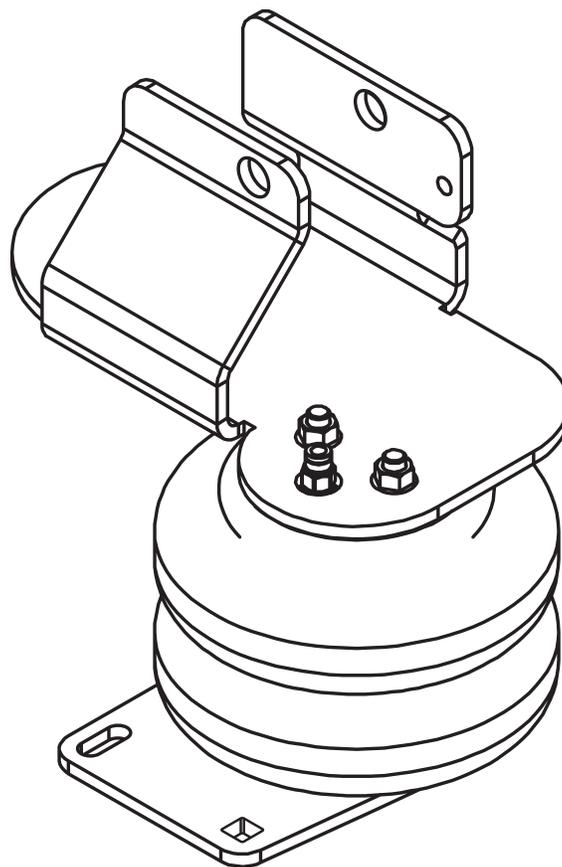




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INSTALLATION INSTRUCTIONS



Firestone

Firestone Industrial Products

! IMPORTANT

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

DO NOT INSTALL IF THE VEHICLE HAS BEEN LIFTED AND THE STOCK JOUNCE BUMPER SPACERS ARE NOT ON THE VEHICLE. *This kit is to be used on a dual rear wheel Transit 350 only, and DOES NOT INCREASE YOUR VEHICLE'S MAXIMUM LOAD.*

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.

KIT CLEARANCE

There must be a minimum of 1/2" clearance around all installed components when the air springs are inflated and under a load. The air springs must flex and expand during operation, so the clearance keeps the kit from rubbing against parts of the vehicle.

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.

PRESSURE TO LOAD

The air 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 2400 lbs. per pair of air springs.

APPROPRIATE AIR PRESSURE

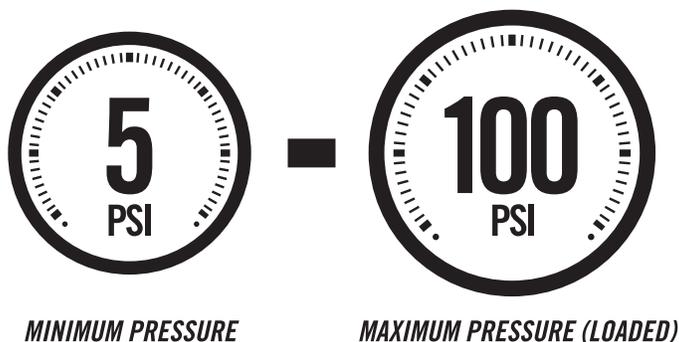
For best ride, use only enough air pressure in the air springs to level the vehicle when viewed from the side (front to rear). This will vary, depending on the load, location of the load, condition of the existing suspension, and personal preference.

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).

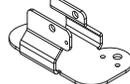
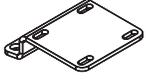
ONCE INSTALLED SUCCESSFULLY, FOLLOW THESE PRESSURE REQUIREMENTS FOR THE AIR SPRINGS:



PARTS

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

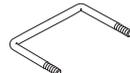
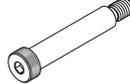
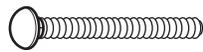
MAIN KIT CONTENTS

PT # 6781	 x2 AIR SPRING	PT # 5888	 x2 MIDDLE BRACKET	PT # 5886	 x1 UPPER LEFT BRACKET
PT # 5887	 x2 LOWER SPRING MOUNT BRACKET	PT # 5885	 x1 UPPER RIGHT BRACKET	PT # 9414	 x1 AIR LINE TUBE (18 FEET)

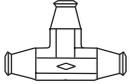
A24-760-7560 INFLATION VALVE BRACKET KIT

PT # 9483	 x1 NO-DRILL INFLATION VALVE BRACKET	PT # 9488	 x2 LARGE NYLON TIE
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A21-760-2607 HARDWARE PACK

PT # 0926	 x2 1/2" FLAT WASHER	PT # 3036	 x2 1/2" - 13 NYLOCK NUT	PT # 3032	 x2 INFLATION VALVE AND VALVE CAP ASSEMBLY
PT # 3033	 x4 5/16" FLAT WASHER	PT # 3022	 x10 3/8" - 16 FLANGE NUT	PT # 3134	 x2 3/8" - 16 BAIL CLAMP
PT # 3046	 x2 1/4" PTC STRAIGHT FITTING	PT # 3370	 x2 3/8" - 16 x 3/4" FLAT HEAD SCREW	PT # 3507	 x2 1/2" - 13 SHOULDER BOLT
		PT # 9036	 x6 RED NYLON TIE	PT # 3014	 x4 3/8" - 16 x 3.5" CARRIAGE BOLT

OPTIONAL ITEMS

PT # 3025	 x1 T-FITTING
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Visit riderite.com to find the perfect air accessories.

