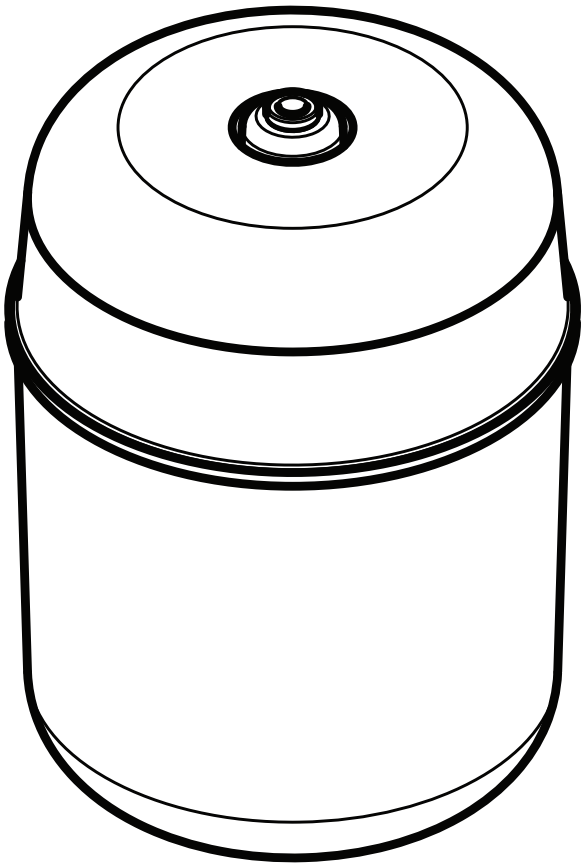
4179

AIRIDE

firestoneairide.com

INSTALLATION INSTRUCTIONS



01-23

! IMPORTANT

PLEASE DON'T HURT YOURSELF, YOUR KIT OR YOUR VEHICLE. TAKE A MINUTE TO READ THIS IMPORTANT INFORMATION.

WARNING
Do not inflate this assembly when it is unrestricted. The assembly must be restricted by a coil spring. Do not ever inflate beyond recommended operating pressures for your specific vehicle. Improper use or over inflation may cause property damage or severe personal injury.

SAFE INSTALLATION
Please take all safety precautions during installation. A hydraulic jack can fail, and if that happens, you can be seriously hurt, or worse, if you are relying on it to hold up the vehicle. If you use a hydraulic jack, secure jack stands in the appropriate locations and chock any tires still touching the ground.

Wear safety glasses or goggles. Your eyes may be lower than some parts and pieces, and you don't want to lose an eye.

Remove the possibility of any electrical issues by disconnecting the negative battery cable.

SHOCK ABSORBERS
If necessary, additional clearance between the coil turns may be obtained by removing the shock absorbers from the lower shock mounts and lowering the suspension an additional one to two inches. (CAUTION: Do not put strain or tension on the flexible brake line.)

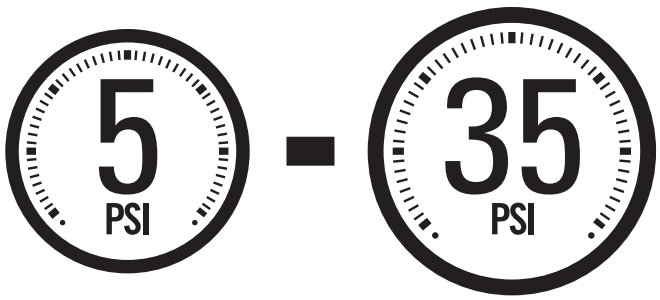
VEHICLE GVWR
NEVER exceed the maximum load recommended by the vehicle manufacturer (GVWR). The GVWR can be found in your vehicle's owner's manual or on the data plate on the driver's side door. Consult your local dealership for additional GVWR specifications.

INFLATING THE AIR SPRINGS
When inflating air springs, add air pressure in small quantities, checking air pressure frequently. The air springs have much less air volume than a tire, so they inflate much more quickly.

