**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.

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 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 more quickly.*

**PARTS LIST**

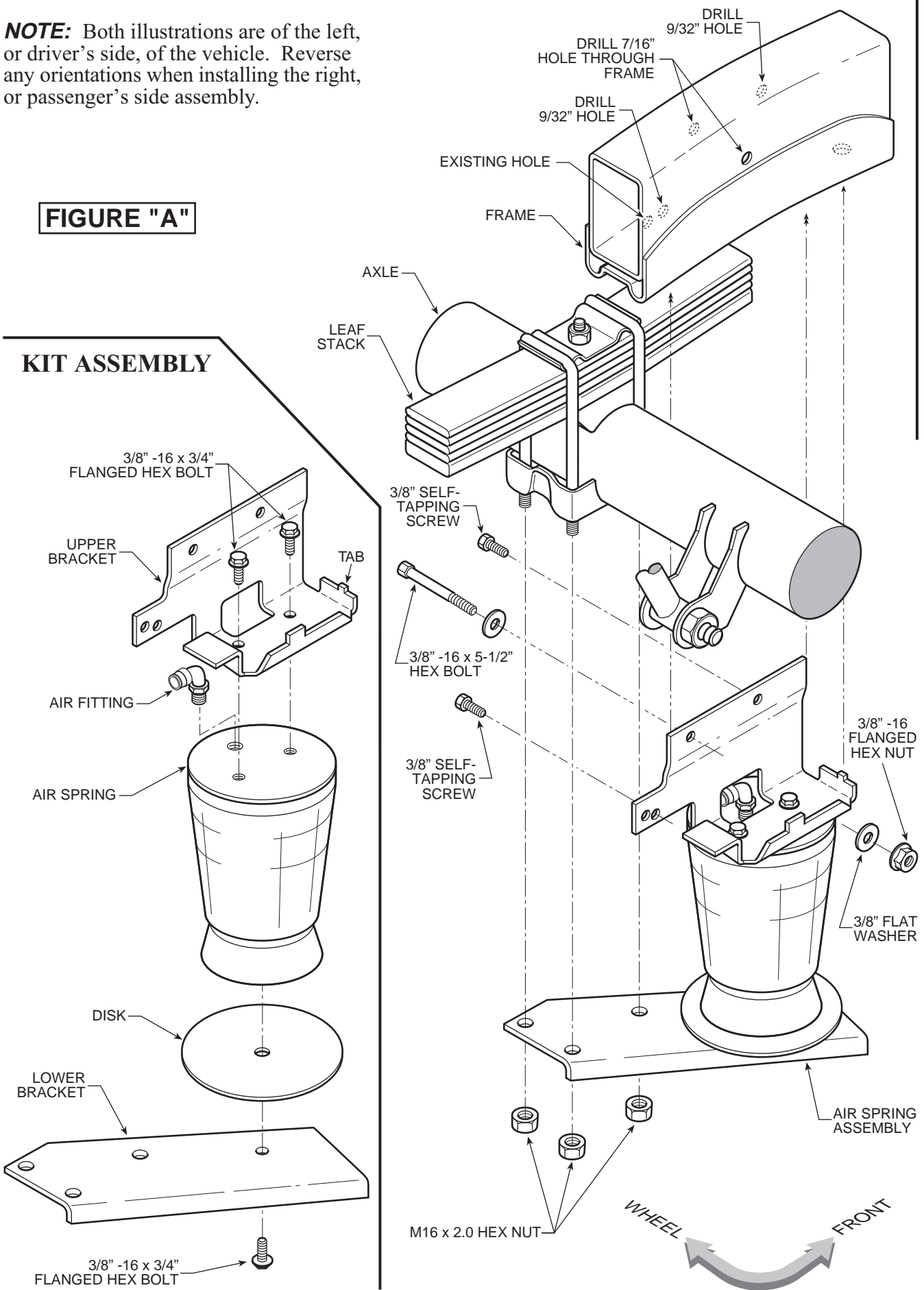
AIR SPRING	9000	2	3/8" SELF TAPPING SCREW	4
UPPER BRACKET (RIGHT)	5240	1	M16 x 2.0 HEX NUT	6
UPPER BRACKET (LEFT)	5241	1	PUSH-TO-CONNECT ELBOW FITTING	2
LOWER BRACKET (LEFT)	5387	1	PUSH-TO-CONNECT INFLATION VALVE	2
LOWER BRACKET (RIGHT)	5386	1	VALVE CAP	2
DISK	5204	2	5/16" FLAT WASHER	4
3/8" -16 x 5/8" FLANGED HEX BOLT		6	18 FT. AIR LINE TUBING	1
3/8" -16 x 5-1/2" HEX BOLT		2	THERMAL SLEEVE	2
3/8" -16 FLANGED HEX NUT		2	NYLON TIE	6
3/8" FLAT WASHER		4	CAUTION TAG	2

