

# LoadLifter 5000™ SERIES + Air Lift® ProSeries



## Installation Guide



\* LoadLifter 5000 kit shown here

*Ford F-350 Commercial Chassis*



**Watch the video**  
Info on Table of Contents page

## Kits 57343 | 93343

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.

## **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](http://airliftcompany.com/workshop/category/install-videos) to access our installation video archive\*.

# System Overview

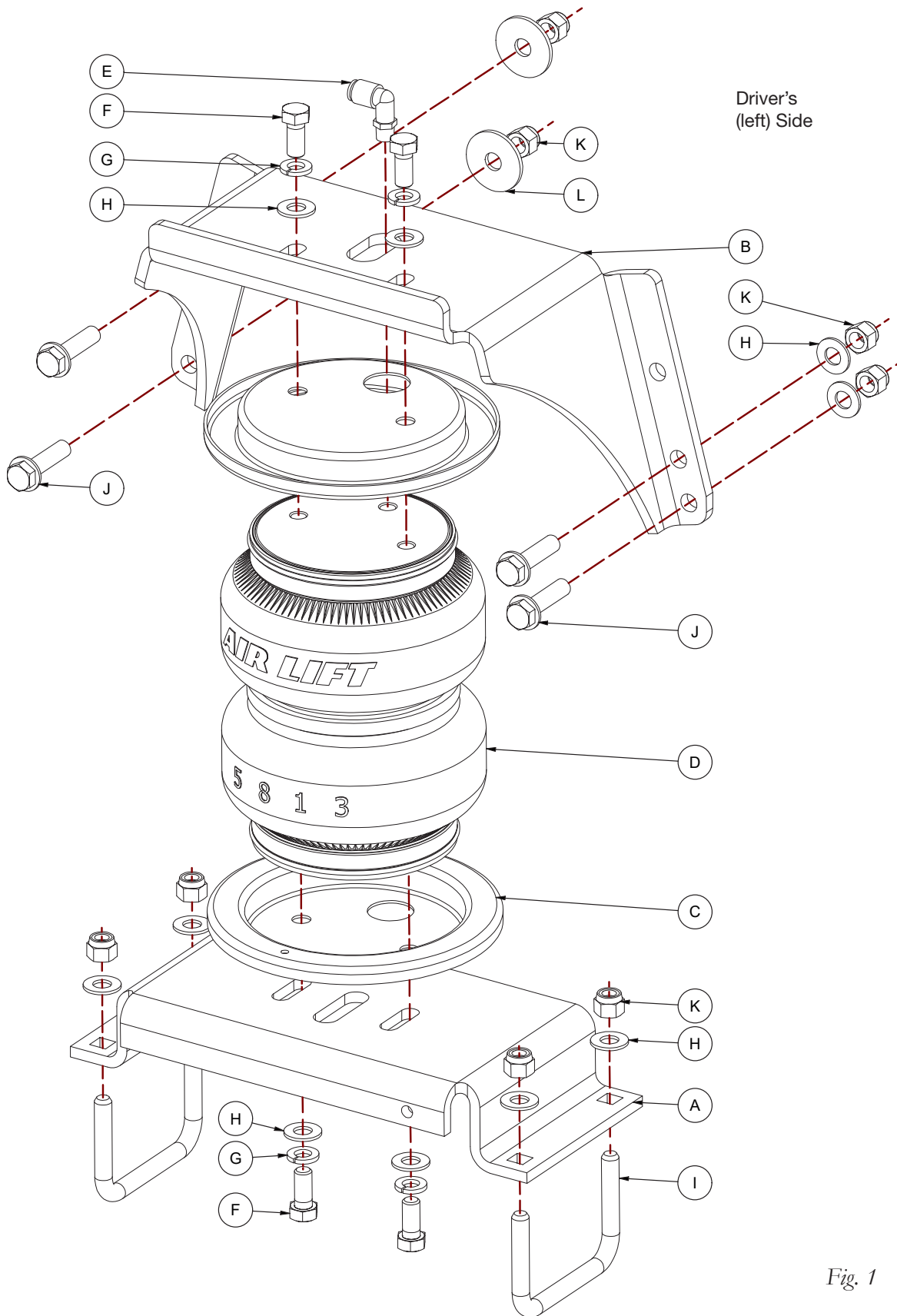


Fig. 1

# Hardware and Tools

## HARDWARE LIST

Item	Part#	Description .....	Qty
A	03102	Lower bracket.....	2
B	07973	Upper bracket.....	2
C	11951	Roll plates.....	4
D	58437	Air spring (57343).....	2
D	58937	Air spring (93343).....	2
E	21837	1/4" 90-degree Swivel air fitting .....	2
F	17248	3/8"-24 X 7/8" Hex cap screw (SS) .....	8
G	18504	3/8" Lock washer (SS).....	8
H	18507	3/8" Flat washer (SS).....	20
I	10594	3/8"-16 X 2" U-bolt.....	4
J	17159	3/8"-16 X 1 1/2" Hex flange bolt .....	8
K	18435	3/8"-16 Nylon lock nut.....	16
L	18447	3/8" Large flat washer .....	4
M*	13225	3/8" Spacer shim.....	1
AA*	20086	Air line assembly.....	1
BB*	10466	Zip ties.....	6
CC*	21230	Valve cap .....	2
DD*	18411	Star washer.....	2
EE*	21234	Rubber washer .....	2
FF*	18501	M8 Flat washer .....	2
GG*	21233	5/16" Hex nut .....	4
II*	34629	Shock Heat Shield.....	1

