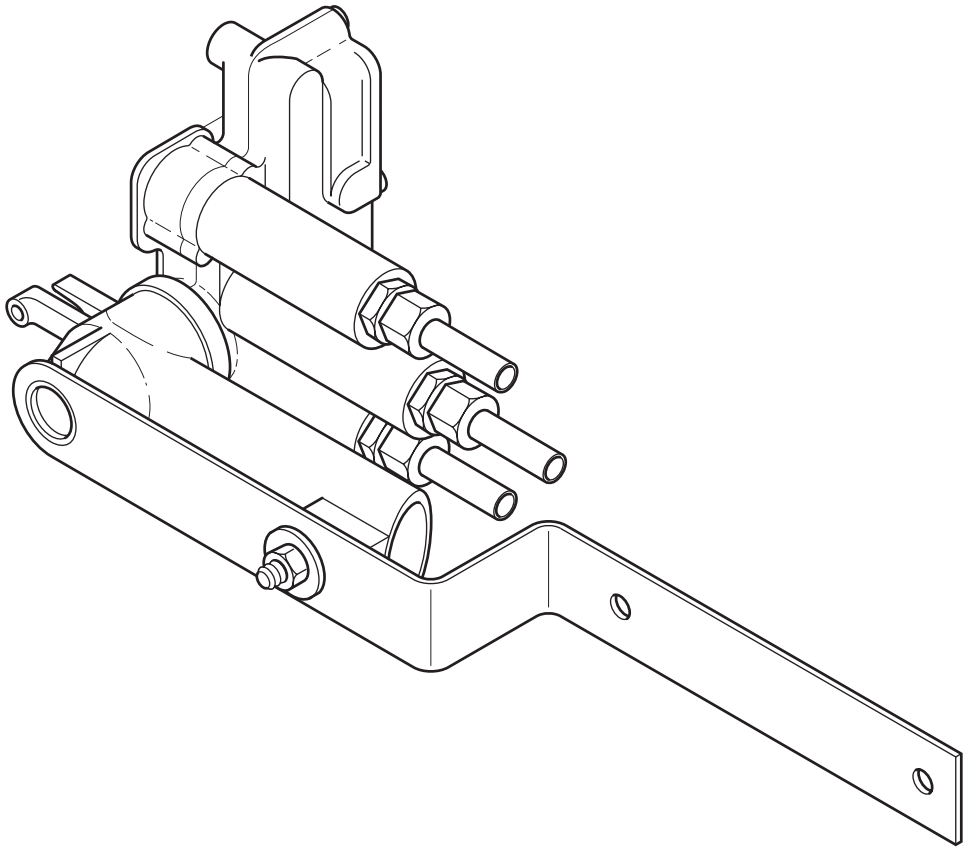
2950

AIRIDE

firestoneairide.com

INSTALLATION INSTRUCTIONS



12-24

! 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.

PRESSURE TO LOAD

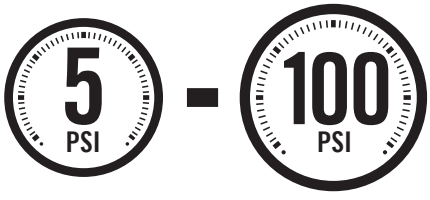
Be sure to review the load limits noted in the Air Spring Kit Installation Instructions (sold separately).

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.

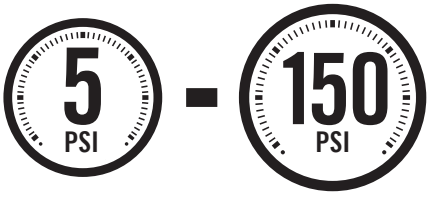
ONCE INSTALLED SUCCESSFULLY, FOLLOW THE PRESSURE REQUIREMENTS FOR THE AIR SPRINGS. FOR FIRESTONE, GENERALLY:

RIDE-RITE



MINIMUM PRESSURE *MAXIMUM PRESSURE (LOADED)*

RED LABEL

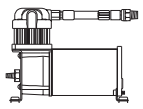
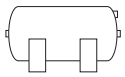
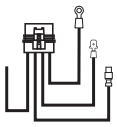
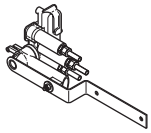


MINIMUM PRESSURE *MAXIMUM PRESSURE (LOADED)*

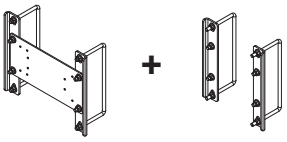
PARTS

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

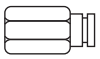
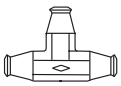
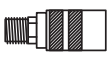
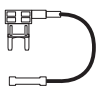
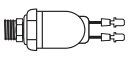
MAIN KIT CONTENTS

PT # 9287	 x 1 AIR COMPRESSOR 450C	PT # 9420	 x 1 AIR TANK 2 GALLON	PT # 9419	 x 1 WIRE HARNESS
PT # 9028	 x 1 LINKAGE KIT	PT # 9376	 x 1 HEIGHT CONTROL VALVE	PT # 9416	 x 1 AIR TUBING (30 FEET)
PT # 9194	 x 1 EXTERNAL HOSE	PT # 9195	 x 1 INFLATOR AND GAUGE KIT	PT # 9301	 x 1 STORAGE BAG HEAVY DUTY

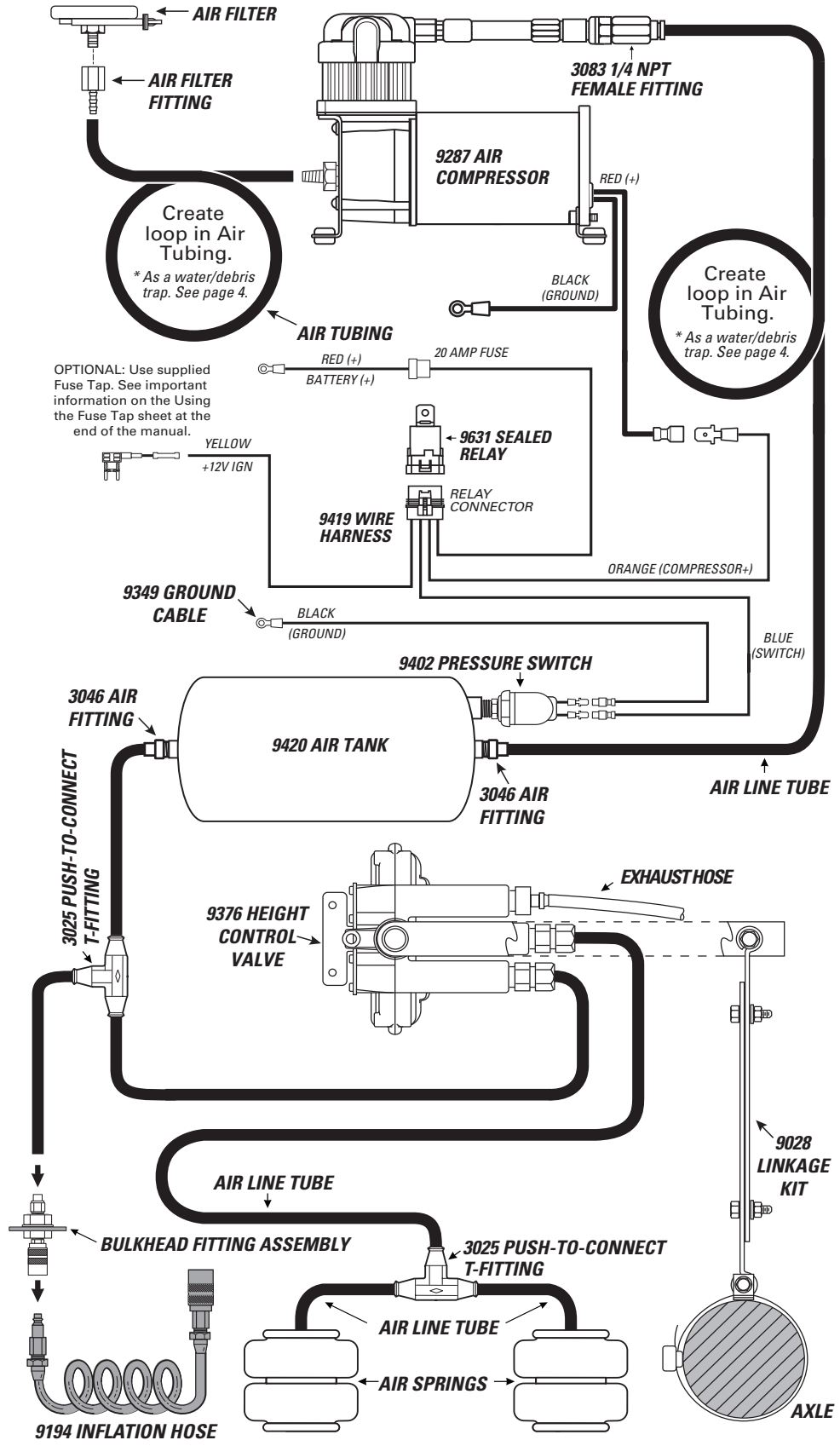
A24-760-2636 COMPRESSOR AND TANK MOUNTING KIT

KIT # 2636		x 1 COMPRESSOR AND TANK MOUNTING KIT *The parts list for this kit is in the Mounting Kit Manual included at the end of this Manual.*

