

INSTALLATION INSTRUCTIONS

Congratulations — your new Ride-Rite 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 Ride-Rite 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.

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.

IMPORTANT!

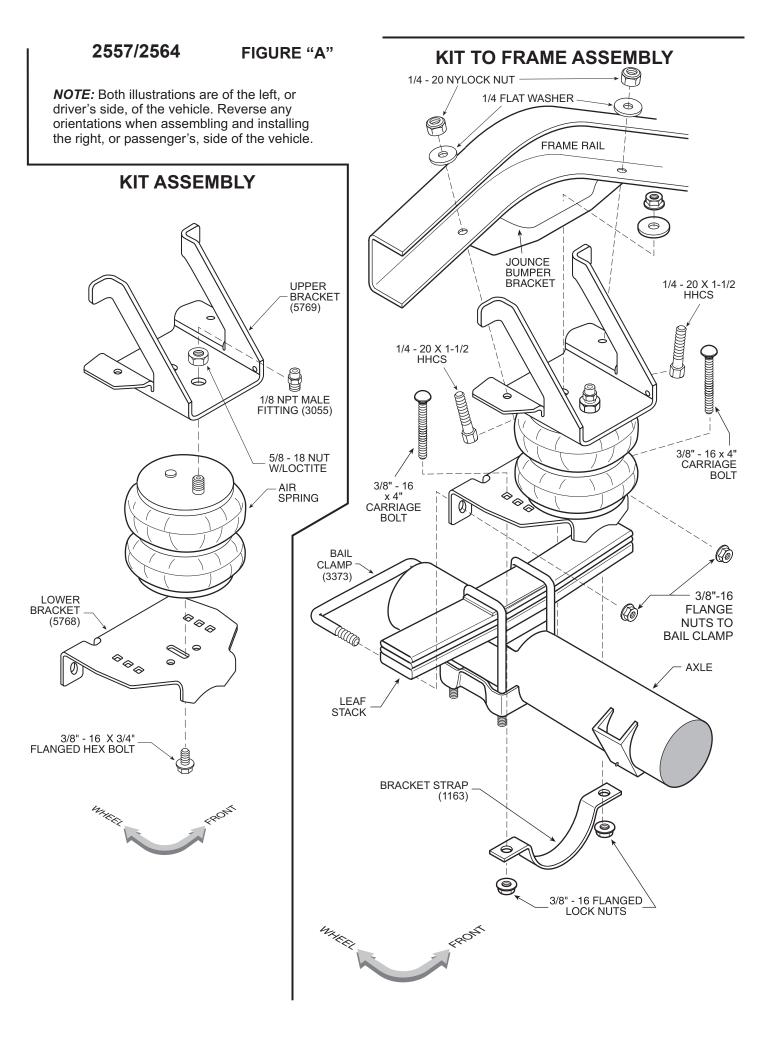
For your safety and to prevent possible damage to your vehicle, do not exceed the maximum load recommended by the vehicle manufacturer (GVWR). Although your Ride-Rite Air Helper Springs are rated at a maximum inflation pressure of 100 P.S.I., this pressure may allow you to carry too great a load on some vehicles. Check your vehicle owner's manual for maximum loads listed for your vehicle.

When inflating your Ride-Rite 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

HARDWARE PACK (A21-760-2557)

286C AIR SPRING	6766	2	1/8 NPT MALE FITTING	3055	2
UPPER BRACKET	5769	2	INFLATION VALVE PTC	3032	2
LOWER BRACKET	5768	2	1/4-20 UNC-2A X 1-1/2 HHCS		4
BRACKET STRAP	1163	2	1/4-20 UNC NYLON INSERT HEX NUT		4
HEAT SHIELD	1004	1	1/4 FLAT WASHER		8
BAIL CLAMP 6.5 X 4.38 X 2.0	3373	2	3/8-16 X 4" CARRIAGE BOLT		4
AIR TUBING (18 FT)		1	3/8-16 X 3/4" FLANGE BOLT		2
			3/8-16 FLANGE LOCK NUT		8
			5/8-18 HEX NUT W/LOCTITE		2
			THERMAL SLEEVE		2
			NYLON TIE		6



STEP 1—PREPARE THE VEHICLE

Make sure that the vehicle is on a solid level surface. Take necessary safety precautions such as using wheel chocks when working under your vehicle. This vehicle does not have to be jacked up to install the kit. Remove the positive battery cable. Remove the rubber jounce bumper under the frame rail, **see Figure "B"**.

