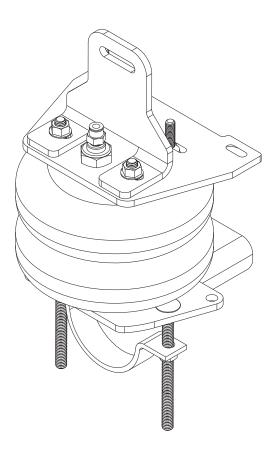
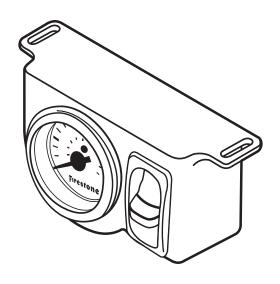
Firestone AIRIDE

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### **INSTALLATION INSTRUCTIONS**





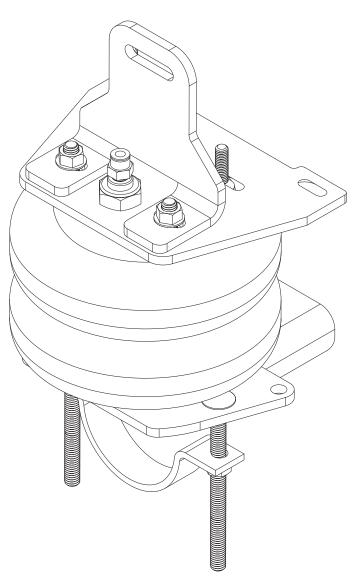
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2861

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### **INSTALLATION INSTRUCTIONS**



2628

# **! 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).

#### 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.

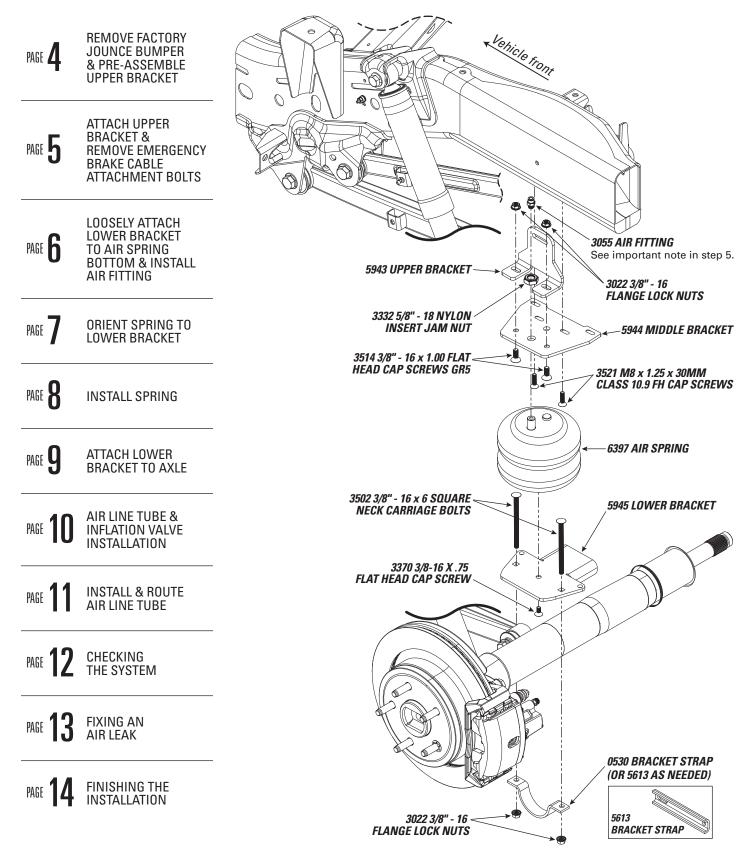
#### MAIN KIT CONTENTS

РТ # 6397	(C)	x 2	AIR SPRING	PT # 5943	x 2	UPPER BRACKET	PT # 5944	0000	x 2	MIDDLE BRACKET
PT # 5945		x 2	LOWER MAIN BRACKET	PT # 0530	x 2	BRACKET STRAP	PT # 9414		x 1	RED AIR LINE TUBE (18 FEET)
PT # 5613		x 2	BRACKET STRAP							

#### A21-760-2628 HARDWARE PACK

PT # 3055	x2 AIR FITTING	PT # 3502	x 4 3/8-16 x 6 5	SQUARE NECK CARRIAGE BOLT	PT # 3521	O	х б	M8 x 1.25 x 30MM CLASS 10.9 FH CAP SCREW
PT # 3514	3/8-16 x 1.00 x 4 FLAT HEAD CAP SCREW GR5	PT # 3370		3/8-16 x .75 x 2 FLAT HEAD CAP SCREW	PT # 3309		x 2	<i>M8 x 1.25 FLANGE NUT</i>
PT # 3022	x 8 3/8" - 16 FLANGE LOCK NUT	PT # 3332		x 2 5/8" - 18 NYLON INSERT JAM NUT	PT # 3033	$\bigcirc$	x 4	5/16" FLAT WASHER
PT # 3032	INFLATION VALVE x 2 AND VALVE CAP ASSEMBLY	PT # 9483	600	NO-DRILL x 1 INFLATION VALVE BRACKET	PT # 9488		xž	2 LARGE NYLON TIE
PT # 9036	x 6 RED NYLON T	DI # 0899		x 2 THERMAL SLEEVE				

# **CONTENTS AND OVERVIEW**



#### **REMOVE FACTORY JOUNCE BUMPER**

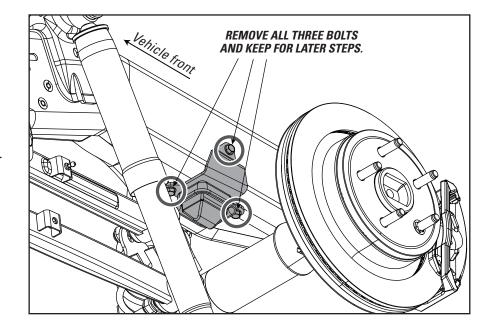


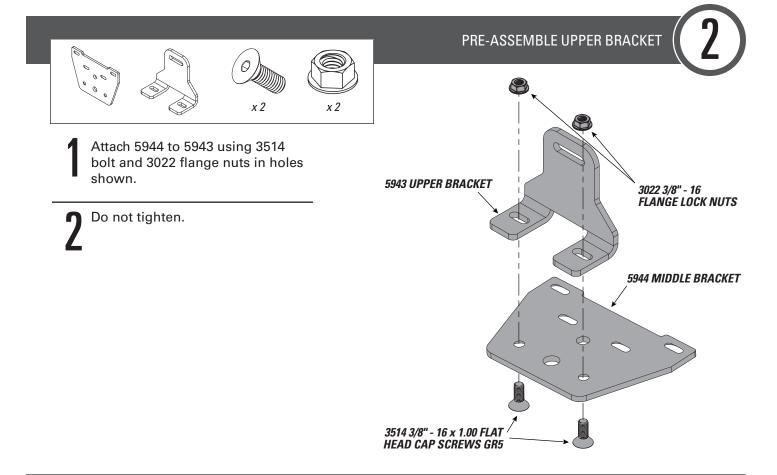
START THE INSTALLATION ON THE LEFT SIDE OF THE VEHICLE WHEN FACING FORWARD.