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

## TOOLS NEEDED

Description.....	Qty
Hack saw or grinder with a cut-off wheel.....	1
C-clamp or welding clamp .....	2
Standard and metric open-end or boxed-end wrenches.....	Set
Standard and metric regular and deep-well sockets .....	Set
3/8" Drive ratchet .....	1
3/8" Torque wrench .....	1
Heavy duty drill.....	1
3/8" and 5/16" Drill bits (very sharp) .....	1
Hose cutter, razor blade or sharp knife .....	1
Hoist and axle lift or floor jack.....	1
Tire chocks .....	2
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 kit.



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 and Air Lift ProSeries air spring kits. All LoadLifter 5000 series and Air Lift ProSeries 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 series and Air Lift ProSeries 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 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 installation 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 MACHINE OR MINOR PERSONAL INJURY.

NOTE

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

TECH TIP

*Used to provide helpful tips to ease the installation process.*

## 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 or standard Air Lift ProSeries. The kits are easily identifiable by looking at the end caps on the air spring.

- Standard **LoadLifter 5000®** — Plastic end cap
- Standard **Air Lift® ProSeries** — Aluminum end cap



LoadLifter 5000  
Plastic end cap

Air Lift ProSeries  
Aluminum end cap

# Install the System

## IMPORTANT: MEASURE THE VEHICLE

1. Measure the distance between the frame and the tire. This kit requires a minimum clearance of 7 1/2" (190mm) for a fully inflated air spring (Fig. 2).

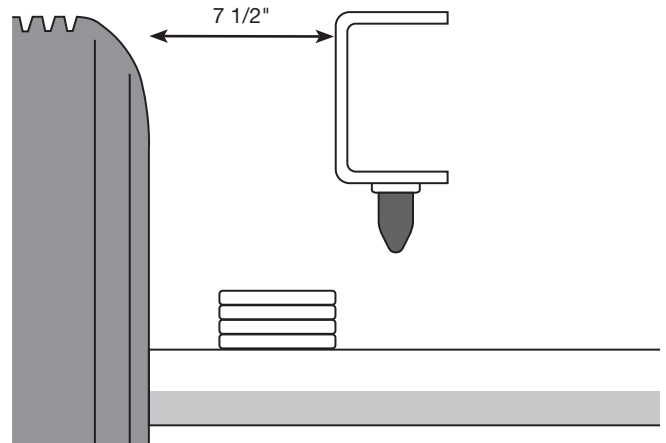


Fig. 2

2. This kit also requires that the body above the axle be at least 3 3/4" in height above the frame for the kit's upper bracket to mount correctly. Also, the body must be flush with or inside the frame's web for the bracket to mount (Figs. 3 & 25).

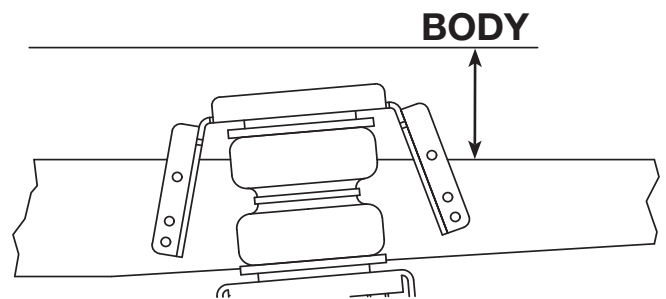


Fig. 3

## PREPARE THE VEHICLE

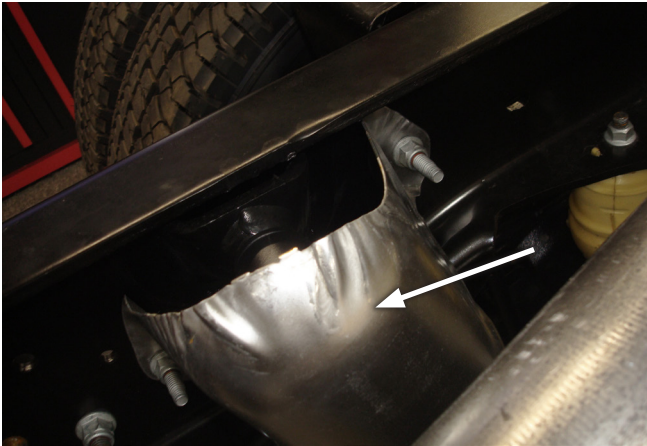
1. If a ground strap bolt protrudes out of the frame, just behind the axle on the passenger's (right) side, it will need to be trimmed flush to the frame with a hacksaw or a grinding wheel.