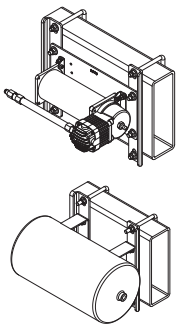
A21-760-2950 HARDWARE PACK

PT # 3083	 x 1 1/4 NPT FEMALE 1/4 PTC	PT # 3421	 x 1 10-16 x 3/4" SELF-TAPPING SCREW	PT # 0681	 x 2 3/8-16 x 0.75 HEX HEAD CAP SCREW GR5
PT # 3046	 x 3 1/4 STRAIGHT FITTING PTC	PT # 3087	 x 5 10-32 x 1" MACHINE SCREW	PT # 0070	 x 4 3/8-16 x 1.00 HEX HEAD CAP SCREW GR5
PT # 3025	 x 2 1/4 PUSH-TO-CONNECT TEE	PT # 3088	 x 5 10-32 NYLOCK NUT	PT # 3067	 x 6 3/8-16 HEX HEAD FLANGE CENTER LOCK NUT
PT # 3146	 x 1 1/4 NPT ANCHOR COUPLING	PT # 3086	 x 10 #10 FLAT WASHER	PT # 0071	 x 4 3/8 FLAT WASHER
PT # 9196	 x 1 DRY COUPLER FITTING	PT # 9361	 x 1 SEALED RELAY	PT # 5001	 x 1 HEIGHT CONTROL AXLE BRACKET
PT # 9537	 x 1 IGNITION FUSE TAP *(Use Part # 2526 for replacement fuses)*	PT # 9402	 x 1 145/110 PSI SEALED PRESSURE SWITCH	PT # 5002	 x 1 HOSE CLAMP
PT # 9036	x 15 RED NYLON TIE	PT # 9349	 x 1 WIRE HARNESS FEMALE SPADE TO RING TERMINAL	PT # 5004	 x 1 HEIGHT VALVE MOUNTING PLATE

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 AIR COMPRESSOR AND TANK

- Use the provided Mounting Kit (Part # 2636) to mount the Compressor and Tank, considering the guidelines below, and follow the kit's instructions.
- Provide ample air flow.
- Protect from airborne debris and moisture.
- Optionally you can drill holes to mount the Compressor and/or Tank to the frame, see Section 3

PLAN INSTALLATION ROUTES FOR WIRING AND AIR LINES

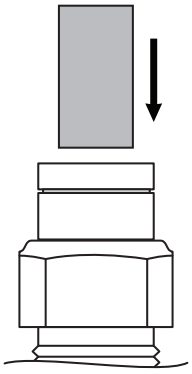
- Make sure the Wire Harness and Air Tubing are not exposed to sharp metal edges that can damage them.
- Use supplied Thermal Sleeves on Air Tubing when routing near heat sources.
- Use supplied Nylon Ties to secure Air Tubing and Wire Harness to the vehicle.
- Make a loop in the Air Tubing where shown. This creates a water/debris trap that protects the Air Compressor.
- Measure twice, cut once!

TAPE ALL ELECTRICAL CONNECTIONS

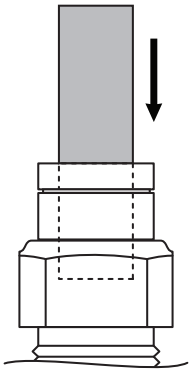
- Use electrical tape to appropriately secure and protect all electrical connections.

USING PUSH-TO-CONNECT FITTINGS FOR AIR LINES

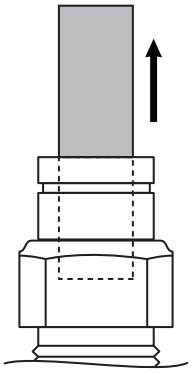
1 Insert end of Air Tubing into Air Fitting.



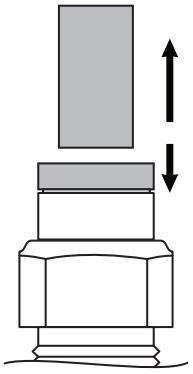
2 Push Air Tubing into Air Fitting as far as possible.



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



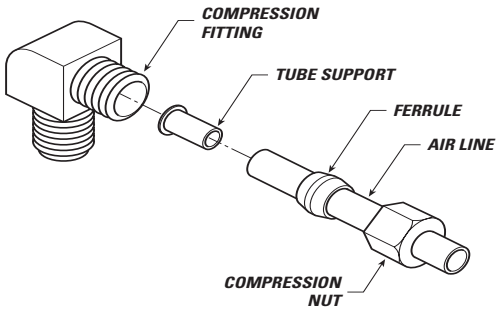
4 To remove, push down collar and gently pull Air Tubing away.



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

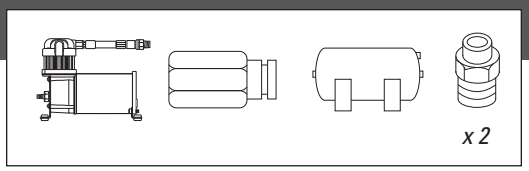
USING COMPRESSION FITTINGS FOR AIR LINES

- The Height Control Valves use compression fittings to secure the Air Tubing to the Valve.
- Slide the compression nut and ferrule over the top of the Air Tubing and insert the tube support into the end of the Air Tubing. Slide everything into the end of the compression fitting and tighten the nut. DO NOT OVER TIGHTEN.



1 PREPARE THE AIR COMPRESSOR AND TANK

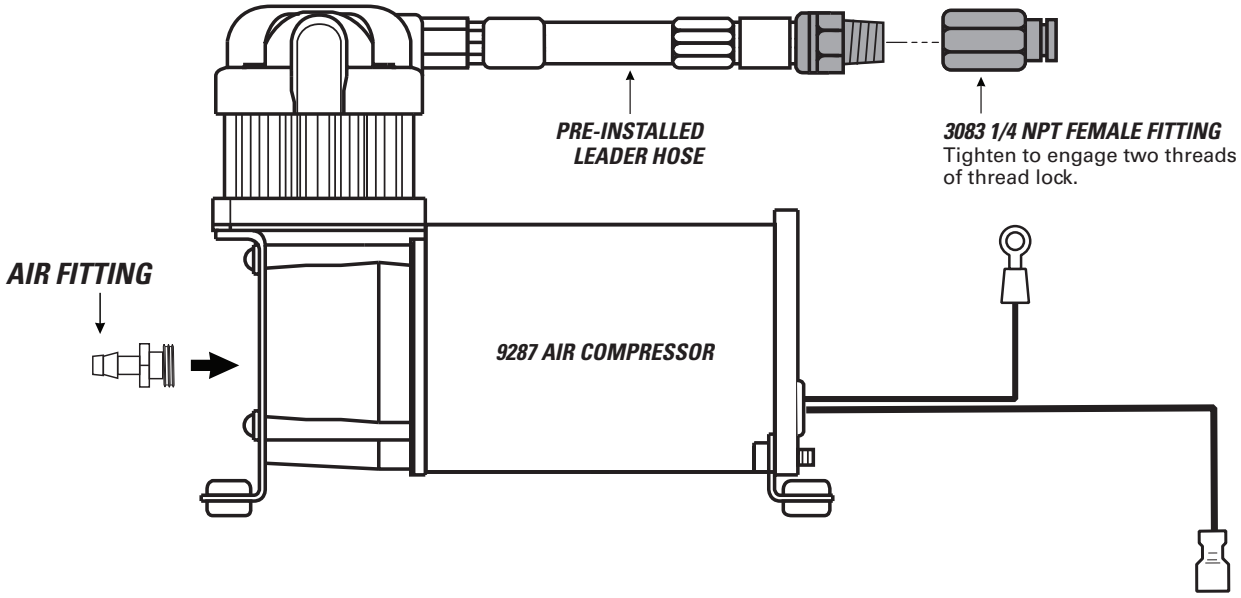
NOTE: Air Compressor can be mounted facing any direction.

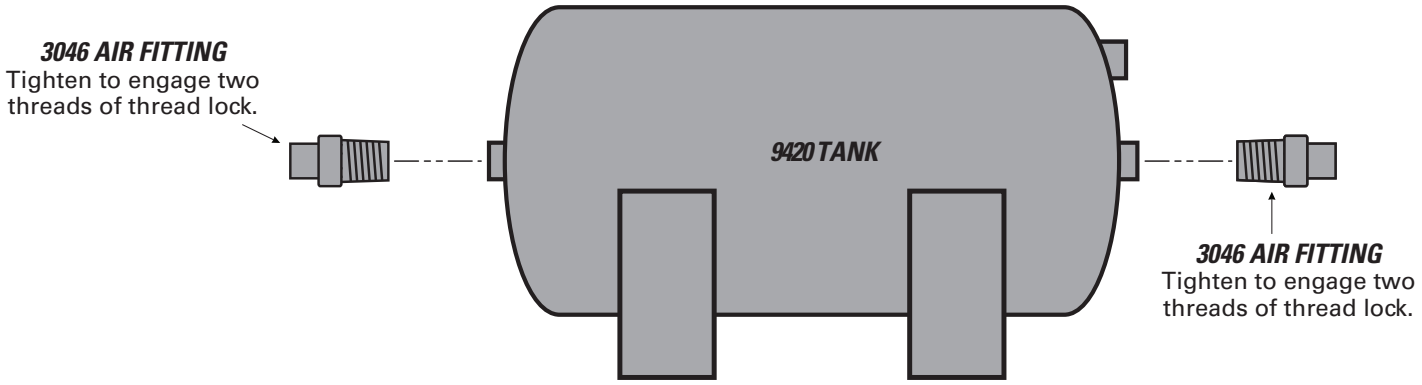


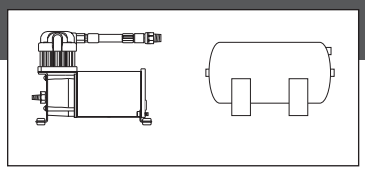
1. Install 1/8 NPT Push-to-Connect Straight Fitting on the Check Valve.

