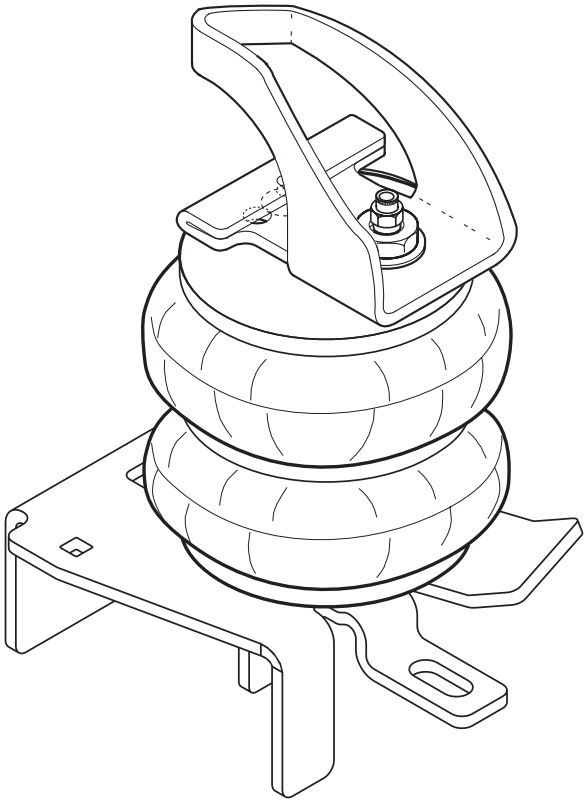
2583

RIDE-RITE™

AIR HELPER SPRINGS

riderite.com

INSTALLATION INSTRUCTIONS



Firestone

World's Number 1 Air Spring.

FIRESTONE INDUSTRIAL PRODUCTS COMPANY

! IMPORTANT

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

DO NOT INSTALL IF THE TRUCK HAS BEEN LIFTED AND THE STOCK JOUNCE BUMPER SPACERS ARE NOT ON THE VEHICLE. *This kit is to be used on a* ***pickup truck 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.

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 2500 lbs. per pair of Air Springs.

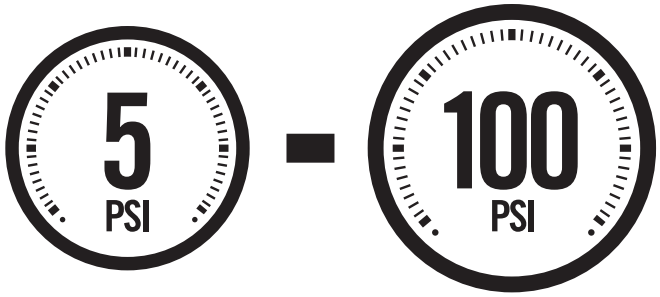
APPROPRIATE AIR PRESSURE

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:

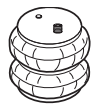
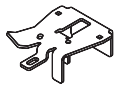
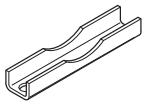


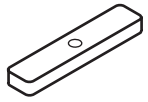
MINIMUM PRESSURE ***MAXIMUM PRESSURE (LOADED)***

PARTS

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

MAIN KIT CONTENTS

PART # 7701		x 2 AIR SPRING	PART # 5809		x 1 LEFT LOWER BRACKET
PART # 5717		x 1 LEFT SIDE UPPER BRACKET	PART # 5810		x 1 RIGHT LOWER BRACKET
PART # 5572		x 1 RIGHT SIDE UPPER BRACKET	PART # 5613		x 2 AXLE STRAP BRACKET

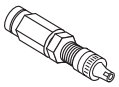
PART # 5477		x 2 1/2" SPACER			
PART # 1004		x 1 HEAT SHIELD			
PART # 9415		x 1 AIR LINE TUBE (22 FEET)			