APPROPRIATE AIR PRESSURE
For best ride, use only enough air pressure in the air springs to level the vehicle when viewed from the side (front to rear). This will vary, depending on the load, location of the load, condition of the existing suspension, and personal preference.

OPTIONAL T-FITTING
This kit includes inflation valves and air line tube for each air spring, allowing you to compensate for unbalanced loads. If you prefer a single inflation valve system to provide equal pressure to both air springs, your dealer can supply the optional "T" fitting (Part # 3025 or WRI-760-3461 retail pack).

ONCE INSTALLED SUCCESSFULLY, FOLLOW THESE PRESSURE REQUIREMENTS FOR THE AIR SPRINGS:

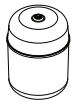


MINIMUM PRESSURE *MAXIMUM PRESSURE (LOADED)*

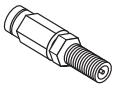
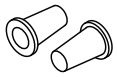
PARTS

Compare the parts below to your kit. Assure you have all pieces and organize them for an easier installation.

MAIN KIT CONTENTS

PT # 6020		x 2 COIL-RITE AIR SPRING	PT # 9417		x 1 BLUE AIR LINE TUBE (18 FEET)

4179 HARDWARE PACK

PT # 3033		x 4 5/16" FLAT WASHERS	PT # 3098		x 2 INFLATION VALVE
PT # 9168		x 6 BLACK NYLON TIE			
PT # 3098		x 2 VALVE CAP	PT # 0019		x 2 COIL-RITE PTC PLUG
PT # 0899		x 2 THERMAL SLEEVE			

WARNING: Do not inflate this assembly when it is unrestricted. The assembly must be restricted by a coil spring. Do not inflate beyond recommended operating pressures for your specific vehicle. Improper use or over inflation may cause property damage or severe personal injury.

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.

VEHICLE PREPARATION 1

1. Remove the positive battery cable. With the vehicle on a solid level surface, chock the rear wheels.
2. Raise the rear wheels of the vehicle using a lift or platform jack rated for your vehicle's weight at the center of the rear axle. Continue to raise the vehicle until the rear wheels are 8" off the ground.
3. Lower the vehicle frame forward of the suspension onto jack stands rated for your vehicle's weight allowing the suspension to hang freely. (DO NOT use wood or concrete blocks to support the weight of the vehicle.)

On 1999 to current Honda Odysseys and Hyundai Entourage, a 1/2" hole will have to be drilled in the lower control arm to where the coil spring is centered to allow the air line to pass through. Make sure that the hole is aligned with the location of the pushto-connect air fitting on the installed air spring **see Figure "A".** Remove any burrs from the hole to prevent damage to the air spring. Make sure that the air spring is not installed when the hole in the lower spring seat is drilled.

2 COIL SPRING PREPARATION

It will be necessary to remove the coil springs from the vehicle in order to install the Coil-Rite kit.

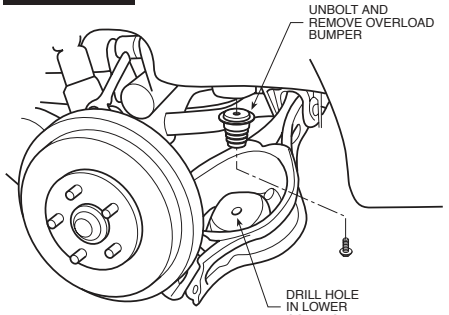
1. Remove the wheel sensor wire from the lower control arm by unbolting it **see Figure "B".** Do not disconnect the wheel sensor connector.

2. Position a floor jack underneath the point where the lowercontrol arm connects with the knuckle. Raise the jack until it makes contact with the lower arm.

3. Remove the flanged hex bolt and lock nut securing the lower control arm to the knuckle **see Figure "B".** Carefully lower the floor jack, allowing the lower control arm to fall away from the knuckle.