2. Install Barbed Air Fitting in Inlet Port of the Compressor from Air Compressor Kit.

3. Install 1/4 Male NPT Push-to-Connect Straight Fittings on both ends of tank.







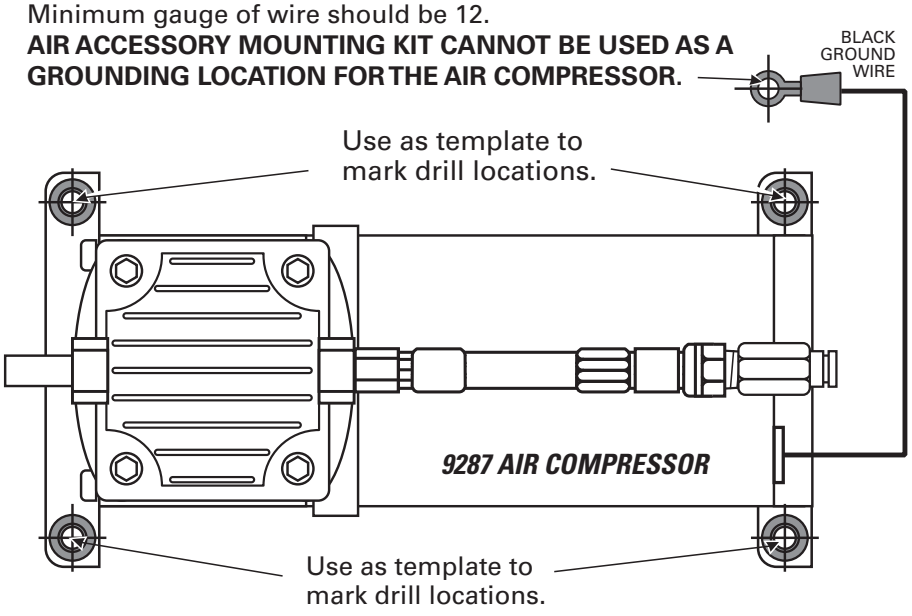
IF YOU ARE USING THE SUPPLIED FIRESTONE AIR ACCESSORY MOUNTING KIT, SKIP THIS STEP AND REFER TO THE MOUNTING KIT'S INSTRUCTIONS AT THE END OF THIS MANUAL.

STOP HERE AND SKIP THIS STEP IF USING THE PROVIDED MOUNTING KIT

CHECK SURROUNDING AREA AND BACK SIDE OF MOUNTING LOCATION TO AVOID DRILLING INTO EXISTING LINES OR WIRING.

Drill within reach of the ground wire ring terminal on body or frame of vehicle or create a wire to link to the negative battery terminal. Minimum gauge of wire should be 12.

AIR ACCESSORY MOUNTING KIT CANNOT BE USED AS A GROUNDING LOCATION FOR THE AIR COMPRESSOR.

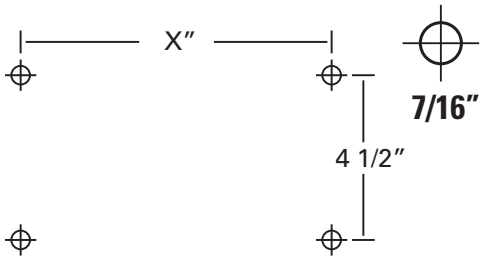


1. Using the Air Compressor and ECU as templates, mark drill locations as shown with a punch or marking tool.
2. Mark Air Compressor ground wire fastening location within reach of the ground wire ring terminal.
3. Drill 7/32" diameter holes. Remove any burrs and debris from drill holes.

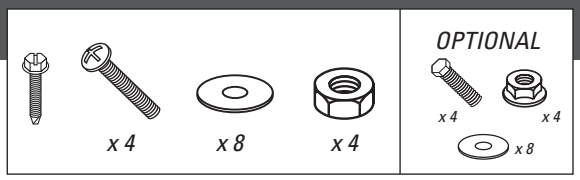
ASSURE THAT YOU INSTALL THE AIR COMPRESSOR AND TANK CLOSE ENOUGH SO THE CONNECTORS ON THE WIRE HARNESS WILL REACH THEM BOTH.

7/32"

For tank mounts, make marks as shown below. The tank feet will mount at these locations.



3 INSTALL COMPRESSOR AND TANK

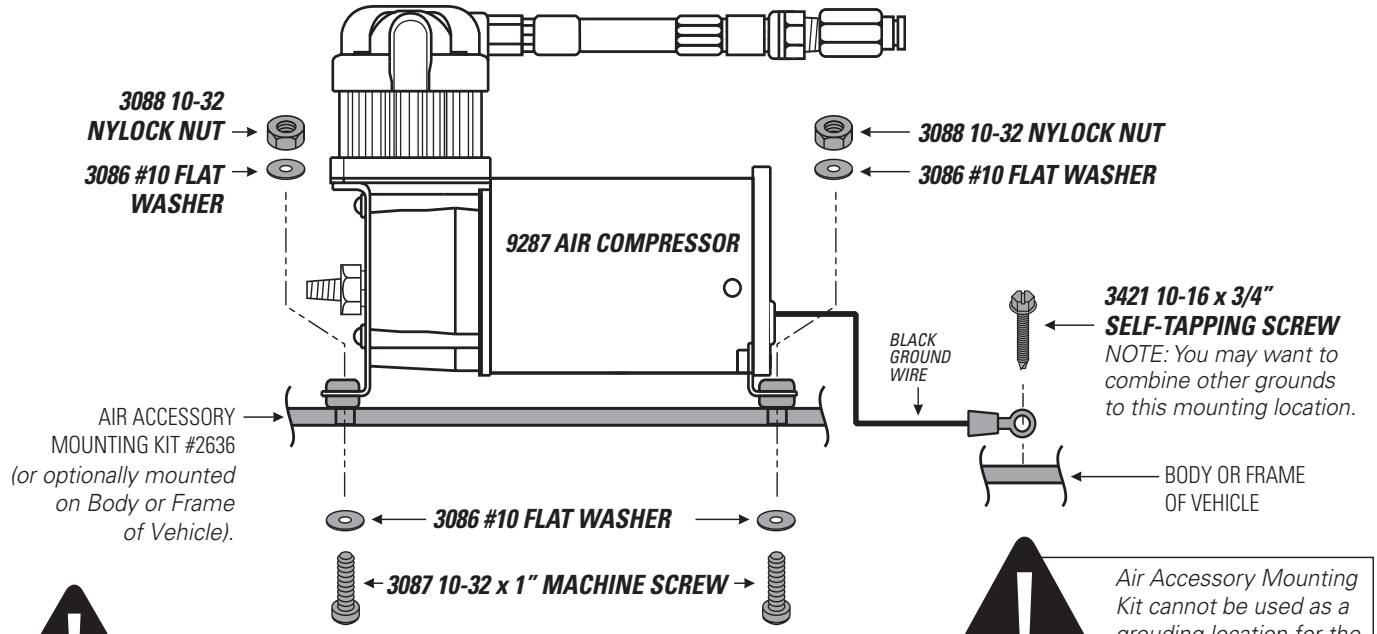


DO NOT OVER TIGHTEN MOUNTING BOLTS AND NUTS ON THE AIR COMPRESSOR. TOO MUCH TORQUE CAN CRUSH THE BRASS INSERTS AND RUBBER ISOLATORS.

1 Mount the Air Compressor to the hole locations on the provided Mounting Kit using the supplied fasteners.
DO NOT OVER TIGHTEN.

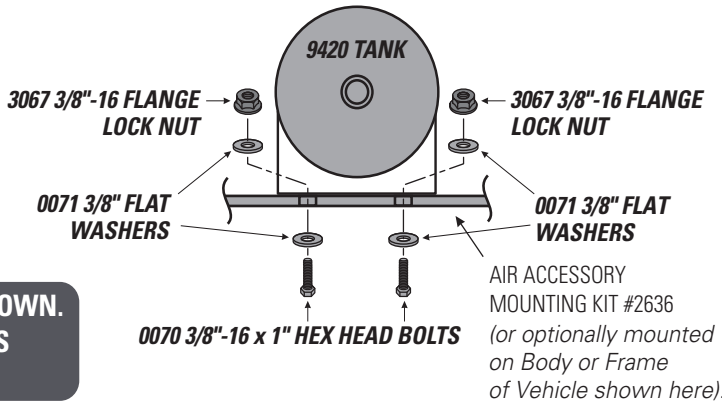
2 Mount the black ground wire ring terminal using the supplied fasteners. Assure that the ring terminal makes a solid contact with bare metal for a proper ground. (Optionally, you can run the negative wire to the negative battery terminal.)

OPTIONAL Mount to the drill holes made in the frame. Do this only if the mounting kit will not mount to the frame of the vehicle.

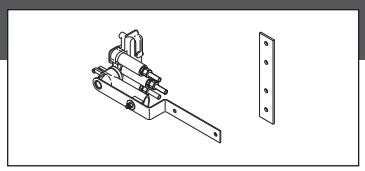


Air Accessory Mounting Kit cannot be used as a grouding location for the Air Compressor.

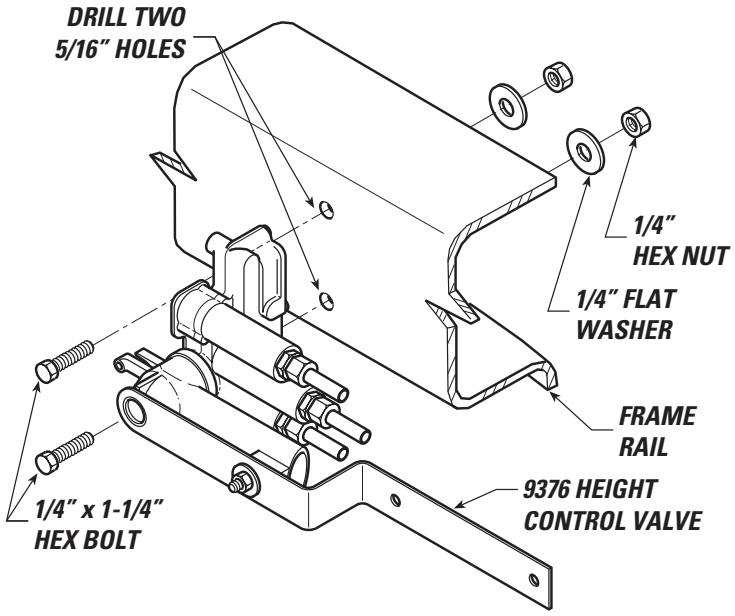
TO CREATE A PROPER GROUND, ASSURE THE GROUND RING TERMINAL CONTACTS BARE METAL AND IS FASTENED SECURELY. AFTER INSTALLATION, YOU MAY OPTIONALLY COAT THE RING TERMINAL IN SILICONE TO PROTECT IT FROM CORRODING.