A24-760-7560 INFLATION VALVE BRACKET KIT

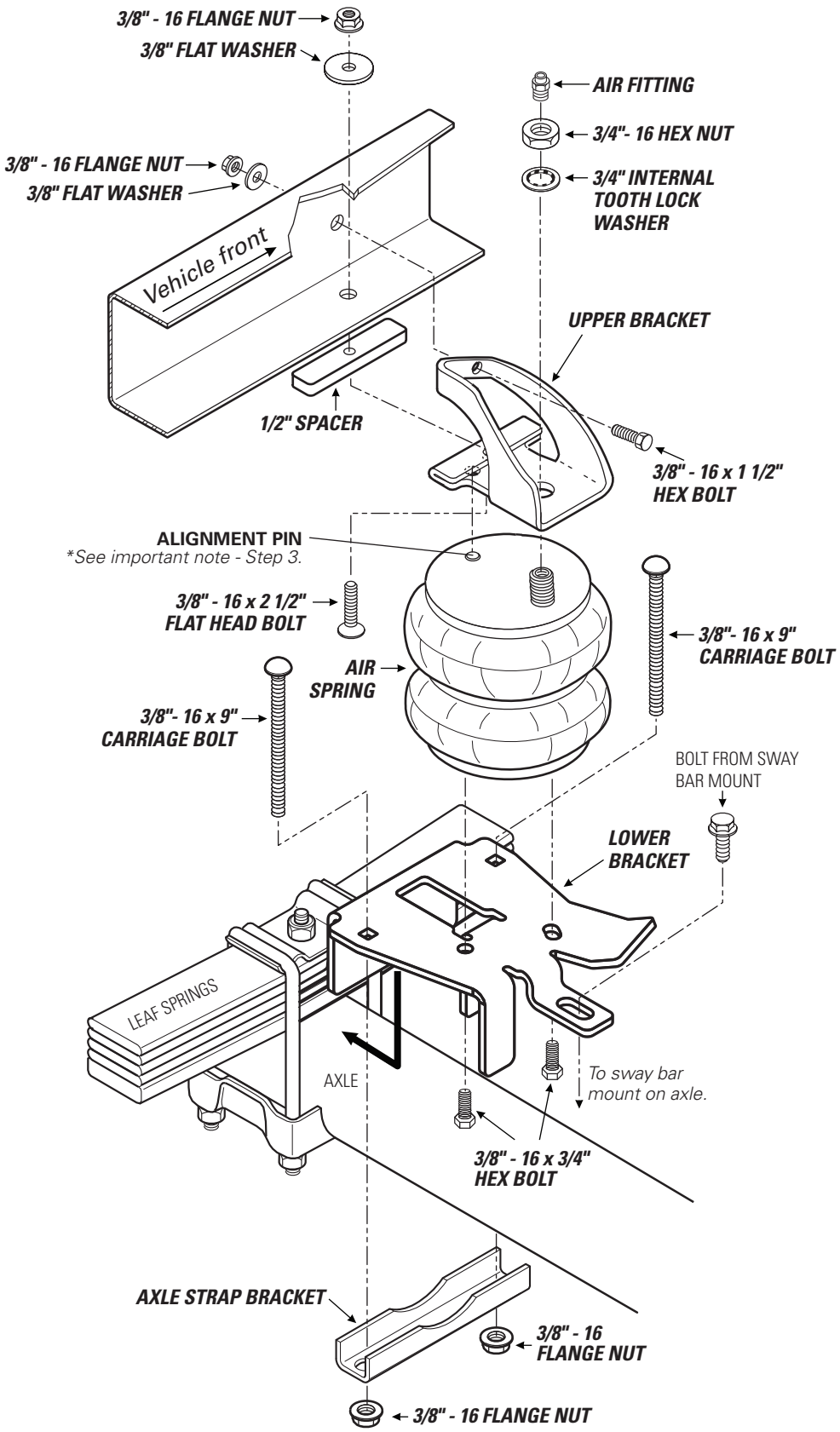
PART # 9483		x 1 NO-DRILL INFLATION VALVE BRACKET	PART # 9488		x 2 LARGE NYLON TIE

A21-760-2583 HARDWARE PACK

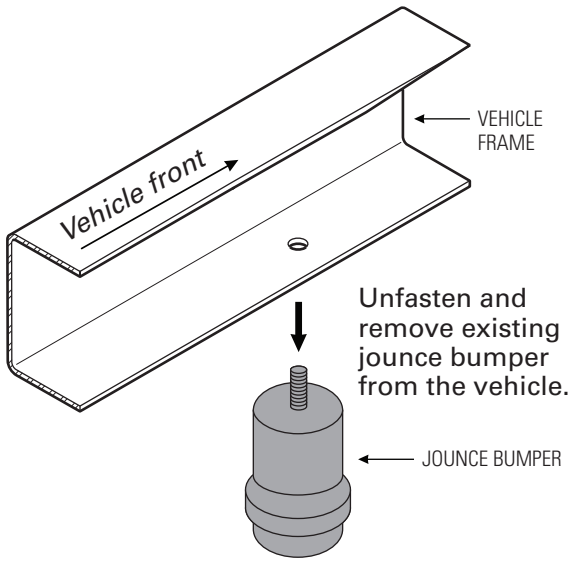
PT # 3029		x 1 3/8" - 16 x 1 1/2" HEX HEAD BOLT	PT # 3067		x 7 3/8" - 16 FLANGE LOCK NUT
PT # 0071		x 1 3/8" FLAT WASHER	PT # 0532		x 2 3/8" LARGE FLAT WASHER
PT # 3033		x 4 5/16" FLAT WASHER	PT # 3409		x 1 3/4" - 16 x 1 1/4" HEX HEAD BOLT
PT # 3411		x 1 3/4" THICK WASHER	PT # 3295		x 2 3/4" - 16 HEX NUT
PT # 0681		x 4 3/8" - 16 x 3/4" HEX HEAD BOLT	PT # 3412		x 1 3/4" - 16 FRAME NUT
PT # 3345		x 2 3/8" - 16 x 2 1/2" FLAT HEAD BOLT	PT # 3064		x 2 INTERNAL TOOTH LOCK WASHER

PT # 3296		x 1 3/4" LOCK WASHER			
PT # 3032		x 2 INFLATION VALVE AND VALVE CAP ASSEMBLY			
PT # 3046		x 2 AIR FITTING			
PT # 3428		x 4 3/8" - 16 x 9" CARRIAGE BOLT			
PT # 9036		x 6 RED NYLON TIE			
PT # 0899		x 2 THERMAL SLEEVE			

