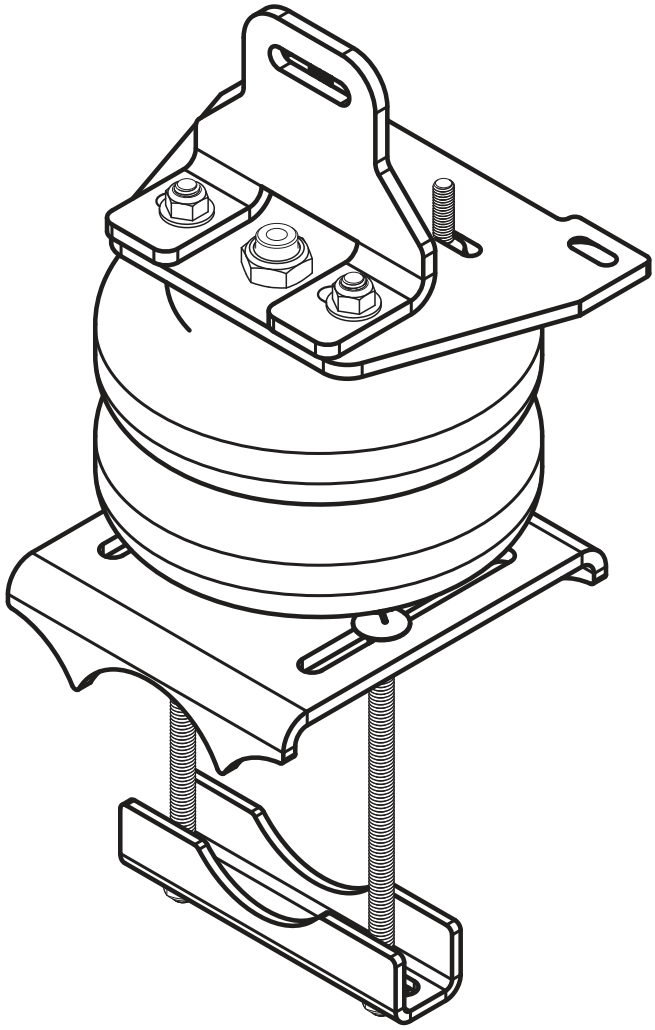
2599

AIRIDE

firestoneairide.com

INSTALLATION INSTRUCTIONS



11-24

! 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 1300 lbs. per pair of air springs.

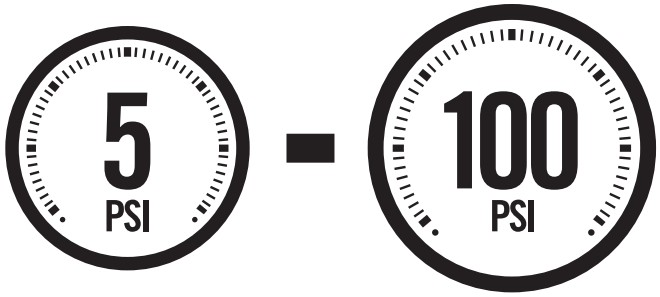
APPROPRIATE AIR PRESSURE

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:

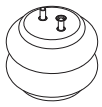
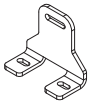
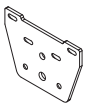
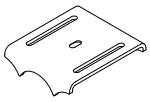
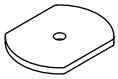
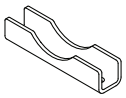


MINIMUM PRESSURE ***MAXIMUM PRESSURE (LOADED)***

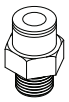
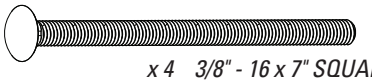
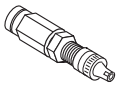
PARTS