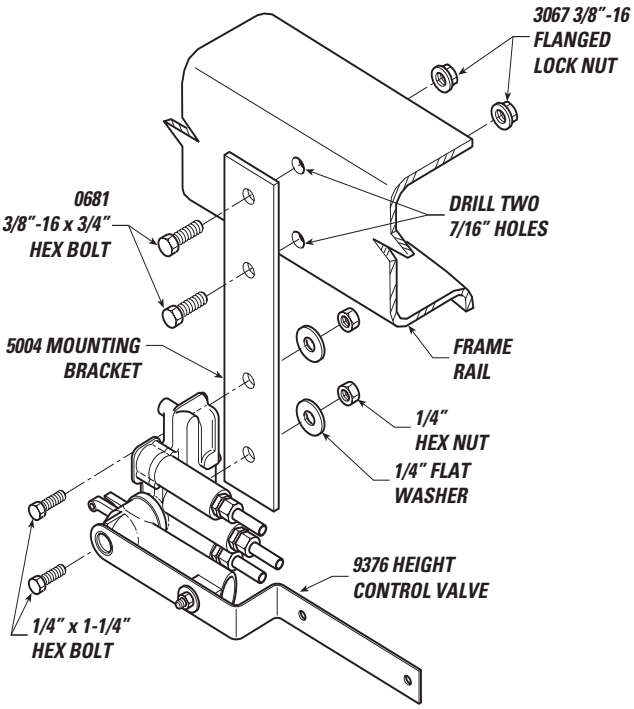
OPTIONAL FRAME MOUNTING FOR TANK SHOWN. REFER TO MOUNTING KIT INSTRUCTIONS FOR PROVIDED TANK BRACKETS.



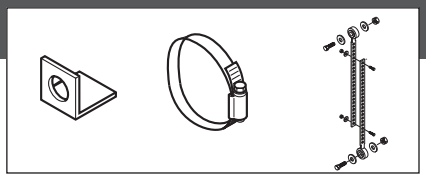
1 Mount the height control valve in a location where it may be attached to the frame so that the arm extends over the axle. The valve must be in a location where the link-arm can reach from the valve arm to the axle housing. The height control valve can be attached directly to the frame rail above the axle or on a bracket attached to the frame rail. To attach the height control valve directly to the frame, use the mounting holes on the valve as a template to mark and drill two 5/16" holes. Use the 1/4" x 1-1/4" hex bolts, 1/4" washers, and 1/4" hex nuts to secure the valve to the frame.



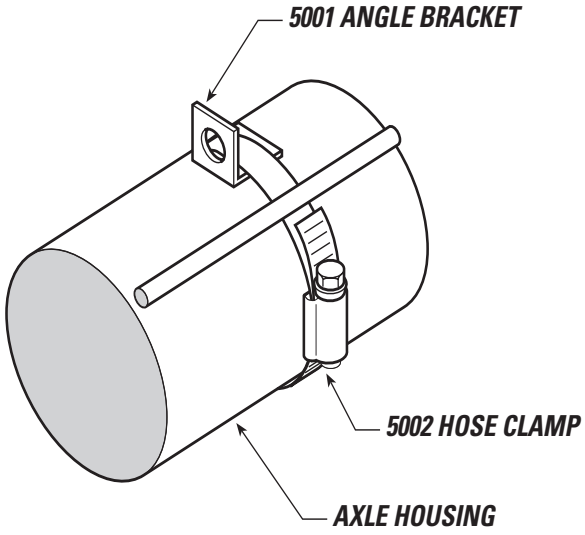
2 The height control valve can be attached to a bracket secured to the frame rail if the link-arm cannot span the distance between the valve arm and the axle housing. Secure the mounting plate to the height control valve using the 1/4" x 1-1/4" hex bolts, 1/4" hex nuts, and 1/4" washers provided. Using the brackets as a template, mark and drill two 7/16" holes in the frame rail. Attach the bracket to the frame with the provided 3/8" x 3/4" hex bolts and 3/8" flanged lock nuts.



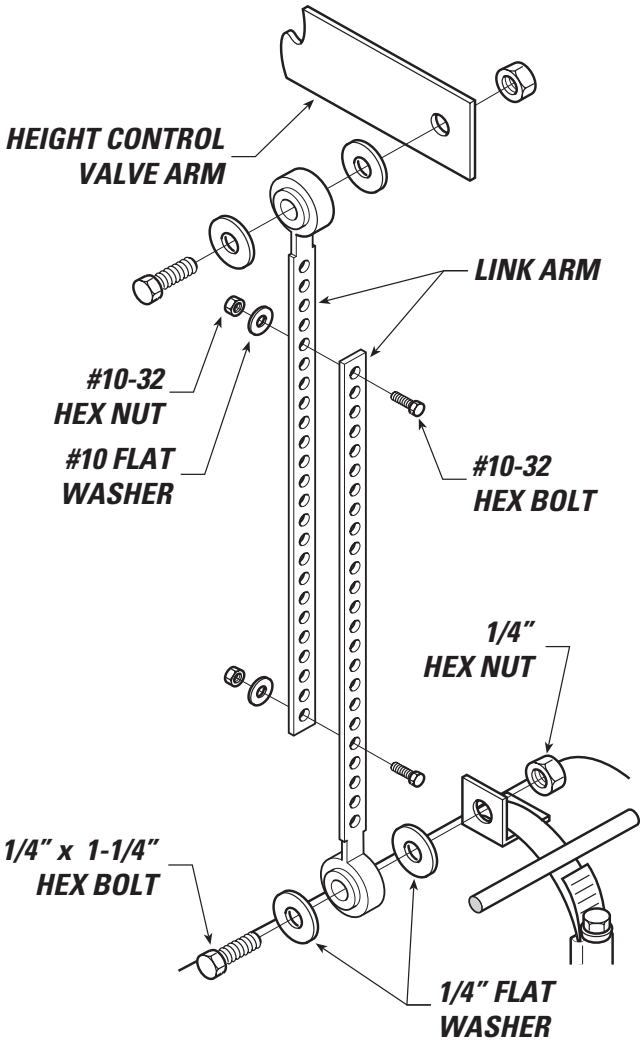
5 INSTALL HEIGHT CONTROL LINKAGE ARM



1 Place the angle bracket on the axle directly beneath the valve arm. This bracket does not have to be on top of the axle. Find a location free from obstructions, such as brake lines. Place the hose clamp around the axle and the angle bracket and tighten the clamp. Ensure that the hose clamp does not clamp over the brake line, as to avoid damage to the line.

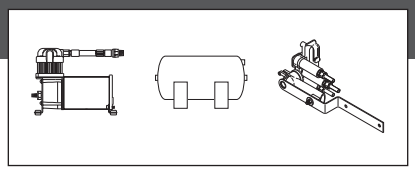


ROUTE HOSE CLAMP BENEATH BRAKE LINE



2 Measure the distance from the angle bracket on the axle to the mounting hole on the arm on the height control valve. Ensure that the arm on the height control valve is aligned horizontally. Fasten the individual link-arms together so that they span the measured distance with the provided #10 hex bolts, #10 hex nuts, and #10 washers. If the link-arms are too long, they can be cut to allow them to be fastened together.

Fasten the link-arm to the height control valve with a 1/4" x 1-1/4" hex bolt, two 1/4" washers, and a 1/4" hex nut. Follow the same procedure to attach the link-arm to the angle bracket on the axle. The link-arm to the should be installed so that it is aligned as close to vertical as possible.



EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR TUBING FROM AIR FITTINGS.

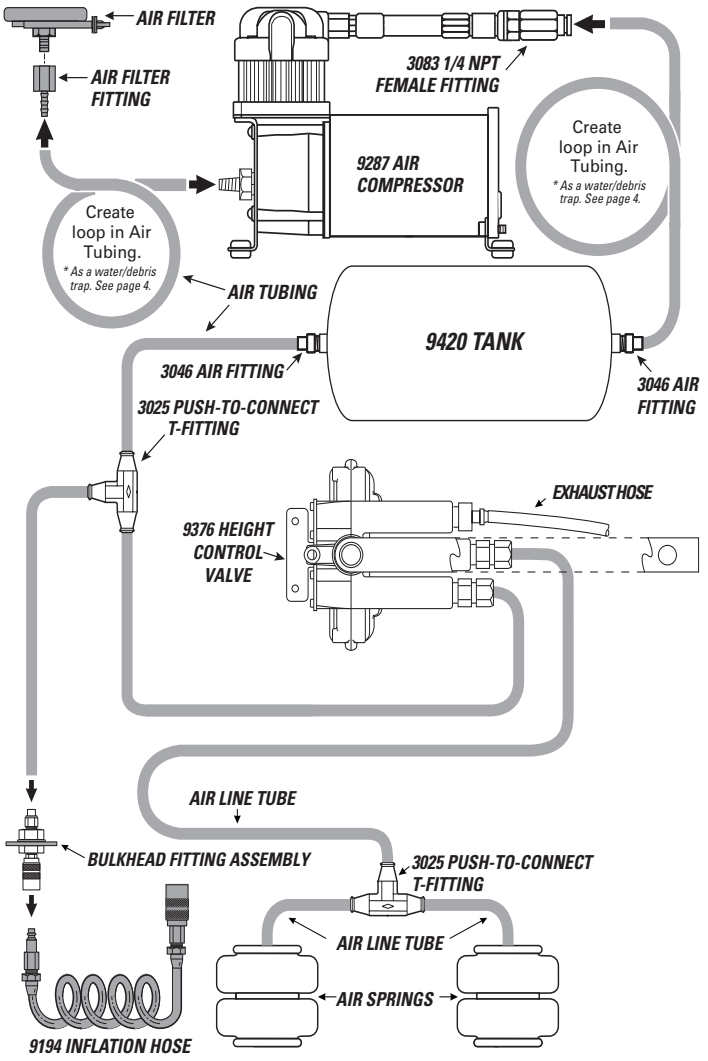
5 PSI

1 Route Air Tubing from the Tank to the bottom of the Height Control Valve. Leave a little extra length to allow for the Tee Fitting to add in the External Inflation Hose Assembly.

2 Install a short section of tube from the middle of the Height Control Valve and add the other Tee Fitting. If your vehicle already has Air Springs, release the pressure from the system. Cut two lengths of tubing to connect to each Air Spring.