**Option:** If you prefer, you can relocate this grounding strap. The bolt is a tri-lobular self-threading bolt (Fig. 4), so all you need to do is drill a (smaller) hole away from the mounting area of the upper bracket hardware and re-attach the strap to the frame.



Fig. 4

2. If your vehicle has a heat shield covering the passenger's (right) shock, remove and discard the shield and the strap on the outside of the frame (Figs. 5 & 6).



*Fig. 5*

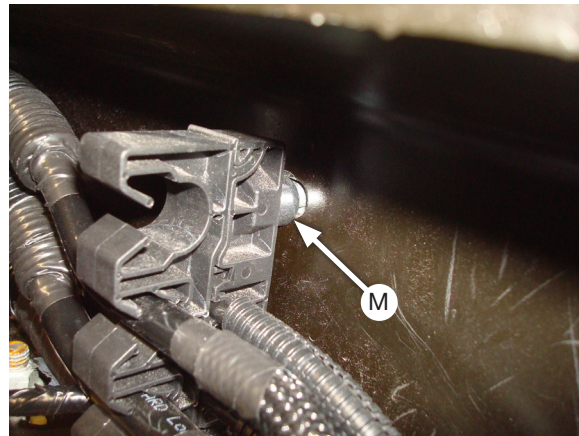


*Fig. 6*

3. On the driver's (left) side frame rail, just ahead of the axle, there is a wiring/fuel/line holder that bolts to the side of the frame. This will need to be spaced inward to gain clearance for the air spring. Remove the nut, pull the holder out away from the frame, and install the small spacer shim (M) into the stud of the mount. Install the holder back onto the frame with the stock nut previously removed (Figs. 7, 8 & 9) and tighten securely.



*Fig. 7*



*Fig. 8*



*Fig. 9*



## ASSEMBLE THE AIR SPRINGS

1. Set the roll plates (C) on top of the air springs (D) and install the fittings (E) finger-tight into the top of the air spring. Then, tighten the fitting an additional 1 1/2 turns (Fig. 10).



Fig. 10

2. Set the upper brackets (B) onto the top of the air spring assemblies and attach them to the air springs with 3/8" hex cap screws (F), 3/8" lock washer (G), and 3/8" flat washer (H) (Fig. 11). Leave loose at this time.

**NOTE** The fitting (E) should be opposite the flange.

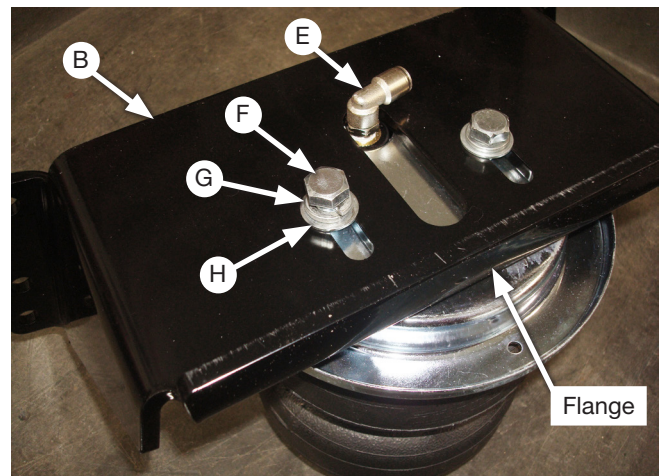


Fig. 11

3. Flip the assemblies over and set a roll plate (C) and lower bracket (A) onto the bottom of the air spring assemblies, making sure the flange on the upper and lower brackets are on the same side (Fig. 12). Attach the lower bracket to the air springs with 3/8" hex cap screws (F), 3/8" lock washer (G), and 3/8" flat washer (H). Leave loose at this time.
4. Assembly is shown in Figure 13. These assemblies can be used for installation on either side.