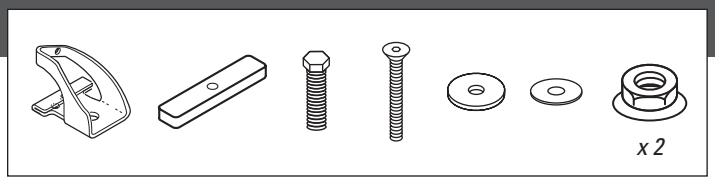
CONTENTS AND OVERVIEW



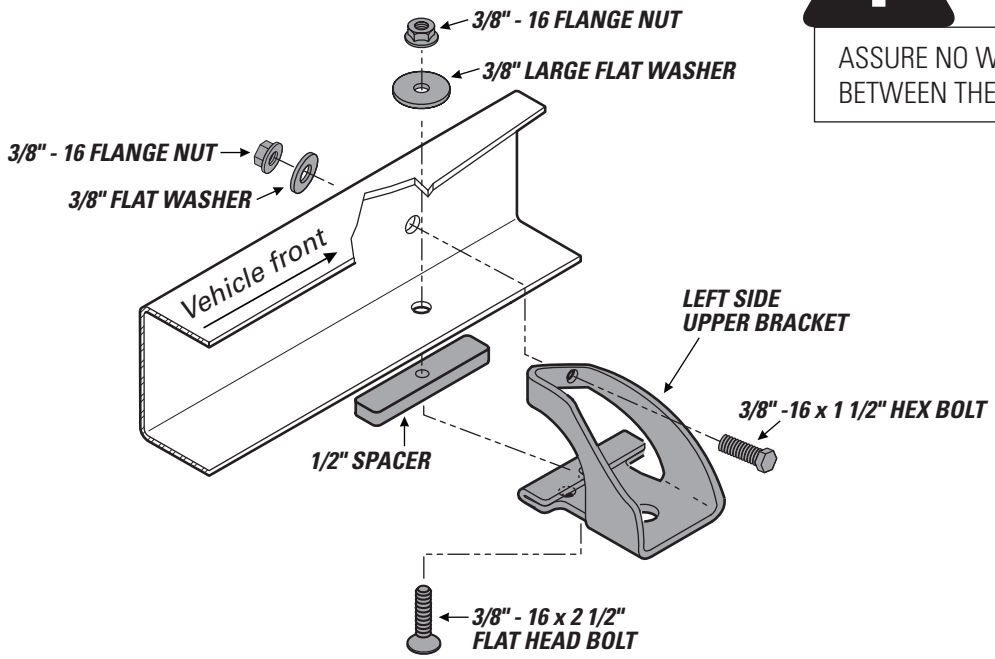
REMOVE EXISTING JOUNCE BUMPER 1



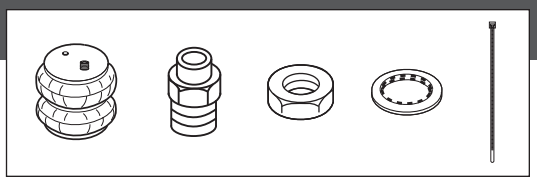
INSTALL LEFT SIDE UPPER BRACKET 2



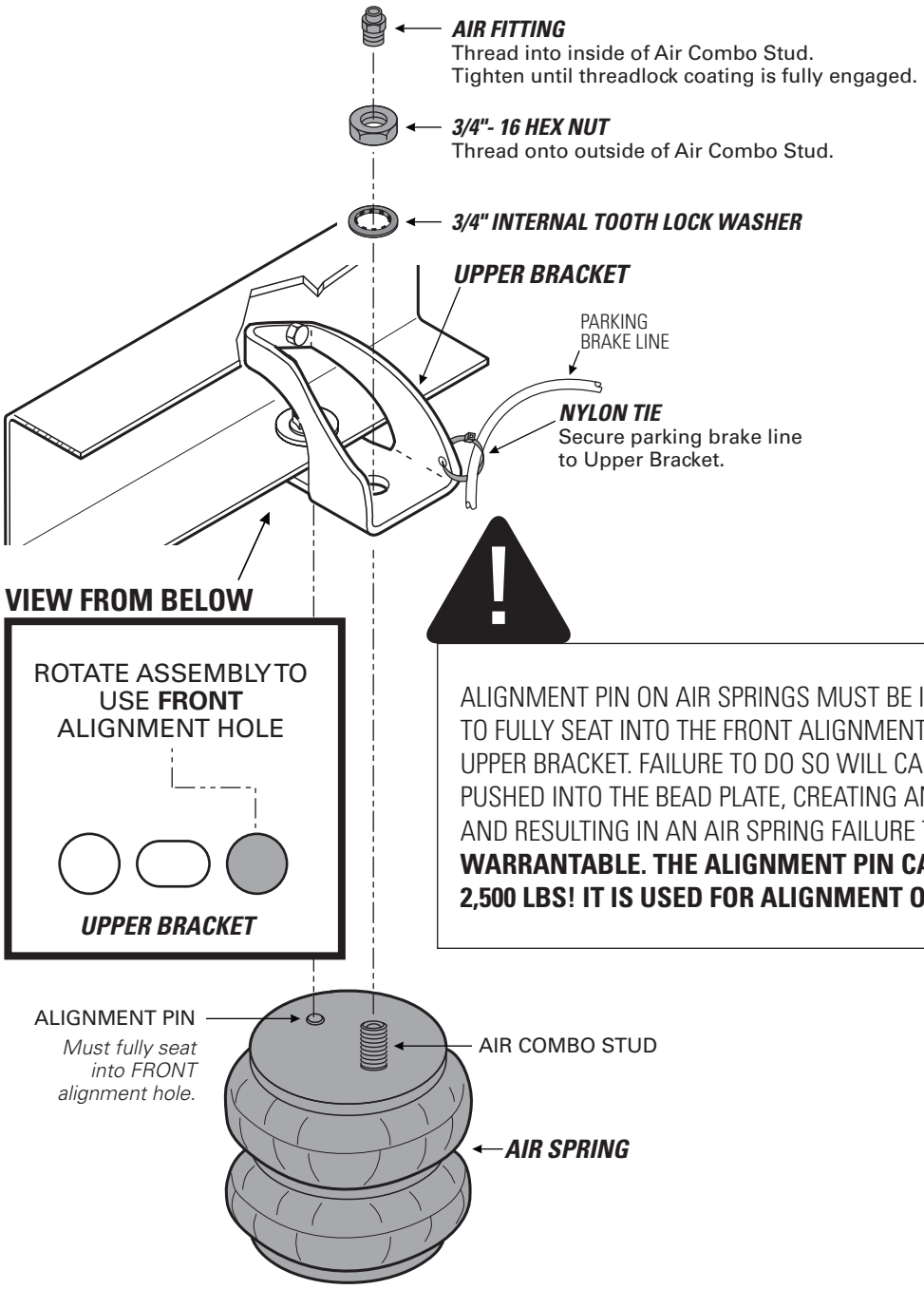
ASSURE NO WIRING OR LINES ARE PINCHED BETWEEN THE BRACKET AND FRAME.



