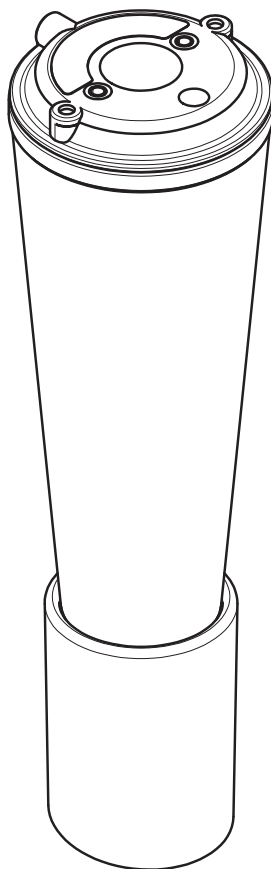




[riderite.com](http://riderite.com)

# 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.

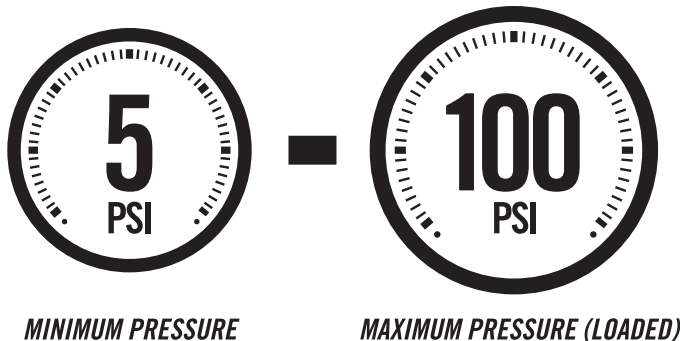
## **APPROPRIATE AIR PRESSURE**

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).


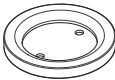
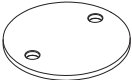

**ONCE INSTALLED SUCCESSFULLY, FOLLOW THESE PRESSURE REQUIREMENTS FOR THE AIR SPRINGS:**





# PARTS

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



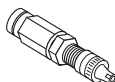




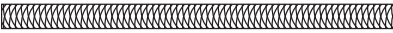
## MAIN KIT CONTENTS

PART # 9047		x 2 AIR SPRING	PART # 5690		x 2 UPPER MOUNT	PART # 5691		x 2 TOP PLATE
PART # 9416		x 1 AIR LINE TUBE (30 FEET)						

