LoadLifter 5000™ SERIES

AIR LIFT® Since 1949

Installation Guide

Ford F-450 2WD/4WD

Watch the video
Info on Table of Contents page

Kits 57349 | 88349

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

Failure to read these instructions can result in an incorrect installation.

MN-1170 • Revision 012204 • ECR 9884

Protect your Air Lift Purchase by Completing your Warranty Registration

Thank you for purchasing an Air Lift load support product!

Take a photo of your sales receipt and then scan the QR code to complete your online warranty registration.

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Video-enhanced installation guides

Visit airliftcompany.com/workshop/category/install-videos to access our installation video archive*.

* subject to availability

System Overview

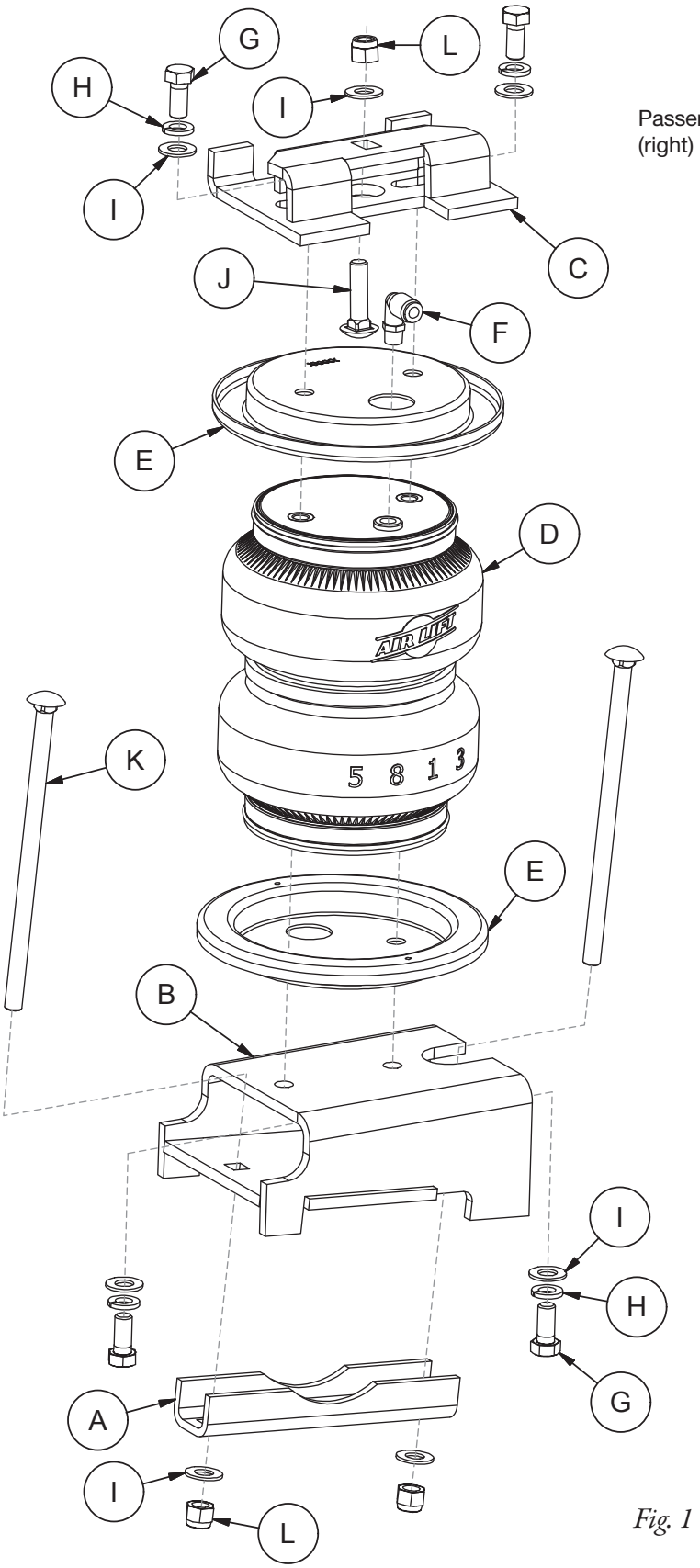


Fig. 1

Hardware and Tools

Hardware List

Item	Part#	Description	Qty
A	01531	Clamp bar	2
B	03108	Lower bracket	2
C	07984	Axle clamp bar	2
D	58437	Kit #57349 air spring	2
D	58496	Kit #88349 air spring (w/ integrated jounce bumper)	2
E	11951	Kit #57349 zinc-coated roll plate	4
E	11967	Kit #88349 black powder coated roll plate	4
F	21837	90 degree swivel elbow fitting	2
G	17203	3/8"-24 x 7/8" Hex-cap screw	8
H	18427	3/8" Lock washer	8
I	18444	3/8" flat washer	14
J	17156	3/8"-16 x 1 1/2"Long carriage bolt	2
K	17163	3/8"-16 x 7" Long carriage bolt	4
L	18435	3/8"-16 Nylon Lock nut	6
AA*	20086	Air line assembly	1
BB*	10466	Zip ties	6
CC*	18501	5/16" Flat washer	2
DD*	18411	Star washer	2
EE*	21230	Valve cap	2
FF*	21233	5/16" Hex nut	4
GG*	21234	Rubber washer	2

* These parts are not shown in the System Overview (Fig. 1).