3 Install approximately 6" of Air Tubing to the top of the Height Control Valve to allow for the Air Springs to exhaust air when loads are removed.

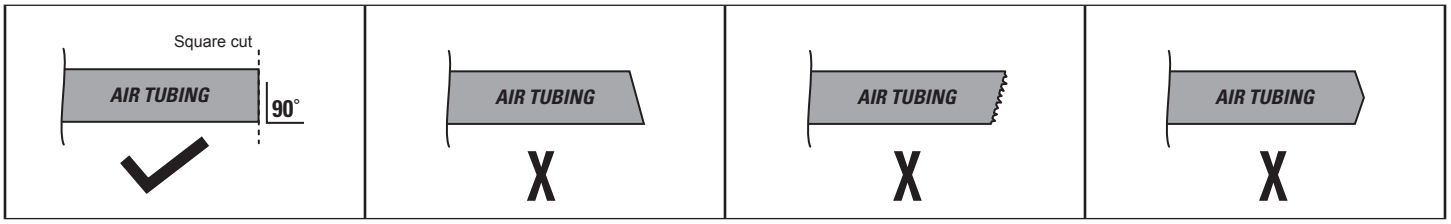
4 Use supplied Nylon Ties to install the Air Filter in a dry, secure place, away from dirt and debris. Periodically check the Air Filter during operation, and replace it when it becomes dirty.



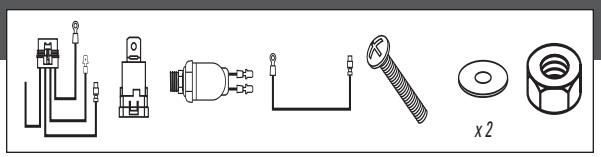
DO Make sure the cut is as square as possible. Use a tube cutter or sharp utility knife.

DON'T Fold or kink the Air Tubing. Cut the Air Tubing at an angle. Use pliers, scissors, snips, saws, or side cutters

PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



7 INSTALL THE WIRE HARNESS

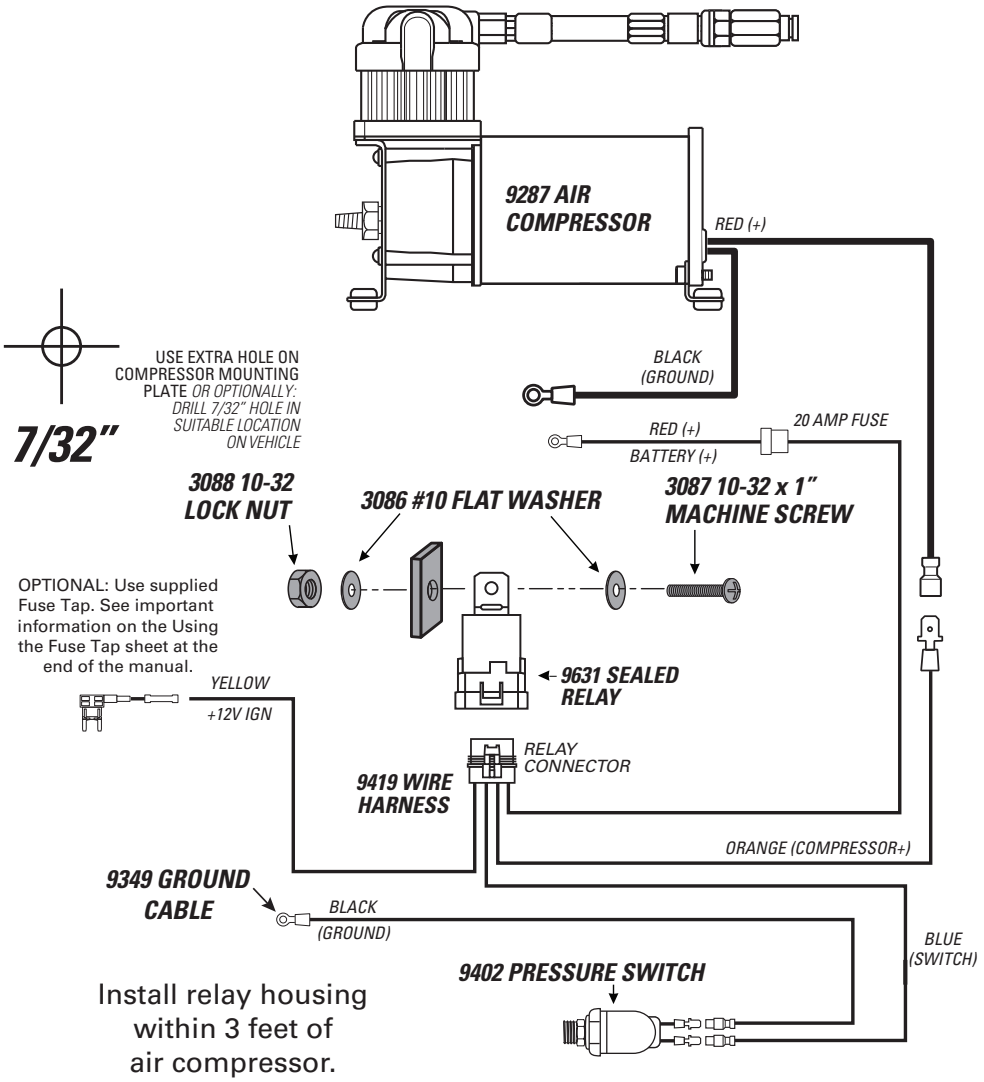


1 Select a safe location within 3 feet of the Air Compressor. Connect the Red wire from the Compressor to the Orange wire on the harness. The blue wire connects to one end of the Pressure Switch. The 9349 Ground Wire should be tied together with the Compressor Ground cable on the frame of the vehicle.

2 Use one of the unused holes on the Compressor Mounting Plate to mount the relay housing on the Relay Harness. Secure with fasteners shown.

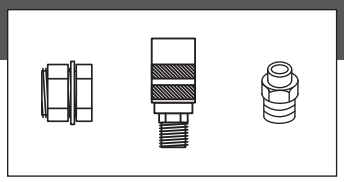
Optionally: Mark and drill a 7/32" hole in the frame if unable to use mounting bracket.

3 Route the wire harness into the engine compartment to make the additional connections. Attach the yellow wires to a +12VDC ignition-actived source. The Ignition Fuse Tap is provided to reduce damage from splicing into the vehicle wiring. DO NOT CONNECT the Red wire on the harness until you are ready to power up the system.



Install relay housing within 3 feet of air compressor. Mount the 9349 Ground Cable ring end with the Compressor Ground Wire.

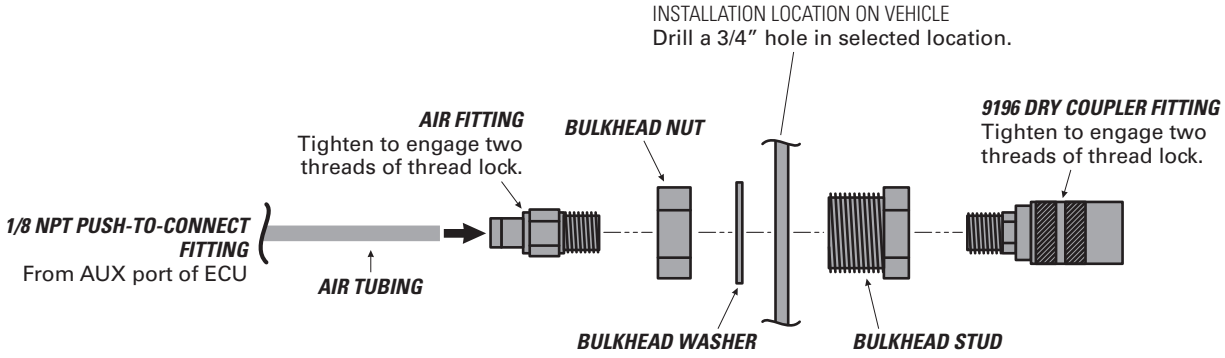
INSTALL BULKHEAD ASSEMBLY 8



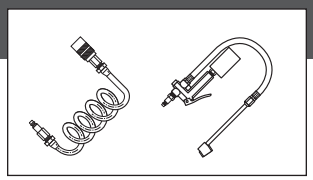
1 Determine a suitable location to mount the Bulkhead Assembly and Fittings. This area should be convenient to access and safe from debris. Make sure you have room to attach the Inflation Hose.

2 Drill a 3/4" hole in the selected mounting location and install the Bulkhead Assembly Components, Air Fitting and Dry Coupler Fitting, as shown.

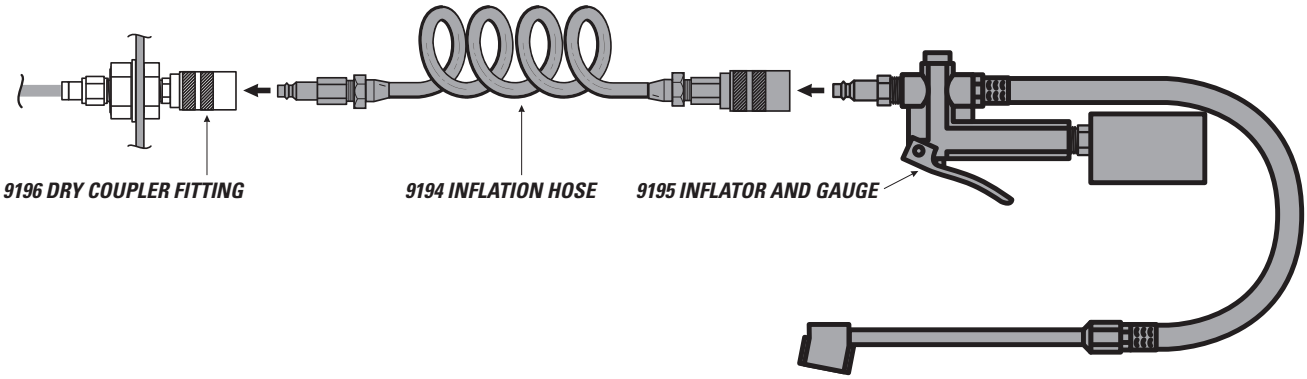
3 Install Air Tubing from the Push-to-Connect T-fitting between the Air Tank and the ECU to the Air Fitting installed into the Bulkhead Assembly.