## A24-760-7560 INFLATION VALVE BRACKET KIT

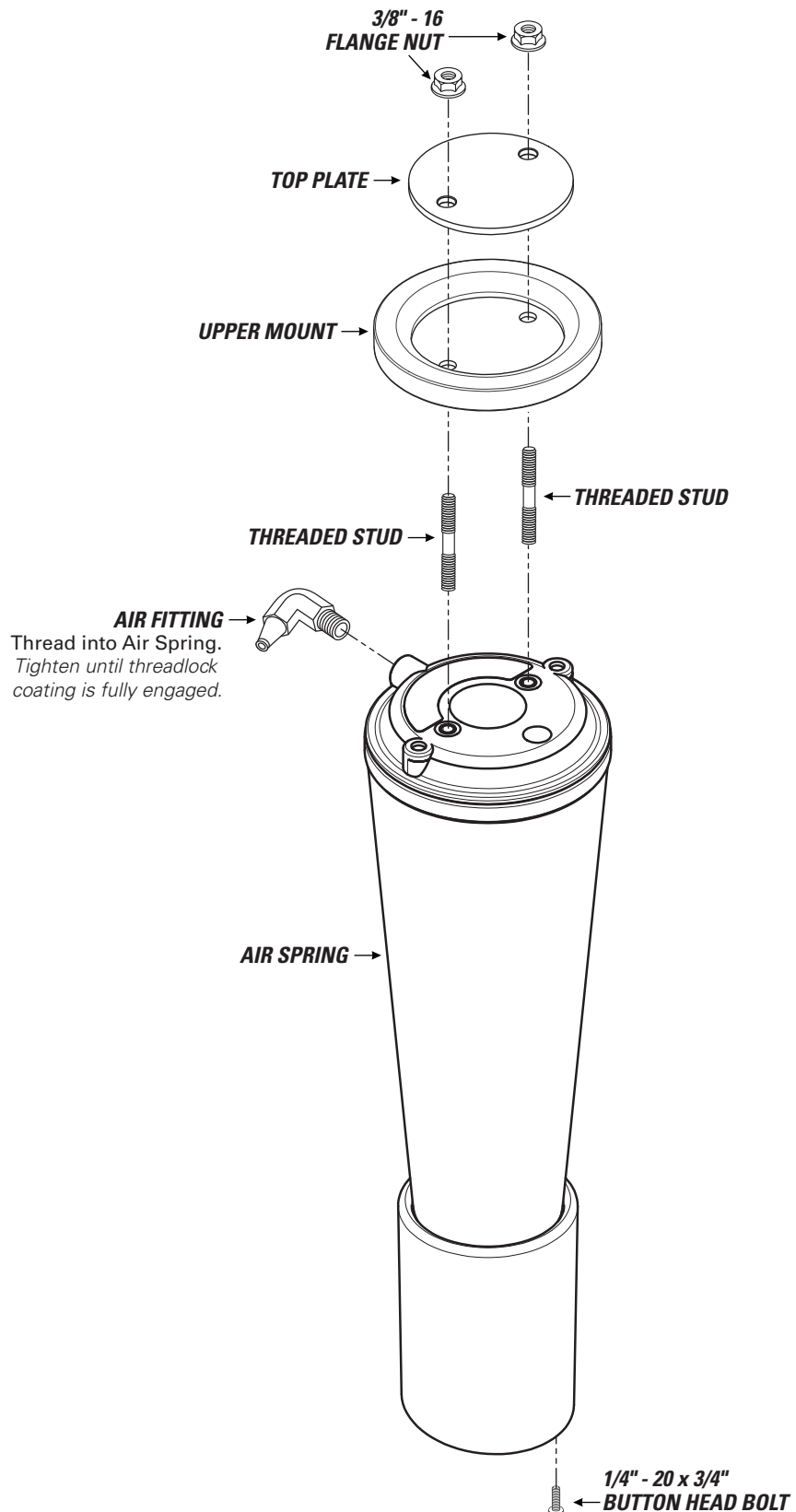
PART # 9483		x 1 NO-DRILL INFLATION VALVE BRACKET	PART # 9488		x 2 LARGE NYLON TIE
-------------	-----------------------------------------------------------------------------------	--------------------------------------	-------------	------------------------------------------------------------------------------------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

## A21-760-2595 HARDWARE PACK

PT # 3022		x 4 3/8" - 16 FLANGE LOCK NUT	PT # 3128		x 2 1/4" ELBOW AIR FITTING	PT # 3032		x 2 INFLATION VALVE AND VALVE CAP ASSEMBLY
PT # 3033		x 4 5/16" FLAT WASHER	PT # 3416		x 4 3/8" - 16 x 2.0 THREADED STUD	PT # 9036		x 6 RED NYLON TIE
PT # 3424		x 2 1/4" - 20 x 3/4" BUTTON HEAD SCREW				PT # 0899		x 2 THERMAL SLEEVE

# CONTENTS AND OVERVIEW

PAGE	<b>4</b>	<b>PREPARE THE VEHICLE</b>
PAGE	<b>5</b>	<b>BEGIN REMOVING STOCK COIL SPRINGS</b>
PAGE	<b>6</b>	<b>FINISH REMOVING STOCK COIL SPRINGS</b>
PAGE	<b>7</b>	<b>PRE-ASSEMBLE AIR SPRINGS</b>
PAGE	<b>8</b>	<b>BEGIN INSTALLING AIR SPRINGS</b>
PAGE	<b>9</b>	<b>FINISH INSTALLING AIR SPRINGS</b>
PAGE	<b>10</b>	<b>AIR LINE TUBE &amp; INFLATION VALVE INSTALLATION</b>
PAGE	<b>11</b>	<b>INSTALL &amp; ROUTE AIR LINE TUBE</b>
PAGE	<b>12</b>	<b>CHECKING THE SYSTEM</b>
PAGE	<b>13</b>	<b>FIXING AN AIR LEAK</b>
PAGE	<b>14</b>	<b>FINISHING THE INSTALLATION</b>