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

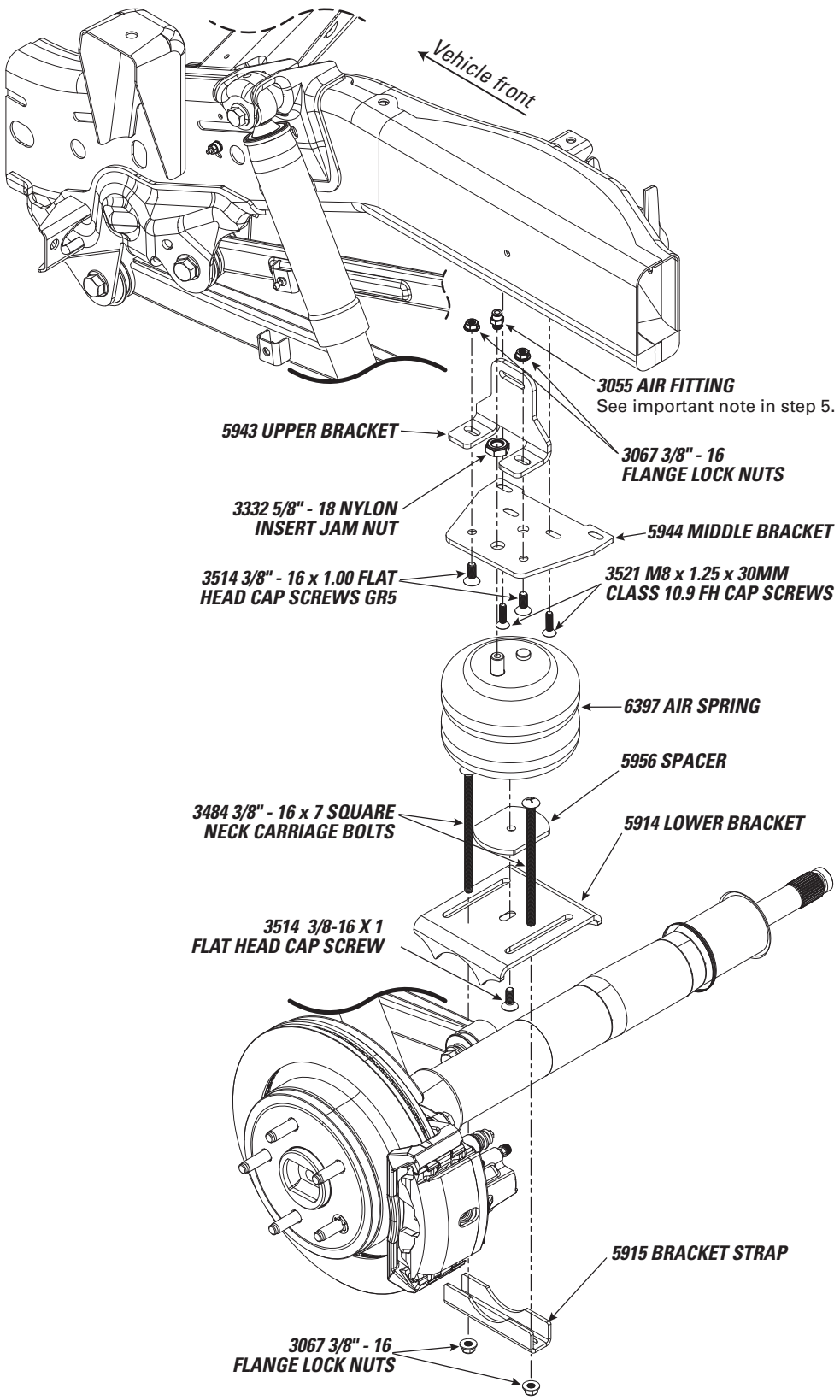
MAIN KIT CONTENTS

PT # 6397	 x 2 AIR SPRING	PT # 5943	 x 2 UPPER BRACKET	PT # 5944	 x 2 MIDDLE BRACKET
PT # 5914	 x 2 LOWER MAIN BRACKET	PT # 5956	 x 2 SPACER	PT # 9414	 x 1 RED AIR LINE TUBE (18 FEET)
PT # 5915	 x 2 BRACKET STRAP				

A21-760-2599 HARDWARE PACK

PT # 3055	 x 2 1/8NPT x 1/4" PTC	PT # 3521	 x 4 M8 x 1.25" x 30MM CLASS 10.9FH CAP SCREW	PT # 3484	 x 4 3/8" - 16 x 7" SQUARE NECK CARRIAGE BOLT
PT # 3514	 x 6 3 /8-16 x 1.00 FLAT HEAD CAP SCREW GR5	PT # 3067	 x 8 NYLOCK NUT	PT # 9036	 x 10 RED NYLON TIE
PT # 3032	 x 2 INFLATION VALVE AND VALVE CAP ASSEMBLY	PT # 3332	 x 2 5/8" - 18 NYLON INSERT JAM NUT	PT # 0899	 x 2 THERMAL SLEEVE
PT # 3033	 x 4 5/16" FLAT WASHER	PT # 9483	 x 1 NO-DRILL INFLATION VALVE BRACKET	PT # 9488	 x 2 LARGE NYLON TEE

CONTENTS AND OVERVIEW

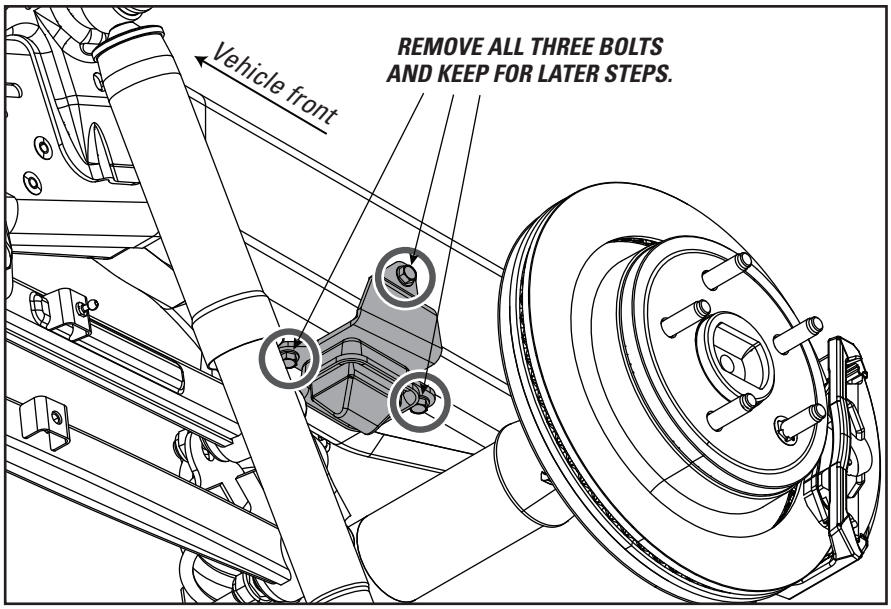


REMOVE FACTORY JOUNCE BUMPER 1

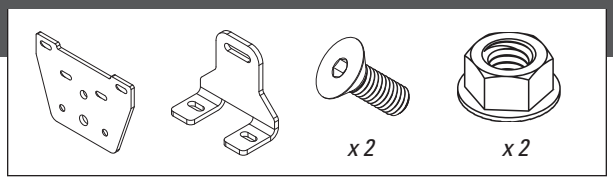
START THE INSTALLATION ON THE LEFT SIDE OF THE VEHICLE WHEN FACING FORWARD.

1 The factory jounce bumpers should be removed from both sides of the vehicle with a 12mm ratchet or wrench. Each one is secured by three bolts. Two are on the frame bottom and one is on the side of the frame.