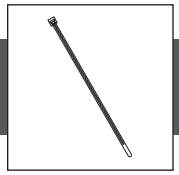


USING INFLATOR 9



Connect the male Air Fittings to the Dry Couplers to use the Inflation Hose and Inflator. When finished, simply disconnect and store in the supplied Firestone Storage Bag.





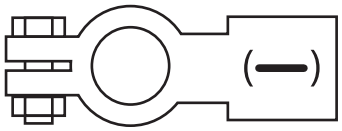
CLEAN UP INSTALLATION 10

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

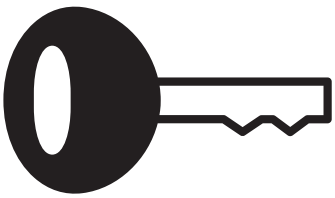
USING SUPPLIED NYLON TIES, SECURE ALL WIRING AND AIR TUBING IN A MANNER THAT DOES NOT OBSTRUCT MOVING PARTS OR IN ANY WAY THAT AFFECTS YOUR ABILITY TO SAFELY OPERATE THE VEHICLE.

11 TEST THE SYSTEM

1 Reattach the negative battery cable.



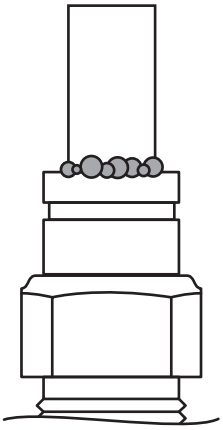
2 Turn on your vehicle's ignition.



3 The Compressor will run for a short period of time to build pressure in the air tank and air springs. The Pressure Switch will automatically turn the Compressor off once the system reaches 145 PSI. Check fittings for leaks once the system has stopped running. You may also need to adjust the height of the valves if the position of the frame is higher or lower than desired.

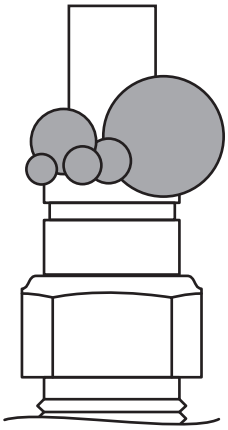
4 Spray fittings with soap and water mixture or glass cleaner.

5 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.

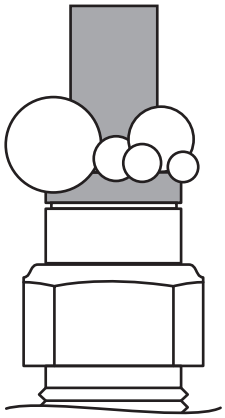
LEAK?

Bummer. Continue to step 13 to fix the leak.

EXHAUST ALL AIR FROM THE SYSTEM PRIOR TO RELEASING AIR TUBING FROM AIR FITTINGS. 5 PSI

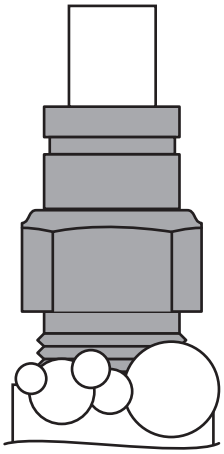
1 If a leak is detected at a tubing connection, first release all pressure from the system. Check to make sure that the tube is cut as square as possible and is pushed completely into the fitting. If a leak is detected where the brass fitting screws into the spring, screw the fitting into the air spring one additional turn or until the leak stops. This can also be done on the compression fittings on the height valves. If necessary take apart the fitting to make sure the ferrule or tube insert have not damaged the tube and are making a secure connection.

LEAK AT AIR TUBING AND AIR FITTING



Release Air Tubing (see page 4). Review proper cuts and procedures in Step 6. Repeat Step 6.

LEAK AT BASE OF AIR FITTING



Tighten air fitting one turn or until leak stops.

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

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BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

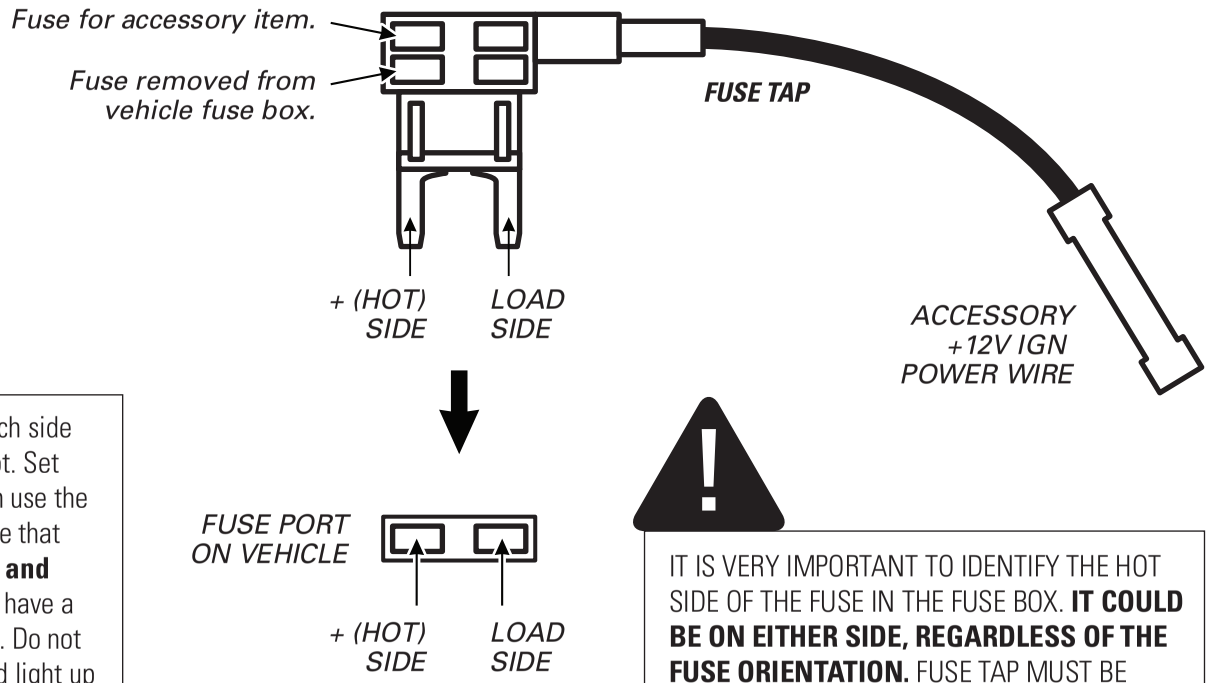
- ☐ Secure all Air Tubing and wiring.
- ☐ The system passes the leak test and holds air.
- ☐ The Air Compressor ground ring terminal is contacting bare metal, and coated with silicone if possible.
- ☐ Wire Harness is grounded to the negative (-) battery terminal.
- ☐ There is a loop in the Air Tubing as shown to prevent water or debris from getting into the Air Compressor head and damaging it.

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.

USING THE IGNITION FUSE TAP

1. Insert the fuse for the Firestone accessory into the top Fuse Tap port, as shown.
2. Use your vehicle's Owner's Manual to determine a safe and suitable ignition fuse and remove the fuse, noting its location. This location should register **between 11.8 VDC and 15 VDC** when testing with a multimeter, as noted below.
3. Insert the removed fuse from your vehicle into the lower Fuse Tap port, as shown.
4. Plug the Fuse Tap into the fuse port on the vehicle, matching the hot and load sides, as shown. DO NOT REVERSE.



Use a multimeter to determine which side of the fuse port on the vehicle is hot. Set the multimeter to test voltage, then use the red probe to test each port. The side that gets a reading **between 11.8 VDC and 15 VDC** is the hot side. Assure you have a proper ground with the black probe. Do not use a fuse tester for this, as it could light up without the proper range noted above.

IT IS VERY IMPORTANT TO IDENTIFY THE HOT SIDE OF THE FUSE IN THE FUSE BOX. **IT COULD BE ON EITHER SIDE, REGARDLESS OF THE FUSE ORIENTATION.** FUSE TAP MUST BE INSERTED AS SHOWN. **DO NOT REVERSE.**

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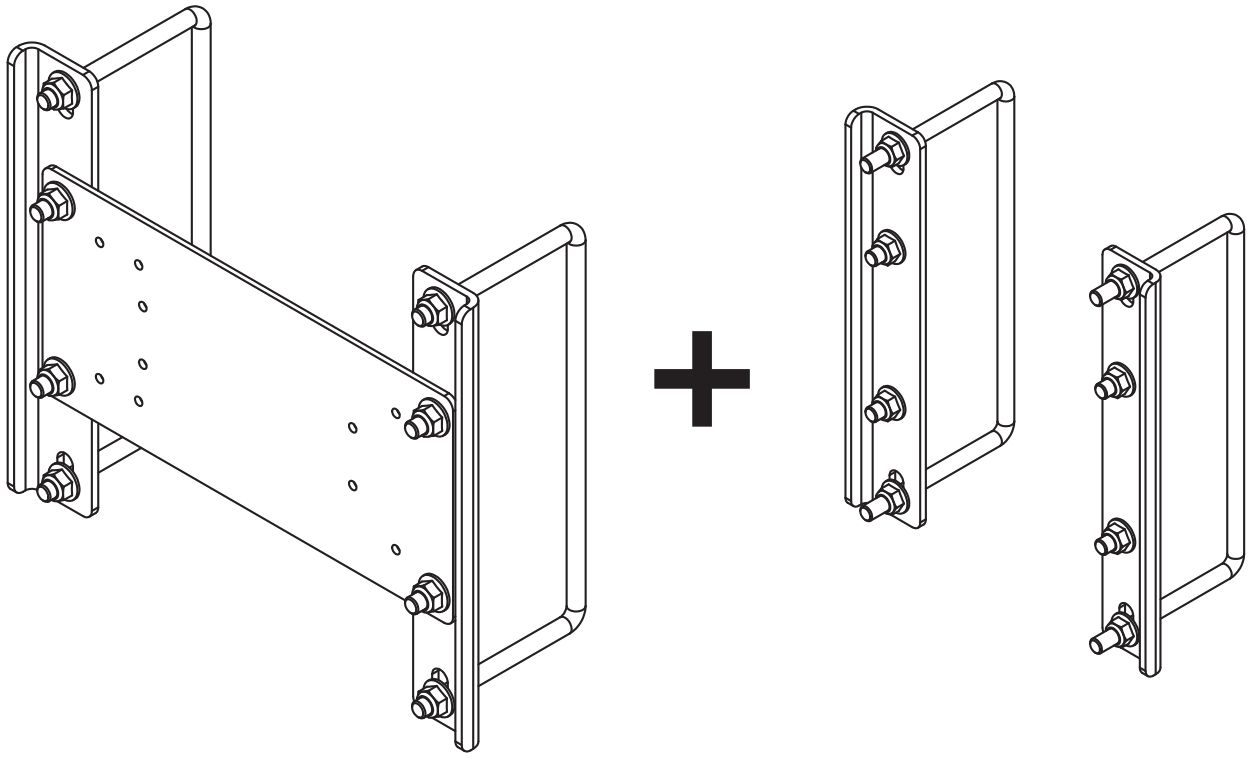
INSTALLATION INSTRUCTIONS



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 USES

This kit works with Air Command Kits 2902 and 2912. Refer to the following pages for kit-specific layouts to ensure proper fitment.