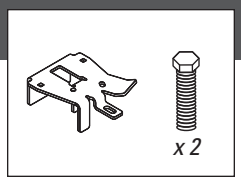
3 FASTEN AIR SPRING TO UPPER BRACKET



INSTALLING THE RIGHT SIDE? REMEMBER TO INSTALL THE HEAT SHIELD IN STEP 7 FIRST!



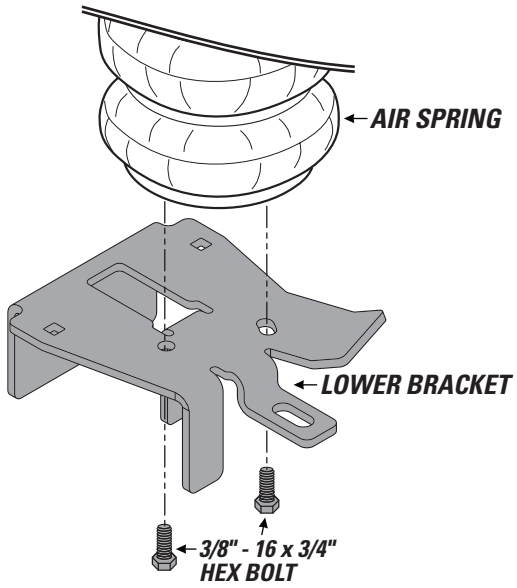
ALIGNMENT PIN ON AIR SPRINGS MUST BE INSTALLED TO FULLY SEAT INTO THE FRONT ALIGNMENT HOLE IN THE UPPER BRACKET. FAILURE TO DO SO WILL CAUSE IT TO BE PUSHED INTO THE BEAD PLATE, CREATING AN AIR LEAK, AND RESULTING IN AN AIR SPRING FAILURE THAT IS **NOT WARRANTABLE. THE ALIGNMENT PIN CANNOT HOLD 2,500 LBS! IT IS USED FOR ALIGNMENT ONLY!**



1 Remove the existing Sway Bar bolt from the mount. KEEP THIS BOLT.

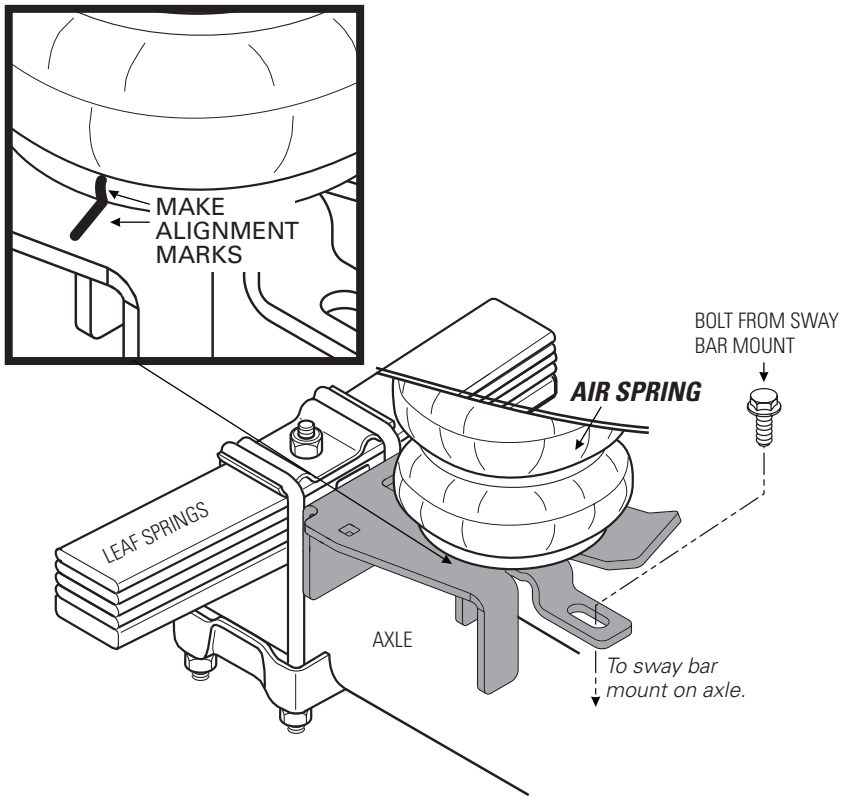
2 Fasten the Lower Bracket to the Air Spring as shown. Hand-tighten for now.

3 Set the Lower Bracket into position on the axle, as close to the leaf spring stack as possible. Assure the tab on the Lower Bracket can be fastened to the sway bar mount with the existing bolt.