2 Keep the attaching bolts; they will be used later.

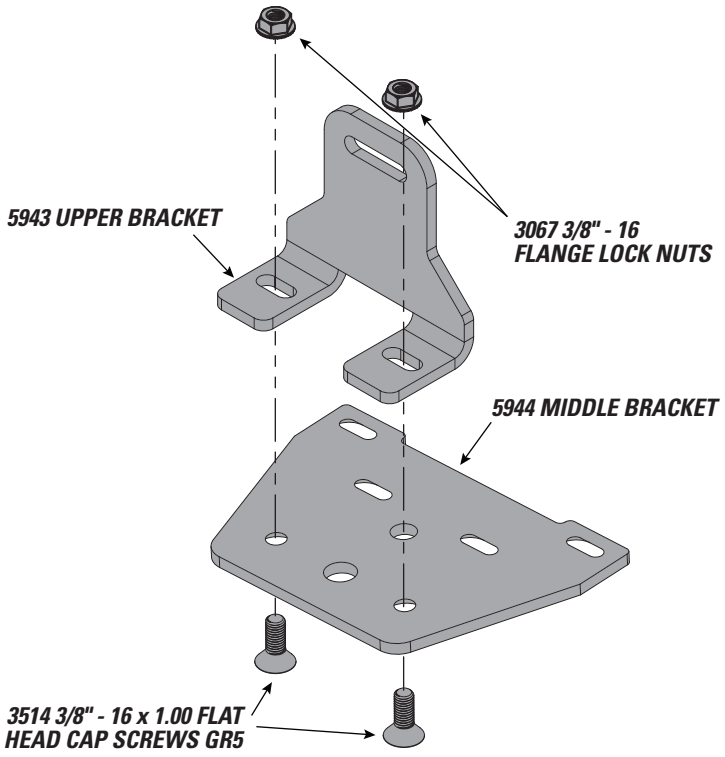


PRE-ASSEMBLE UPPER BRACKET 2

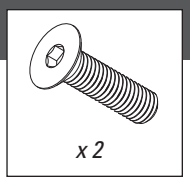


1 Attach 5944 to 5943 using 3514 bolt and 3067 flange nuts in holes shown.

2 Do not tighten.



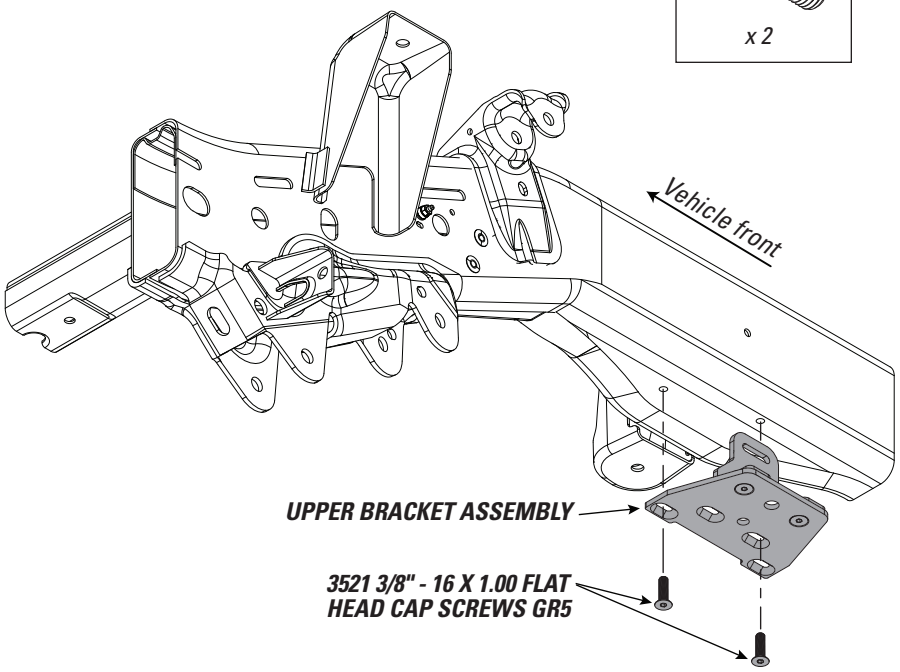
3 ATTACH UPPER BRACKET

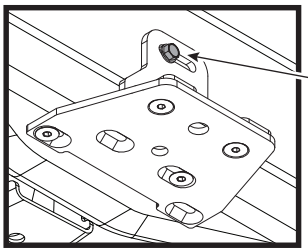


1. Use two 3521 screws in the existing jounce bumper mounting holes (bottom of the frame rail) to attach the upper bracket assembly.

2. Using one of the original jounce bumper attaching bolts, attach the 5943 bracket to the side of the frame. Adjust the 5943 bracket to suit.

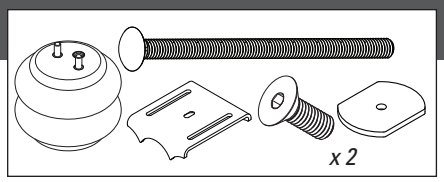
3. Tighten all fasteners to 35 lb ft.