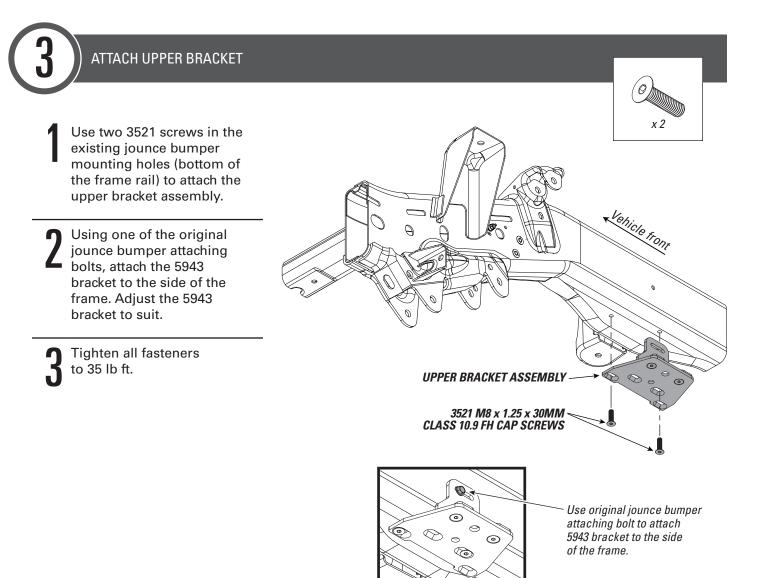
The factory jounce bumpers should be removed from both sides of the vehicle with a 12mm ratchet or wrench. Each one is secured by three bolts. Two are on the frame bottom and one is on the side of the frame.

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

**NOTE**: Only  $\underline{2}$  of the 6 factory jounce bumper screws will be used. There will be 4 left over.



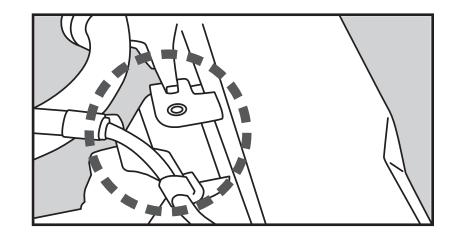


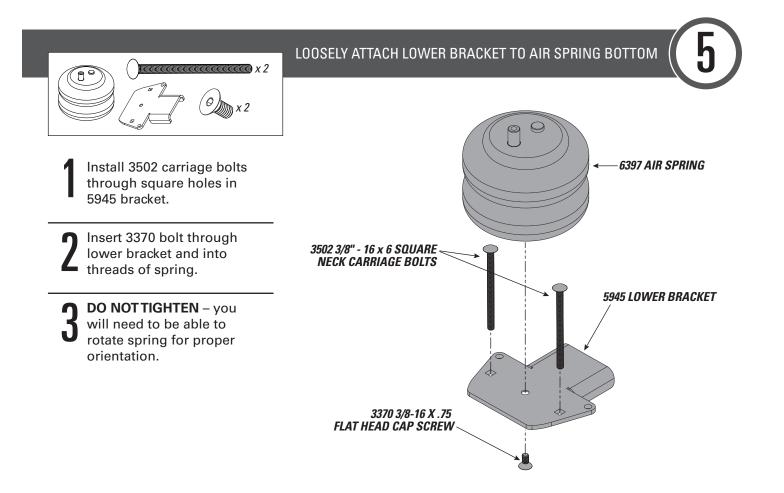


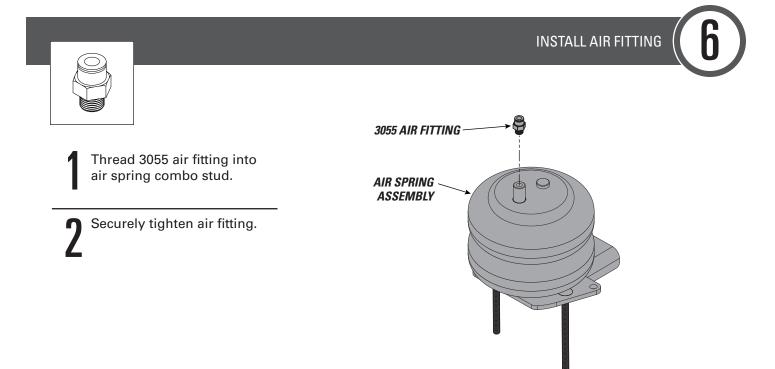
#### REMOVE EMERGENCY BRAKE CABLE ATTACHMENT BOLTS

On each side, remove the bolt from the clamp that secures the emergency brake cable

Keep the attaching bolts; they will be used later.







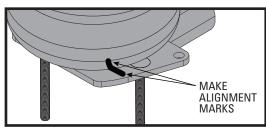


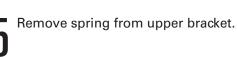
Temporarily insert spring into upper bracket.

Do not attach combo stud nut at this time.

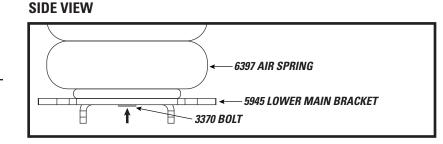
Ensure air spring index pin is fully seated into upper bracket hole. See ALIGNMENT PIN WARNING at bottom of page.

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





With marks aligned, secure lower bracket by tightening 3370 bolt.



AIR SPRING ASSEMBLY

Vehicle front



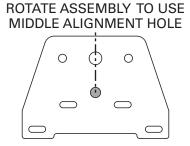
#### ALIGNMENT PIN WARNING

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!