TOOLS NEEDED

Description	Qty
Standard open-end combo wrenches	Set
Ratchet with metric and STD sockets	Set
Drill and 5/16" drill bit	1
Torque wrench	1
Hose cutter, razor blade, or sharp knife	1
Hoist or floor jack	1
Safety stands	2
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

The photos in this manual show the LoadLifter 5000 Ultimate kit.

STOP! Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

Introduction

The purpose of this publication is to assist with the installation and maintenance of the LoadLifter 5000 series air spring kits. All LoadLifter 5000 series kits utilize sturdy, reinforced, commercial-grade single or double, depending on the kit, convolute bellows.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 kits provide up to 5,000 pounds (2,268kg) of load-leveling support with air adjustability from 5-100 PSI (.34-7BAR).

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

DANGER
INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

WARNING
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

CAUTION
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE VEHICLE OR MINOR PERSONAL INJURY.

NOTE *Used to help emphasize areas of procedural importance and provide helpful suggestions.*

IDENTIFYING THE DIFFERENCES BETWEEN KITS

Should you need to contact Air Lift customer service, you will need to know which kit you are inquiring about: standard LoadLifter 5000, LoadLifter 5000 Ultimate or LoadLifter 5000 Ultimate Plus. The kits are easily identifiable by looking at the roll plates and air lines.

- ☐ Standard **LoadLifter 5000** — Zinc-plated steel roll plates and black nylon air lines.
- ☐ **LoadLifter 5000 Ultimate** — Black powder-coated roll plates and black nylon air lines.

LoadLifter 5000
silver zinc-plated steel roll plate

LoadLifter 5000
nylon air line

LoadLifter 5000 Ultimate
black powder-coated roll plate

LoadLifter 5000 Ultimate
nylon air line

Installing the System

GETTING STARTED

COMPRESSED AIR CAN CAUSE INJURY AND DAMAGE TO THE VEHICLE AND PARTS IF IT IS NOT HANDLED PROPERLY. FOR YOUR SAFETY, DO NOT TRY TO INFLATE THE AIR SPRINGS UNTIL THEY HAVE BEEN PROPERLY SECURED TO THE VEHICLE.

1. Raise the vehicle and support it in some way, using safety stands or equivalent, so that the axle can be dropped safely away from the frame. This will need to be done in order for the air spring assembly to be put into position between the axle and frame (Fig. 2). Figure 2 shows the frame being supported with the vehicle on a drive on hoist.

fig. 2

2. To install the kit, it will be necessary to remove the stock jounce bumpers and mounting brackets from under the frame rails on both sides of the vehicle (Fig. 3).

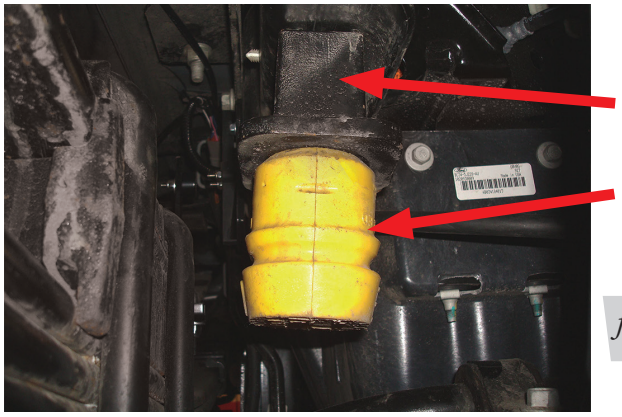


fig. 3

3. Temporarily remove the vent/brake line junction block on the driver side from the axle bracket (Fig. 4). Do this by pulling the clip off the front side of the junction block and pull it back to remove it from the bracket.