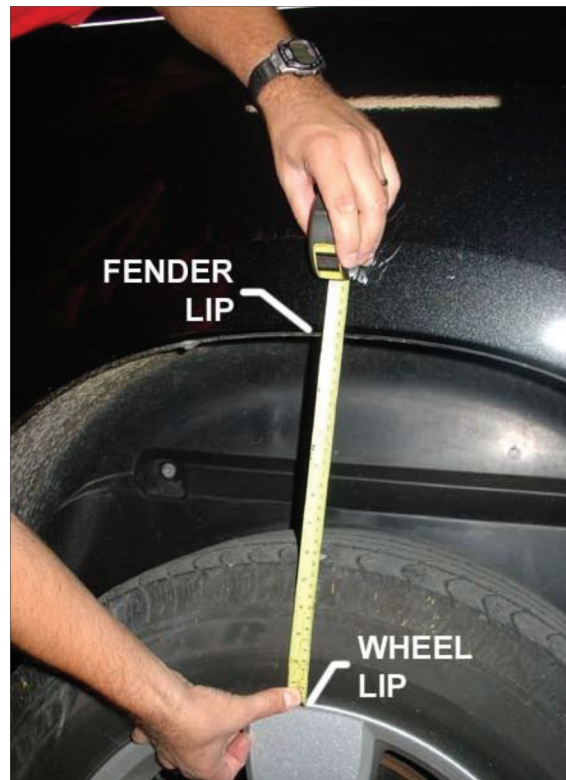


START THE INSTALLATION ON THE LEFT SIDE OF THE VEHICLE WHEN FACING FORWARD.

**1** Place the vehicle on a flat surface. Measure from the top of the wheel lip to the bottom of the fender directly above the wheel. **Record this measurement below for both sides.**

**2** Raise the rear of the vehicle to allow the suspension to relax and remove the wheels.

**3** Remove the fender liner on both sides of the vehicle.



Left side measurement \_\_\_\_\_

Right side measurement \_\_\_\_\_

**1** Support the rear axle with axle stands rated for the vehicle's weight.

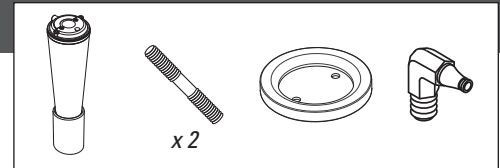
**2** Remove the lower shock bolt on both sides of the vehicle. Keep the shock bolt. You will re-install the shock in Step 6.