4. Remove the coil spring and upper and lower spring seats. Hint: Using a crayon or grease pencil, put a mark across the coil spring, lower spring seat, and lower control arm as a means to align the spring seat and coil spring with the lower control arm when reinstalled.

FIGURE A



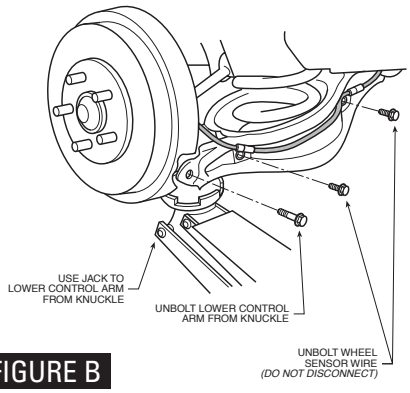


FIGURE B

3 OVERLOAD BUMPERS

The factory overload bumpers inside the coil springs must be removed to provide clearance for the installed air spring. Remove the overload bumper by removing the flanged hex bolt securing it to the vehicle's body **see Figure "A".** Do not discard the overload bumper hex bolt. It will be used to install the support in Step 4.

INSTALL THE SUPPORTS 4

Install the provided support in place of the factory overload bumper. This will prevent the metal bumper mount from damaging the air spring. Install the support using the original overload bumper bolt so that the bolt head is recessed into the support **see Figure "C".**

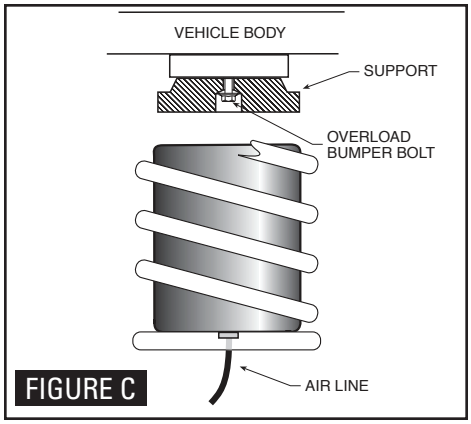
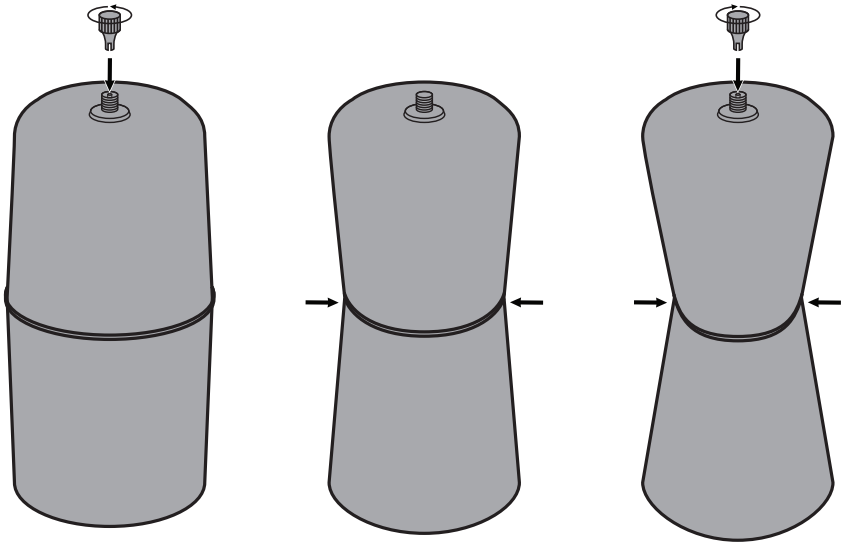


FIGURE C

PREPARE THE AIR SPRING 5

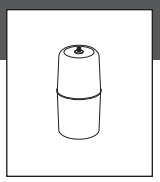
START THE INSTALLATION ON THE LEFT SIDE OF THE VEHICLE WHEN FACING FORWARD.