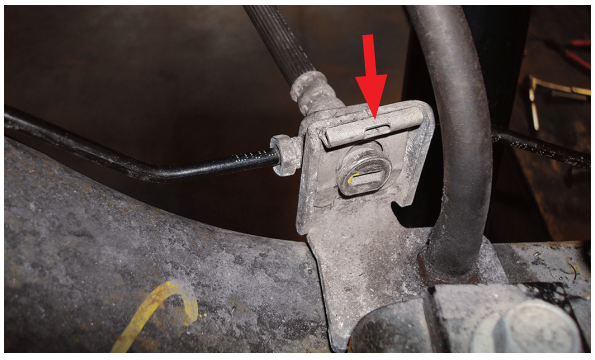


fig. 4

4. Remove the bolt from the brake line bracket that is attached to the spring perch (Fig. 5).

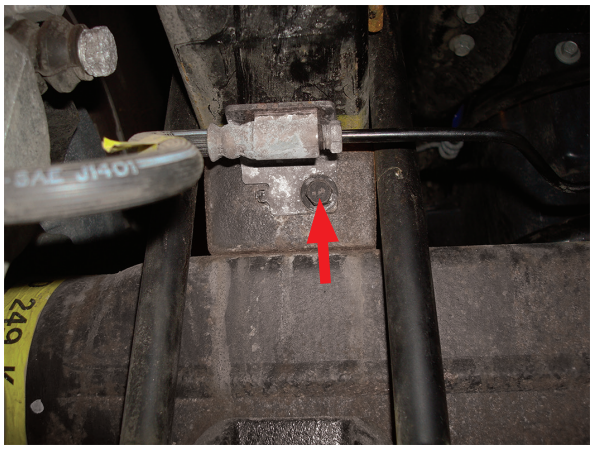


fig. 5

5. Unclip the brake line from the bracket on top of the differential (Fig. 6).

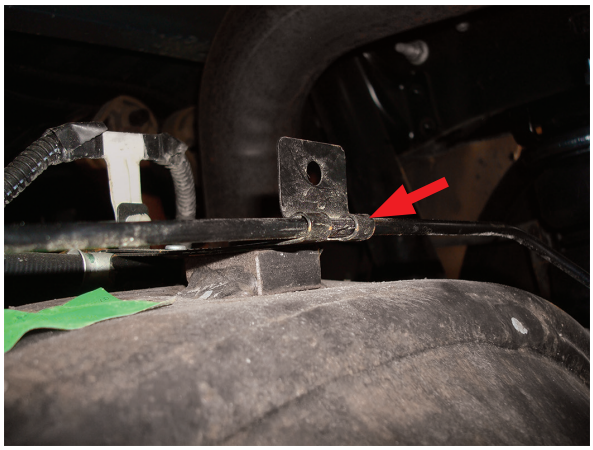


fig. 6

6. Pull the brake line back away from the axle to make room for placing the air spring assembly, on the driver's (left) side, into position (Fig. 7).

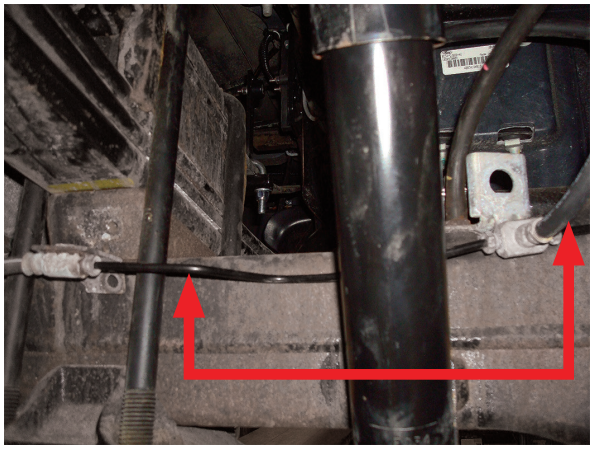


fig. 7

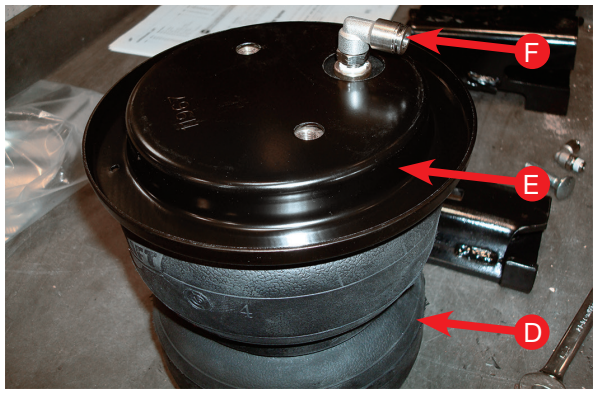


fig. 8

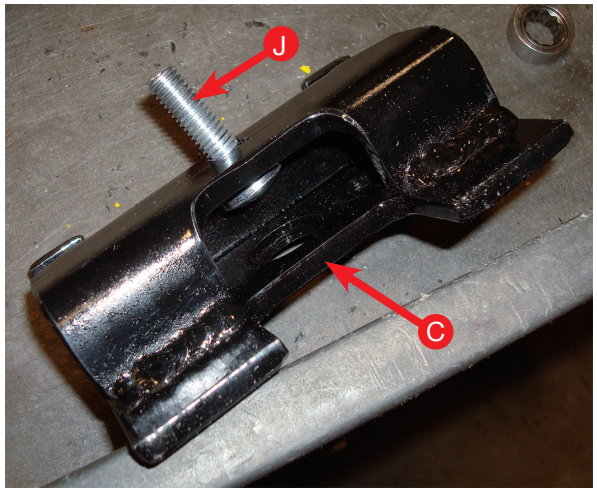


fig. 9

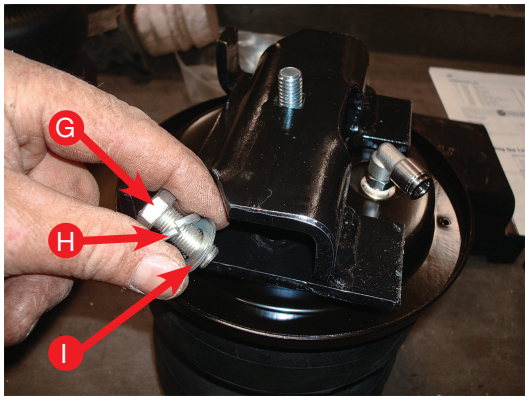


fig. 10

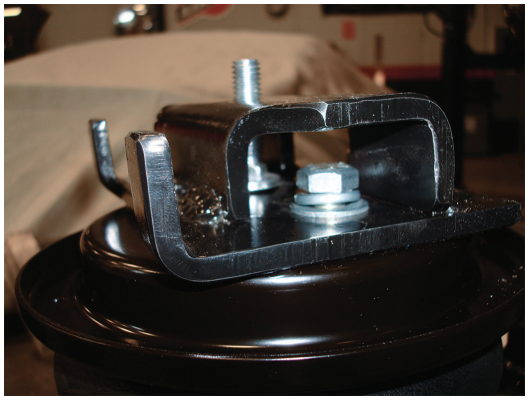


fig. 11

4. Flip the air spring assemblies upside down and set a roll plate (E) over the bottom of each air spring (Fig. 12). The radiused or rounded edge of the roll plate will be towards the air spring so that the air spring is seated inside the roll plate.

fig. 12

5. Insert the 3/8"-16 X 7" carriage bolts (K) through the lower bracket (B) hole that is opposite of the slot shown in Figure 13. Repeat for both lower brackets.