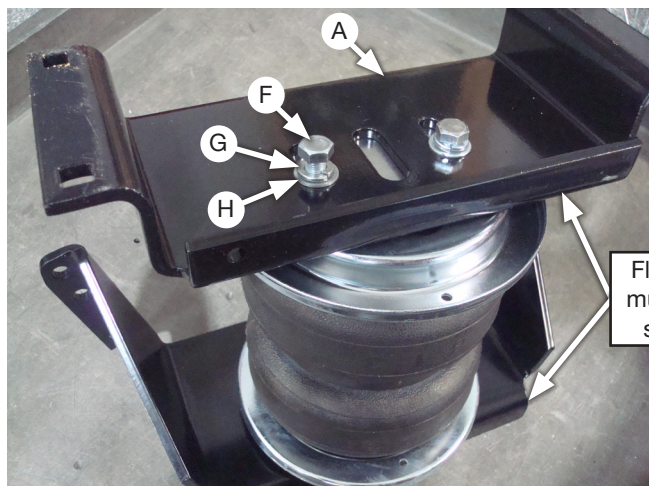


Fig. 12

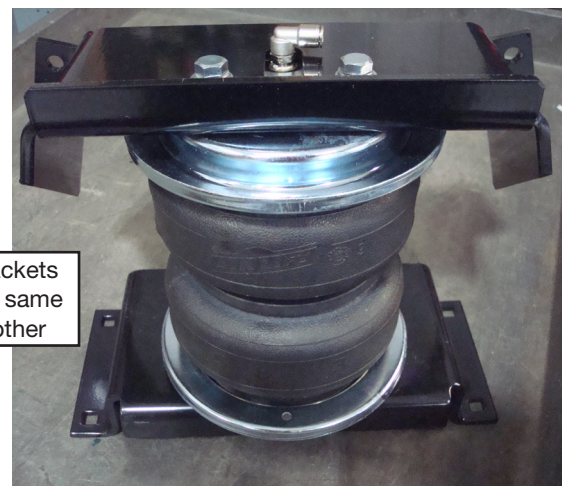


Fig. 13

## ATTACH THE AIR SPRING ASSEMBLIES

Although it is not necessary in most cases to remove the rear wheels, in some applications, it may be easier to access the area the assembly has to fit in by removing them.

1. If you need to remove the rear wheels for the installation, lift the rear axle and support it with jackstands. Remove the rear wheels and set them aside.
2. Set the air spring assemblies on the leaf springs over the axle and push the assemblies back on the leaf springs as far back as possible so that the lower brackets come in contact with the front of the leaf spring assembly upper spring retainers (Fig. 14). Attach the lower bracket to the leaf spring with the U-bolts (I), 3/8" flat washers (H), and 3/8" nylon lock nuts (K). Torque to 16 lbs.-ft. (22Nm).