1. Remove the valve cap from the inflation valve on the air spring.
2. Using the valve cap as a core tool from the inflation valve, remove the valve core from the air spring.
3. Exhaust the air spring by pushing it flat.
4. Re-insert the valve core back into the air spring to keep it collapsed.



STEP 1 **STEP 2** **STEP 3**

6 INSTALL AIR SPRING INTO COIL SPRING

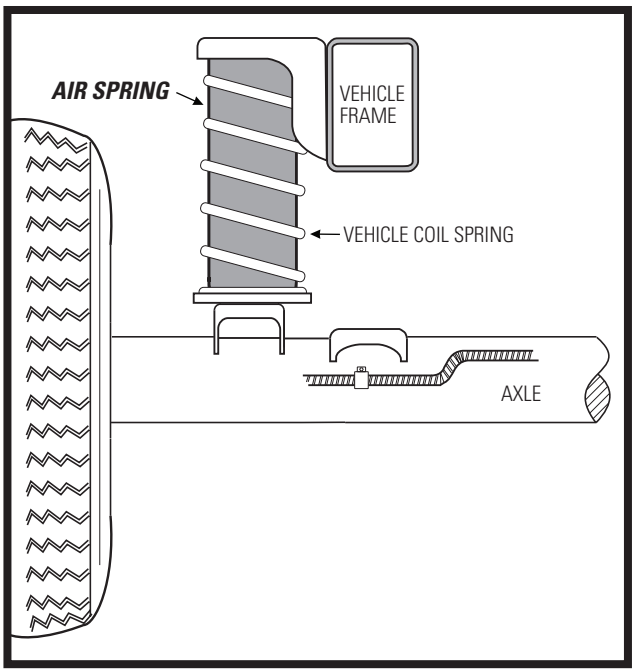


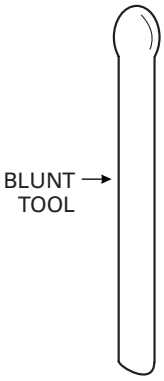
DO NOT USE ANY TOOL OR OBJECT WITH SHARP EDGES OR CORNERS. THESE COULD PUNCTURE THE AIR SPRING, RESULTING IN AN AIR SPRING FAILURE THAT IS **NOT WARRANTABLE.**

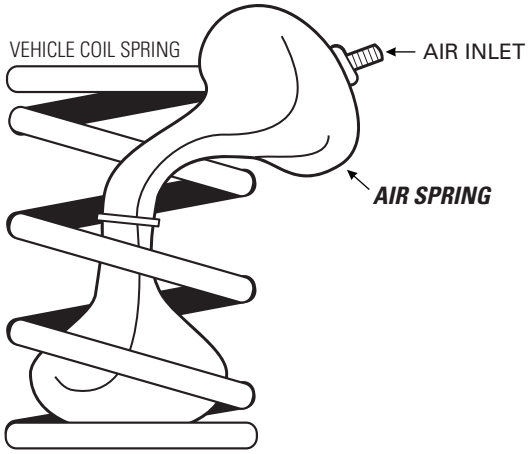
1 Insert the top of the flattened air spring into the coil spring through the lowest opening with the air inlet at the top, as shown.

2 Push the air spring up into the coil spring by hand or with a blunt tool. **DO NOT use anything with sharp edges or corners, as this may damage the air spring.**

3 When the air spring is completely within the coil spring, remove the valve core to let the air back into the air spring. See step 1 for reference. Allow the air spring to return to its normal shape.







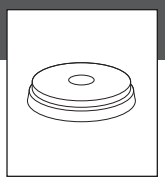
It will be necessary to remove the coil springs from the vehicle in order to install the Coil-Rite kit.

1 Swing the lower control arm upward to force the upper spring seat to contact the vehicle's body. Ensure that the spring seats are nested properly against the vehicle's body and lower control arm.