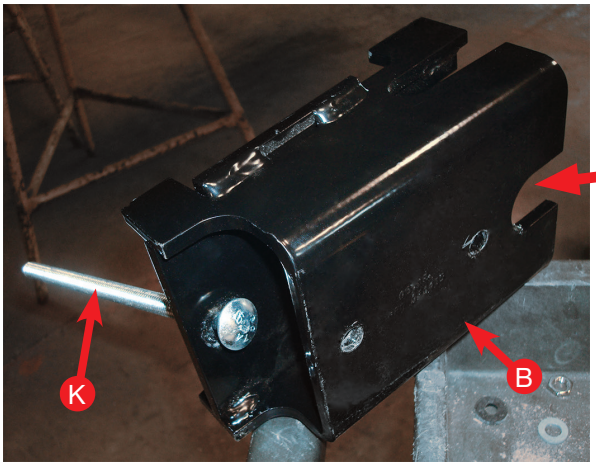


fig. 13

6. When setting the lower bracket onto the air spring assemblies, you will be setting up both a left and a right hand assembly. Assemble the passenger's (right) side assembly as shown in Figure 14. Assemble the driver's (left) side air spring assembly by rotating the air spring assembly 180 degrees.

NOTE

The slot in the lower bracket will face the rear of the vehicle and the fittings will be to the outside of the frame when installed onto the vehicle.

The Right (Passenger) side is shown.

Rotate the air spring assembly 180 degrees to create the Left (Driver) side assembly

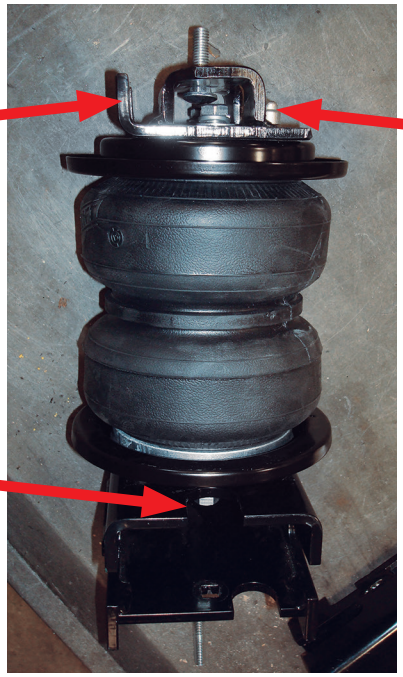


fig. 14

7. Attach the lower bracket (B) to the air spring assemblies with the 3/8"-16 X 7/8" hex cap screws (G), 3/8" lock washers (H) and 3/8" flat washer (I) and tighten to no more than 20 lb.-ft. (27Nm) (Fig. 15).

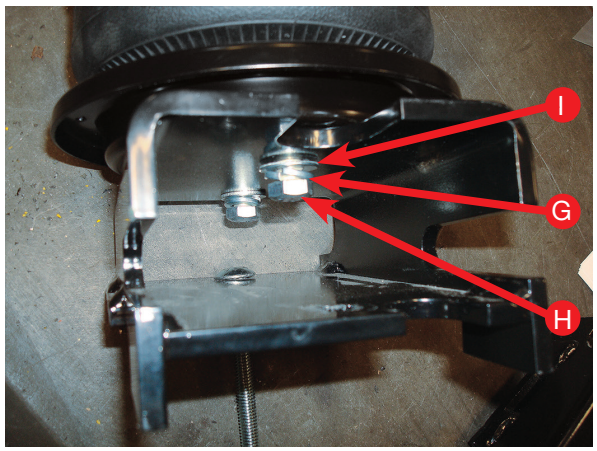


fig. 15

8. The upper bracket (C) has two slots for mounting to the air spring and will be specific to which side the assembly is mounted. Figure 16 shows the upper bracket and the correct holes to use for the driver's (left) and passenger's (right) side installations. Torque the mounting hardware to no more than 20 lb.-ft. (27Nm).

NOTE

With the assembly put into position on the axle, the bracket must be forward of the air spring, fully in the slot. The mounting bolts will be to the rear of the assembly.