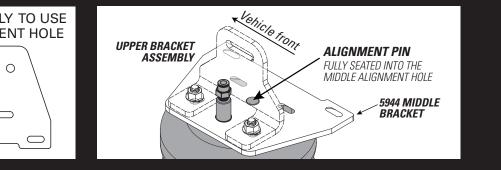
DO NOT

ATTACH COMBO STUD NUT

#### **VIEW FROM BELOW**



#### **ALIGNMENT DETAIL**



Firestone

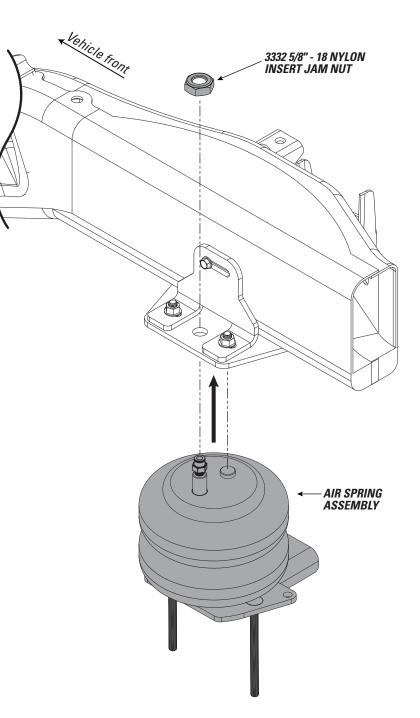
**INSTALL SPRING** 



Insert spring into upper bracket.

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

Secure spring to upper bracket using 3332 jam nut.

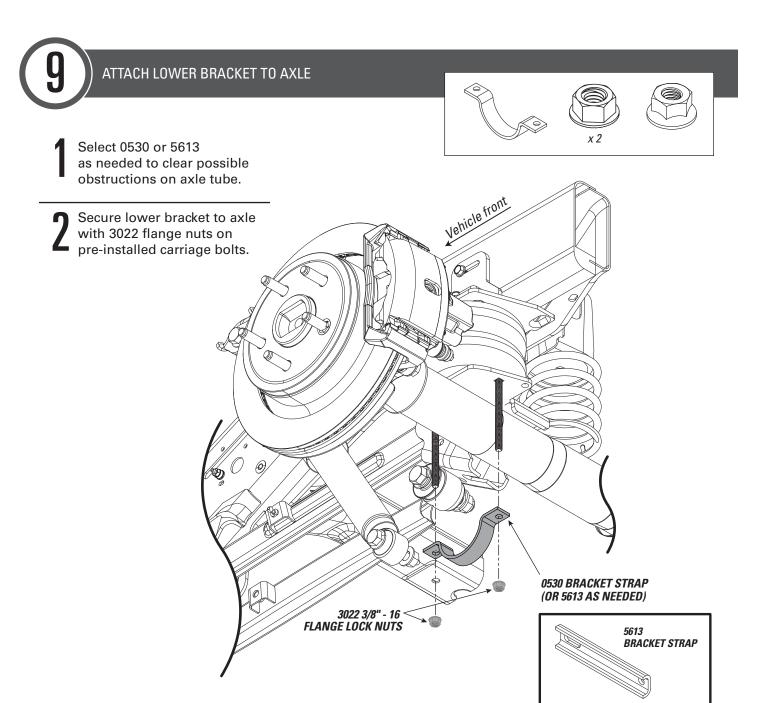


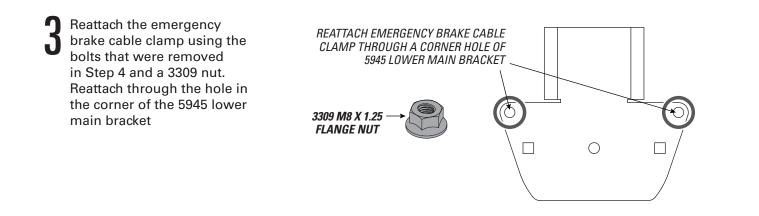


USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



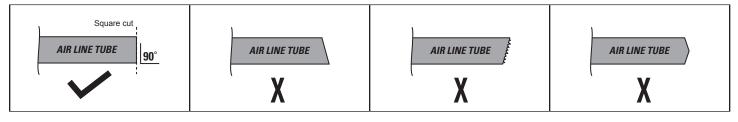
AWESOME! You're done with the left side. Go back to step 1 and repeat the steps for the right side installation, including step 7.





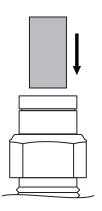
**INSTALL INFLATION VALVES** х2 x 4 x 2 х2 IF USING THE OPTIONAL NO-DRILL INFLATION VALVE BRACKET, CHOOSE OPTION 1. IF DRILLING, CHOOSE OPTION 2. INFLATION VALVES MUST BE ACCESSIBLE BY AN AIR CHUCK. Secure the air inflation Install inflation valve Select a protected location to valve bracket to a proinstall the inflation valves, assembly as shown. tected, secure location. such as the bumper or the PROCEEDTO STEP 3. body of the vehicle. Drill two 5/16" holes for **AIR LINE TUBE** LARGE Inflation Valve install 5/16" - 16 FLAT WASHER NYLON TIES locations. 5/16" **INFLATION VALVE** 0 INFLATION EXAMPLE **VALVE NUT INFLATION** Vehicle body, VALVES bumper or VÁLVE CAP Inflation valve inflation valve BUMPER install locations. bracket. CUT THE AIR LINE TUBE INTO TWO EQUAL LENGTHS Match air line tube ends. Find center of air line tube, make a square cut with tube AIR LINE TUBE cutter or sharp utility knife. DON'1 Fold or kink the air line tube. Make sure the cut is as square as possible. Cut the air line tube at an angle. Use a tube cutter or sharp utility knife. Use pliers, scissors, snips, saws, or side cutters.

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

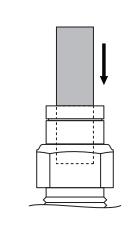




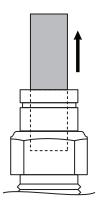
Insert end of air line tube into air fitting.



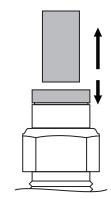
Push air line tube into air fitting as far as possible.



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



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

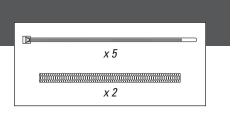


**Removal Tip:** Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.



#### 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.

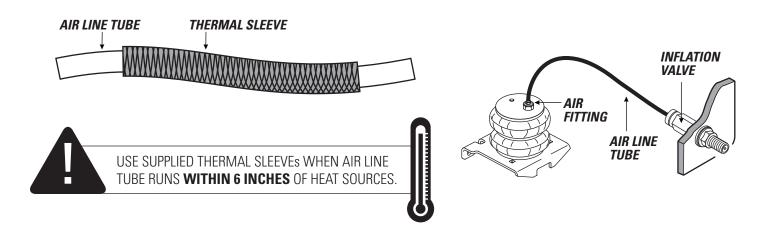




Select routes protected from heat, debris, and sharp edges. Use thermal sleeves near heat sources. Use Nylon ties to secure the air line tube.