**1** The shocks can be completely removed for clearance during installation, but it is not required.

**2** Allow the axle to droop completely and remove the coil springs and upper mounts on both sides of the vehicle.

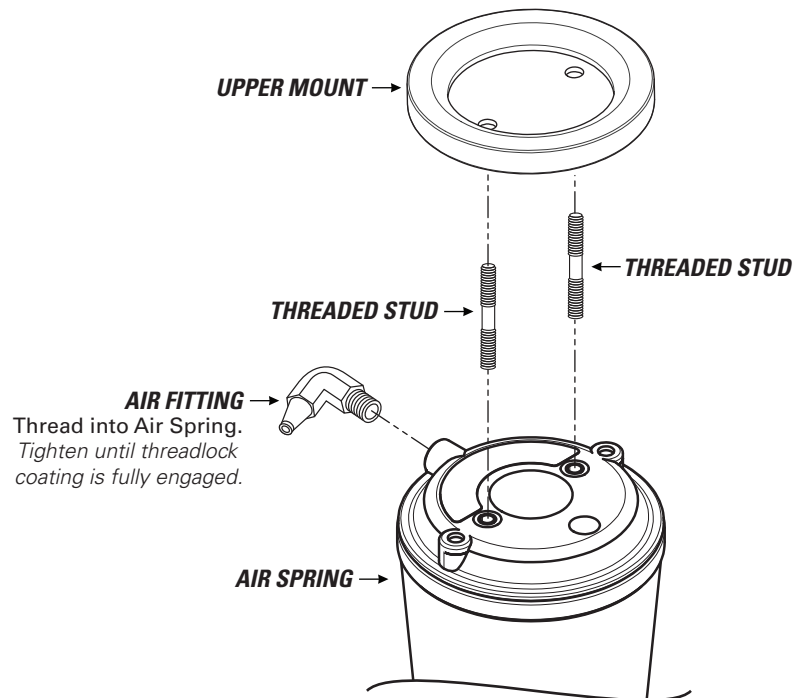




**1** Install the Air Fitting into each Air Spring. Tighten until threadlock coating is fully engaged.

**2** Install the Threaded Studs onto the top of the Air Spring.

**3** Slide the Upper Mount over the Threaded Studs so the flat surface is touching the top of the Air Spring.



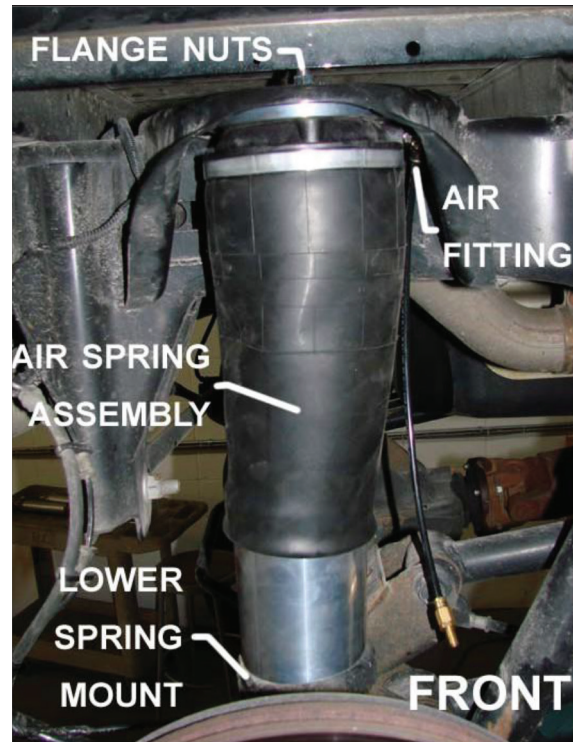




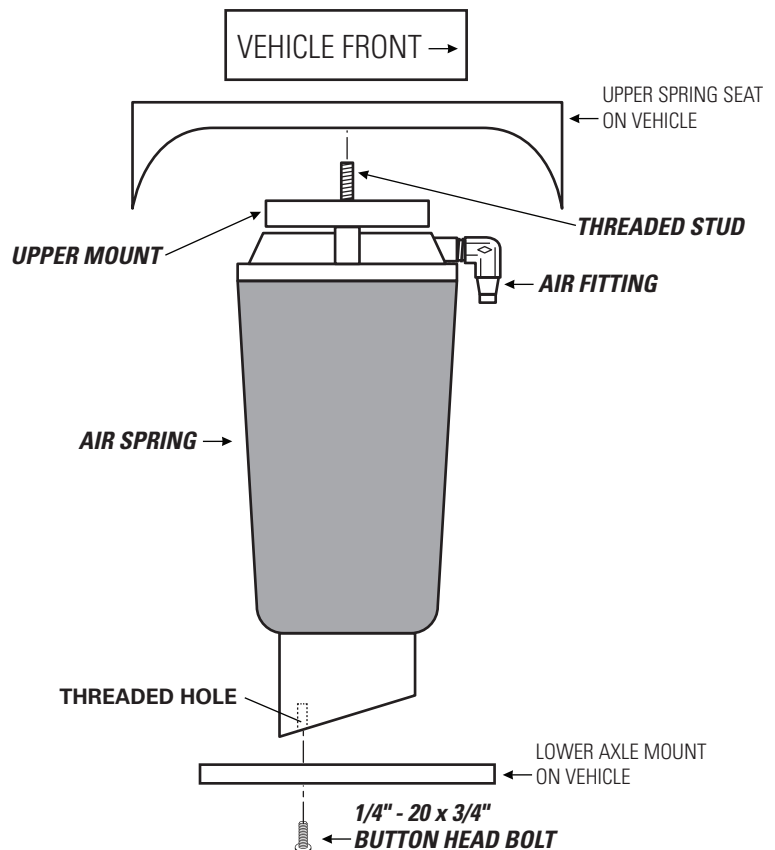
- 1 The bottom of the Air Spring assembly has a threaded hole that **must face the rear of the vehicle**, and the Air Fitting on the top should face the front of the vehicle.