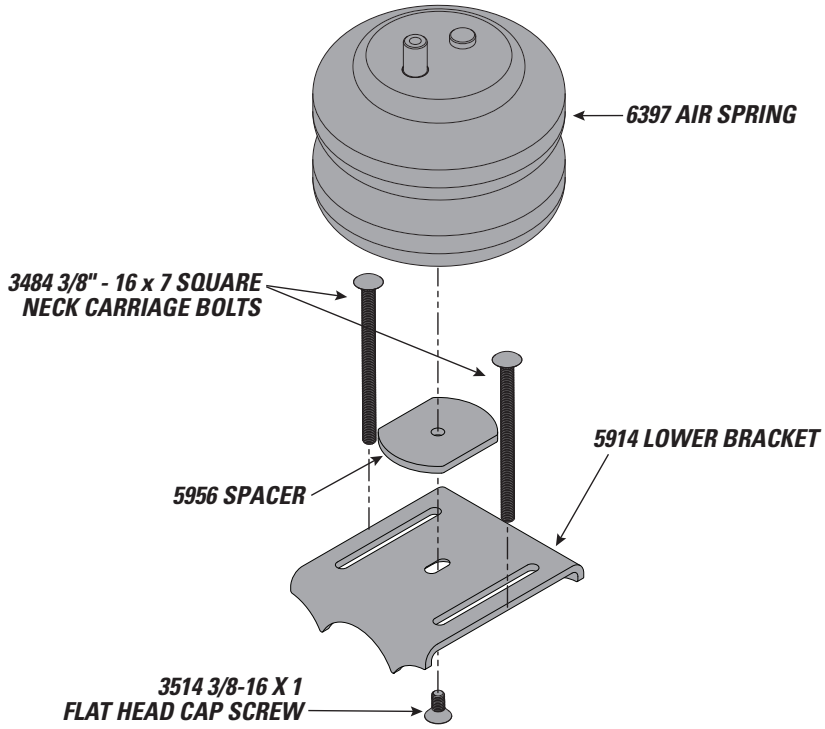


Use original jounce bumper attaching bolt to attach 5943 bracket to the side of the frame.

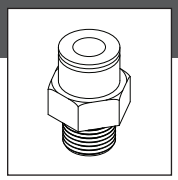
LOOSELY ATTACH LOWER BRACKET TO AIR SPRING BOTTOM 4



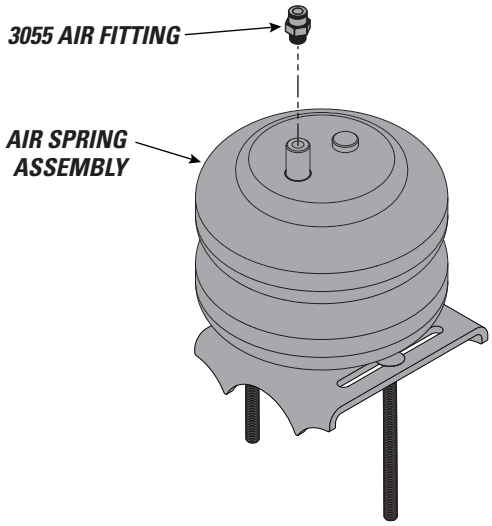
1. Install 3484 carriage bolts through square holes in 5914 bracket.
2. Insert 3514 bolt through lower bracket, spacer and into threads of spring.
3. **DO NOT TIGHTEN** – you will need to be able to rotate spring for proper orientation.



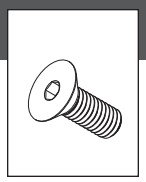
INSTALL AIR FITTING 5



1. Thread 3055 air fitting into air spring combo stud.
2. Securely tighten air fitting.



6 ORIENT SPRING TO LOWER BRACKET

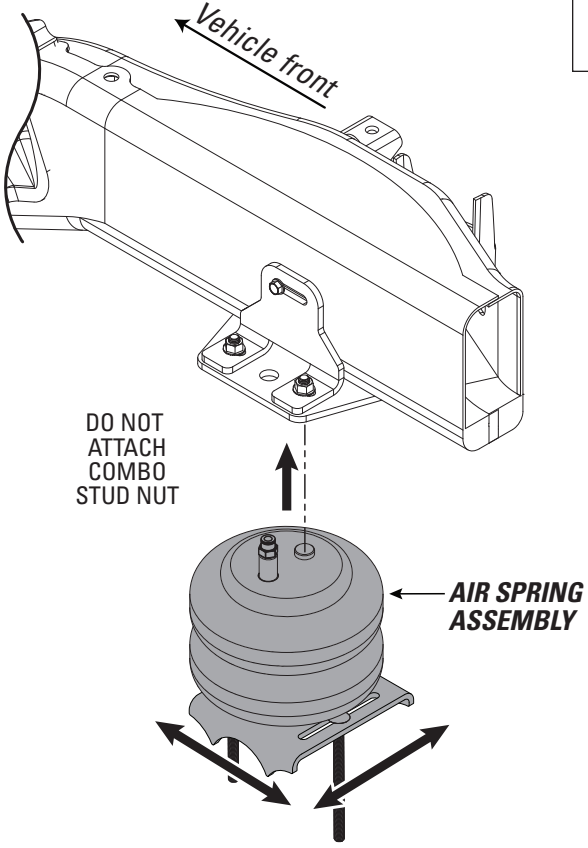


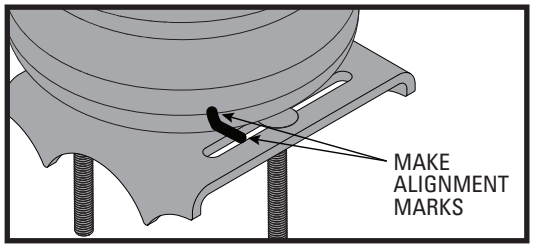
1. Temporarily insert spring into upper bracket.

2. Do not attach combo stud nut at this time.

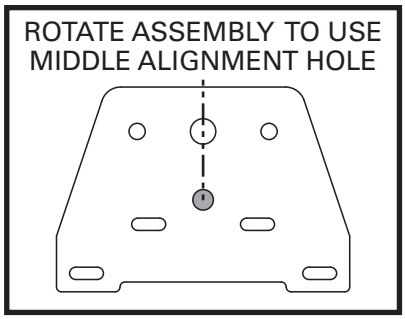
3. Ensure air spring index pin is fully seated into upper bracket hole.