CONTENTS AND OVERVIEW

PAGE 4 REMOVE EXISTING JOUNCE BUMPER, JOUNCE BUMPER CUP, AND BOLT

PAGE 5 PRE-ASSEMBLE AIR SPRING ASSEMBLY

PAGE 6 SLIDE AIR SPRING ASSEMBLY INTO PLACE

PAGE 7 SECURE AIR SPRING ASSEMBLY TO VEHICLE FRAME

PAGE 8 RE-INSTALL JOUNCE BUMPER, CUP, AND BOLT

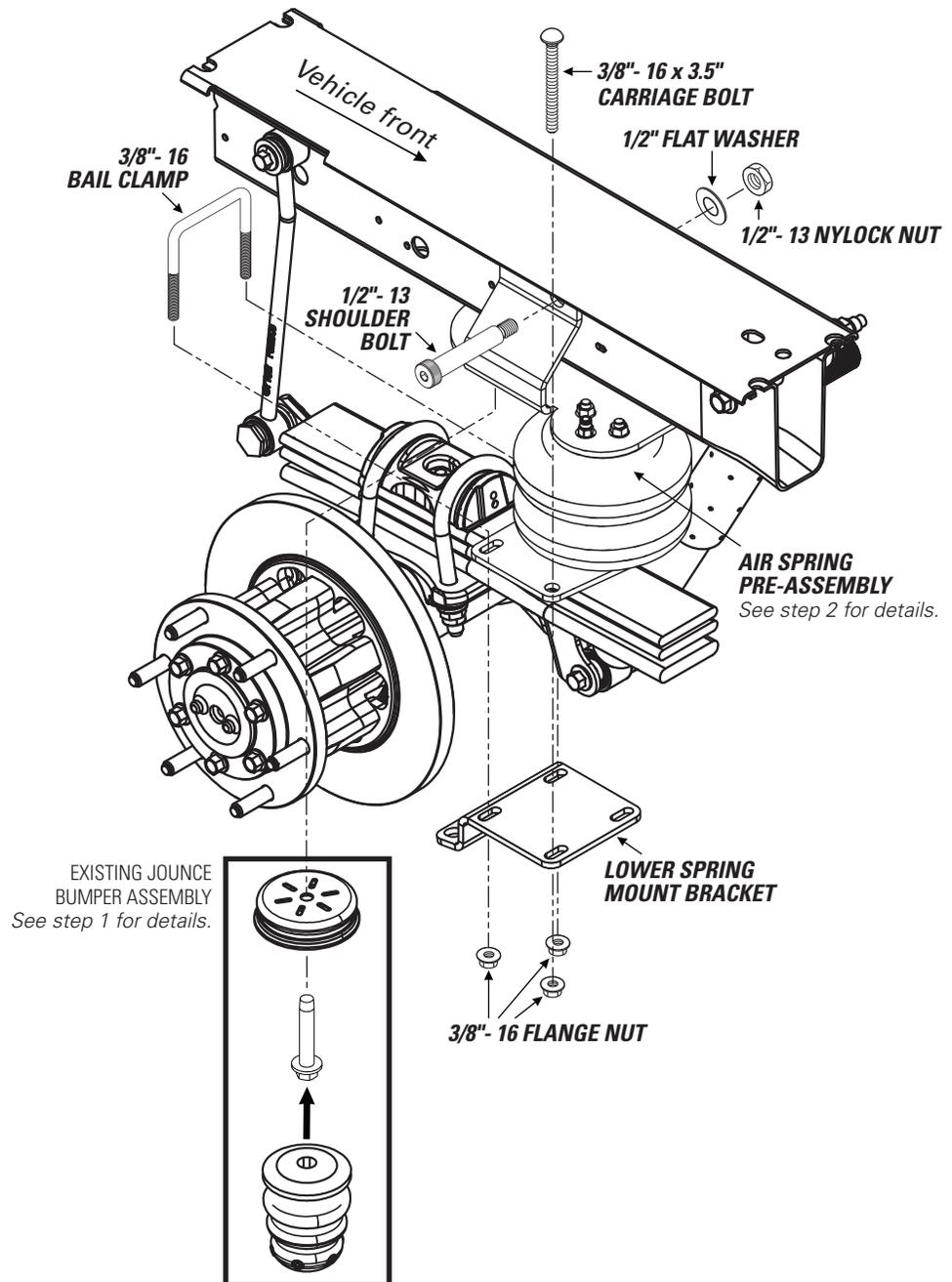
PAGE 9 SECURE LOWER BRACKET ASSEMBLY

PAGE 10 INSTALL INFLATION VALVES AND AIR LINE

PAGE 12 CHECKING THE SYSTEM

PAGE 13 FIXING AN AIR LEAK

PAGE 14 FINISHING THE INSTALLATION



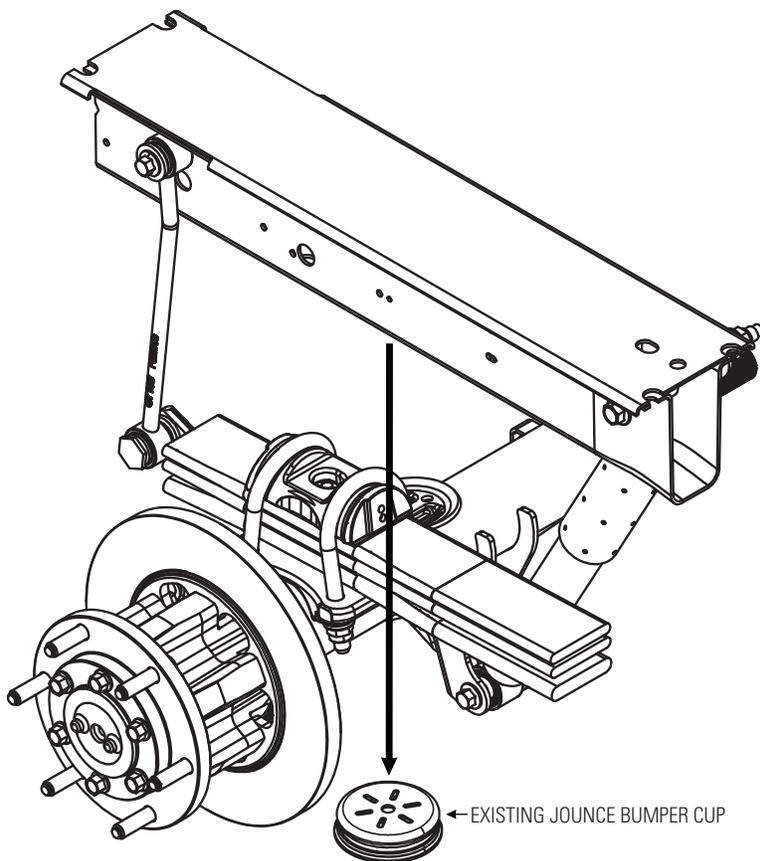


START THE INSTALLATION ON THE RIGHT SIDE OF THE VEHICLE WHEN FACING FORWARD.