2 lign the pencil marks on the coil spring and lower spring seat with the marks on the control arm to assure that the spring seats are seated properly on the coil spring. Position a floor jack under the lower control arm where it connects to the knuckle.

3 Raise the lower control arm until the bolt holes in the arm are aligned with the bolt holes in the knuckle. Install the flanged bolt and lock nut to attach the lower control arm to the knuckle and torque to manufacturer's specifications. Reinstall the wheel sensor wire **see Figure "B".**

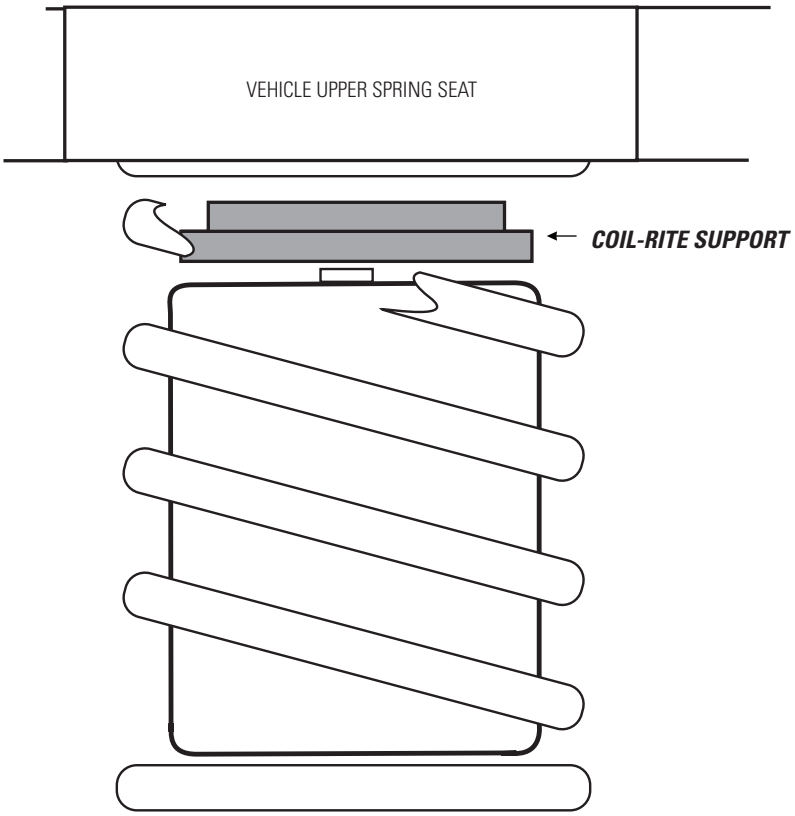
8 INSTALL COIL-RITE SUPPORT

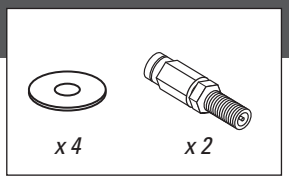


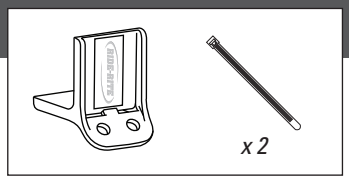
1 Install the spacer on top of the air spring, as shown below.

2 NOTE: Once the weight of the vehicle is applied to the suspension and the air springs are pressurized, the spacer will stay in place.

3 If removed earlier in the installation, re-attach shock absorbers. Torque to manufacturer's specifications.

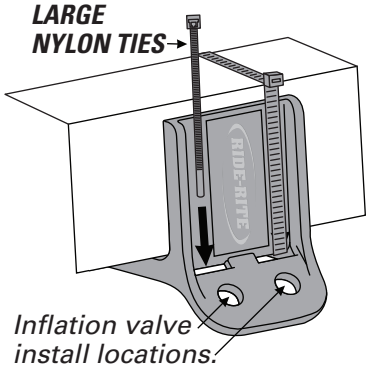






IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. **INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK.**

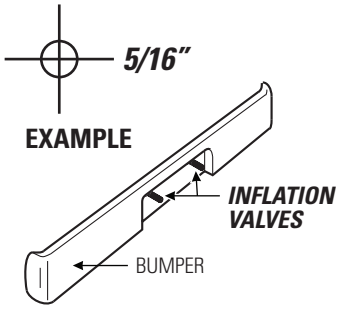
1 Secure the air inflation valve bracket to a protected, secure location. PROCEED TO STEP 3.