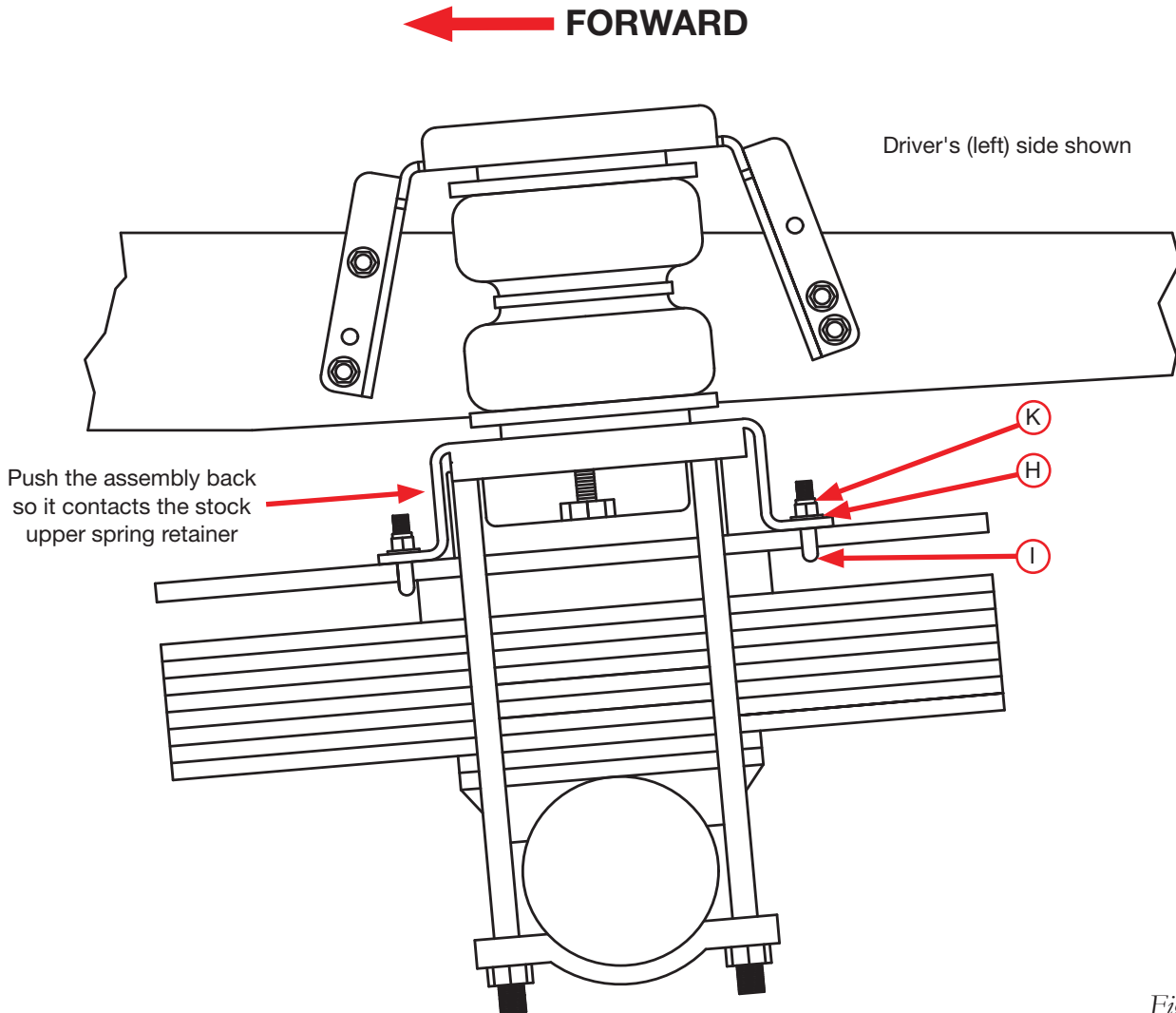


Fig. 14



## CAUTION

BEFORE DRILLING, CHECK THE BACK SIDE OF THE FRAME FOR CLEARANCE ISSUES WITH THE BRAKE LINES, GAS LINES AND ELECTRICAL WIRING HARNESS. ANY OBSTACLES WILL NEED TO BE TEMPORARILY RELOCATED TO CLEAR THE AREA.

3. Push the upper bracket up against the frame. Use the tallest span holes in the front flange leg and the two lowest mounting holes in the rear flange leg of the upper bracket to mount (Fig. 15). On the back side of the frame, the large 3/8" flat washers (L) will be used forward of the axle, and the small 3/8" flat washers (H) will be used on the back side of axle (Fig. 1).

The upper bracket should be up as high as can be mounted on the frame but should be positioned so that there is enough room on the backside of the frame for the large flat washer to install without coming in contact with the upper flange of the frame. Use a C-clamp or welding clamp to hold the upper bracket in position. Make sure the distance between the X and Y is the same (Fig. 15). Center punch and drill a 3/8" hole through one of the flange mounting holes. Install the 3/8" hex flange bolt (J), and depending on what hole you drilled, 3/8" flat washer (L or H) and 3/8" nylon lock nut (K). Position any existing lines out of the way on the inside of the frame and tighten tight enough just to hold the upper bracket in place. Drill the remaining three holes and remove the C or welding clamps. Install the remaining hardware typical of the first hole drilled, making sure the correct flat washers are installed on the back side of the bracket. Torque the hardware to 44 lb.-ft. (60Nm). Repeat process on the other side of the frame.