Bend or sharply curve air line tubes. Leave air line tube exposed to sharp edges. Use unnecessary lengths of air line tube. Route air line tube near moving parts. Let air line tube hang unsecured from vehicle. Scar air line tube while routing.



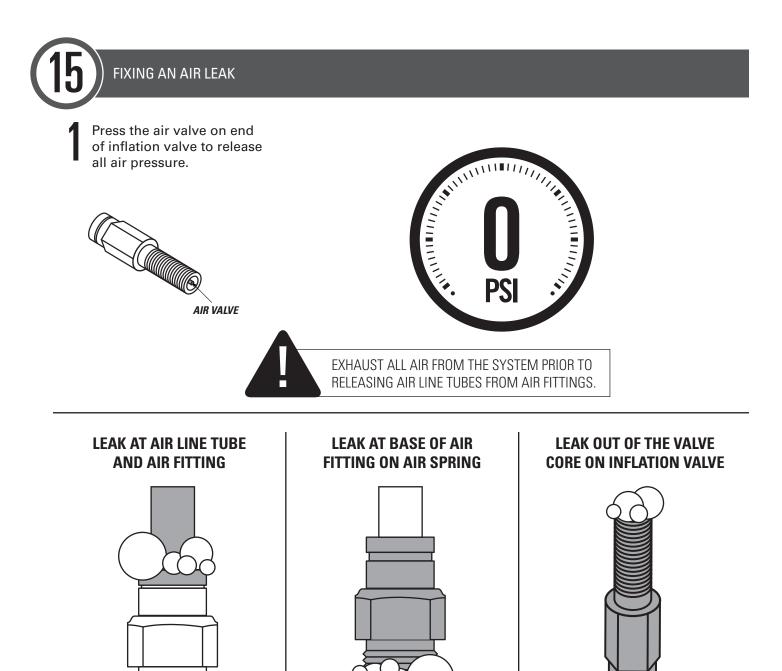
CHECKING THE AIR SYSTEM Place an air chuck onto the Spray fittings with inflation valve and fill the soap and water system to 70 PSI. mixture. THE REAL PROPERTY OF THE PROPE -----WATER SOAP AIR SPRINGS INFLATE QUICKLY. CHECK AIR PRESSURE WHILE INFLATING. Observe bubbles. Source **SOAP BUBBLES SMALL SOAP BUBBLES THAT EXPAND** THAT DO NOT EXPAND X

## **NO LEAKS?**

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

LEAK?

Bummer. Continue to step 14 to fix the leak.



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

Tighten air fitting one turn or until leak stops.

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**

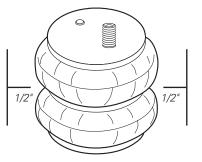
NEVER exceed the maximum load recommended by the vehicle manufacturer (GVWR). The GVWR can be found in your vehicle's owner's manual or on the data plate on the driver's side door. Consult your local dealership for additional GVWR specifications.

#### READ AND UNDERSTAND THE OPERATING INSTRUCTIONS

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



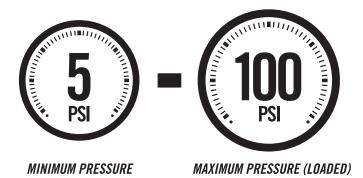
USE YOUR HAND TO CHECK FOR THE PROPER CLEARANCE AROUND THE AIR SPRING. IF YOUR HAND DOES NOT FIT BETWEEN THE AIR SPRING AND OTHER COMPONENTS, IT WILL RUB!



### **! 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.



### Firestone 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?
- $\Box$  Put your paper work in your glove compartment for future reference.
- □You've been bagged...and now your suspension is Airide<sup>™</sup> equipped!

### NEED INSTALLATION HELP? 1-800-888-0650

5 1/2" - 6 1/2"

Select Option 1 for Airide; 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 Industrial Products** 



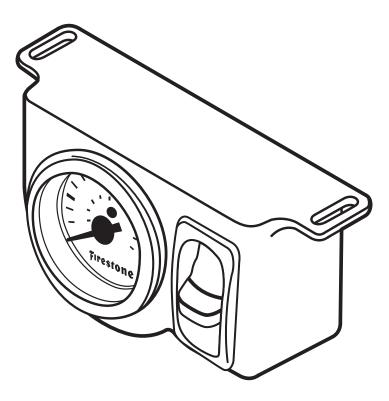






riderite.com

### **INSTALLATION INSTRUCTIONS**





**Firestone Industrial Products** 

2158

## **! IMPORTANT**

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

#### 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.

#### **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

Be sure to review the load limits noted in the air spring kit installation instructions (sold separately).

#### **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.

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



MINIMUM PRESSURE

# PARTS

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

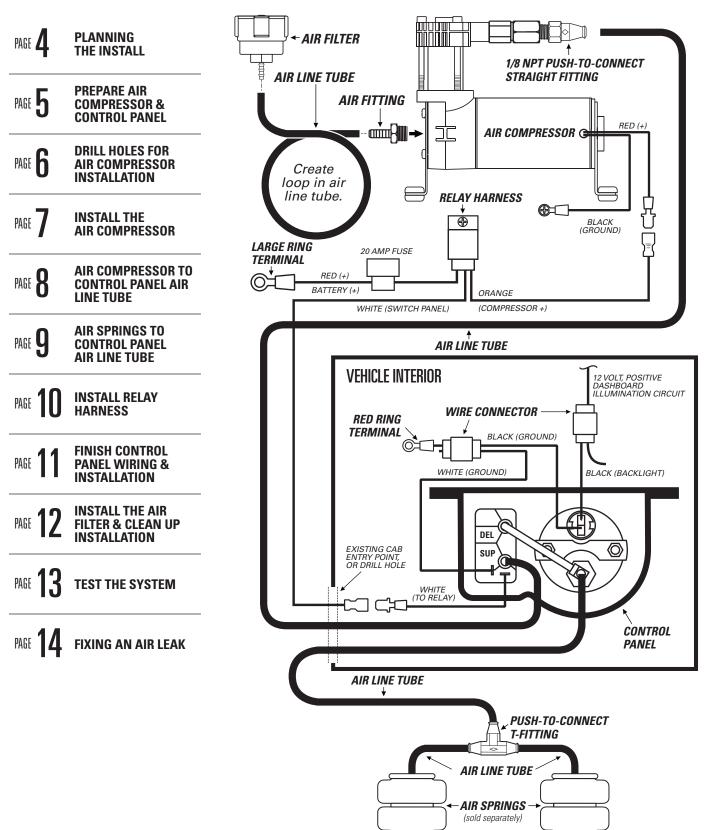
#### **MAIN KIT CONTENTS**

PT # 2572	x 1 SINGLE AIR X 1 CONTROL PANEL	PT # 9523	AIR COMPRESSOR	PT # 9307	x 1 RELAY HARNESS
PT # 9416	x 1 AIR LINE TUBE (30 FEET)				

