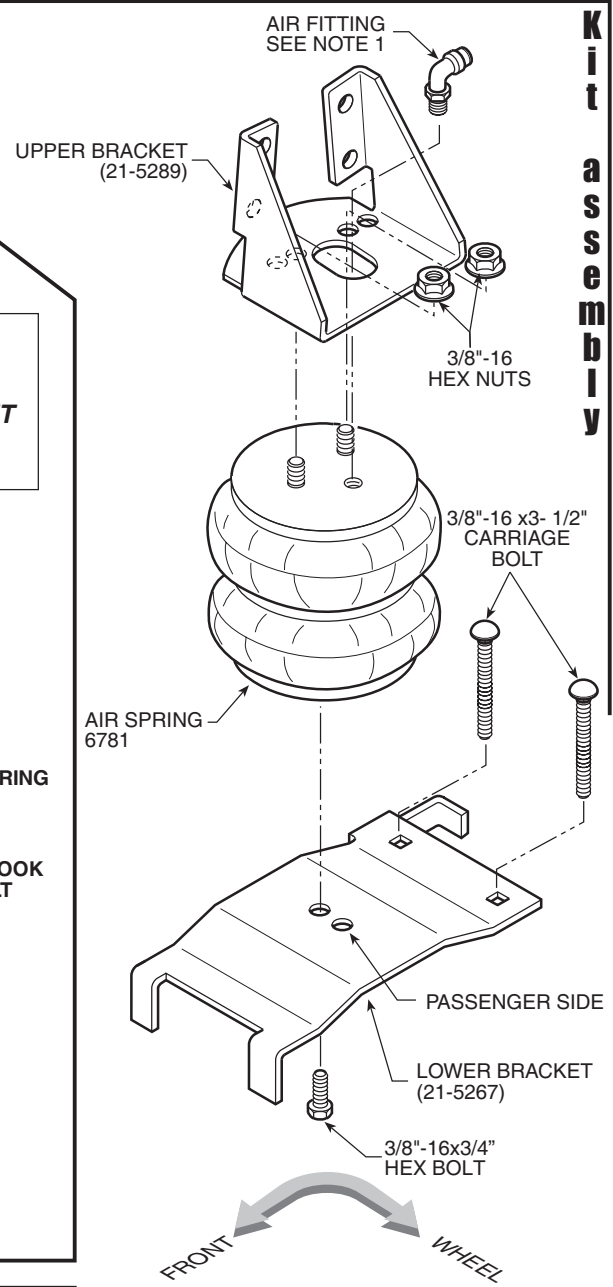
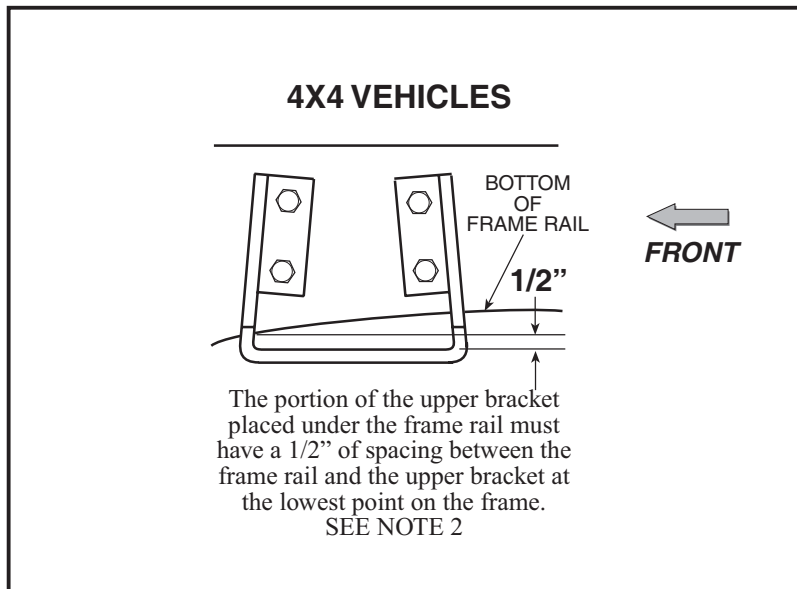