1 Pry out existing jounce bumper from bumper cup, as shown.

2 Use a 13mm socket wrench to unbolt the jounce bumper cup, as shown.

3 Keep all of these parts. They will be re-installed in Step 5.



← EXISTING JOUNCE BUMPER CUP

EXISTING JOUNCE BUMPER CUP BOLT →

Using 13mm socket wrench, unbolt jounce bumper cup. Keep the jounce bumper cup and jounce bumper cup bolt. They will be re-installed in step 5.

← EXISTING JOUNCE BUMPER

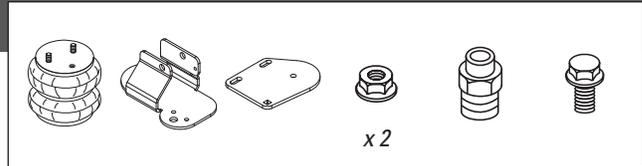
Pry flexible jounce bumper out of cup. Keep the jounce bumper. It will be re-installed in step 5.



DO NOT DISCARD ANY OF THESE PARTS. THEY WILL BE USED LATER IN THE INSTALLATION.

2

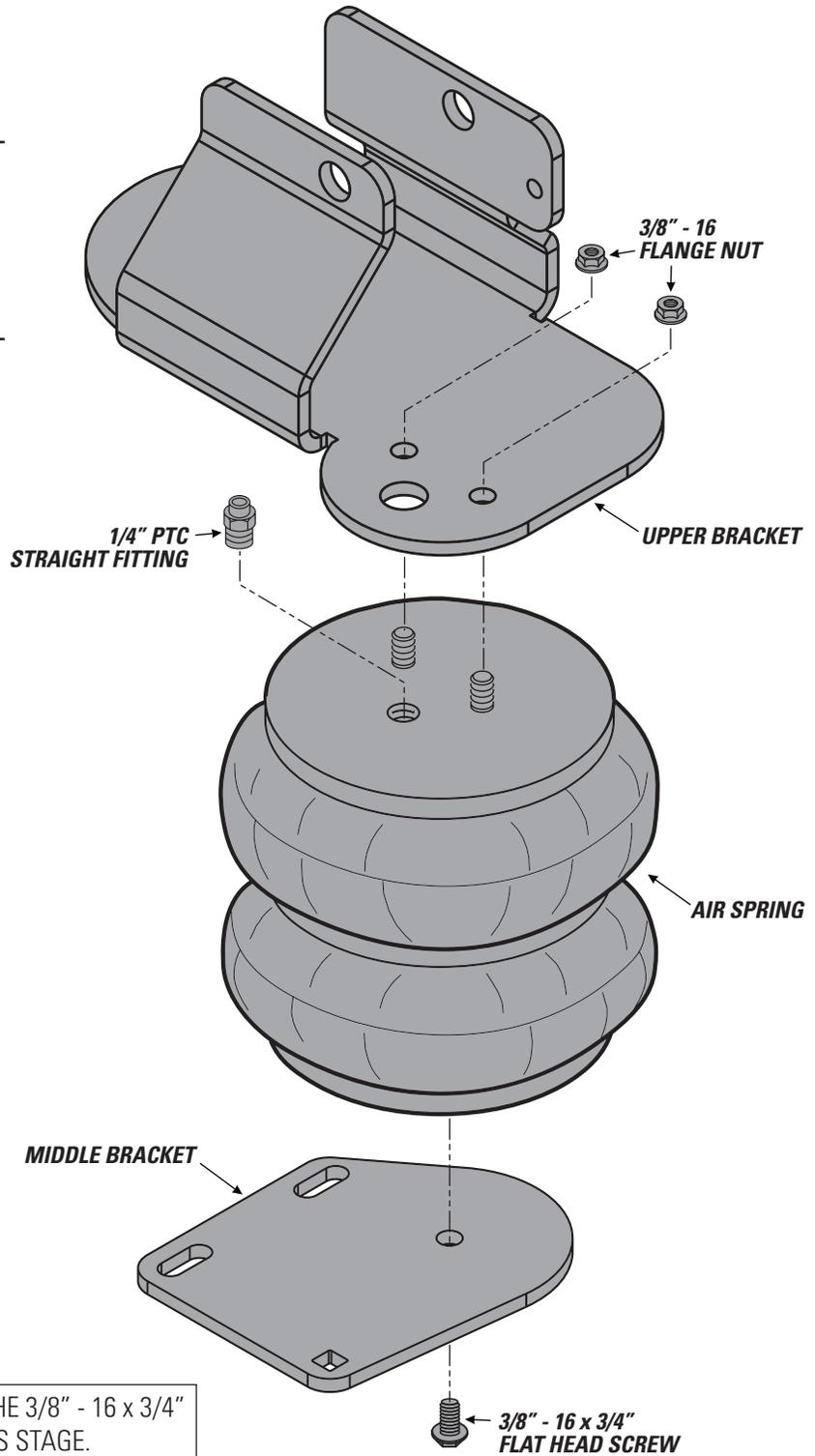
PRE-ASSEMBLE AIR SPRING ASSEMBLY



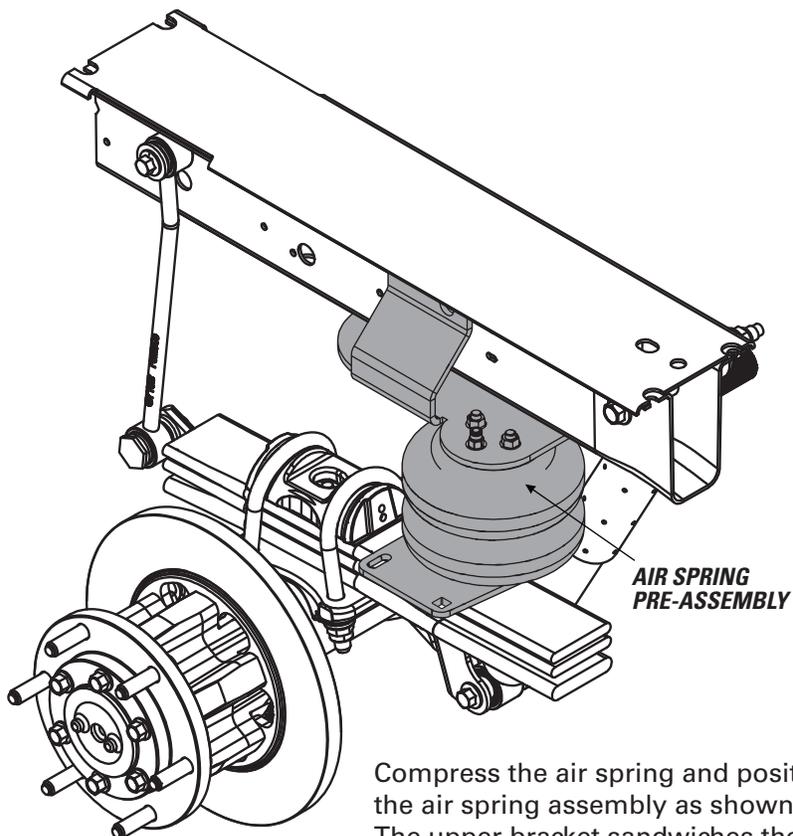
1 Insert the 1/4" PTC straight fitting threads into the female threads on top of the air spring. Tighten until the threadlock is engaged for a few threads.

2 Slide the upper bracket (part number 5885) over the threaded studs on the air spring, as shown, and fasten with the 3/8" - 16 flange nuts.