#### A21-760-2158 HARDWARE PACK

PT # 3087	() Internet in the second	x 8 10-32 x 1" MACHINE SCREW	PT # 9078	□-0	x 1	RED RING TERMINAL	PT # 3055	1/8 NPT PUSH- x 1 TO-CONNECT STRAIGHT FITTING
PT # 3088		x 8 10-32 LOCK NUT	PT # 9083		x 2	WIRE CONNECTOR	PT # 9041	x 1 LARGE RING TERMINAL
PT # 3086	$\odot$	x 16 #10 FLAT WASHER	PT # 3025		x 1	PUSH-TO- CONNECT T-FITTING	PT # 9036	x 15 NYLON TIE
PT # 3025		x 1 1/4" PUSH-TO- CONNECT TEE	PT # 9041	D-9	x 1	BLUE RING TERMINAL		

# **CONTENTS AND OVERVIEW**



# **PLANNING THE INSTALL**

THESE PLANNING STEPS WILL HELP YOU SAVE TIME AND WILL MAKE THE INSTALLATION EASIER.

#### DETERMINE THE MOUNTING LOCATION FOR THE CONTROL PANEL

- Mount inside the vehicle cab, in a place where you will not hit or kick it.
- Allow room for the air line tube to run without sharp curves or bends.
- Do not obstruct your view or ability to safely operate the vehicle.

#### DETERMINE THE MOUNTING LOCATION FOR THE AIR COMPRESSOR

- Provide ample air flow.
- Protect from airborne debris and moisture.
- If using the optional Frame Installation Kit (Part # 2497), consider the guidelines above, and follow kit's instructions.

#### PLAN INSTALLATION ROUTES FOR WIRING AND AIR LINES INTO CAB

- If possible, use existing factory grommet, such as where a wiring harness enters the cab.
- If not possible, drill a hole large enough for two air line tubes and a ground wire. Make sure the wiring and air line tubes are not exposed to sharp metal edges that can damage them.

#### SOAK AIR LINE TUBE ENDS IN HOT WATER BEFORE INSTALLING ONTO BARBED FITTINGS

-The hot water makes the air line tube easier to work with and enables it to shrink onto the barbed fitting for a better seal.

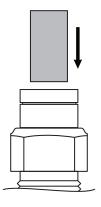
#### TAPE ALL ELECTRICAL CONNECTIONS

- Use electrical tape to appropriately secure and protect all electrical connections.

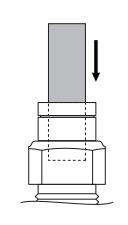
#### USING PUSH-TO-CONNECT FITTINGS FOR AIR LINES

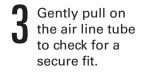
Your kit includes push-to-connect fittings to connect the air line tubes to hardware. Use the instructions below when using the air line.

Insert end of air line tube into air fitting.

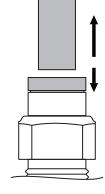


Push air line tube into air fitting as far as possible.