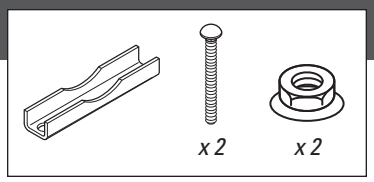


4 Dry fit the assembly and make alignment marks, as shown.

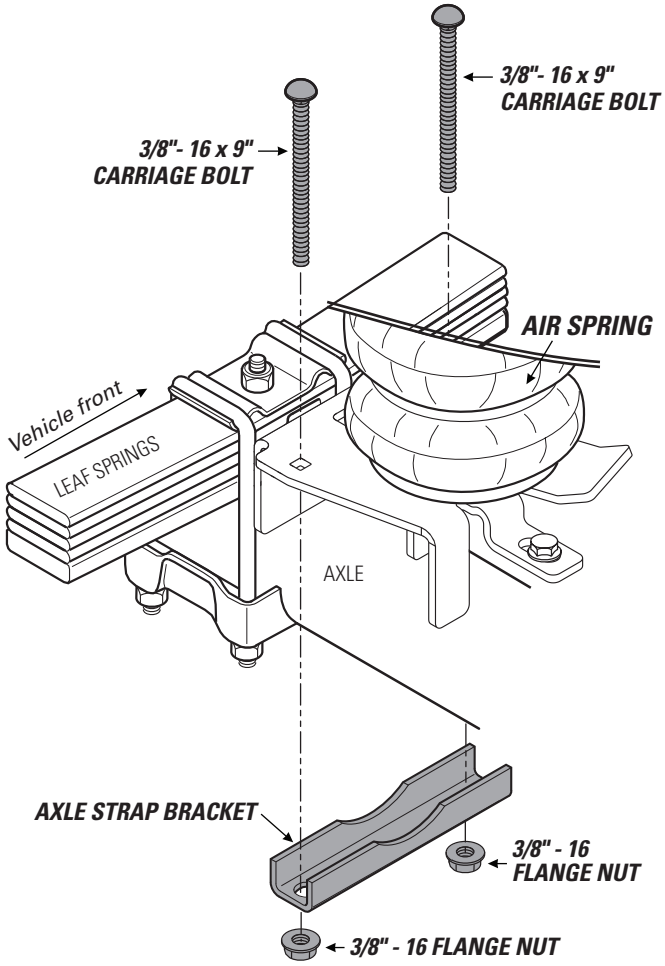
5 Align the alignment marks and securely fasten the Lower Bracket to the Air Spring. Use the existing sway bar mount bolt to fasten the tab on the Lower Bracket to the sway bar.



5 SECURE LOWER BRACKET

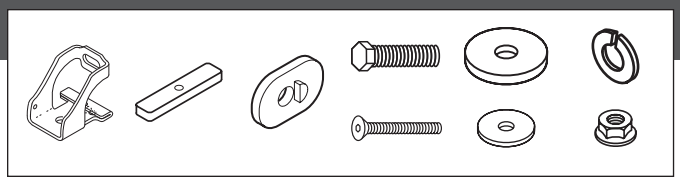


USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



Alternate tightening to draw Axle Strap Bracket evenly to the axle.

AWESOME! You're done with the left side.
Move on to Step 6 to begin the right side installation.

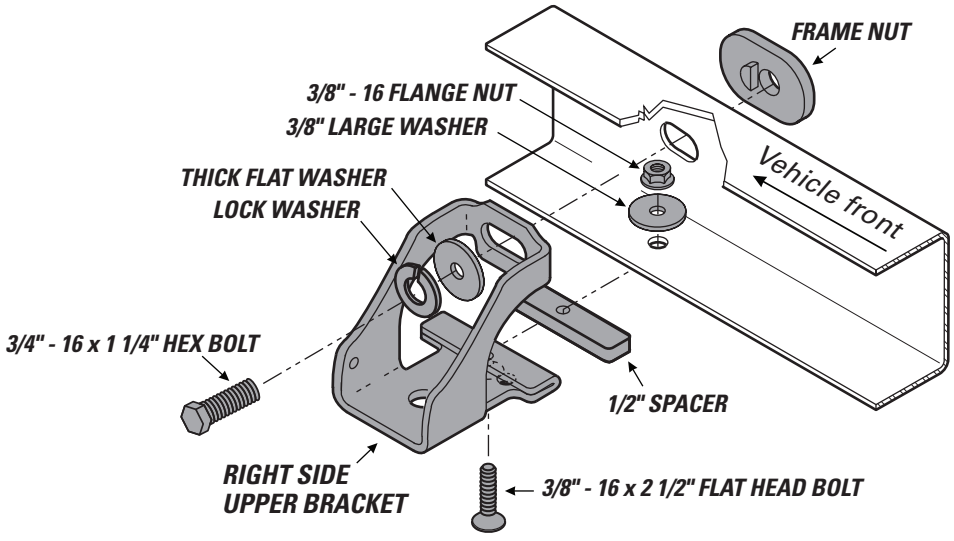


1 Follow the steps below to install the right side Upper Bracket.

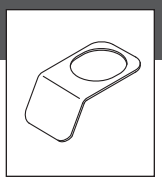
2 Once completed, see Step 7 for Heat Shield Installation.