4. Accurately mark this position on lower spring plate and lower bracket.

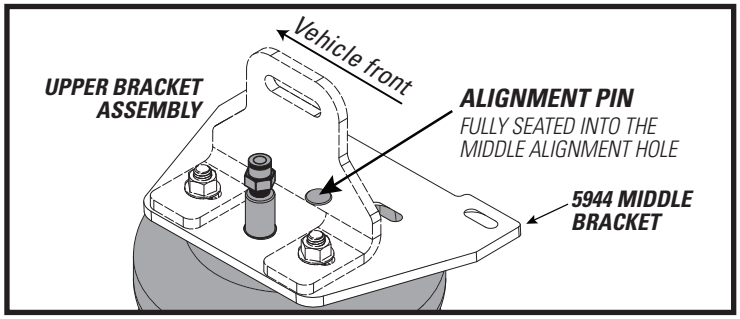




VIEW FROM BELOW



ALIGNMENT DETAIL

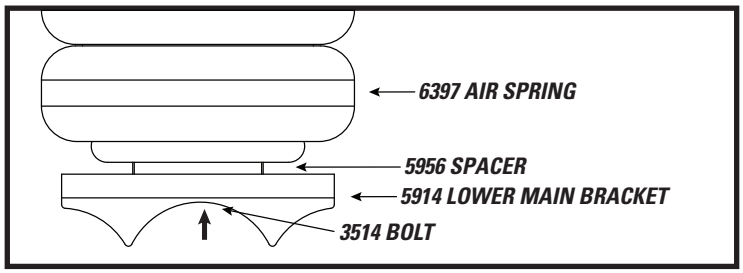


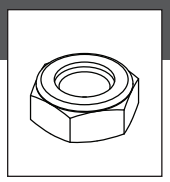
ALIGNMENT PIN ON AIR SPRINGS MUST BE INSTALLED TO FULLY SEAT INTO THE MIDDLE ALIGNMENT HOLE IN THE UPPER BRACKET. FAILURE TO DO SO WILL CAUSE IT TO BE PUSHED INTO THE BEAD PLATE, CREATING AN AIR LEAK, AND RESULTING IN AN AIR SPRING FAILURE THAT IS **NOT WARRANTABLE. THE ALIGNMENT PIN CANNOT HOLD 2,500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

5. Remove spring from upper bracket.

6. With marks aligned, secure lower bracket by tightening 3514 bolt.

SIDE VIEW

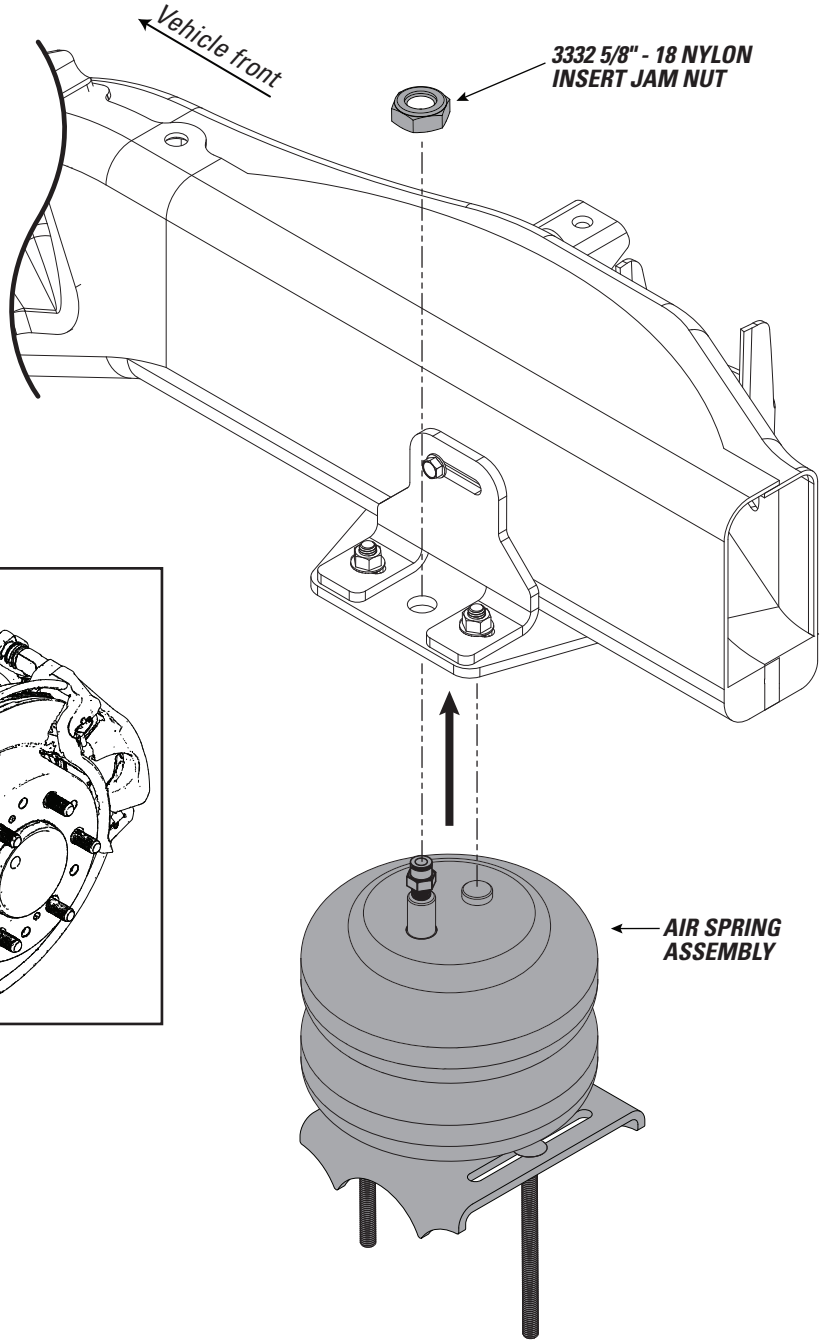




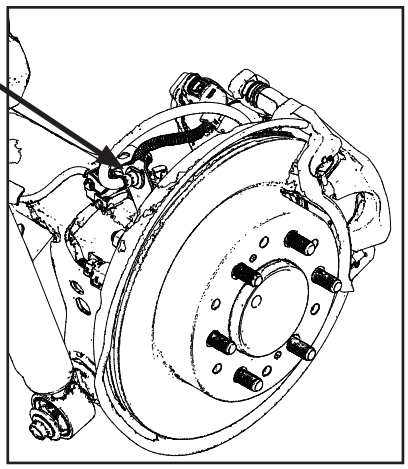
1 Insert spring into upper bracket.