3 Using the 3/8" - 16 x 3/4" flat head screw, fasten the middle bracket to the bottom of the air spring. **DO NOT FULLY TIGHTEN AT THIS STAGE.**



DO NOT FULLY TIGHTEN THE 3/8" - 16 x 3/4" FLAT HEAD SCREW AT THIS STAGE.

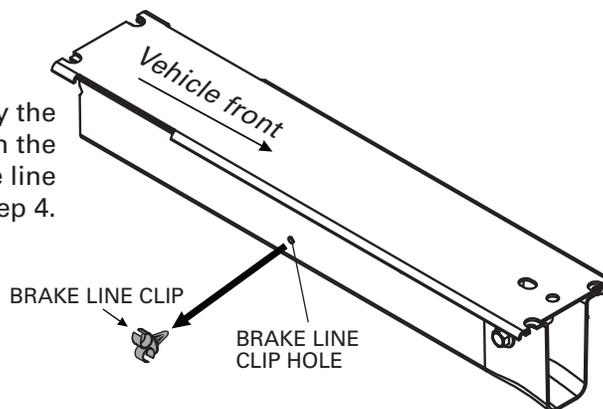


Compress the air spring and position the air spring assembly as shown. The upper bracket sandwiches the frame, and the lower bracket sits on the leaf springs.



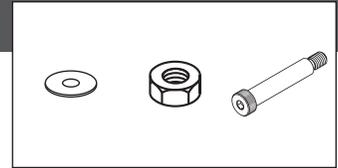
ON THE LEFT SIDE INSTALLATION ONLY, YOU WILL NEED TO PRY THE EXISTING BRAKE LINE CLIP AWAY FROM THE FRAME. THEN RE-INSTALL THE CLIP IN STEP 4..

On left side installation, pry the brake line clip away from the vehicle frame. Keep the brake line clip. It will be re-installed in step 4.



4

SECURE AIR SPRING PRE-ASSEMBLY TO VEHICLE FRAME



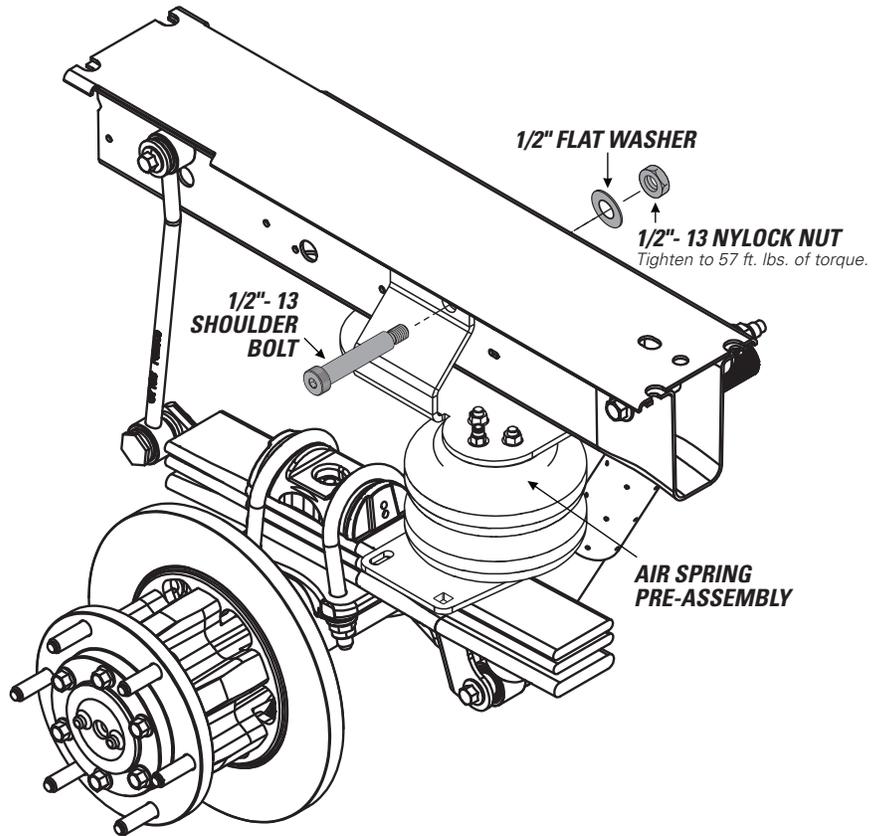
1 Fasten the upper bracket part of the air spring pre-assembly to the frame, as shown. The holes in the upper bracket will align with an existing hole in the vehicle frame.