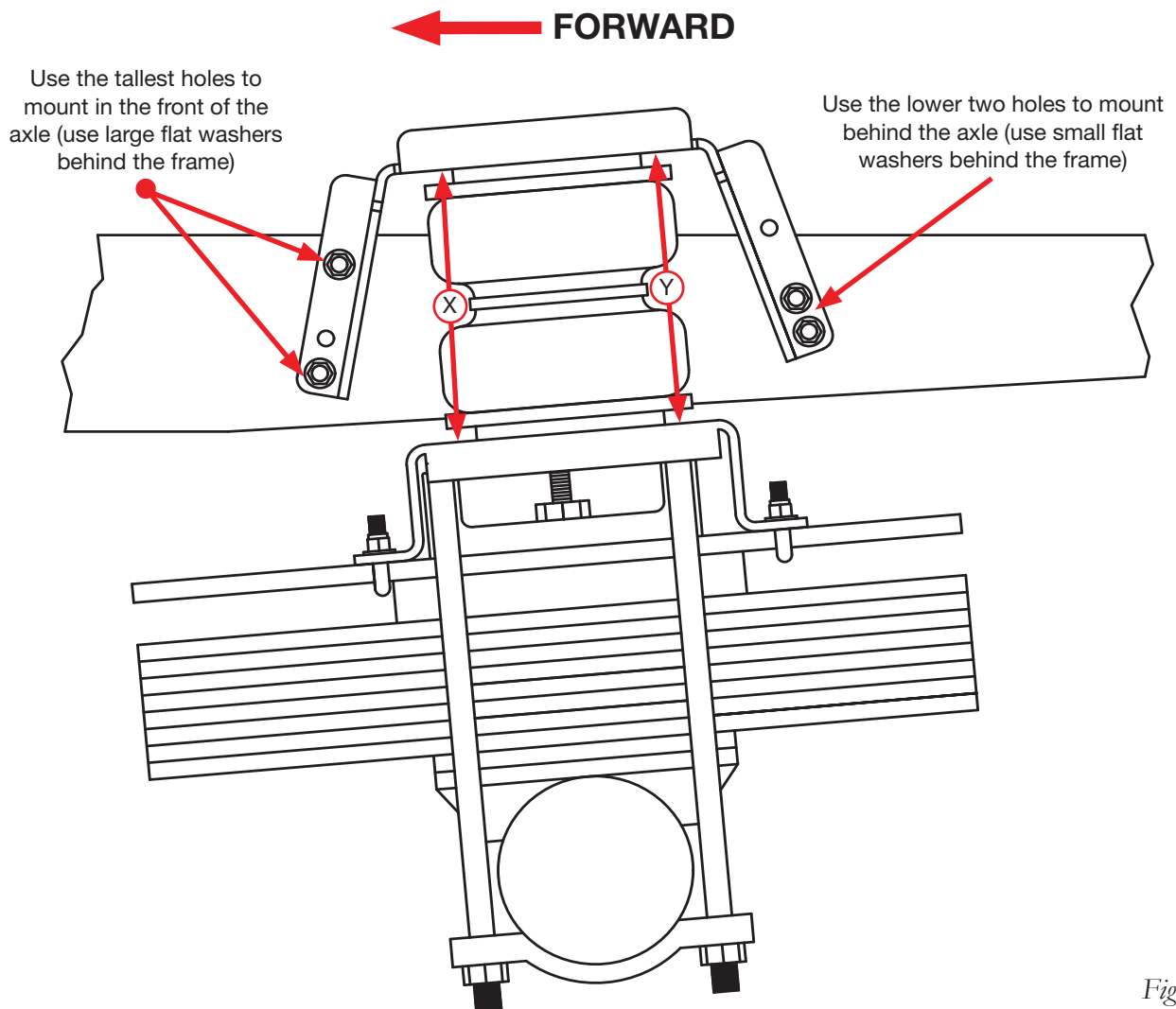
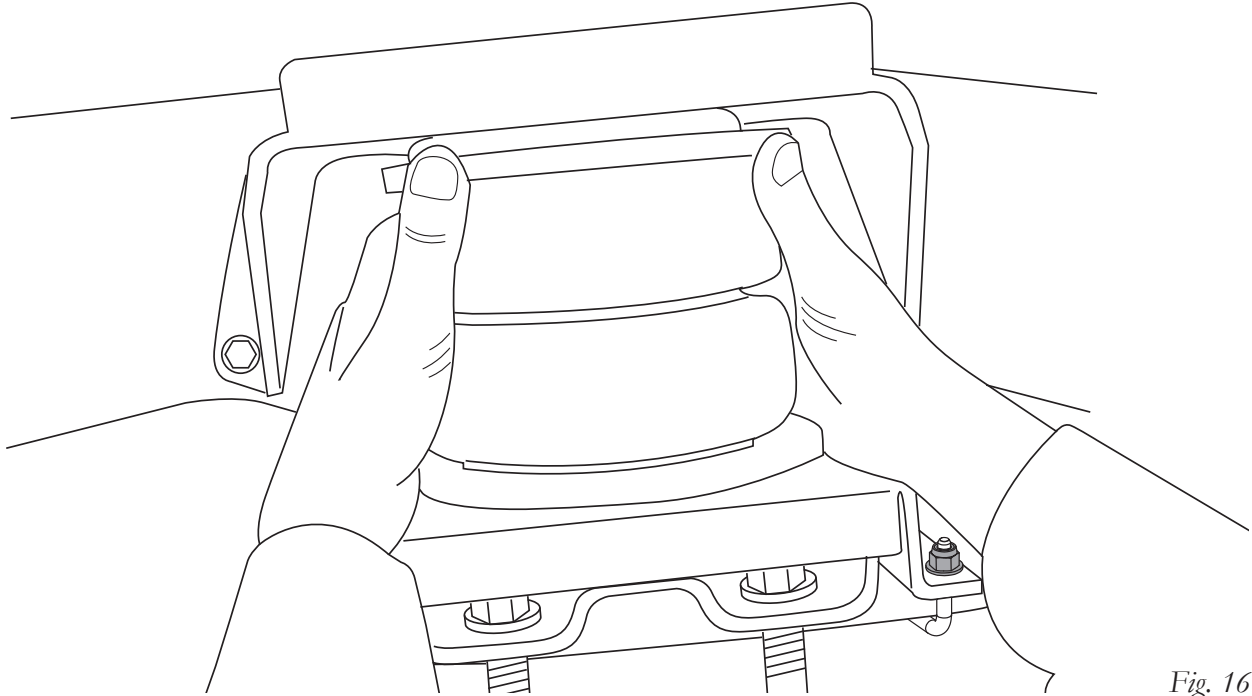


Fig. 15

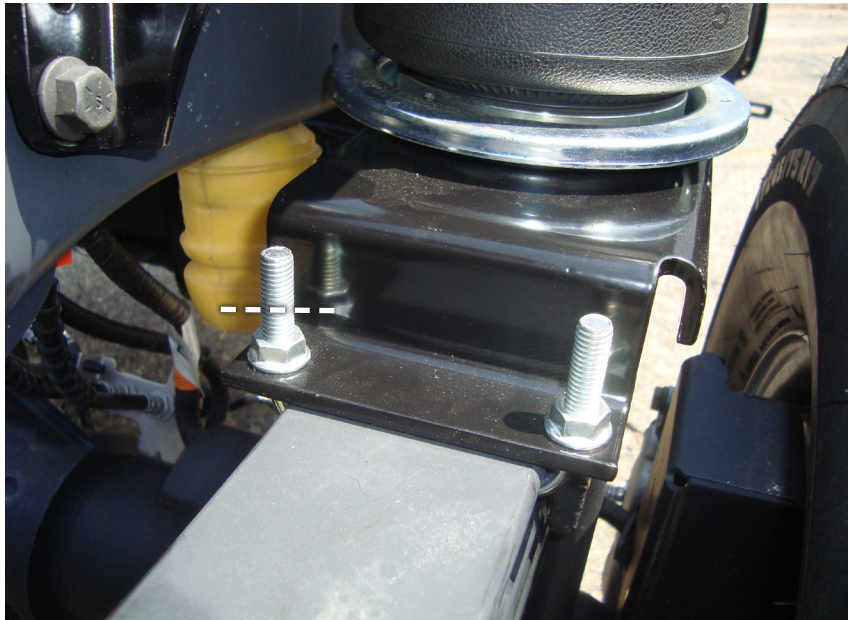
4. With the air spring hardware still loose, align the air spring inboard and outboard using the slotted holes for adjustment so that it is uniformly positioned between the brackets (Fig. 16).