3 Once Step 7 is complete for the right side, continue to Steps 3-5.

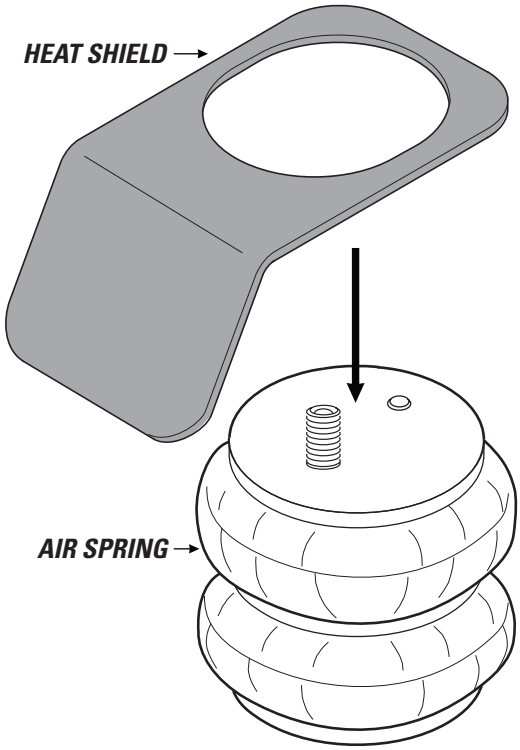
ASSURE NO WIRING OR LINES ARE PINCHED BETWEEN THE BRACKET AND FRAME.

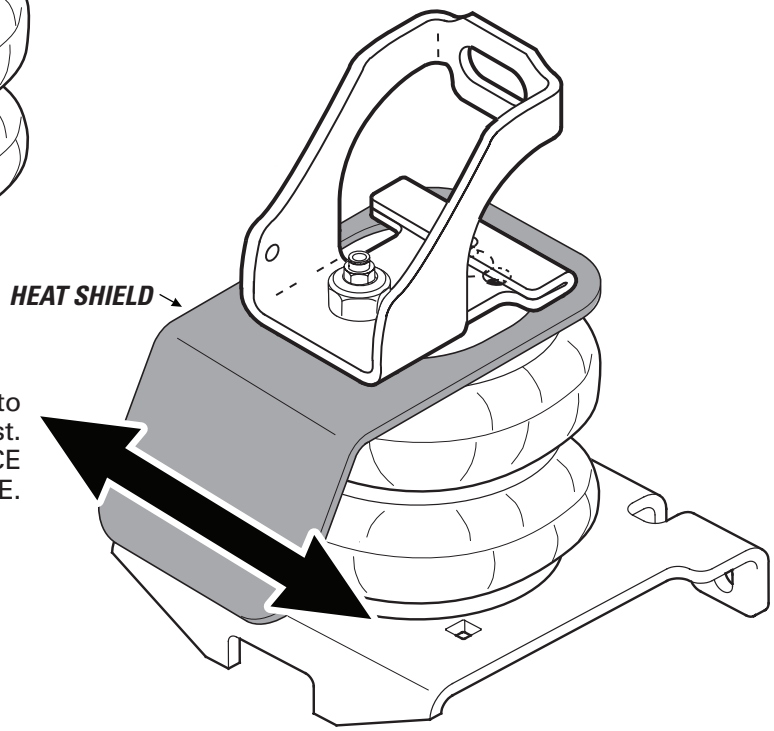


7 INSTALL RIGHT SIDE WITH HEAT SHIELD



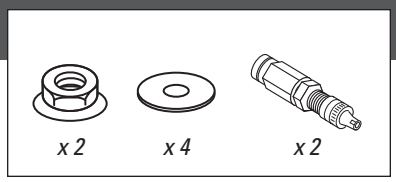
RIGHT SIDE INSTALLATION MUST INCLUDE HEAT SHIELD!

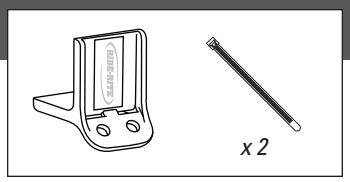




Position Heat Shield to closest point of exhaust. DO NOT PLACE DIRECTLY ABOVE AXLE.

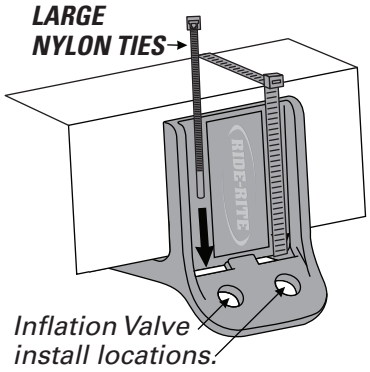
INSTALL INFLATION VALVES 8





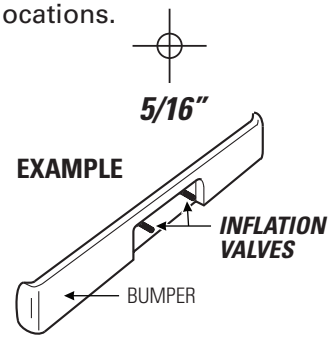
IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. **INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK.**

1 Secure the Air Inflation Valve Bracket to a protected, secure location. PROCEED TO STEP 3.

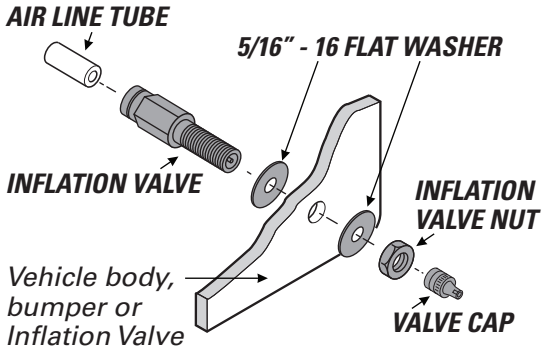


2 Select a protected location to install the Inflation Valves, such as the bumper or the body of the vehicle.

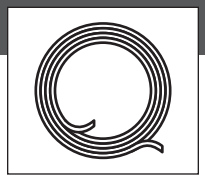
Drill two 5/16" holes for Inflation Valve install locations.