2 On left side installation, re-install the brake line clip into the hole in the upper bracket, as shown in the diagram below.

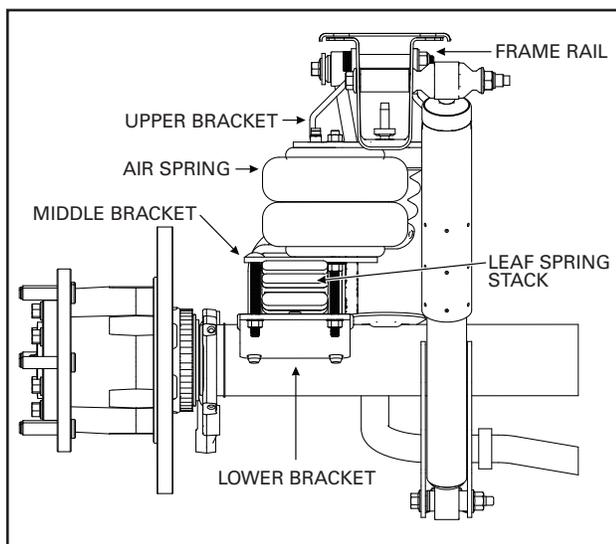
3 Re-install the brake lines into the brake line clip.



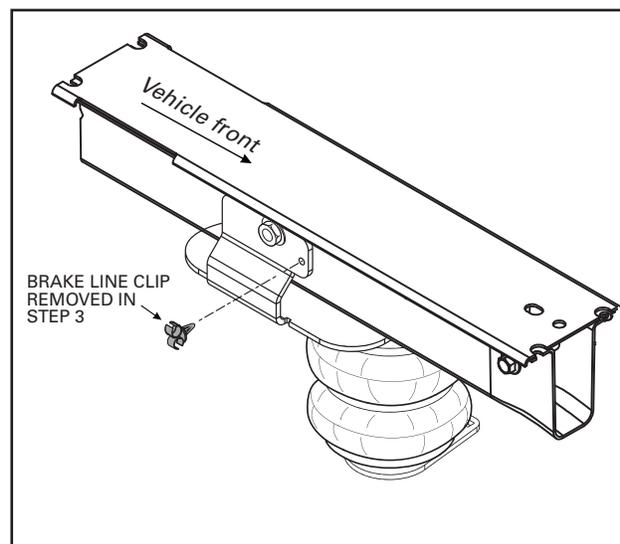
ON SOME VANS, THE 1/2" HOLE FOR THE SHOULDER BOLT WILL NEED TO BE DRILLED. PROCEED TO STEP 5 FIRST, THEN USE THE RIDE-RITE BRACKET AS A JIG FOR DRILLING. RETURN TO STEP 4 AND INSTALL THE SHOULDER BOLT.