**NOTE**

Try to obtain as much tire clearance as possible when positioning the air spring. Secure the air spring to the upper and lower brackets when fully aligned by tightening the mounting hardware with a 9/16" wrench. Torque to no more than 20 lb.-ft. (27Nm).


*Fig. 16*

5. Trim the inside U-bolts above the nylon lock nut with a hack saw or a grinder with a cut off wheel (Fig. 17).


*Fig. 17*

6. If the wheel was removed in the "Attach the Air Spring Assemblies" section, reinstall it and torque the wheel nuts using the factory procedures and torque specifications.
7. Secure any lines or electrical wiring harness away from rubbing any previously installed hardware using zip ties (BB).

# Install the Air Lines

1. Choose the locations for the Schrader valves (Fig. 18) and drill a 5/16" (8mm) hole, if necessary.

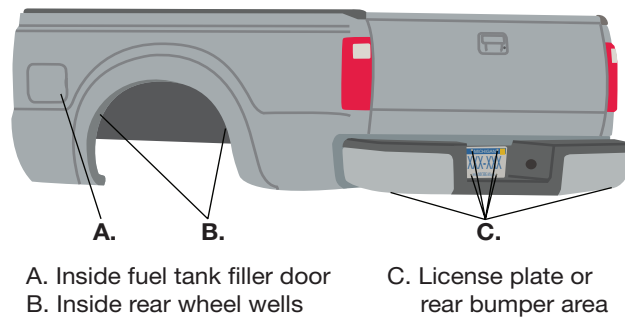


Fig. 18



## CAUTION

KEEP AT LEAST 6" (152MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

2. Make clean, square cuts with a razor blade or hose cutter when cutting the air line (AA). Do not use scissors or wire cutters (Fig. 19).

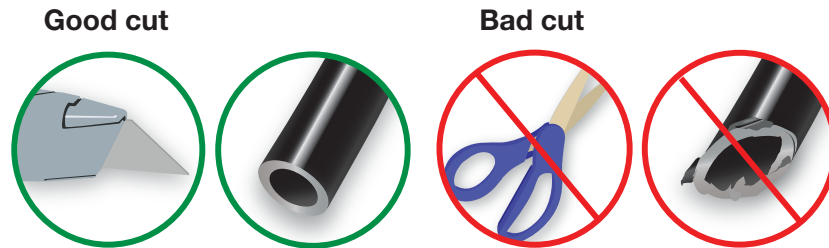


Fig. 19

3. Use zip ties (BB) to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. Leave at least 2" (51mm) of slack in the air line to allow for any movement that might pull on the air line. The minimum bend radius for the air line is 1" (25mm).
4. Install the Schrader valve in the chosen location (Fig. 20).

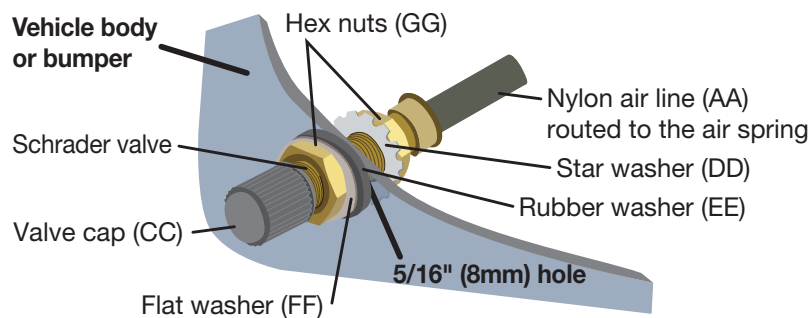


Fig. 20

## INSTALL THE SHOCK HEAT SHIELD

1. If your vehicle had a heat shield bolted around the shock, which was removed in the “Prepare the Vehicle” section, bend the tabs on the replacement shock heat shield (II) and attach it to the shock using the clamps provided. Fold the replacement shock heat shield (II) around the shock and bend the top tabs to overlap (Fig. 21).