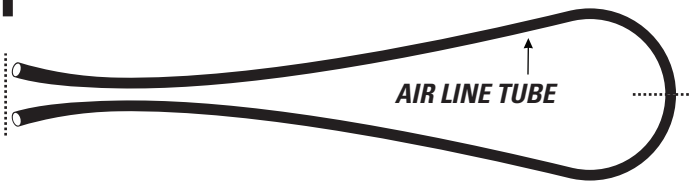
3 Install Inflation Valve assembly as shown.



CUT THE AIR LINE TUBE INTO TWO EQUAL LENGTHS 9



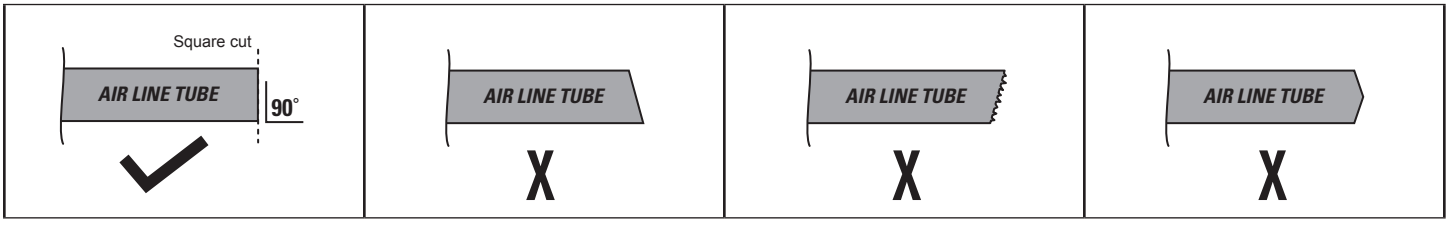
1 Match Air Line Tube ends.



2 Find center of Air Line Tube, make a square cut with tube cutter or sharp utility knife.

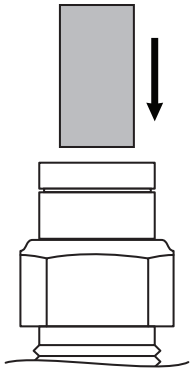
DO	DON'T
Make sure the cut is as square as possible. Use a tube cutter or sharp utility knife.	Fold or kink the Air Line Tube. Cut the Air Line Tube at an angle. Use pliers, scissors, snips, saws, or side cutters.

PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE

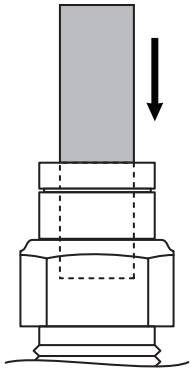


10 INSTALLING AIR LINE TUBE INTO AIR FITTINGS AND INFLATION VALVE

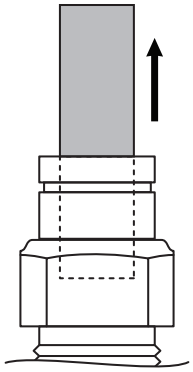
1 Insert end of Air Line Tube into Air Fitting.



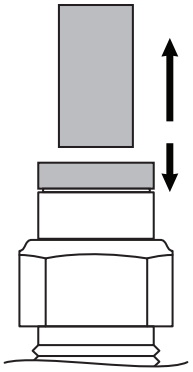
2 Push Air Line Tube into Air Fitting as far as possible.



3 Gently pull on the Air Line Tube to check for a secure fit.



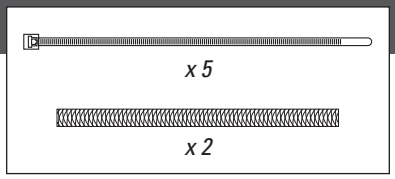
4 To remove, push down collar and gently pull Air Line Tube away.



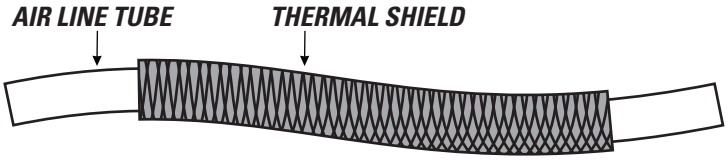
Removal Tip: Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

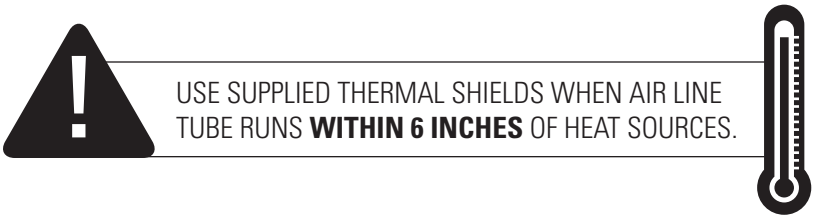
11 ROUTE AND SECURE AIR LINE TUBES

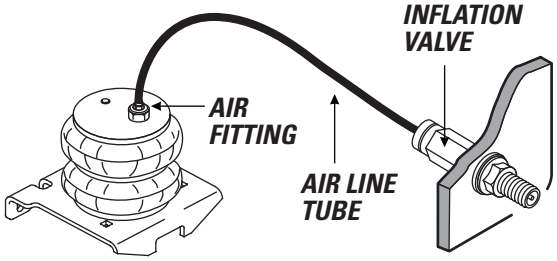
Air Line Tube routes will vary, depending on your truck, and requires you to choose the best path from the Air Springs to the Inflation Valves. Use the instructions below to help you choose.