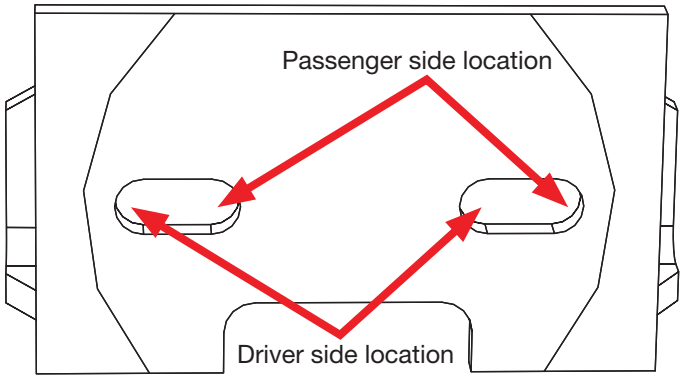


fig. 16

9. Figure 17 shows the completed driver's (left) and passenger's (right) side assemblies.

Note the upper mounting bolts to the rear of the slots in the upper brackets on the assemblies.

fig. 17

Driver's (left) side assembly

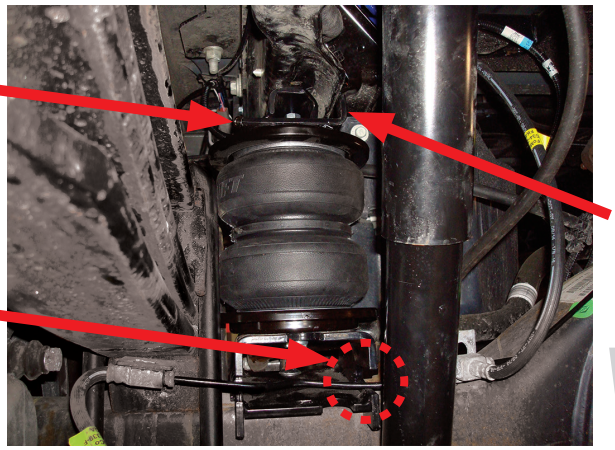
Passenger's (right) side assembly

INSTALLING THE ASSEMBLIES

1. Set the left and right hand assemblies onto the axle. Make sure the brake line that was un-bolted on the driver's (left) side is clear while positioning the assembly. Raise the axle or lower the frame so that the upper bracket carriage bolts go through the existing jounce bumper holes in the bottom of the frame. Also, make sure that the flanges on the upper bracket fit on the inside of the lower frame flange (Figs. 18 & 19).

The fitting is facing toward the outside of the vehicle frame.

Make sure brake line is clear when positioning assembly into position on driver side.



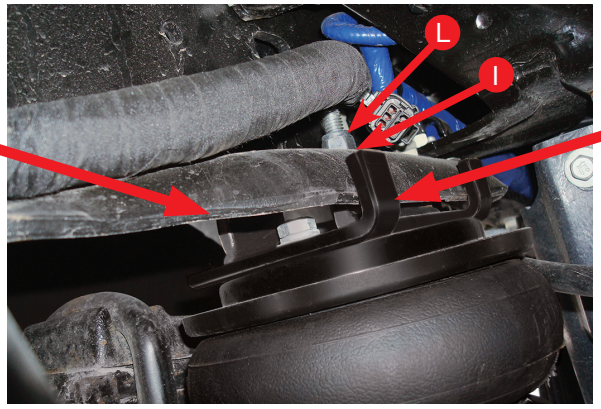
Driver's (left) Side shown

Make sure the flange on the upper bracket is on the inside of the lower frame flange as shown.

fig. 18

2. Cap the upper bracket's 3/8"-16 X 1.5" carriage bolts (J) with a 3/8" flat washer (I) and 3/8"-16 nylon lock nut (L). Push the flange of the upper bracket outboard (against the frame) as far as it will go and torque the upper mounting hardware to 15 lb.-ft. (20Nm) (Fig. 19). Repeat for the opposite side.

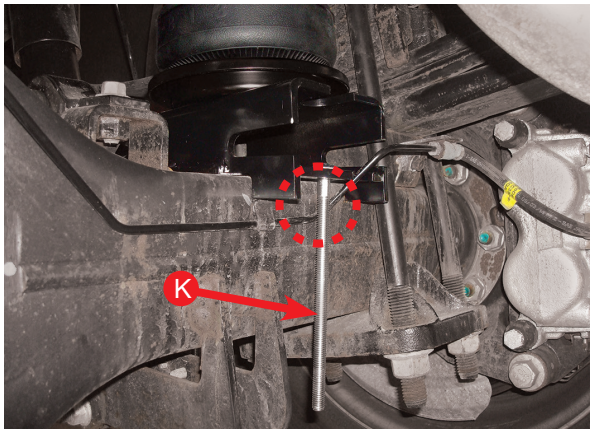
Vehicle frame



Upper bracket

fig. 19

3. Insert the last two 3/8"-16 X 7" carriage bolts (K) into the last holes in the lower bracket behind the axle. Make sure the passenger's (right) side goes on the outside of the hard brake line as shown in Figure 20.



Passenger's (right) side shown

fig. 20

4. Adjust the lower bracket/air spring assembly in and out on the axle to align the air spring as perpendicular to the upper bracket as possible. Install the clamp bar (A) over the long carriage bolts previously installed and cap with two 3/8" flat washers (I) and two 3/8"-16 nylon lock nuts (L) (Fig. 21). Torque both nuts evenly to 15 lb.-ft. (20Nm). Repeat for the other side.