2 Make sure air spring index pin is properly seated in upper bracket hole

3 Secure spring to upper bracket using 3332 jam nut.



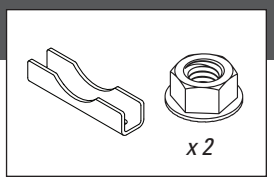
Two pieces of the brake system on the axle need to be relocated. They will need zip tied out of the way of the lower bracket. Use needle nose pliers to loosen clips. Move items away from bracket and air spring and towards the tire while still tethered. Zip tie them to the other harnesses that are around to secure them in place and keep them from rubbing on the air spring.



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!

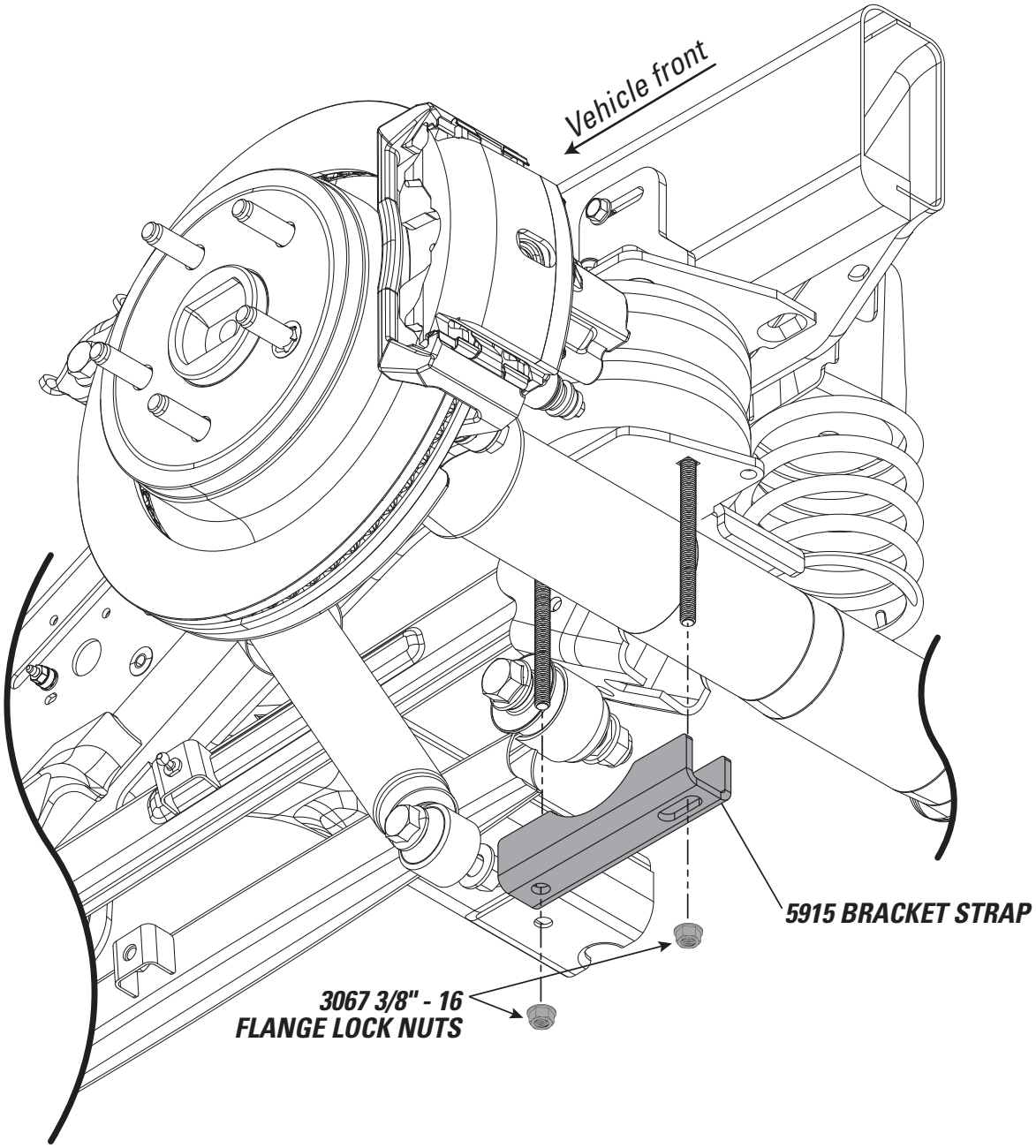
AWESOME! You're done with the left side. Go back to step 1 and repeat the steps for the right side installation, including step 6.

8 ATTACH LOWER BRACKET TO AXLE

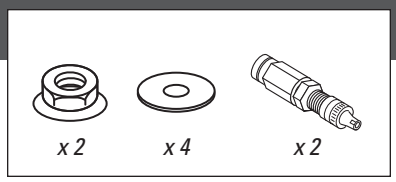


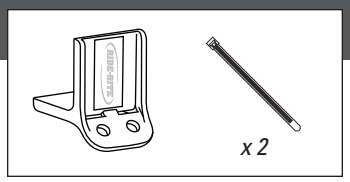
1 Use 5956 spacer

2 Secure lower bracket to axle with 3067 flange nuts on pre-installed carriage bolts.



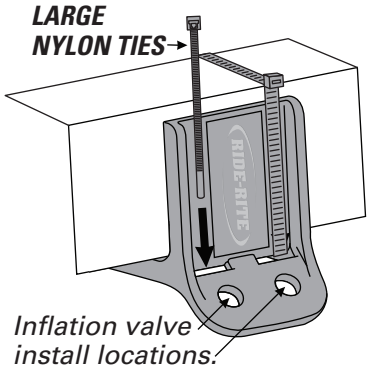
INSTALL INFLATION VALVES 9





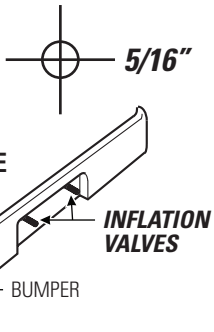
IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. **INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK.**