RIGHT SIDE VIEW FROM FRONT

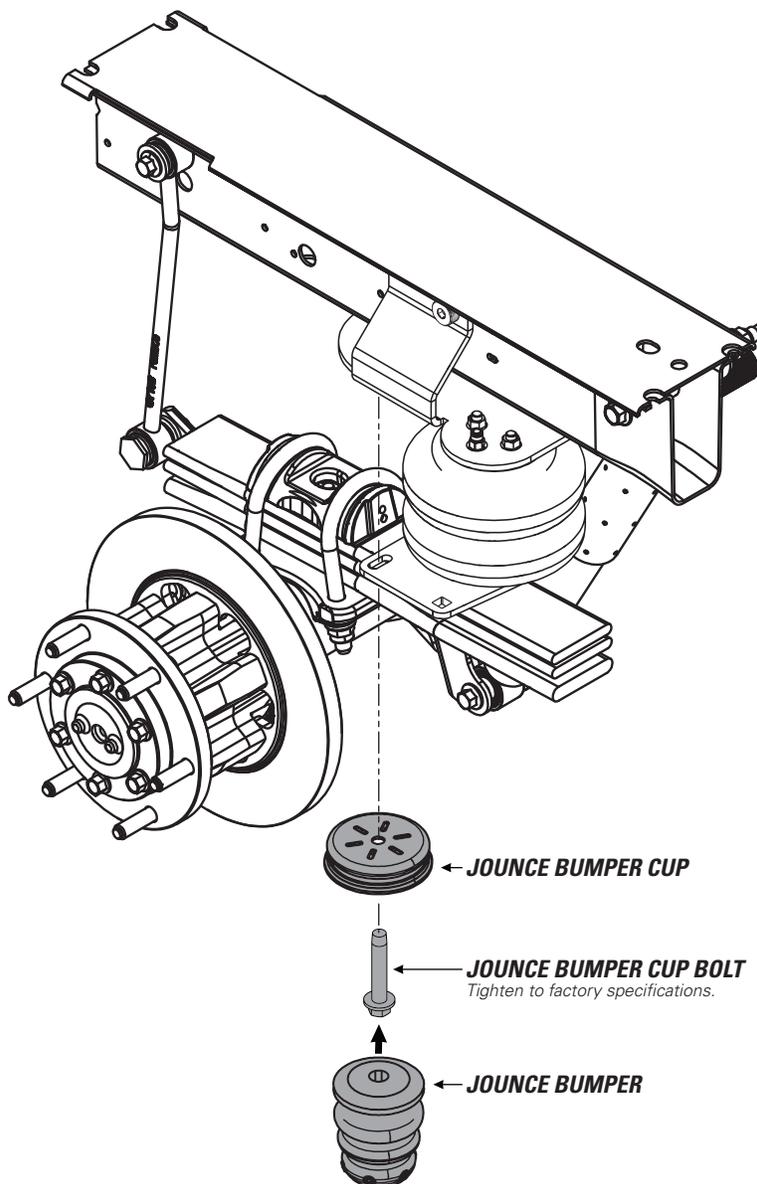


LEFT SIDE VIEW FROM INSIDE FRAME



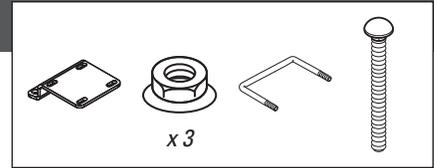
1 Re-install the jounce bumper cup with the jounce bumper cup bolt. Tighten to factory specifications.

2 Snap the jounce bumper back into the jounce bumper cup.



6

SECURE LOWER BRACKET ASSEMBLY



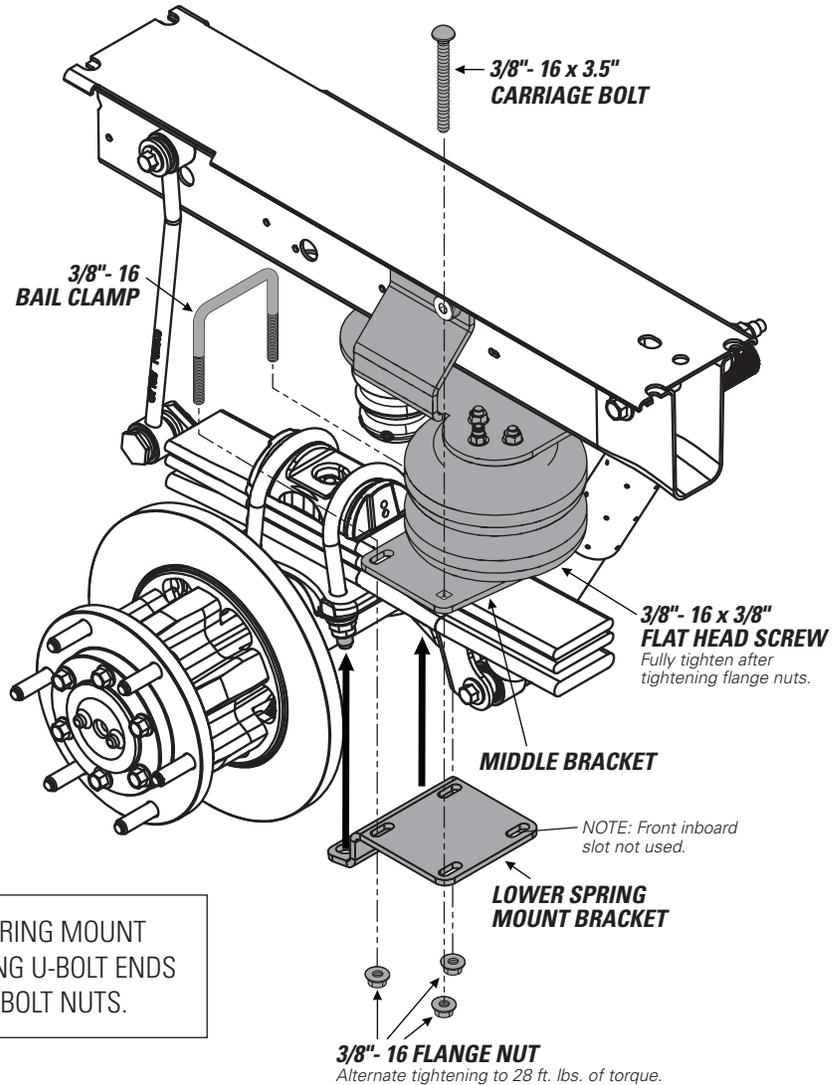
1 Slide the bail clamp through the middle bracket and into the lower bracket.

2 Ensure the lower bracket captures the leaf spring u-bolt ends, as shown. Do not loosen the u-bolt nuts. The lower bracket holes simply fit over the threaded u-bolt ends.

3 Slide the carriage bolt through the middle bracket and into the lower bracket.

4 Alternate tightening flange nuts to appropriate torque specification.

5 Fully tighten the 3/8" - 16 x 3/4" flat head screw to the bottom of the air spring.



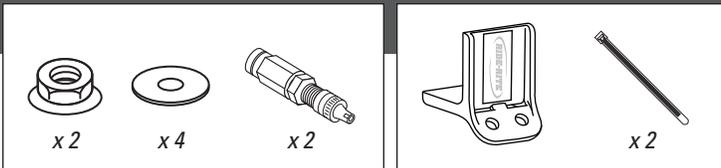
THE HOLES IN THE TAB OF THE LOWER SPRING MOUNT BRACKET MUST CAPTURE THE LEAF SPRING U-BOLT ENDS ON THE VEHICLE. DO NOT LOOSEN THE U-BOLT NUTS.



REMEMBER TO FULLY TIGHTEN THE 3/8" - 16 x 3/4" FLAT HEAD SCREW TO THE BOTTOM OF THE AIR SPRING.