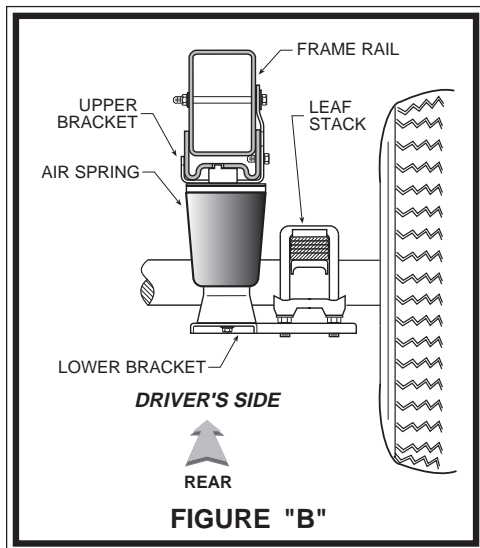
# KIT TO FRAME ASSEMBLY

**NOTE:** Both illustrations are of the left, or driver's side, of the vehicle. Reverse any orientations when installing the right, or passenger's side assembly.

**FIGURE "A"**

## KIT ASSEMBLY



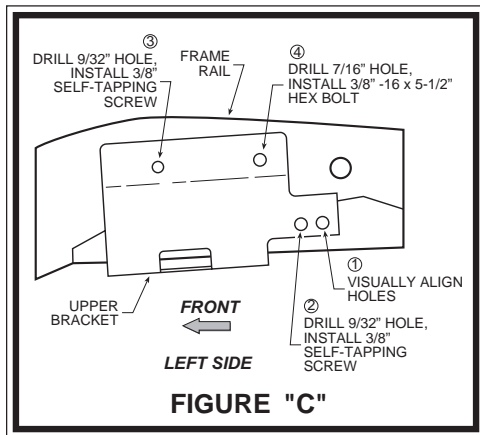


### STEP 1 - PREPARE THE VEHICLE

Remove the positive battery cable. With the vehicle on a solid, level surface chock the front wheels. 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 vehicle's weight. *This installation assumes that there is no load in the vehicle.*

### STEP 2 - PRE-ASSEMBLE THE KIT

Select one air helper spring from your kit. Install the push-to-connect elbow fitting in the top of the air spring. Tighten the elbow fitting until the nylon ring is seated then tighten 1/4 turn to seal (Do **NOT** over tighten). The elbow fitting swivels and can be positioned in any direction after installation. Select the upper-left bracket from your kit (marked "L") and align the holes in the air spring with the holes in the upper bracket. Fasten the bracket to the air spring using two 3/8" -16 x 3/4" flanged hex bolts *see Figure "A"*. Select the left-side lower bracket (marked "L") and one round disk from your kit place the round disk between the lower bracket and the air spring and attach both to the air spring with a 3/8 -16 x 3/4" flanged hex bolt (*finger tight*).



### STEP 3 - INSTALL THE ASSEMBLY TO THE VEHICLE

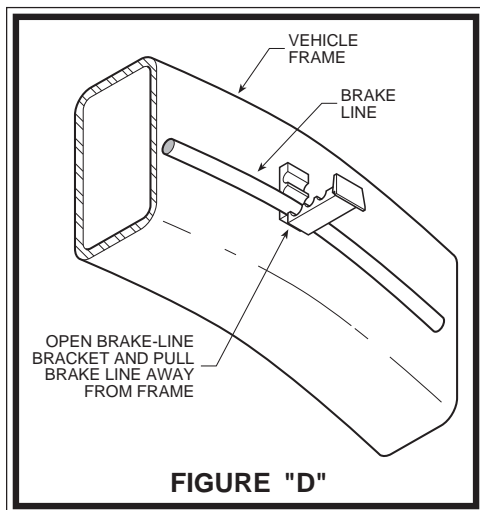
Position the lower bracket on the leaf spring retainer below the axle. Three of the U-bolt studs should protrude through the holes in the lower bracket *see Figures "A" & "B"*. Attach the lower bracket to the U-bolts with the provided M16 x 2.0 hex nuts. The hex nuts are self locking.