- 2 Place the Air Spring assembly on the lower axle mount.

- 3 Secure the bottom of the Air Spring assembly to the lower mount using the 1/4" - 20 x 3/4" Button Head Screw.



AIR SPRING MUST BE POSITIONED SO THAT THE AIR FITTING IS FACING TOWARD THE FRONT OF THE VEHICLE.



# 6

## FINISH INSTALLING AIR SPRINGS

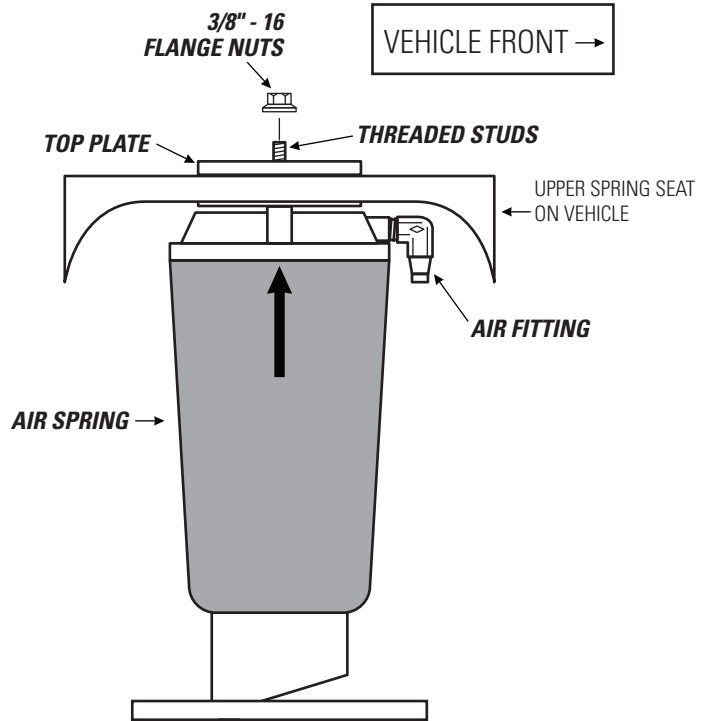
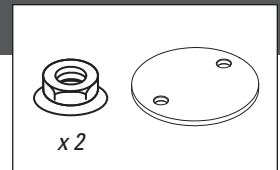
**1** Place the Top Plate on the top side of the upper mount. Unroll the Air Spring by pushing the top of the Air Spring up until the Air Spring assembly reaches the upper mount on the vehicle.

**2** Place the Top Plate above the vehicle's upper spring seat by aligning the Top Plate to accept the Threaded Studs from the Air Spring assembly.