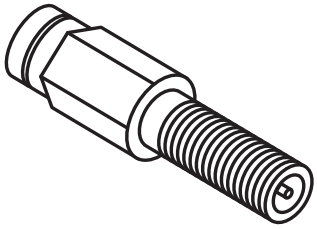
DO	DON'T
Select routes protected from heat, debris, and sharp edges. Use Thermal Shields near heat sources. Use Nylon Ties to secure the Air Line Tube.	Bend or sharply curve Air Line Tubes. Leave Air Line Tube exposed to sharp edges. Use unnecessary lengths of Air Line Tube. Route Air Line Tube near moving parts. Let Air Line tube hang unsecured from vehicle. Scar Air Line Tube while routing.







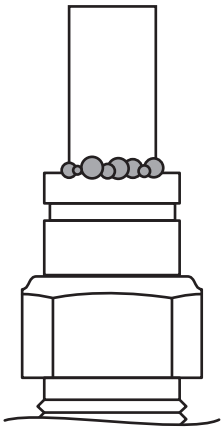
1 Place an air chuck onto the Inflation Valve and fill the system to **70 PSI**.



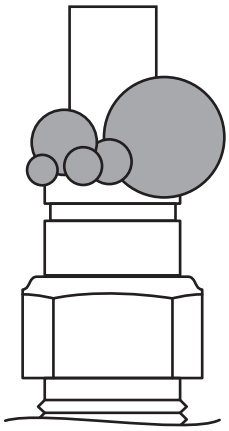
AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING.

2 Spray fittings with soap and water mixture.

3 Observe bubbles.



SMALL SOAP BUBBLES THAT DO NOT EXPAND



SOAP BUBBLES THAT EXPAND

X

NO LEAKS?

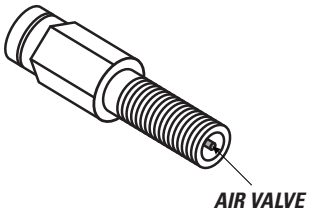
Congratulations! Continue to Step 14 to finish installation. Review the Operating Instructions.

LEAK?

Bummer. Continue to Step 13 to fix the leak.

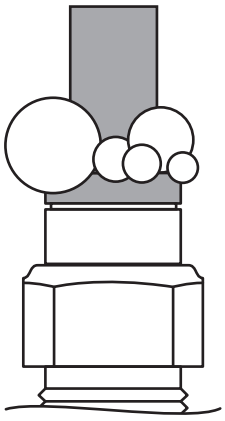
13 FIXING AN AIR LEAK

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



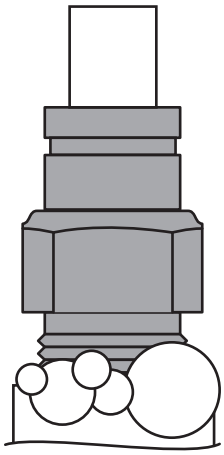
EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR LINE TUBES FROM AIR FITTINGS.

LEAK AT AIR LINE TUBE AND AIR FITTING



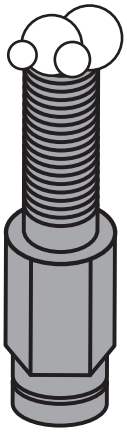
Release Air Line Tube (see page 11). Review proper cuts and procedures in Step 9. Repeat Steps 10 and 12.

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 Tech 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.

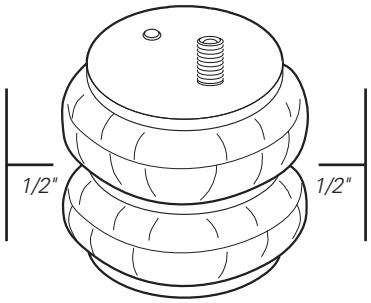
VEHICLE GVWR

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 investement by reading the Operating Instructions.

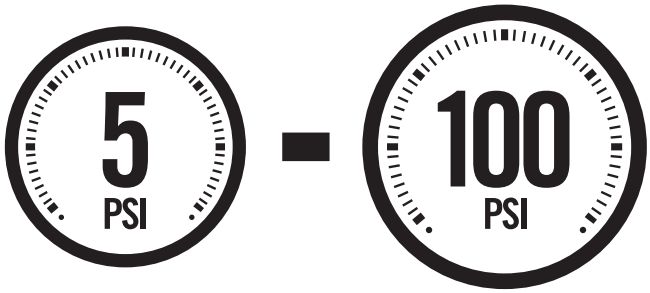
USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



! 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)*

RIDE-RITE™

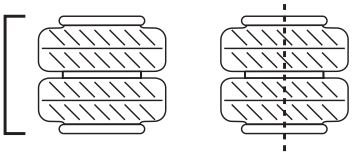
AIR HELPER SPRINGS

riderite.com

BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

- ☐ Do you have a minimum of 5PSI in your Air Springs?
- ☐ Are your Air Springs standing 7" - 8" tall?
- ☐ Are your Air Springs properly aligned, left-to-right and front-to-back?
- ☐ 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!

7" - 8"



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**. If emailing, please include photos to help us better diagnose and understand any problems you may be experiencing.

Firestone

World's Number 1 Air Spring.

FIRESTONE INDUSTRIAL PRODUCTS COMPANY

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