Cut the air line tubing supplied into two equal lengths. Make sure that the air line tubing is cut as square as possible and install into the push-to-connect elbow fitting on the air spring. Install the push-to-connect inflation valve fitting onto the opposite end of the air line tubing (temporarily). Inflate the air spring to no more than 10 psi so that the upper bracket straddles the frame, with the vertical portion of the bracket flush against the outside surface of the frame rail. The tab at the front of the bracket should recess into the hole in the bottom of the frame rail *see Figure "A"*.

Refer to *Figure "C"* for upper bracket alignment and attachment. Visually align hole# 1 as shown in *Figure "C"*. Using the upper bracket as a template drill hole# 2 and hole# 3 using a 9/32" drill bit. Install the 3/8" self tapping screws into the hole just drilled.

Using the open hole (hole# 4) at the top of the bracket as a template, drill a 7/16" hole through both sides of the frame rail *see Figures "A" & "C"*. The drill bit must be at least 4-3/4" in length from the tip to the chuck. Before drilling, open the brake-line bracket on the inside of the frame rail *see Figure "D"*. Insert a block of wood between the frame rail and the brake-line to prevent the line from being damaged by the drill. After drilling the hole place the brake line back into the clip. Secure the upper bracket to the frame with a 3/8" -16 x 5-1/2" bolt through the drilled holes and secure with a 3/8" -16 flanged lock nut and 3/8" washers *see Figure "A"*.

Tighten the flanged hex bolt securing the air spring to the lower bracket.

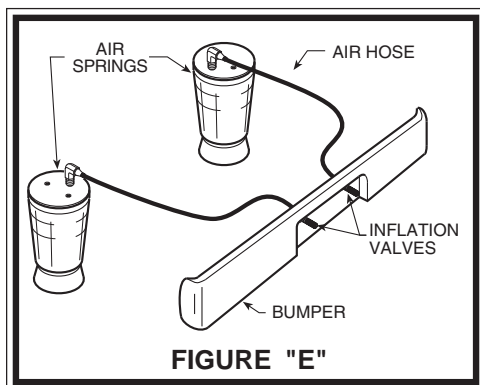


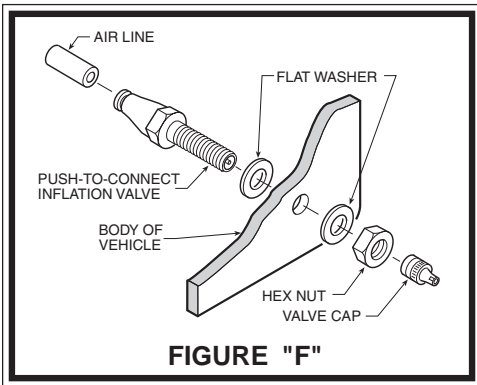
### STEP 4 - INSTALL THE PASSENGER'S SIDE ASSEMBLY

Reverse any orientations when assembling and installing the air spring to the right, or passenger's side of the vehicle. Follow steps 2 and 3.

### STEP 5 - INSTALL THE AIR LINE AND INFLATION VALVE

Release the air pressure from the air springs and remove the inflation valve from the end of the air line tubing installed in step 3. 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 "E"*. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports *see Figure "F"*. Run the tubing from the air helper spring





**FIGURE "F"**

to the inflation valve, routing it to avoid direct heat from the engine, exhaust pipe, and away from sharp edges. **Do NOT fold or kink the air line tubing.** 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. Trim the air line tubing to the required length and push the end of the air line tubing into the inflation valve see Figure "F".

**STEP 7 - 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 with an applied solution of soap and water. If a leak is detected at a tubing connection, 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 first releasing the pressure from the air spring followed by pushing the collar towards the body of the fitting and then pulling out the tube. If a leak is detected where the fitting screws into the air spring, release the pressure from the air spring, remove the tubing, then screw the fitting into the air spring 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 manufacture's specification. Raise the vehicle by the rear axle and remove the jack stands and lower the vehicle back onto 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 25 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 1250 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 10 P.S.I. IN THE AIR HELPER SPRINGS AT ALL TIMES.**

<b>NOTE:</b>	
<b>MIN PRESSURE</b>	<b>10 PSI</b>
<b>MAX PRESSURE (LOADED)</b>	<b>100 PSI</b>

**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.