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

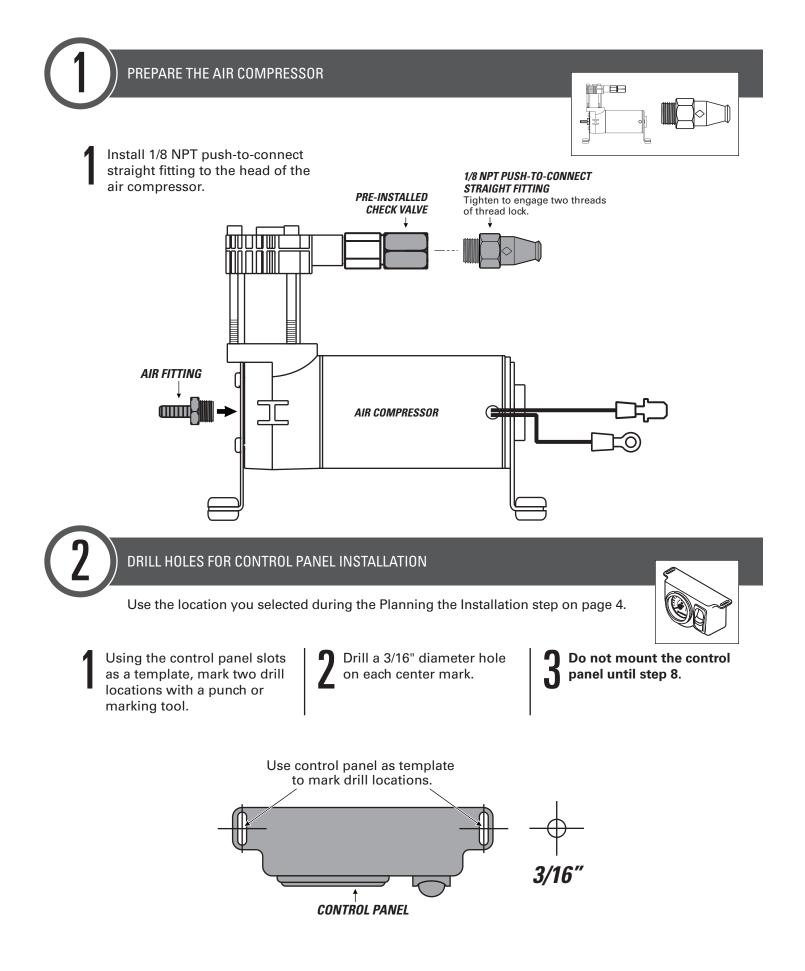


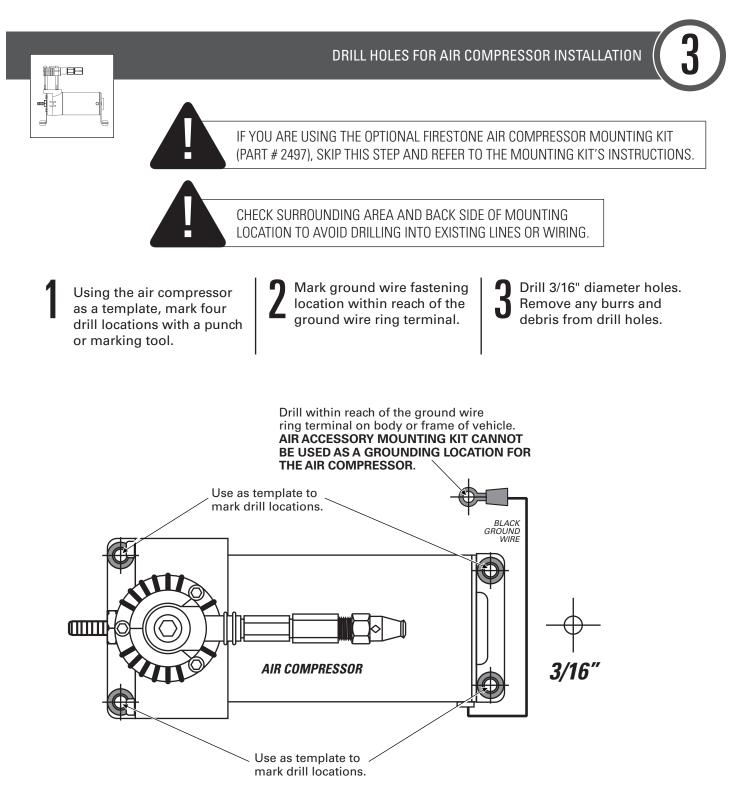
**Removal Tip**: Use a 1/4", 5/16", or 6mm open-ended wrench to push the collar down.

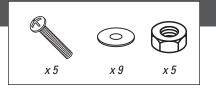










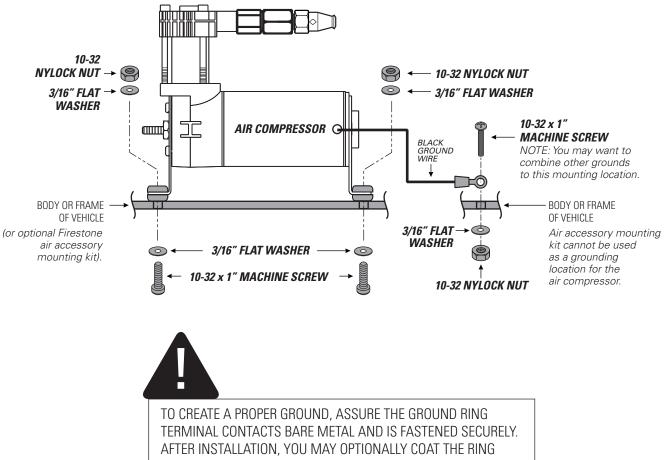


### DO NOT OVER TIGHTEN MOUNTING BOLTS AND NUTS. TOO MUCH TORQUE CAN CRUSH THE BRASS INSERTS AND RUBBER ISOLATORS.

Mount the air compressor to the drill hole location using the supplied fasteners. DO NOT OVERTIGHTEN.

2

Mount the black ground wire ring terminal using the supplied fasteners. Assure that the ring terminal makes a solid contact with bare metal for a proper ground. (Optionally, you can run the negative to the negative battery terminal.)

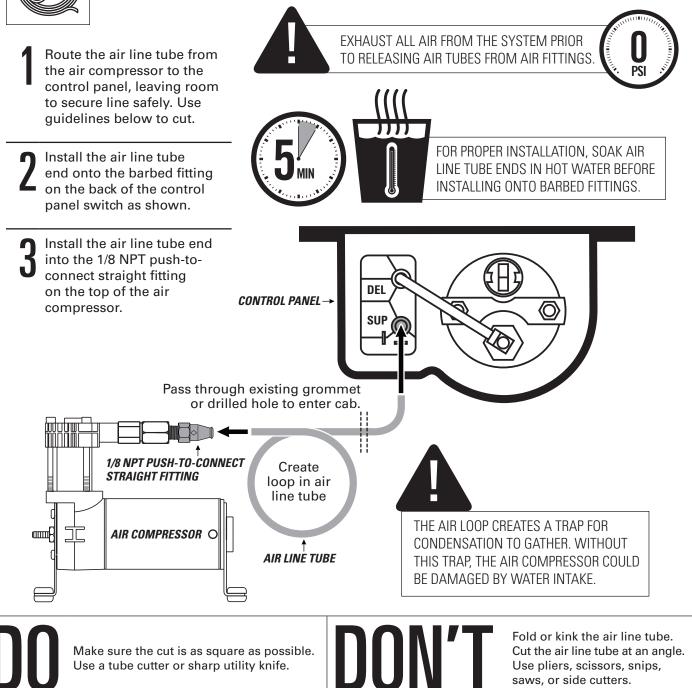


TERMINAL IN SILICONE TO PROTECT IT FROM CORRODING.

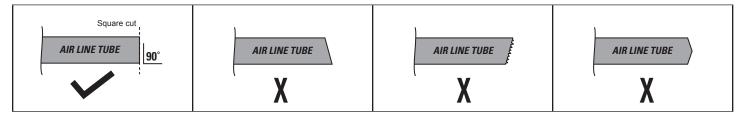
#### ROUTE AIR LINE TUBE FROM AIR COMPRESSOR TO CONTROL PANEL



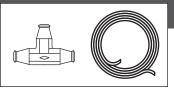
Use the route you selected during the Planning the Installation step on page 4.



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



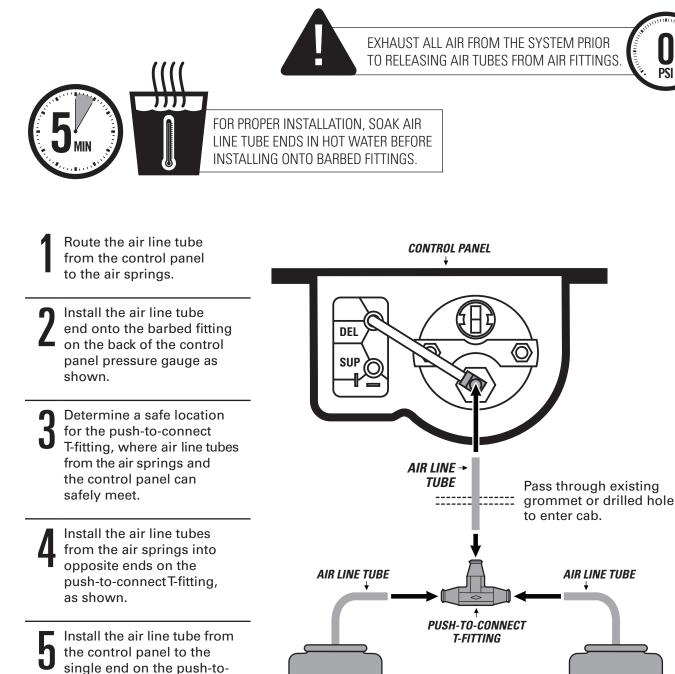
Use the route you selected during the Planning the Installation step on page 4.