STEP 2—PREASSEMBLE THE RIDE-RITE KIT

Select one air helper spring and one upper bracket from your kit. Align the combo stud and pin to and place the bracket on the air spring. Secure with a 5/8"-18 nut as shown in *Figure "A"*. Install the air fitting and tighten securely to engage the orange thread sealant. Position the lower bracket as shown in *Figure "A"*. Fasten the lower bracket to the air helper spring using a 3/8"-16 x 3/4" flanged hex bolt *(finger tight)*.

STEP 3—ATTACHMENT TO THE FRAME

Position the assembly on the axle under the frame rail in the location shown in *Figure "A"*. Using the 1/4"-20 hex head cap screws, 1/4" washers and nylocks, attach the upper bracket to the frame.

STEP 4—LOWER BRACKET ATTACHMENT

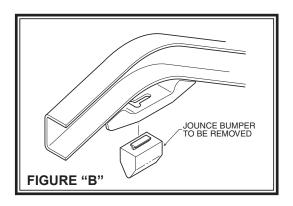
Position the lower bracket by pushing it up against the leaf stack. The cutouts should clear the u-bolts for a tight fit. Install the bail clamp around the bottom of the leaf stack, through the lower bracket and secure with 3/8"-16 flanged lock nuts. Visually align the air spring so that it is as vertical as possible. Once the air spring is correctly aligned install the 3/8"-16 x 4" carriage bolts in the square holes that allow for no interference of the lower bracket as shown in *Figure "A"*. The lower bracket is then secured by the bracket strap which is placed under the axle and fastened with 3/8"-16 flanged lock nuts, see *Figure "A"*. After the lower bracket is fastened to the axle tighten the air spring to the lower bracket making sure the air spring remains in a vertical position.

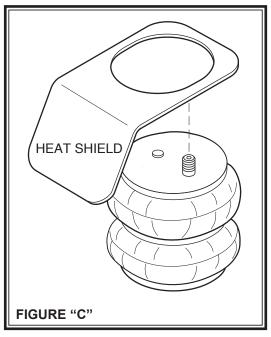
STEP 5—INSTALLATION TO THE PASSENGER'S SIDE ASSEMBLY

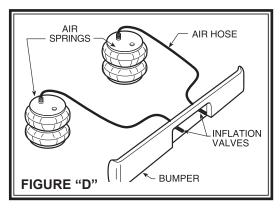
Reverse any orientations when assembling and installing the right, or passenger, side of the vehicle. *Note: The use of a heat shield is required on the passenger's side of the vehicle. Refer to Figure "C".* The heat shield will mount between the upper bracket and the air helper spring. Angle the heat shield so it is placed 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)

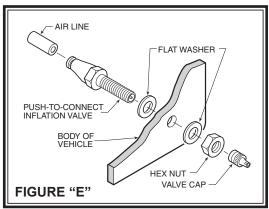
STEP 6—INSTALL THE AIR LINE AND THE INFLATION VALVE

Uncoil the air tubing and measure to cut. **DO NOT FOLD OR KINK THE TUBING.** Try to make the cut as square as possible. Insert one end of the tubing into the air fitting installed in the top of the air helper spring. Push the tubing into the fitting as far as possible. Select a location on the vehicle for the air inflation valves. This can be on the bumper or the body of the vehicle, as long as it is protected so the valves will not be damaged. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports. Route the tubing from the air helper spring to the inflation valve, avoiding 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 kink with time. Secure the tubing in place with the nylon ties provided. Push the end of the air line tubing into the inflation valve as far as possible. **See Figures "D" & "E"**.









STEP 7—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 fitting screws into the spring, remove the tubing (see trouble shooting section of the operating instruction manual for removal procedure), then screw the brass fitting into the air spring one additional turn or until the leak stops. Reinstall the tubing and re-inflate the air springs and check for leaks as noted above. Further information on trouble-shooting can be found in the General Operation Instruction book included with this kit.

This now completes the installation. Re-attach the postive 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 Ride-Rite Air Helper Springs will support approximately 32 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 1600 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.

Enclosed with this kit are Ride-Rite Operating Instructions. Please read them for proper and safe operation.

NOTE:

MIN PRESSURE 5 PSI
MAX PRESSURE (LOADED) 100 PSI



COMBO STUD NOTICE:

THE ALIGNMENT PIN ON THE AIR SPRING **MUST** BE INSTALLED INTO THE HOLE IN THE UPPER BRACKET.

FAILURE TO DO SO WILL CAUSE THE ALIGNMENT PIN TO BE PUSHED INTO THE BEAD PLATE, CREATING AN AIR LEAK, AND RESULTING IN AN AIR SPRING FAILURE THAT IS **NOT WARRANTABLE**.