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.

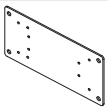
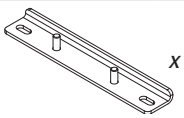
APPROPRIATE AIR PRESSURE

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.

PARTS

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

MAIN KIT CONTENTS

PT # 5970	 x 1 *COMPRESSOR MOUNTING PLATE*	PT # 5705	 x 4 *AIR ACCESSORY FRAME BRACKET*	PT # 3414	 x 4 *BAIL CLAMP*

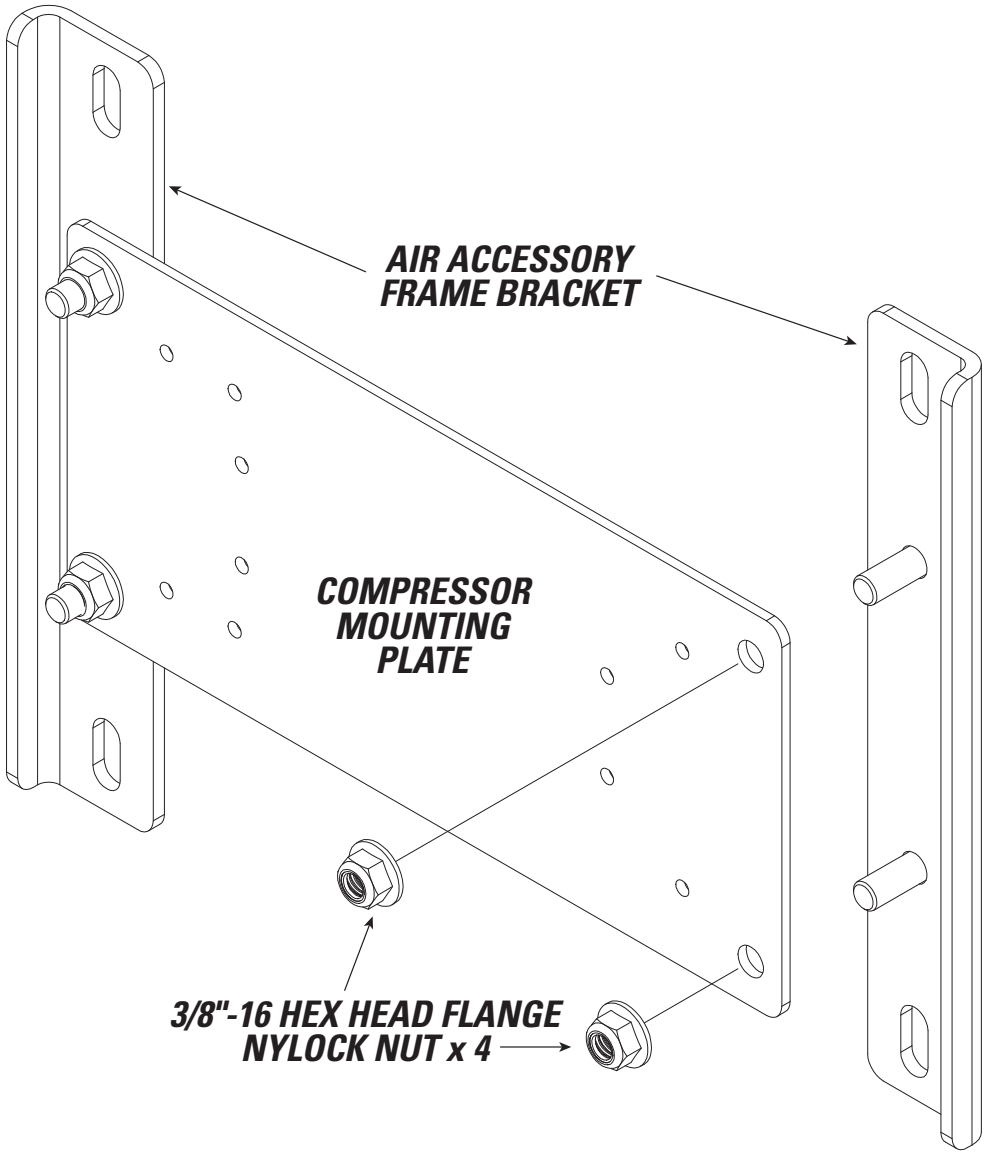
A21-760-2530 HARDWARE PACK

PT # 3067	 x 16 *3/8"-16 HEX HEAD FLANGE NYLOCK NUT*

1 Secure the Compressor Mounting Plate to the System Frame Brackets shown below.

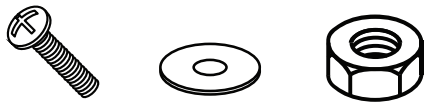
2 Select a suitable location for installation on the vehicle frame rail.

It is recommended to mount to the passenger side frame rail as the vehicle's battery is normally located in the engine compartment on the passenger side. Double check fitment for obstructions before final installation.



2 INSTALL THE AIR COMPRESSOR - **USE FOR STANDARD DUTY AIR COMMAND KITS 2902 & 2912**

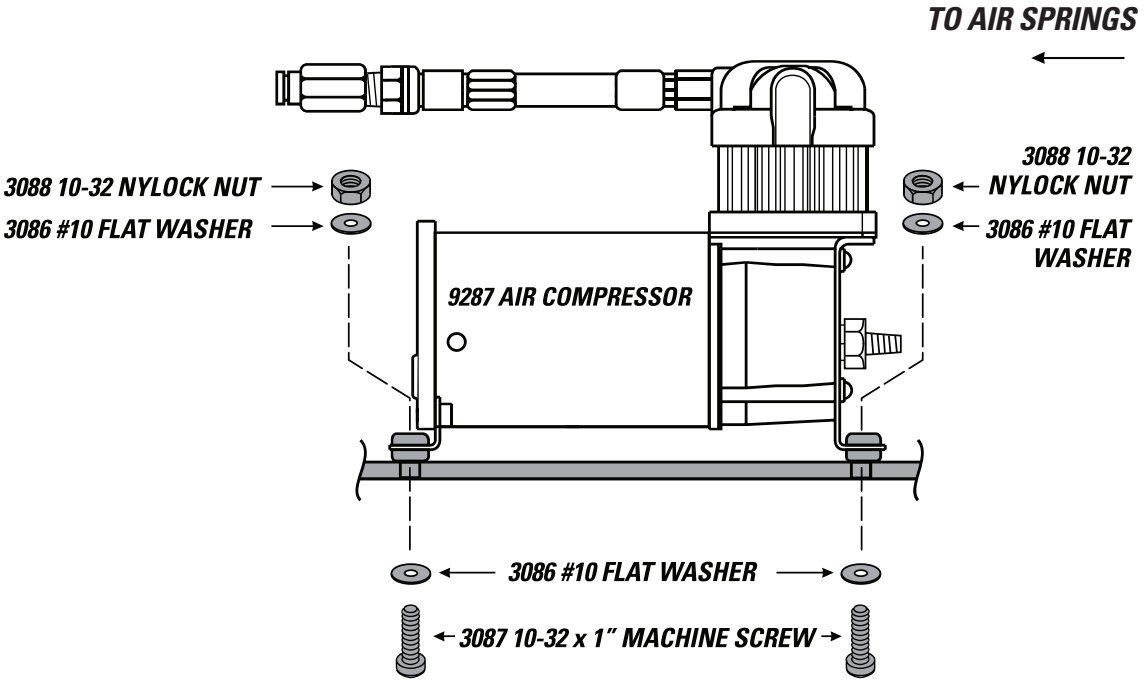
Fasteners included in Air Command Kit

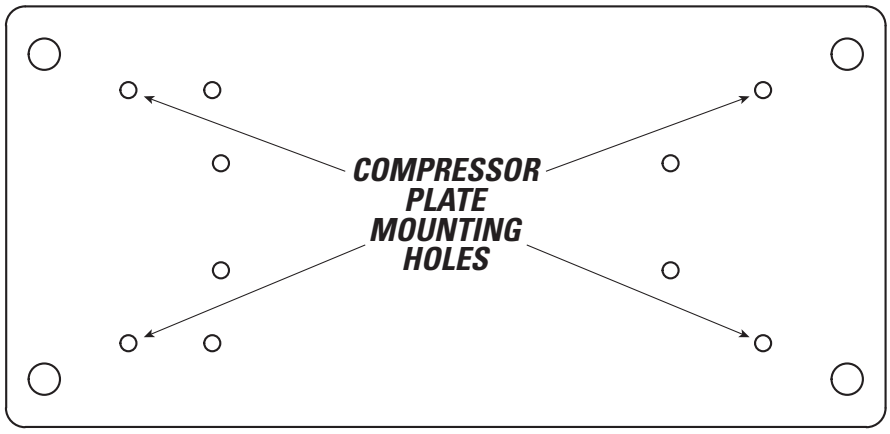


DO NOT OVER TIGHTEN MOUNTING BOLTS AND NUTS ON THE AIR COMPRESSOR. TOO MUCH TORQUE CAN CRUSH THE BRASS INSERTS AND RUBBER ISOLATORS.