AIR LINE TUBE

AIR SPRING

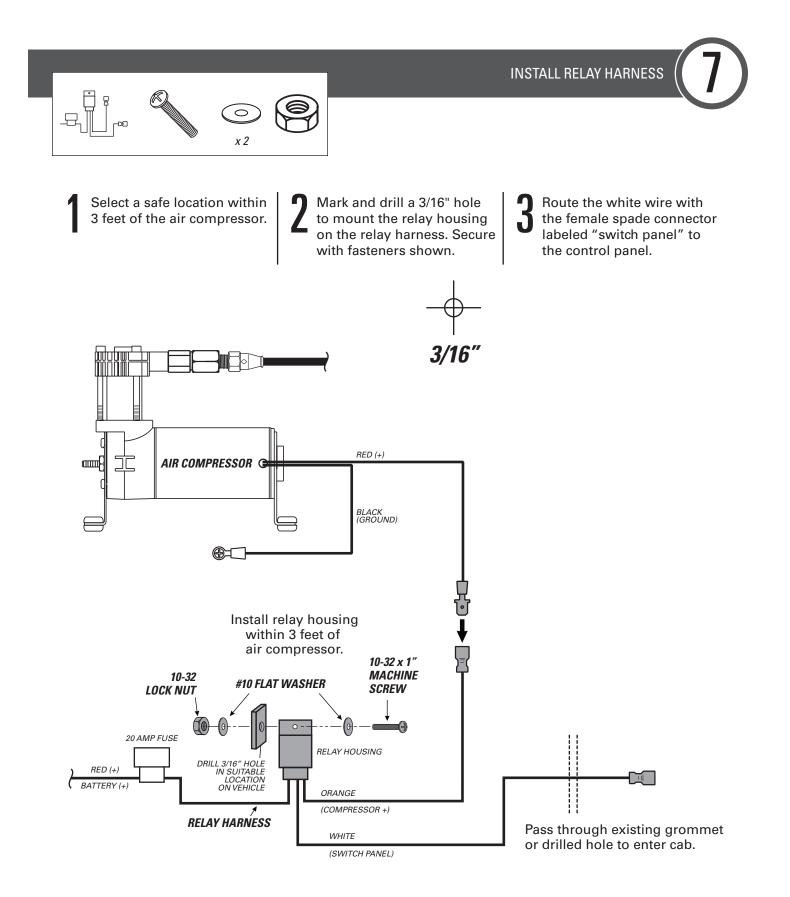
(sold separately)

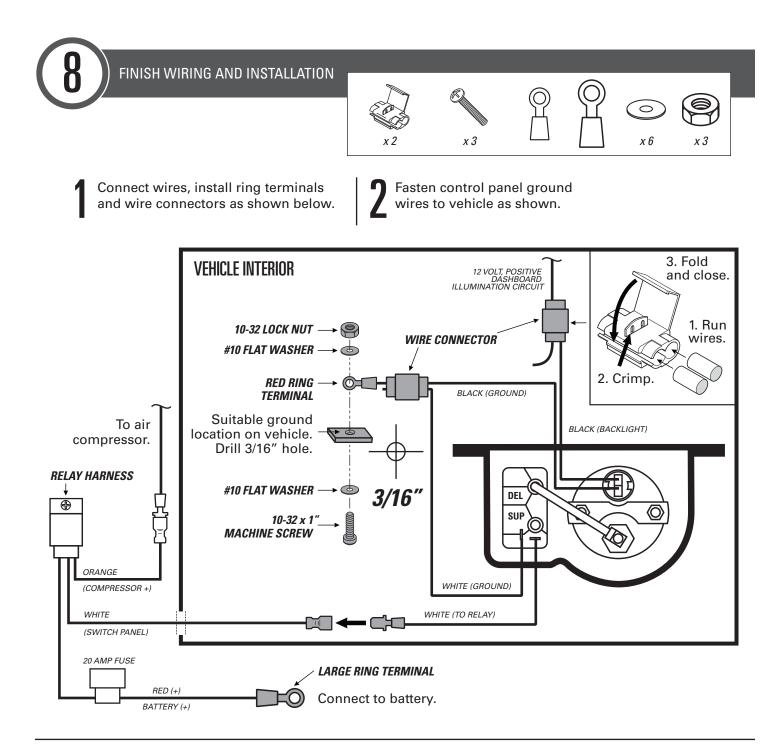


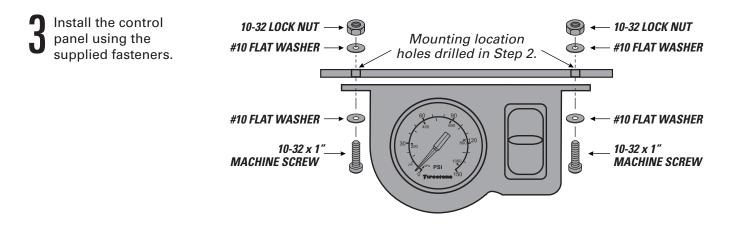
AIR SPRING

(sold separately)

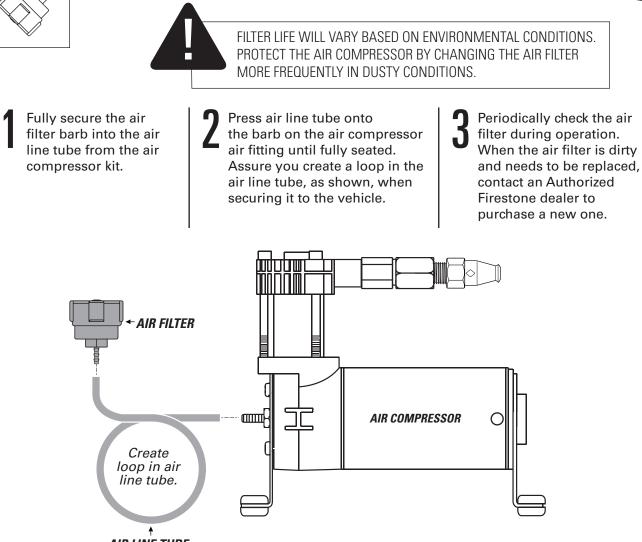
connect T-fitting.