**3** Hand-tighten the 3/8" - 16 Flange Nuts to the Top Plate. Do not allow the Air Spring sleeve to twist.

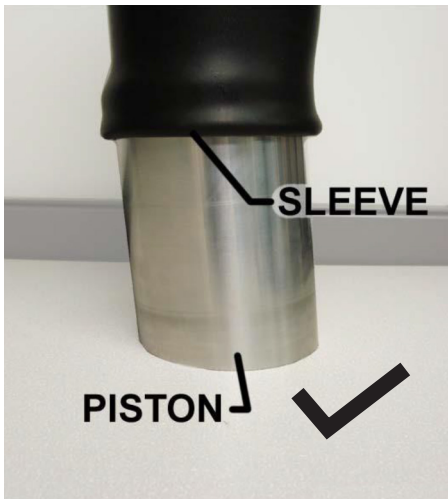
**4** Once the Air Fitting is correctly aligned towards the front of the vehicle and you have ensured the sleeve is not twisted, tighten the 3/8" - 16 Flange Nuts.

**5** Re-install the shock.



## PROPER SLEEVE POSITIONING

### CORRECT



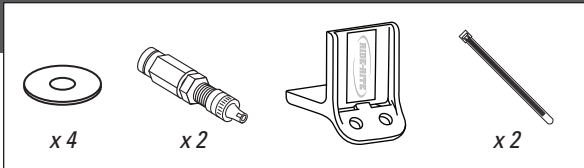
### INCORRECT



### INCORRECT

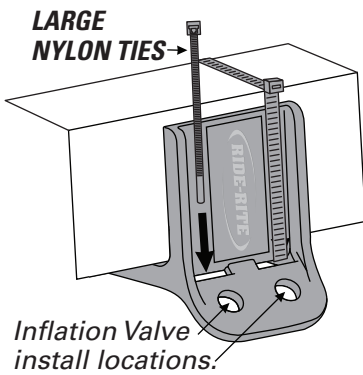


**AWESOME!** You're done with the left side. Go back to Step 1 and repeat the steps for the right side installation, then continue to Step 7.



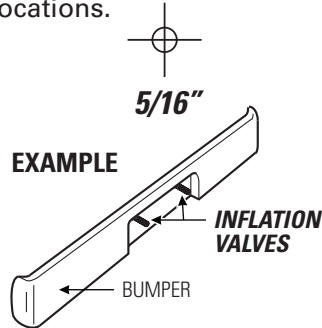
IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. **INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK.**