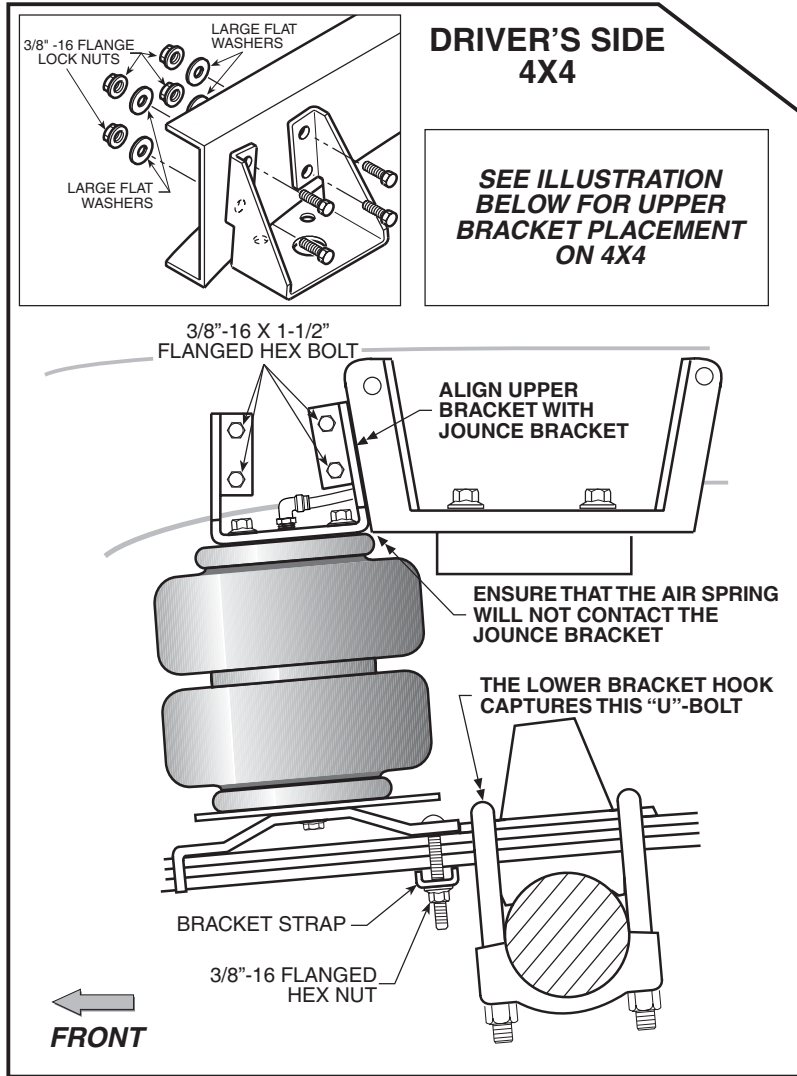
**IMPORTANT!**