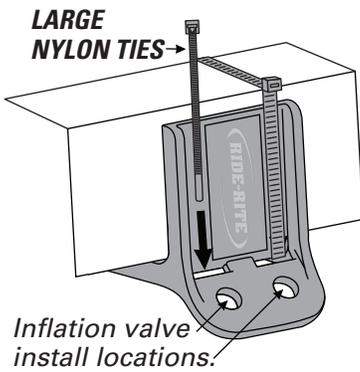


AWESOME! You're done with the right side. Return to step 1 for the left side installation.



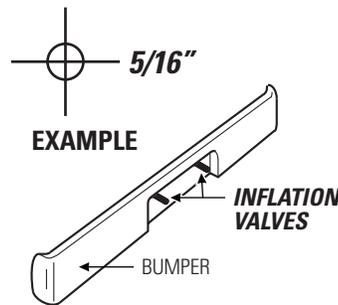
IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. **INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK.**

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

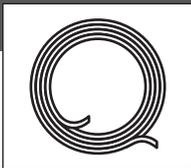
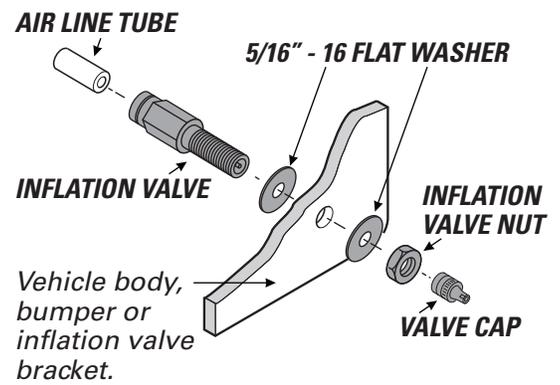


2 Select a protected location to install the inflation valves, such as the bumper or the body of the vehicle.

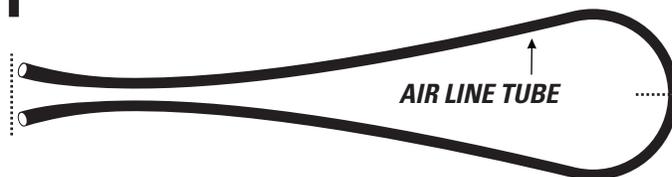
Drill two 5/16" holes for inflation valve install locations.



3 Install inflation valve assembly as shown.



1 Match air line tube ends.



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

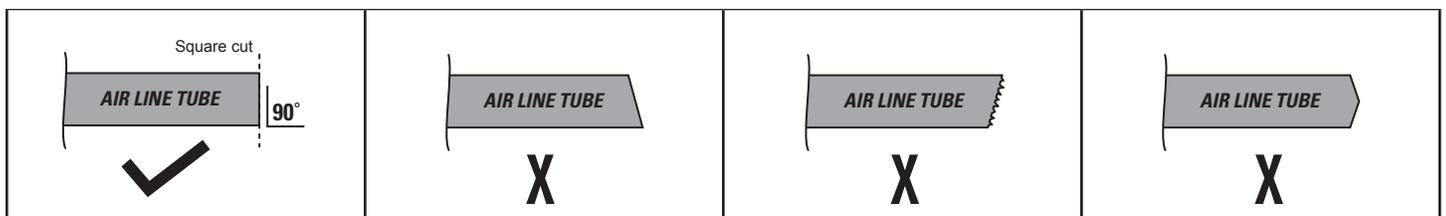
DO

Make sure the cut is as square as possible. Use a tube cutter or sharp utility knife.

DON'T

Fold or kink the air line tube. Cut the air line tube at an angle. Use pliers, scissors, snips, saws, or side cutters.

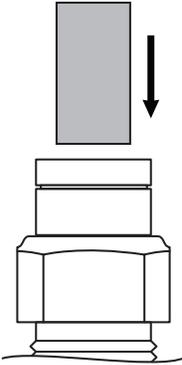
PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



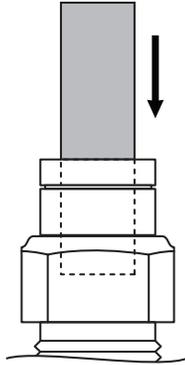
9

INSTALLING AIR LINE TUBE INTO AIR FITTINGS AND INFLATION VALVE

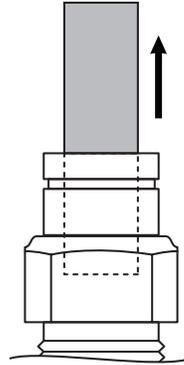
1 Insert end of air line tube into air fitting.



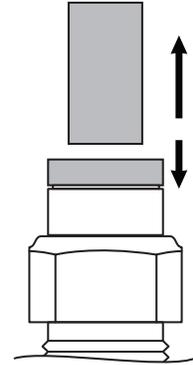
2 Push air line tube into air fitting as far as possible.



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.

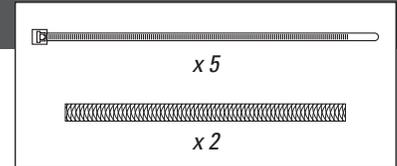


Removal Tip: Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

10

ROUTE AND SECURE AIR LINE TUBES

Air line tube routes will vary, depending on your vehicle, 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

Select routes protected from heat, debris, and sharp edges. Use thermal shields near heat sources. Use Nylon ties to secure the air line tube.

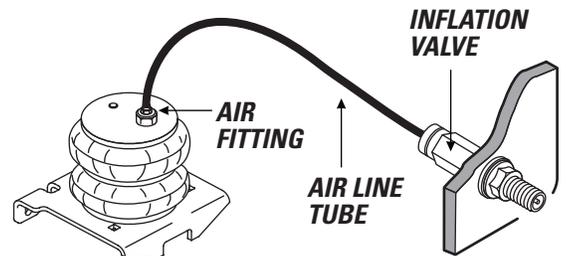
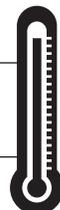
DON'T

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.