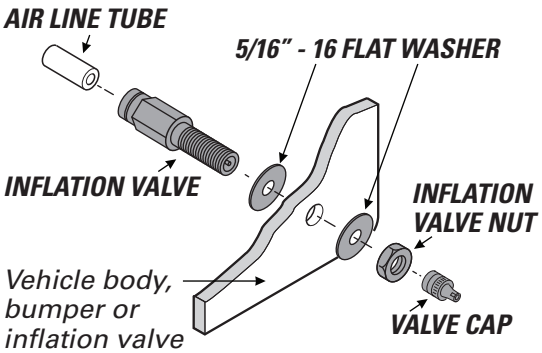
Inflation valve install locations.

2 Select a protected location to install the inflation valves, such as the bumper or the body of the vehicle.

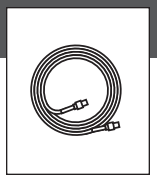
Drill two 5/16" holes for inflation valve install locations.



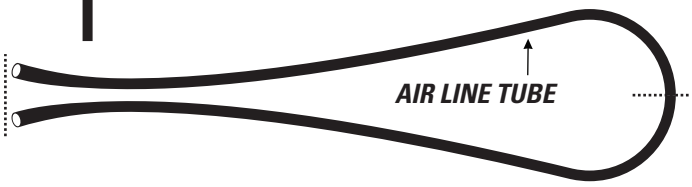
3 Install inflation valve assembly as shown.



10 CUT THE AIR LINE TUBE INTO TWO EQUAL LENGTHS



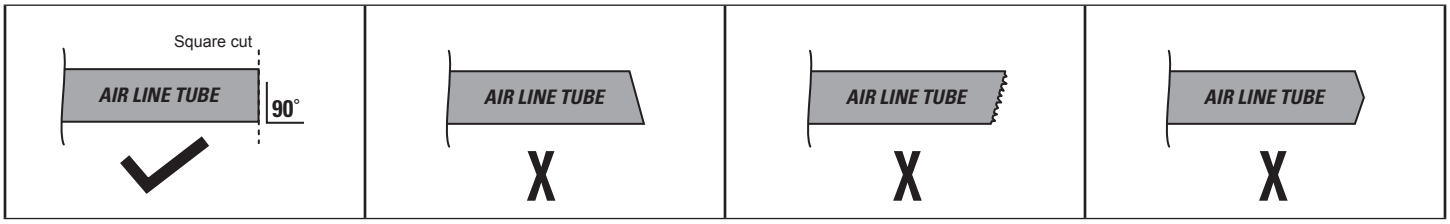
1 Match air line tube ends.



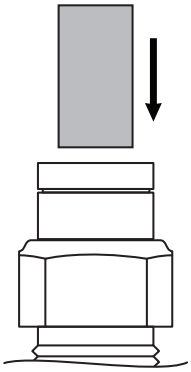
2 Find center of air line tube, make a square cut with tube cutter or sharp utility knife.

DO	DON'T
Make sure the cut is as square as possible. Use a tube cutter or sharp utility knife.	Fold or kink the air line tube. Cut the air line tube at an angle. Use pliers, scissors, snips, saws, or side cutters.

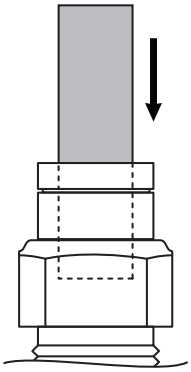
PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



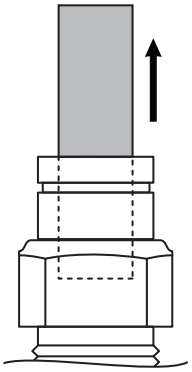
1 Insert end of air line tube into air fitting.