*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.*

**Note:** The kit assembly illustrations shown is of the left or drivers side of the vehicle. Reverse any orientations when assembling the kit on the right or passengers side of the vehicle.

**Kit to frame assembly**



**Note 1:**  
Please take all necessary safety precautions while installing your kit.

**Note 2 Helpful hint:**  
Use the 1/2" bracket strap included in the kit, placed between the upper bracket and the frame rail to achieve the correct spacing between the upper bracket and the bottom of the frame.

**FIGURE "A"**

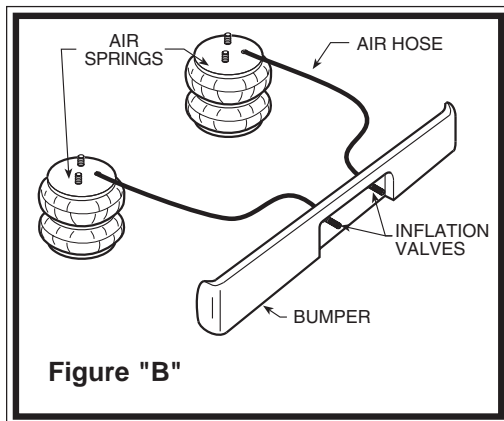


Figure "B"

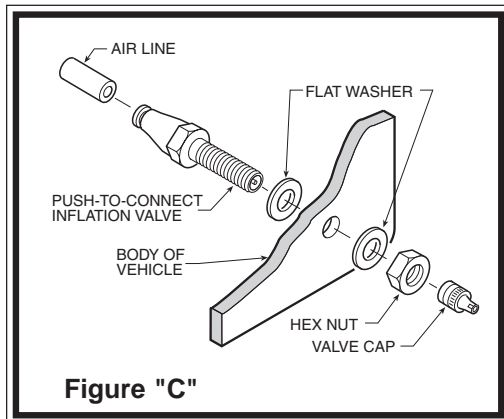


Figure "C"

### STEP 1 - PREPARE THE VEHICLE

With the vehicle on a solid level surface chock the front wheels. Raise the vehicle by the rear 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 negative battery cable.

### STEP 2 - PREASSEMBLE THE KIT

Select one air helper spring from the kit. Install the upper bracket by aligning the studs on the upper bracket. Fasten the upper bracket to the air spring using the 3/8"-16 hex nuts, as shown in Figure "A". Install the air fitting as shown in Figure "A". Tighten the air fitting so as to make contact with the orange sealant and then tighten. Insert the two 3/8"-16 x 3-1/2" carriage bolts into the lower bracket. Next, attach the lower bracket to the air spring using the 3/8"-16 x 3/4" hex bolt, see Figure "A". Refer to Figure "A" for proper orientation of the lower bracket.

### STEP 3 - ATTACH LOWER BRACKET TO LEAF SPRING

Place the assembly on the driver's side on top of the leaf spring stack forward of the axle see Figure "A". Attach the lower bracket to the leaf stack using the 3/8"-16 x 3 1/2" carriage bolts (installed in the lower bracket earlier), the flange lock nuts and bracket strap as shown in Figure "A". Note that the lower bracket will sit on top of the leaf spring with the bracket hook capturing the forward "U"-bolt. The bracket strap is used to clamp the lower bracket to the leaf stack see Figure "A".

### STEP 4 - POSITION THE UPPER BRACKET ON THE FRAME

The bracket must have at least 1/2" between the upper bracket and the under side of the frame rail at the lowest point on the frame (Suggestion: use a 1/2" bracket strap included in the kit between the upper bracket and the under side of the frame rail) see Figure "A". Note that the frame rail is curved where the upper bracket is located, make sure there is a 1/2" of clearance between the upper bracket and the lowest point on the frame see Figure "A".

### STEP 5 - MARK AND DRILL HOLES IN THE FRAME RAIL

Make sure the upper and lower brackets are parallel. With the air spring assembly in place, mark the four holes to be drilled in the frame rail with a center punch. Drill the holes using a 3/8" drill bit. **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 that a piece of wood be placed between the frame rail and the existing lines while drilling.

### STEP 6 - ATTACHING THE UPPER BRACKET

Once the holes have been drilled attach the upper bracket using the 3/8"-16 x 1 1/2" hex bolts, large flat washers and the flanged hex nuts to the frame rail refer to Figure "A".

### STEP 7 - INSTALLATION OF THE PASSENGER'S SIDE ASSEMBLY

Follow steps 2-7 for assembly and installation of the passenger's side assembly. Note, reverse any orientations for the passenger side installation.

### STEP 8 - INSTALL THE AIR LINE AND INFLATION VALVE

Uncoil the remaining 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 refer to 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 "B"). Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports (see Figure "C"). Run the tubing from the air helper spring to the inflation valve, routing it to avoid direct heat from the engine, exhaust pipe, and away from sharp edges. The air line tubing should not be bent or curved sharply as it may buckle with age. 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 "C").

## **STEP 9 - 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 air tubing is cut as square as possible and that it is pushed completely into the fitting. The tubing can easily be removed from the fittings. First remove the air pressure from the air springs. Push the collar towards the body of the fitting and then pull out the tube. If a leak is detected where the air fitting screws into the air spring, remove the tubing, then tighten the air fitting into the spring until the leak stops. Re-install the tubing and re-inflate 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 manufactures 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 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 approximately 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 improvement in handling that is possible. ***TO PREVENT POSSIBLE DAMAGE MAINTAIN A MINIMUM OF 10psi 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.



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**FIRESTONE INDUSTRIAL PRODUCTS**  
12650 HAMILTON CROSSING BOULEVARD  
CARMEL, IN 46032