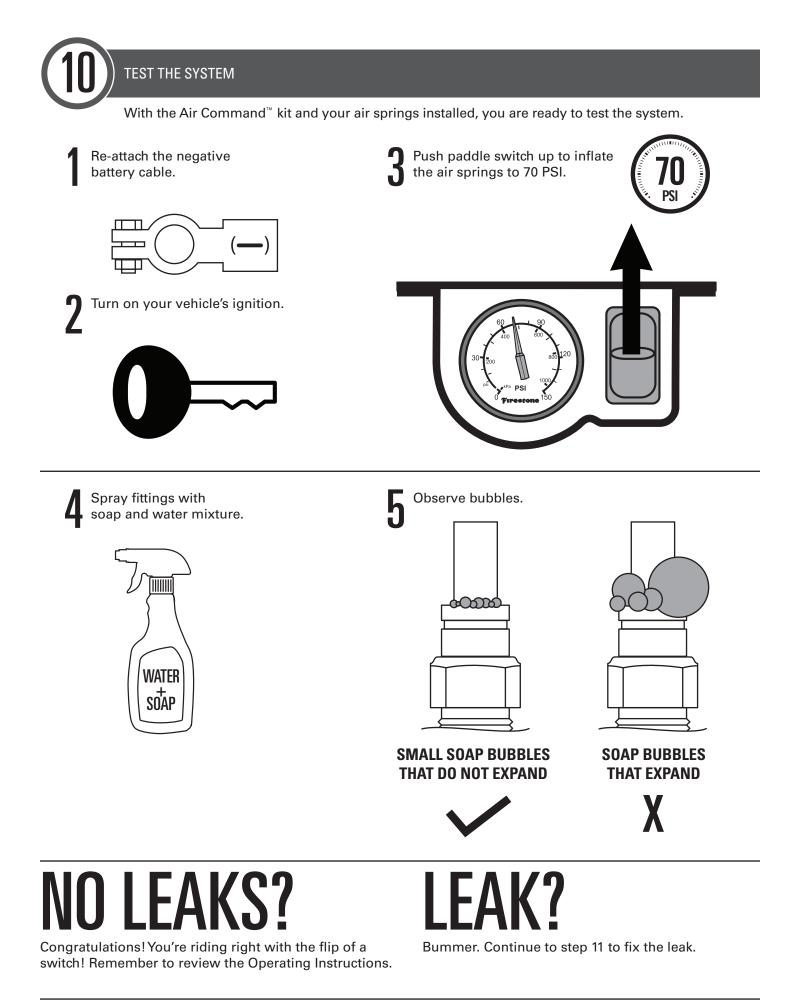




AIR LINE TUBE FROM AIR COMPRESSOR KIT

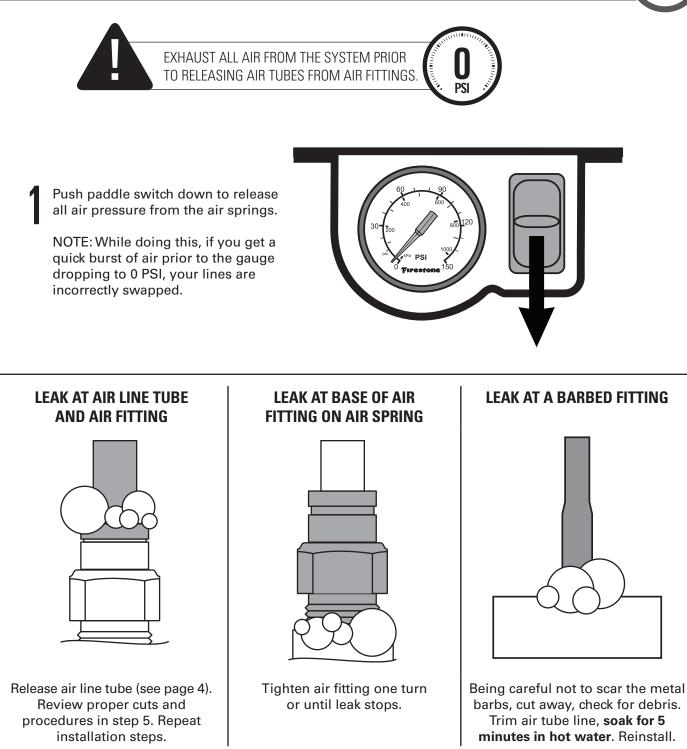
 1
 Clean up the installation using supplied Nylon ties, and return all factory parts and materials to operative state.

 VISING SUPPLIED NYLON TIES, SECURE ALL WIRING AND AIR LINE TUBE IN A MANNER THAT DOES NOT OBSTRUCT YOUR VIEW OR ABILITY TO SAFELY OPERATE THE VEHICLE.



Firestone





## **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.



#### riderite.com

### BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

Secure all air line tubes and wiring inside the cab and on the outside of the truck.

A Make sure no wiring, air line tubes, or hardware obstruct your vision or ability to safely operate the vehicle.

The system passes the leak test and holds air.

The air compressor ground ring terminal is contacting bare metal, and coated with silicone if possible.

 $\Box$  There is a loop in the air line tubes as shown to prevent water or debris from getting into the air

compressor head and damaging it.

The air gauge backlight turns off when the ignition is off, or when dashboard lights do not illuminate.

□ Put a minimum of 5 PSI in the air springs, unloaded.

### 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 Industrial Products** 



### Do Not Return This Product to the Dealer or Distributor

#### If you are

- missing parts,
- · experiencing installation problems, or
- have technical concerns regarding this product,

you may contact a Firestone Technical Service Representative at **rrtech@fsip.com** or at 800-888-0650 (option 1, and then option 2). Representatives are available from 7:30 a.m. – 4:30 p.m. Eastern on Monday – Friday, excluding holidays. If you are located outside of the United States, you should first contact your distributor or dealer directly with any issues.

When contacting Technical Service, please have the kit or part # ready, along with the make, model, and year of the vehicle. You may also need to provide details, such as 2WD/4WD or if the vehicle has been lifted or lowered from stock height.

If you have a warranty concern, please include in your email a detailed description of the situation, a photo(s) of the issue, and your contact information, including ship-to address.

**WARRANTY COVERAGE\***— The Ride-Rite<sup>™</sup> kits, components, and accessories are warranted against defects in workmanship and materials. This warranty does not cover service or labor charges, neglect...to the product.

#### PERIOD OF COVERAGE:

- Ride-Rite air springs Lifetime Limited
- Sport-Rite air springs Lifetime Limited
- Coil-Rite air springs Lifetime Limited
- Level-Rite air springs Lifetime Limited
- Work-Rite load assists 2 Years Limited
- Air-Rite accessories 2 Years Limited
- Brackets, hardware, fittings, air line, and other components 2 Years Limited

**HOW TO MAKE A WARRANTY CLAIM** — If you purchased your air springs in the U.S. or Canada and believe you have a part with a warrantable defect, call Firestone directly at 1-800-888-0650.

International customers should contact their distributors or dealers directly with any problems.

(\*) Please refer to the "Firestone Limited Lifetime Air Spring Warranty" for details, terns, and conditions.

#### WARRANTY QUESTIONS

#### Go to www.riderite.com/installation-support

Select "Warranty Info" tab