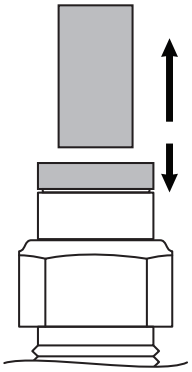
2 Push air line tube into air fitting as far as possible.



3 Gently pull on the air line tube to check for a secure fit.



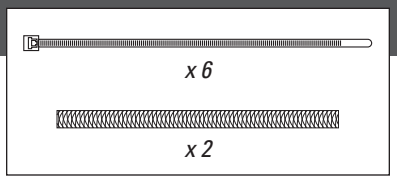
4 To remove, push down collar and gently pull air line tube away.



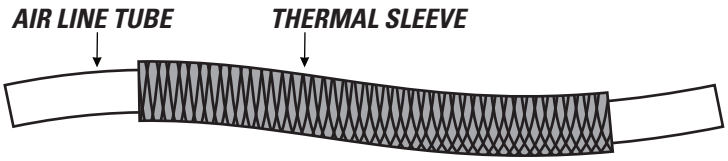
Removal Tip: Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

12 ROUTE AND SECURE AIR LINE TUBES

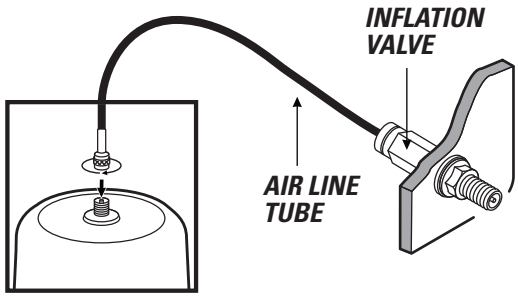
Air line tube routes will vary, depending on your truck, and requires you to choose the best path from the air springs to the inflation valves. Use the instructions below to help you choose.



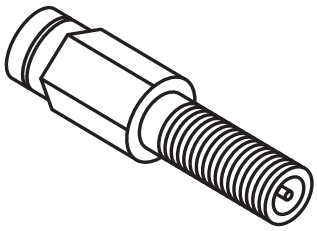
DO	DON'T
Select routes protected from heat, debris, and sharp edges. Use thermal sleeves near heat sources. Use Nylon ties to secure the air line tube.	Bend or sharply curve air line tubes. Leave air line tube exposed to sharp edges. Use unnecessary lengths of air line tube. Route air line tube near moving parts. Let air line tube hang unsecured from vehicle. Scar air line tube while routing.







1 Place an air chuck onto the inflation valve and fill the system to **35 PSI**.



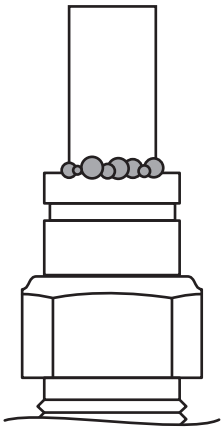


AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING.

2 Spray fittings with soap and water mixture or glass cleaner.

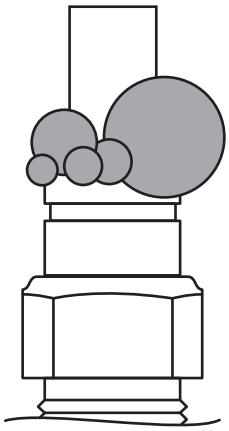


3 Observe bubbles.



SMALL SOAP BUBBLES THAT DO NOT EXPAND

✓



SOAP BUBBLES THAT EXPAND

X

NO LEAKS?