1 Mount the Air Compressor to the hole locations in the Compressor Plate using the supplied fasteners. DO NOT OVERTIGHTEN.

2 It is recommended to face the outlet of the compressor towards the air springs on the rear axle of vehicle.



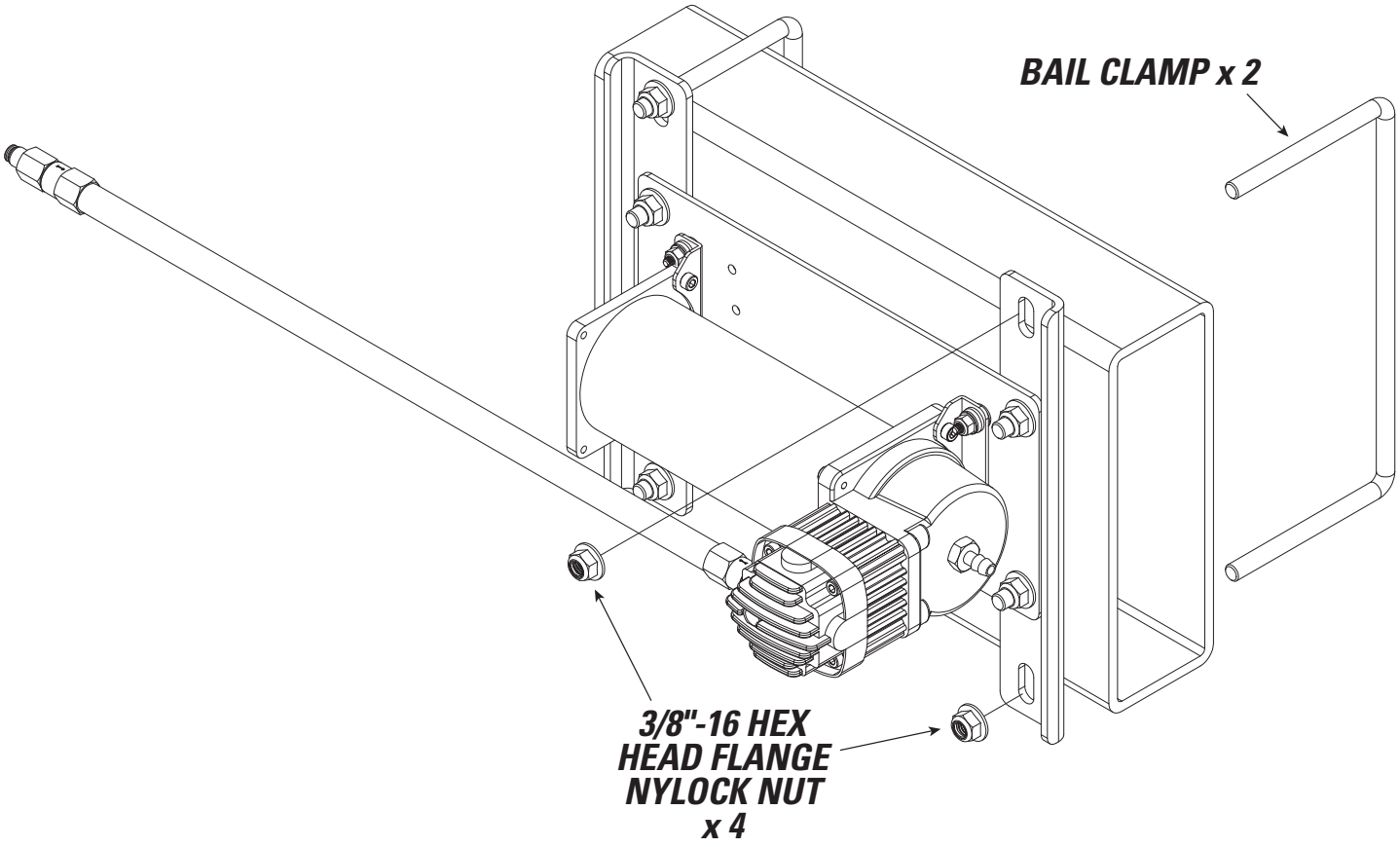


AIR ACCESSORY MOUNTING KIT CANNOT BE USED AS A GROUNDING LOCATION FOR THE AIR COMPRESSOR

1 Install the compressor mounting assembly to the vehicle's frame rail, using the provided Bail Clamps.

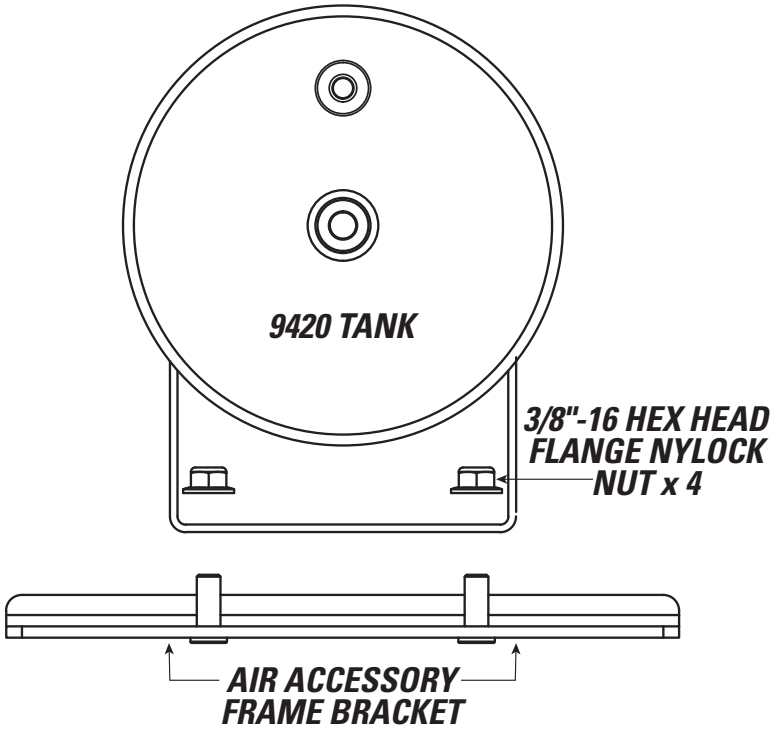
RECOMMENDED

2 Continue following the Air Command Kit instructions to connect all air tubing and electrical wiring.



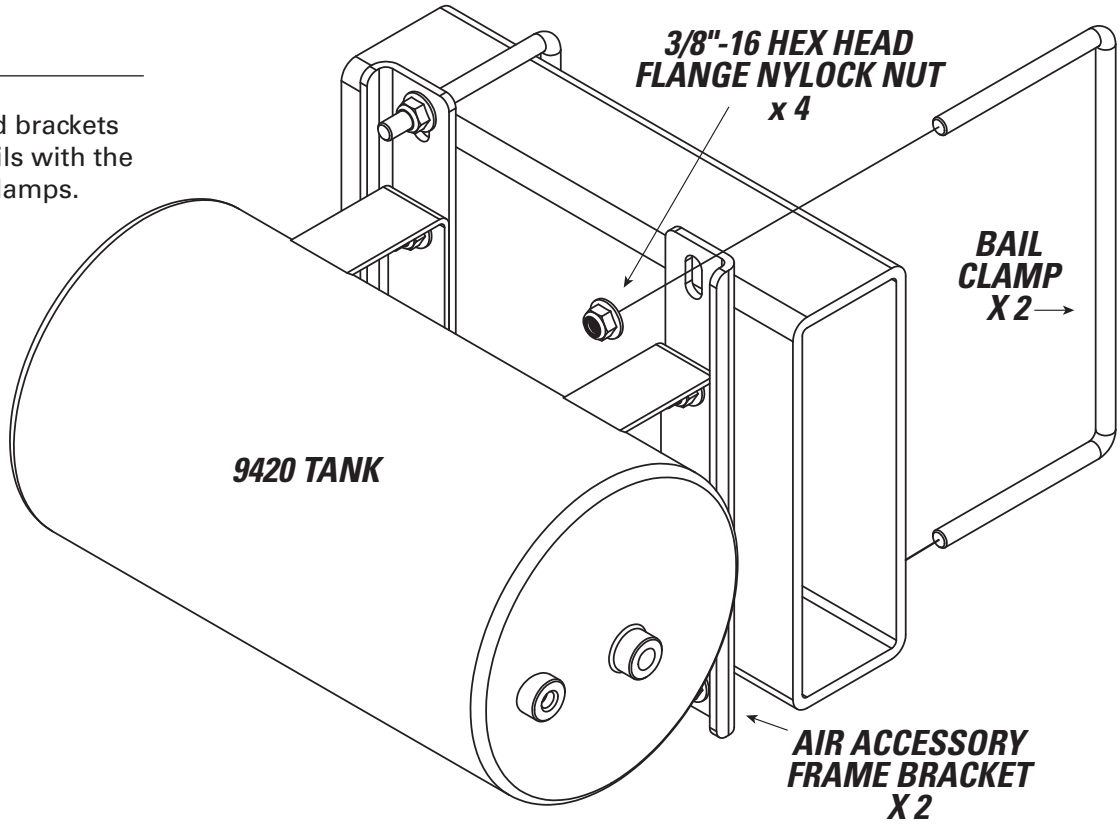
4 PREASSEMBLE AND INSTALL AIR TANK

1 Mount the Air Accessory System Frame Bracket to the feet of the Air Tank.



2 Determine a location on the frame rail of the vehicle to mount the tank. This should be as close to the Air Compressor as possible.

3 Mount tank and brackets to the frame rails with the provided bail clamps.



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BEFORE YOU DRIVE, CONFIRM THE FOLLOWING:

☐ Make sure all fasteners are tight and secure.

☐ Make sure the installation does not interfere with any other components on the vehicle.

☐ Reattach negative battery cable.

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.