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

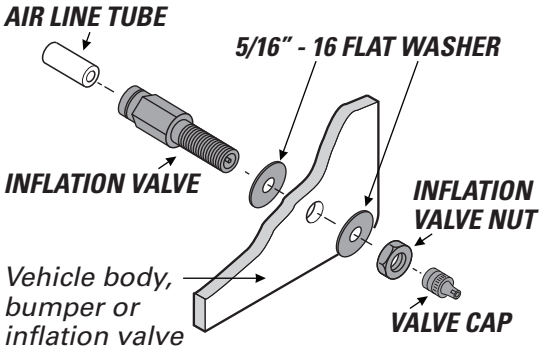


2 Select a protected location to install the inflation valves, such as the bumper or the body of the vehicle.

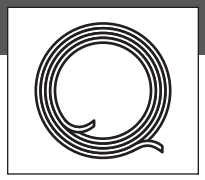
Drill two 5/16" holes for Inflation Valve install locations.



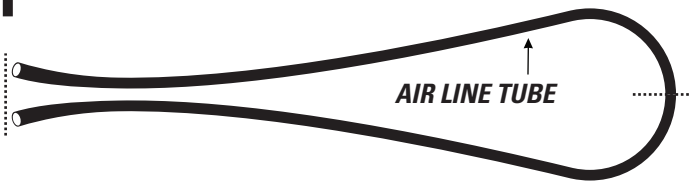
3 Install inflation valve assembly as shown.



CUT THE AIR LINE TUBE INTO TWO EQUAL LENGTHS 10



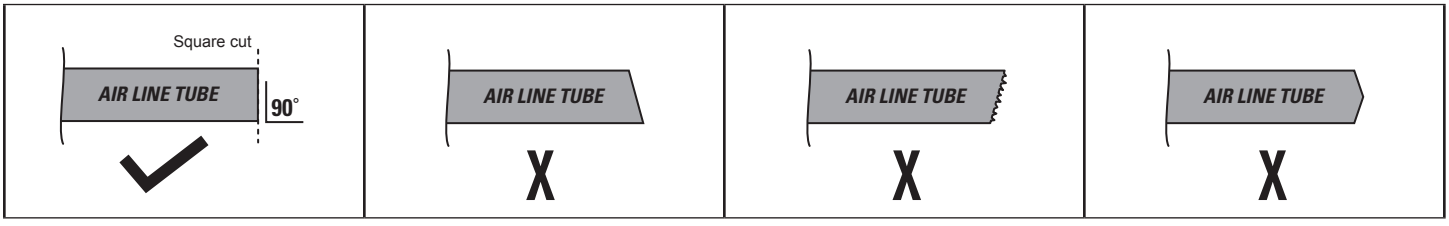
1 Match air line tube ends.



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

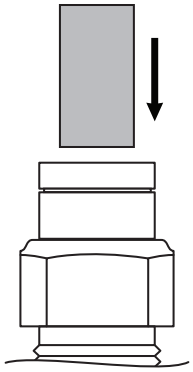
DO	DON'T
Make sure the cut is as square as possible. Use a tube cutter or sharp utility knife.	Fold or kink the air line tube. Cut the air line tube at an angle. Use pliers, scissors, snips, saws, or side cutters.

PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE

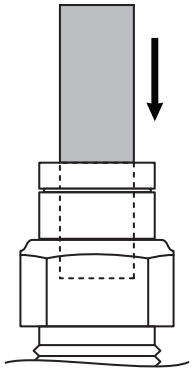


11 INSTALLING AIR LINE TUBE INTO AIR FITTINGS AND INFLATION VALVE

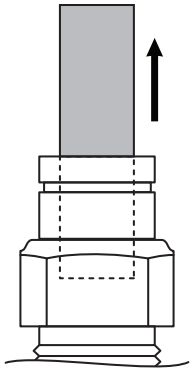
1 Insert end of air line tube into air fitting.



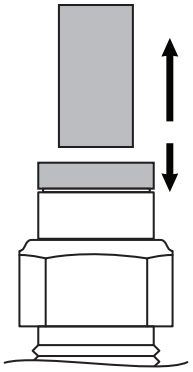
2 Push air line tube into air fitting as far as possible.



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



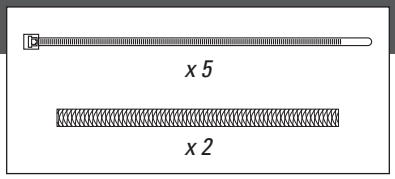
4 To remove, push down collar and gently pull air line tube away.