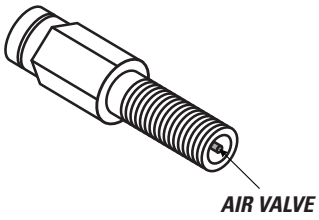
Congratulations! Continue to step 15 to finish installation. Review the Operating Instructions.

LEAK?

Bummer. Continue to step 14 to fix the leak.

14 FIXING AN AIR LEAK

1 Press the air valve on end of inflation valve to release all air pressure.

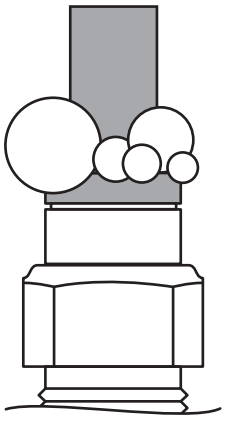






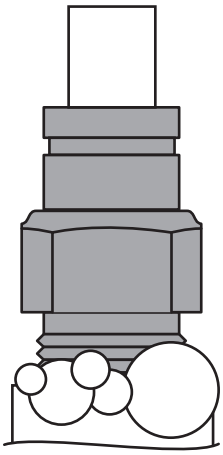
EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR LINE TUBES FROM AIR FITTINGS.

LEAK AT AIR LINE TUBE AND AIR FITTING



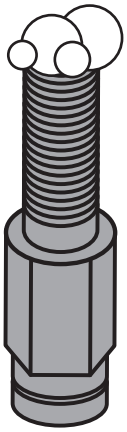
Release air line tube (see page 10). Review proper cuts and procedures in step 10. Repeat steps 11 and 13.

LEAK AT BASE OF AIR FITTING ON AIR SPRING



Tighten air fitting one turn or until leak stops.

LEAK OUT OF THE VALVE CORE ON INFLATION VALVE



Tighten valve core with valve core wrench on inflation valve cap.

STILL HAVE A LEAK?

Refer to the Troubleshooting section of the Instruction Manual.

SAFELY RETURN VEHICLE TO OPERATIVE STATE

If you removed any wheels during installation, install the wheels and torque the lug nuts to the manufacturer's specifications.

Safely remove any jack stands and wheel chocks used during installation.

Re-attach the negative battery cable.

VEHICLE GVWR

NEVER exceed the maximum load recommended by the vehicle manufacturer (GVWR). The GVWR can be found in your vehicle's owner's manual or on the data plate on the driver's side door. Consult your local dealership for additional GVWR specifications.

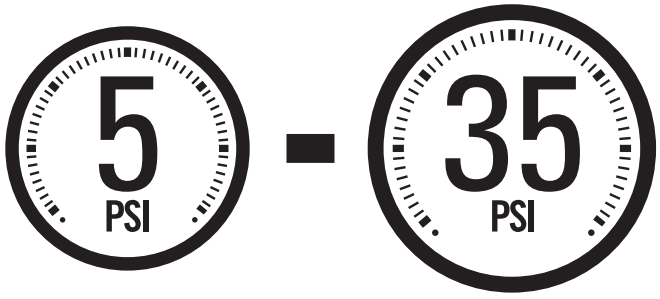
READ AND UNDERSTAND THE OPERATING INSTRUCTIONS

The Coil-Rite system can improve handling and comfort. Take a moment to review the operating instructions before hitting the road.

! IMPORTANT

A MINIMUM OF 5 PSI MUST BE MAINTAINED IN THE AIR SPRINGS AT ALL TIMES

Too much air pressure in the air springs will result in a firmer ride, while too little air pressure will allow the air springs to bottom out over rough conditions, and will not provide the improvement in handling that is possible.



MINIMUM PRESSURE *MAXIMUM PRESSURE (LOADED)*

AIRIDE

firestoneairide.com

BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

☐ Do you have a minimum of 5 PSI in your air springs?

☐ Put your paperwork in your glove compartment for future reference.

NEED INSTALLATION HELP?

Email us at **rrtech@fsip.com**. Please include photos to help us better diagnose and understand any problems you may be experiencing.