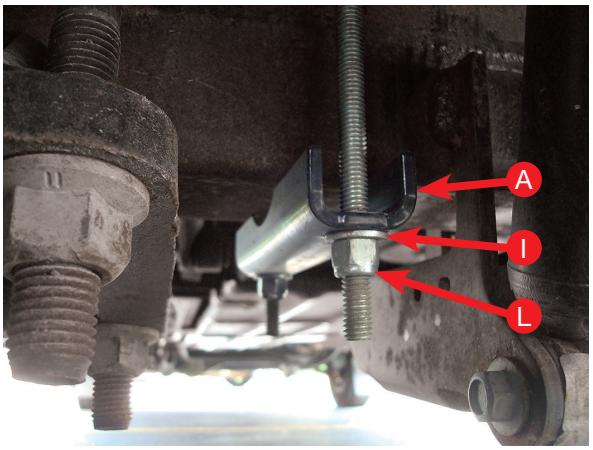
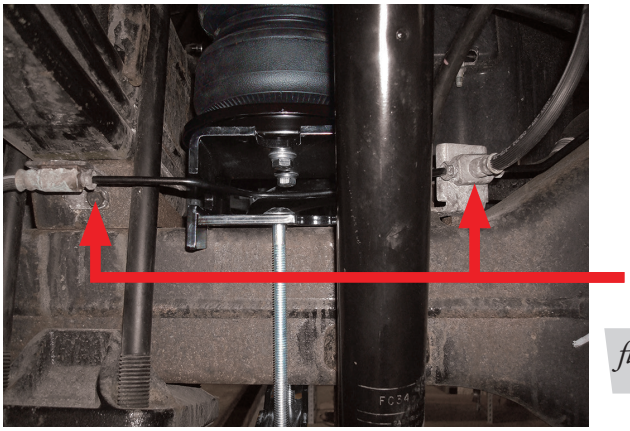


fig. 21

5. Once the upper and lower brackets are tight, re-connect the brake line bracket to the spring perch using the stock bolt removed. Insert the brake line junction block back into the bracket on the axle and re-insert the clip that holds it in place. Clip the brake line back onto the bracket on top of the differential that was previously removed (Figs. 6 & 22).



Re-attach the brake line brackets and holders back into position on the driver's (left) side that was previously removed.

fig. 22

6. The lower brackets have recesses in them to make clearance for the hard brake lines (Figs. 23 & 24). If necessary, adjust the brake line so it is not rubbing on the lower bracket.

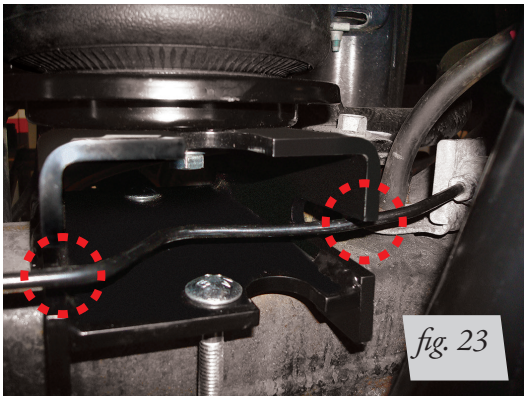


fig. 23

Hard brake line must not rub against the lower bracket as shown.

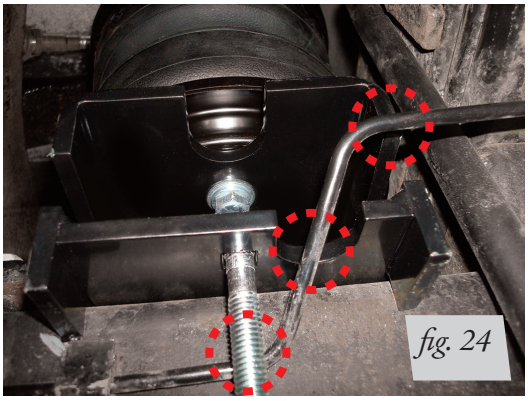
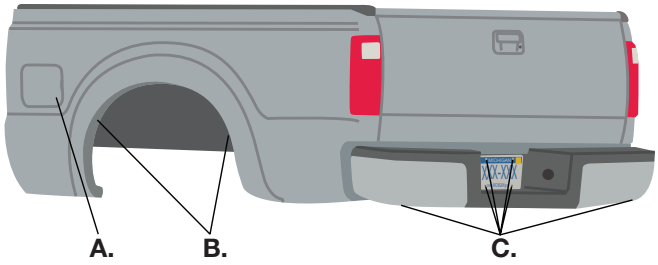


fig. 24

Hard brake line must not rub against the lower bracket or carriage bolt as shown.

Installing the Air Lines

Begin by choosing locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary.



A. Inside fuel tank filler door

B. Inside rear wheel wells

C. License plate or rear bumper area

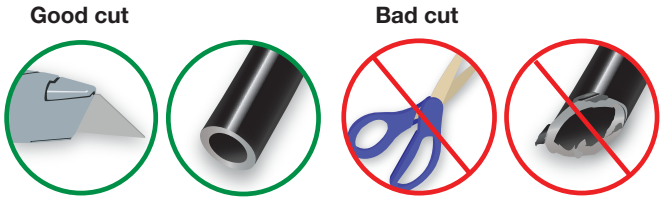
KEEP AT LEAST 6" (150MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

INSTALLING NYLON AIR LINES

The nylon air lines are routed from the air springs to Schrader valves.