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

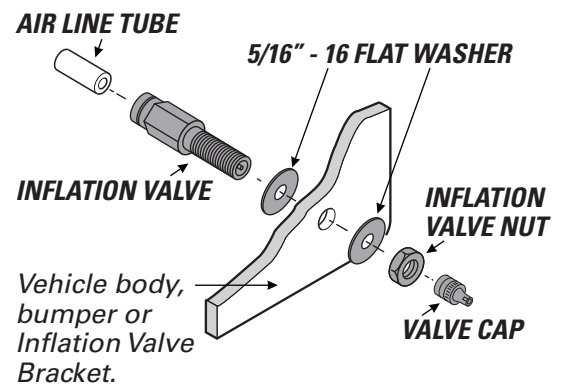


**2** Select a protected location to install the Inflation Valves, such as the bumper or the body of the vehicle.

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

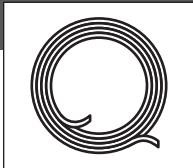


**3** Install Inflation Valve assembly as shown.

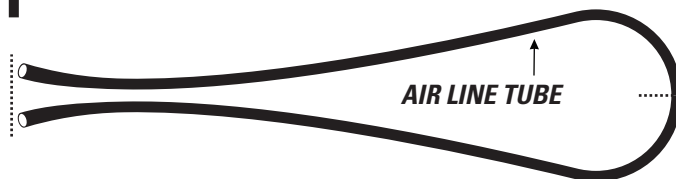


## CUT THE AIR LINE TUBE INTO TWO EQUAL LENGTHS

# 8



**1** Match Air Line Tube ends.



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

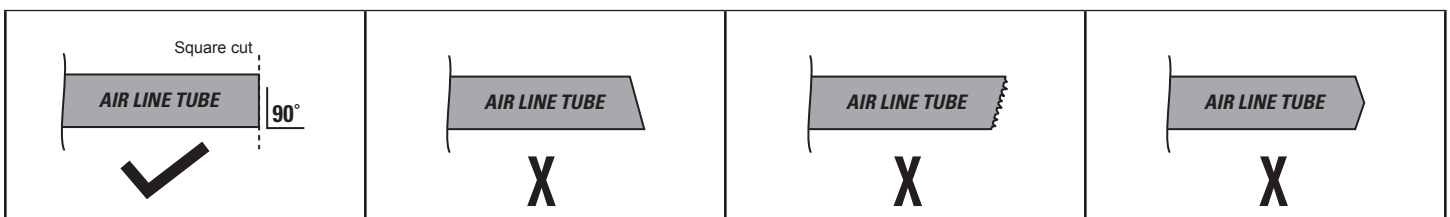
# DO

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.

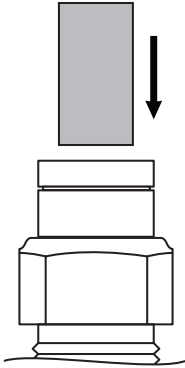
### PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



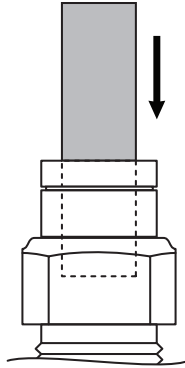
# 9

## INSTALLING AIR LINE TUBE INTO AIR FITTINGS AND INFLATION VALVE

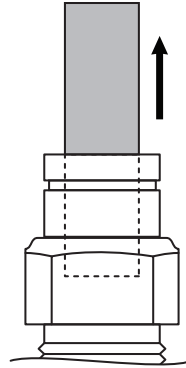
**1** Insert end of Air Line Tube into Air Fitting.



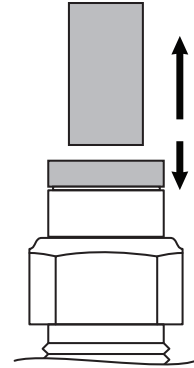
**2** Push Air Line Tube into Air Fitting as far as possible.



**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.

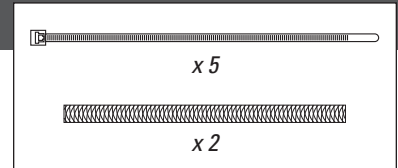


**Removal Tip:** Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

# 10

## ROUTE AND SECURE AIR LINE TUBES

Air Line Tube routes will vary, depending on your 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.



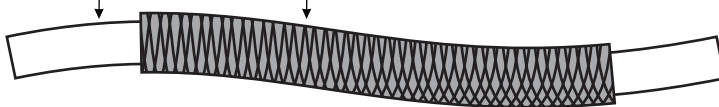
# DO

Select routes protected from heat, debris, and sharp edges. Use Thermal Shields near heat sources. Use Nylon Ties to secure the Air Line Tube.

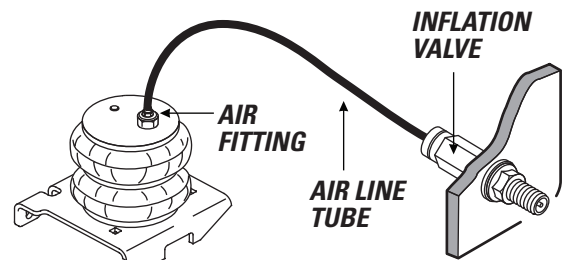
# DON'T

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.

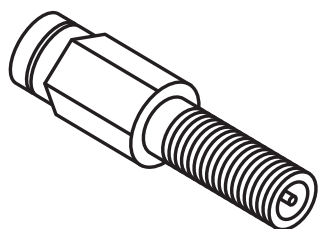
**AIR LINE TUBE**      **THERMAL SHIELD**



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**.