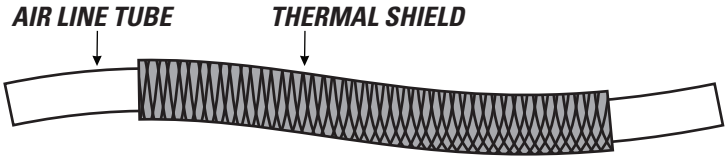
Removal Tip: Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

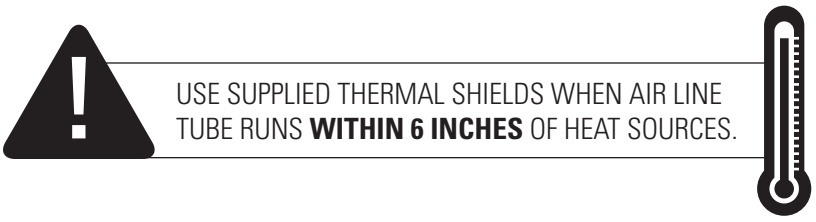
12 ROUTE AND SECURE AIR LINE TUBES

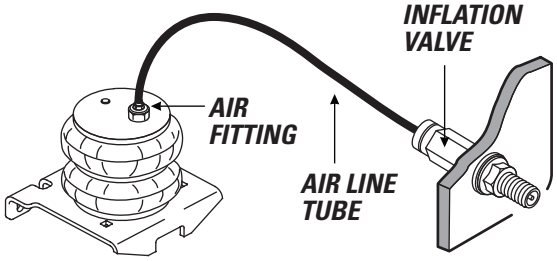
Air line tube routes will vary, depending on your truck, and requires you to choose the best path from the air springs to the inflation valves. Use the instructions below to help you choose.



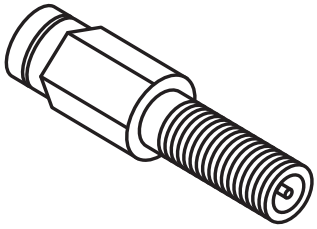
DO	DON'T
Select routes protected from heat, debris, and sharp edges. Use thermal shields near heat sources. Use Nylon ties to secure the air line tube.	Bend or sharply curve air line tubes. Leave air line tube exposed to sharp edges. Use unnecessary lengths of air line tube. Route air line tube near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







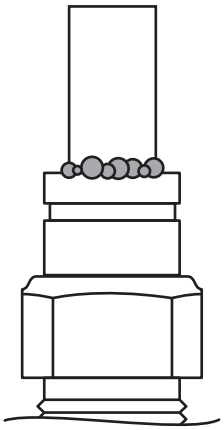
1 Place an air chuck onto the inflation valve and fill the system to **70 PSI**.



AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING.

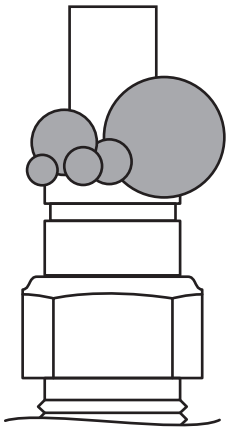
2 Spray fittings with soap and water mixture.

3 Observe bubbles.



SMALL SOAP BUBBLES THAT DO NOT EXPAND

✓



SOAP BUBBLES THAT EXPAND

X

NO LEAKS?

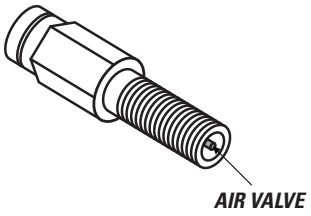
Congratulations! Continue to step 15 to finish installation. Review the Operating Instructions.

LEAK?

Bummer. Continue to step 14 to fix the leak.

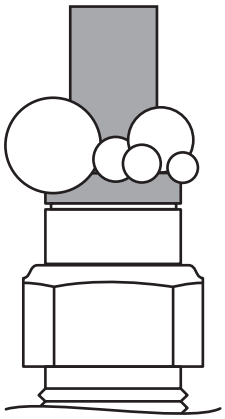
14 FIXING AN AIR LEAK

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



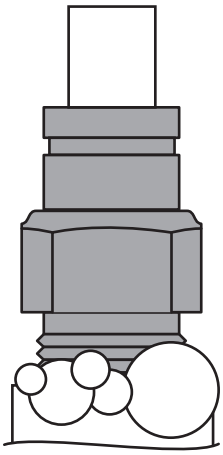
EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR LINE TUBES FROM AIR FITTINGS.

LEAK AT AIR LINE TUBE AND AIR FITTING



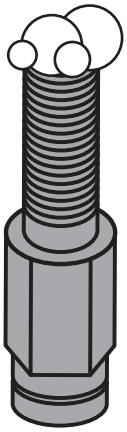
Release air line tube (see page 11). Review proper cuts and procedures in step 9. Repeat steps 10 and 12.

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.

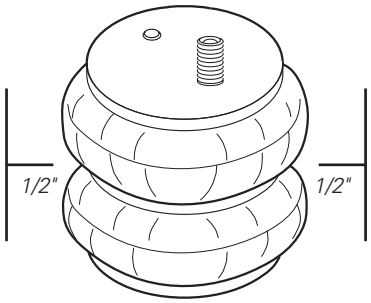
VEHICLE GVWR

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 investment by reading the Operating Instructions.

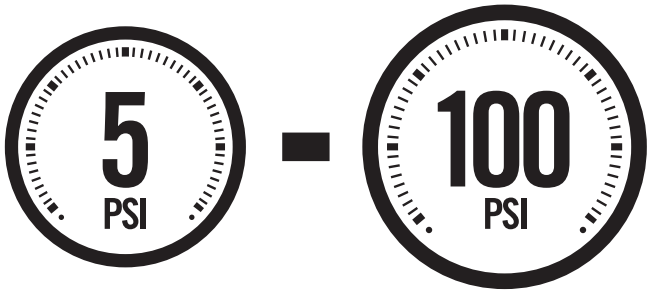
USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



! 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)*

AIRIDE

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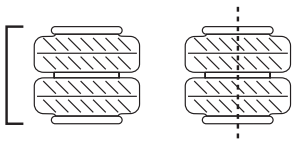
BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

- ☐ 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?
- ☐ Are your nuts and bolts tight?
- ☐ Put your paperwork 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?

Email us at **rrtech@fsip.com**. Please include photos, kit number, and the year, make, and model of the vehicle to help us better diagnose and understand any problems you may be experiencing.

CONNECT WITH US FirestoneIP Firestone Ride-Rite