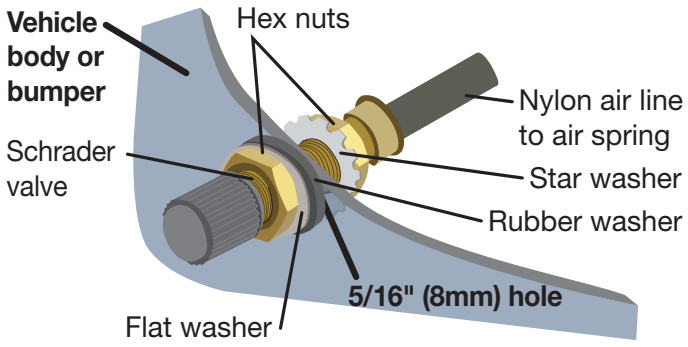
1. For nylon air line, it is recommended that the air line be routed along the top of the frame, forward of the axle, then down to the fitting. After cutting the air line to length, install the air line thermal sleeve over the air line on the passenger's (right) side before inserting into the fitting. Secure the air lines to the upper coil spring mount with zip ties (BB) supplied.

2. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter. Do not use scissors or wire cutters.



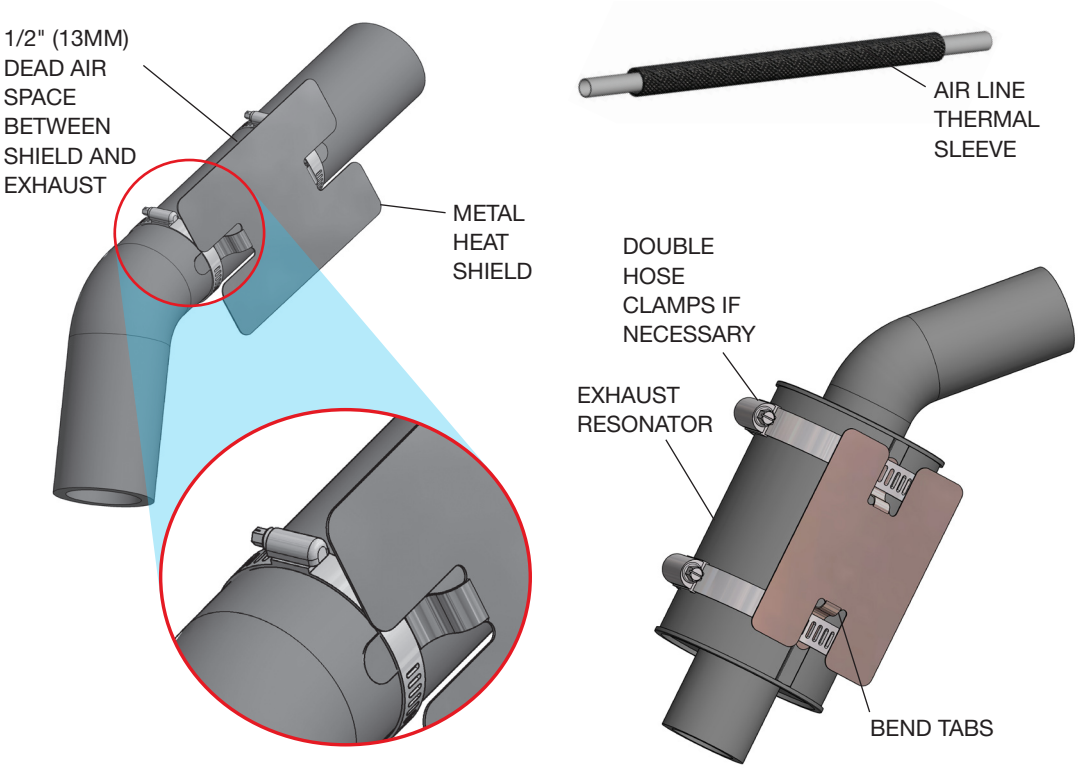
3. Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. The minimum bend radius for the air line is 1" (25mm). Leave at least 2" (50mm) of slack in the air line to allow for any movement that might pull on the air line.

4. Install the Schrader valve in the chosen location.



INSTALLING THE HEAT SHIELD

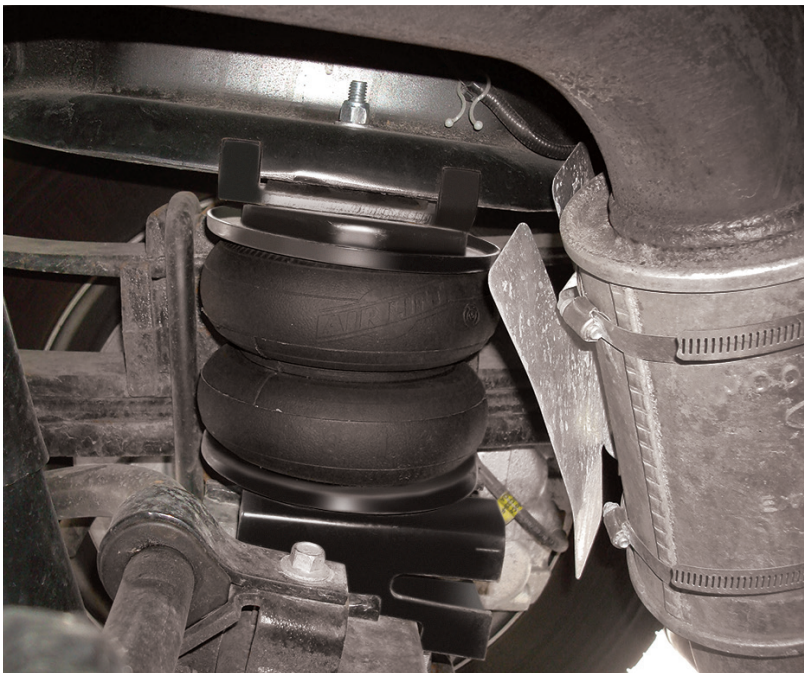
1. Attach the metal heat shield to the exhaust where it is closest to the air spring. Slide the air line thermal sleeve over the air line and place it where the air line is closest to the exhaust.