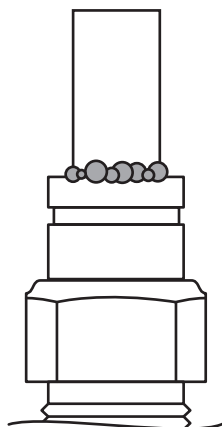


AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING.

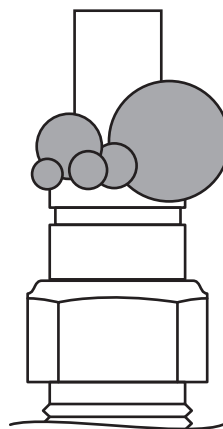
- 2** Spray fittings with soap and water mixture.



- 3** Observe bubbles.



**SMALL SOAP BUBBLES  
THAT DO NOT EXPAND**



**SOAP BUBBLES  
THAT EXPAND**



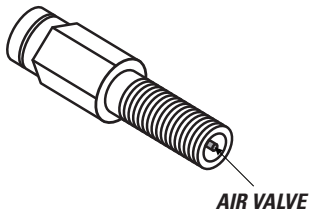
# NO LEAKS?

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

# LEAK?

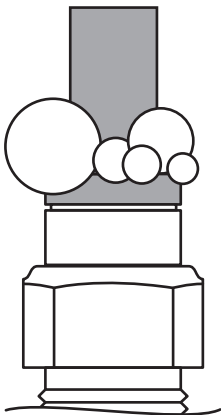
Bummer. Continue to Step 12 to fix the leak.

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



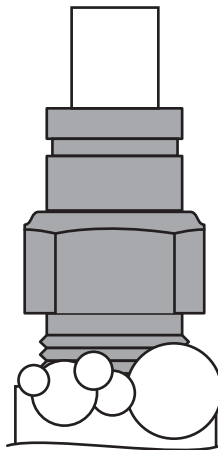
EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR LINE TUBES FROM AIR FITTINGS.

#### LEAK AT AIR LINE TUBE AND AIR FITTING



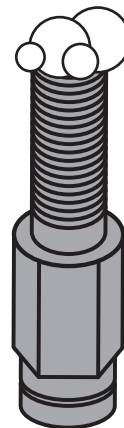
Release Air Line Tube (see page 11). Review proper cuts and procedures in Step 8. Repeat Steps 9 and 11.

#### 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 Tech Support.

- 1** Inflate the Air Springs to 20 PSI.
- 2** Re-install the wheels, but leave the fender liners off. Lower the vehicle to the ground, checking to make sure the sleeves continue to roll over the pistons.
- 3** Inflate the Air Springs until the distance from the top of the wheel to the fender match your measurements in Step 1.
- 4** Re-install fender liners and follow guidelines below.

***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.

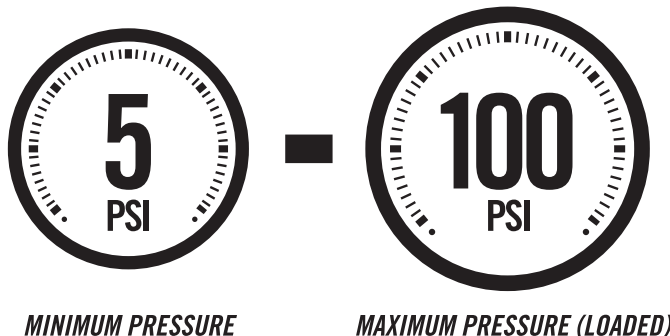
***READ AND UNDERSTAND THE OPERATING INSTRUCTIONS***

The 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.

# ! 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.





**riderite.com**

## BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

- ☐ Do you have a minimum of 5PSI in your Air Springs?
- ☐ Is the clearance from the top of the rear wheel to the bottom of the fender correct?
- ☐ 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!

## 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.



CONNECT WITH US



@rideriteair



@rideriteair



Firestone RideRite



Firestone Ride-Rite