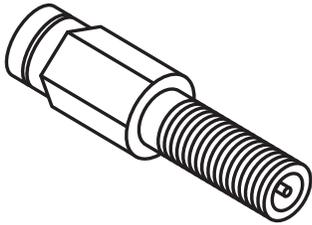
AIR LINE TUBE **THERMAL SHIELD**



USE SUPPLIED THERMAL SHIELDS WHEN AIR LINE TUBE RUNS **WITHIN 6 INCHES** OF HEAT SOURCES.



- 1** Place an air chuck onto the inflation valve and fill the system to **70 PSI**.

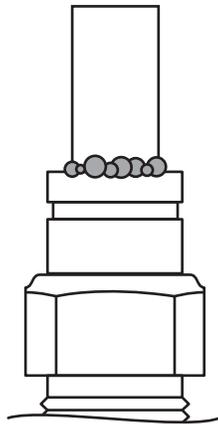


AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING.

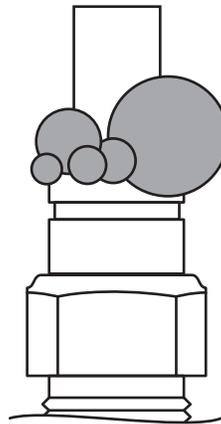
- 2** Spray fittings with soap and water mixture or glass cleaner.



- 3** Observe bubbles.



**SMALL SOAP BUBBLES
THAT DO NOT EXPAND**



**SOAP BUBBLES
THAT EXPAND**



NO LEAKS?

Congratulations! Continue to Step 13 to finish installation. Review the Operating Instructions.

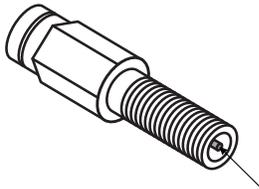
LEAK?

Bummer. Continue to Step 12 to fix the leak.

12

FIXING AN AIR LEAK

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

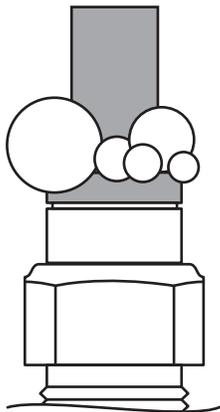


AIR VALVE



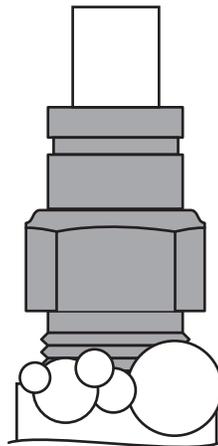
EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR LINE TUBES FROM AIR FITTINGS.

LEAK AT AIR LINE TUBE AND AIR FITTING



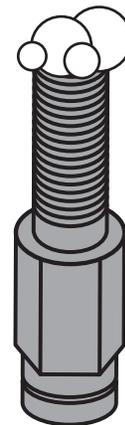
Release air line tube (see page 11). Review proper cuts and procedures in Step 8. Repeat Steps 9 and 11.

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. If the leak persists, or if there is an issue with a leaking part, call 1-800-888-0650; Option 1; Option 1 for Technical Support.

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.

DOUBLE-CHECK AIR SPRING CLEARANCE

Check the air springs once again for the proper 1/2" minimum clearance. Perform clearance check again when vehicle is under load.

VEHICLE GVWR

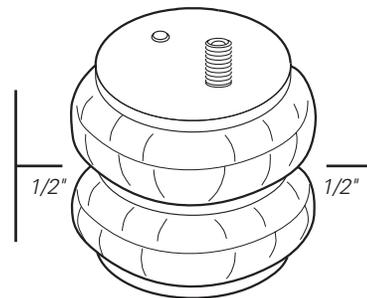
NEVER exceed the maximum load recommended by the vehicle manufacturer (GVWR). The GVWR can be found in your vehicle's owner's manual or on the data plate on the driver's side door. Consult your local dealership for additional GVWR specifications.

READ AND UNDERSTAND THE OPERATING INSTRUCTIONS

The Ride-Rite system can improve handling and comfort. Take the time to learn how to properly use and maintain your investment by reading the Operating Instructions.



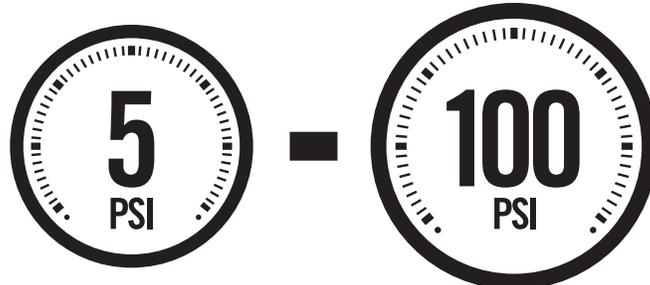
USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



! 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)

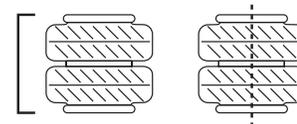


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BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

- Do you have a minimum of 5PSI in your air springs?
- Are your air springs standing 5 1/2" - 6 1/2" tall?
- Are your air springs properly aligned, left-to-right and front-to-back?
- On the left side, did you install the brake line clip into the brake line clip hole in the upper bracket?
- Are your nuts and bolts tight?
- Put your paper work back into the sleeve and keep it in your glove compartment for future reference.
- You've been bagged...and now your suspension is Airide™ equipped! Show it off with the supplied decal!

5 1/2" - 6 1/2"



NEED INSTALLATION HELP? 1-800-888-0650

Select Option 1 for Ride-Rite; Select Option 1 for Technical Support.

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

Firestone

Firestone Industrial Products

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Firestone Ride-Rite