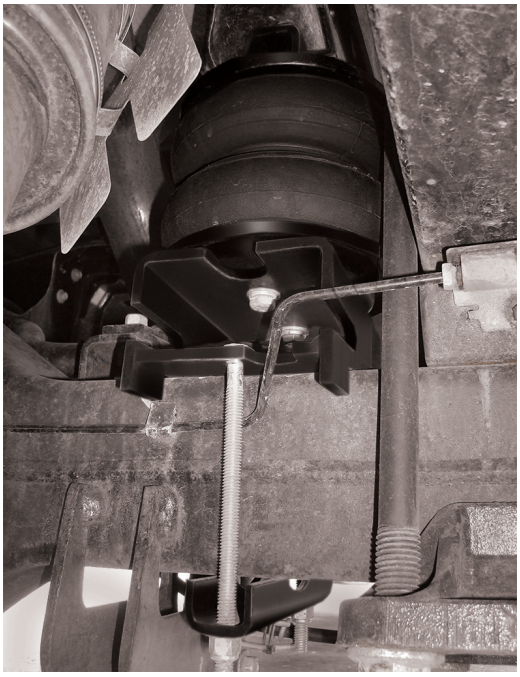
Finished Installation

The images show the finished installation of both sides.

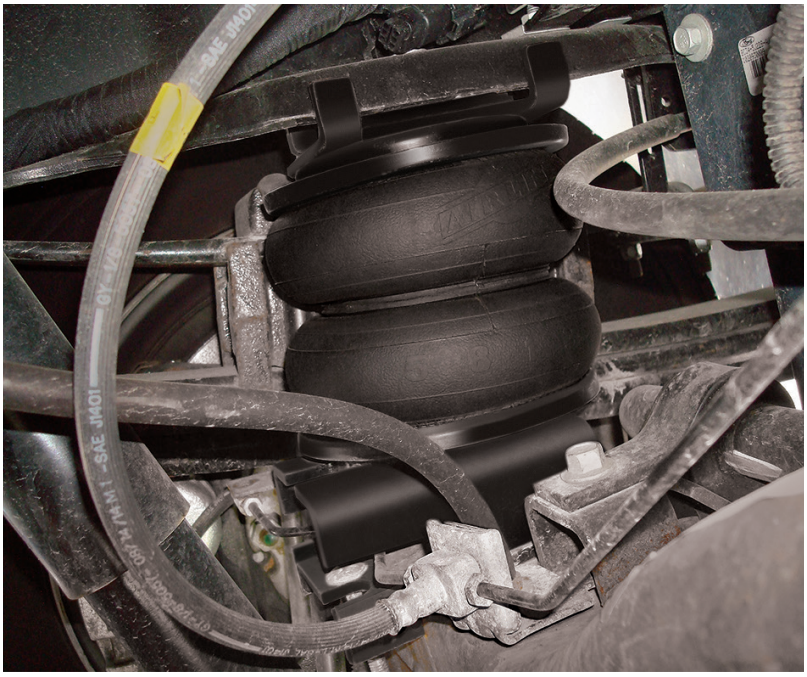
Rear view of driver's (left) side installation.



Inside, above axle view of passenger's (right) side installation.



Rear view of passenger's (right) side installation.



Inside view of the driver's (left) side installation.

Congratulations!

You are now the proud owner of an industry leading Air Lift air suspension system. Enjoy!

Before Operating

INSTALLATION CHECKLIST

- ☐ **Clearance test** — Inflate the air springs to 75-90 PSI (5.17-6.21BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against each sleeve. Be sure to check the tire, brakes, frame, shock absorbers and brake cables.
- ☐ **Leak test before road test** — Inflate the air springs to 75-90 PSI (5.17-6.21BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- ☐ **Heat test** — Be sure there is sufficient clearance from heat sources, at least 6" (152mm) for air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at (800) 248-0892.
- ☐ **Fastener test** — After 500 miles (800km), recheck all bolts for proper torque.
- ☐ **Road test** — The vehicle should be road tested after the preceding tests. Inflate the air springs to recommended driving pressures. Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- ☐ **Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all of the paperwork that came with the kit.

MAINTENANCE AND USE GUIDELINES

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI (7BAR).
3. If the system develops an air leak, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.
4. Upon successful completion of the installation, follow these pressure requirements for the air springs.

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR) OR PAYLOAD RATING, AS INDICATED BY THE VEHICLE MANUFACTURER.

ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 100 PSI (7BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.

Limited Warranty and Return Policy

Air Lift Company provides a limited lifetime warranty to the original purchaser of its load support products, that the products will be free from defects in workmanship and materials when used on cars and trucks as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available at www.airliftcompany.com/warranty.

For additional warranty information contact Air Lift Company customer service.

Thank you for purchasing Air Lift Products — the Authorized Installer's choice!

Need Help?

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or email service@airliftcompany.com.

For calls outside the U.S. or Canada, dial (517) 322-2144.

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