**NOTE** Put the heat shield between the shock and the exhaust pipe.

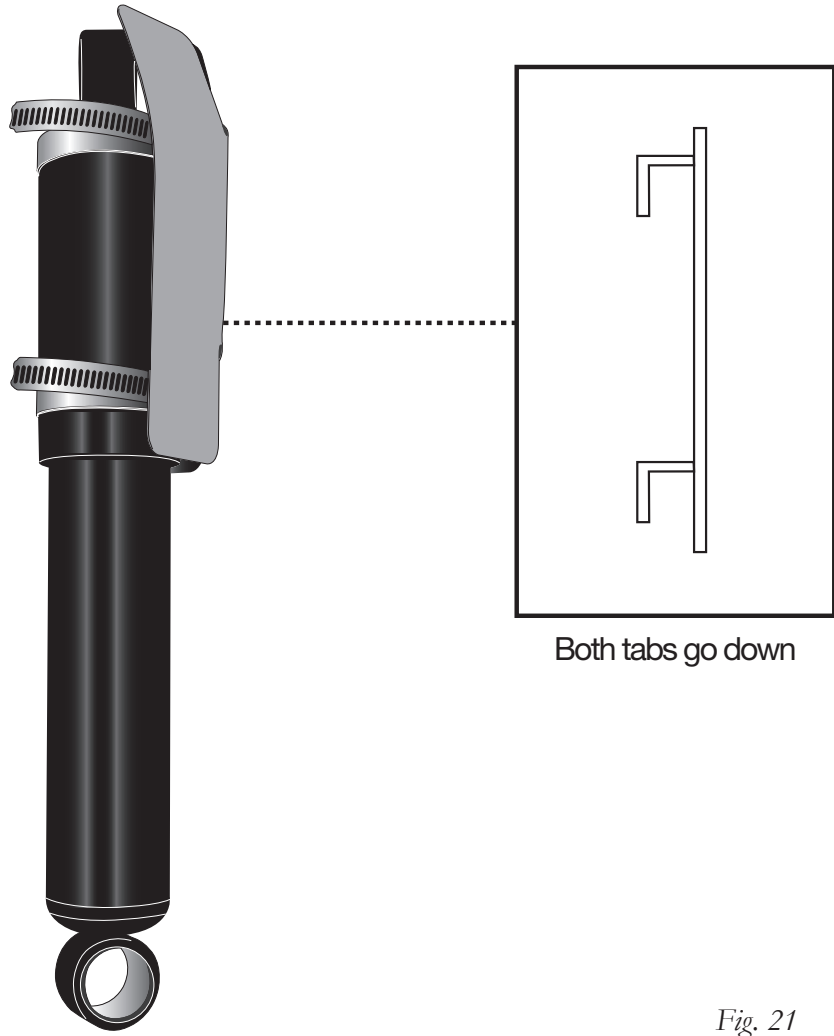


Fig. 21

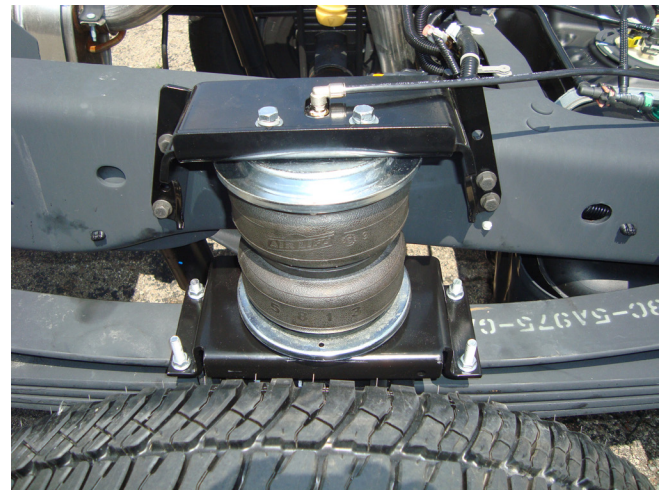
# Finished Installation

Figures 22, 23, 24 & 25 show the driver's side installation of the air spring assembly.



Forward view

*Fig. 22*



Center view

*Fig. 23*



Back view

*Fig. 24*



Center view showing assembly with body flush to the frame rail

*Fig. 25*

## Congratulations!

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

# Before Operating

## INSTALLATION CHECKLIST

- Clearance test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) 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 40-60 PSI (2.8-4.1BAR) 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 initial 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.



**Minimum Recommended  
Air Pressure**



**Maximum Air Pressure**



### CAUTION

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.



# Notes



## Limited Warranty and Return Policy

Air Lift Company provides a Limited Lifetime Warranty\* to the original purchaser of its load support products, from the date of original purchase, 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.

\*Full Limited Warranty and Return Policy are available at [www.airliftcompany.com/warranty](http://www.airliftcompany.com/warranty) and are subject to change.

### WARRANTY REGISTRATION & CLAIMS

- To register your warranty, please visit <https://www.airliftcompany.com/support/warranty/register/>
- To submit a warranty claim, please visit <https://www.airliftcompany.com/support/warranty/submit-claim/>





*Thank you for purchasing Air Lift Products!*

## Need Help?

Contact Air Lift Company Customer Service at (800) 248-0892  
or email [service@airliftcompany.com](mailto:service@airliftcompany.com).

For calls outside the U.S. or Canada, dial +1 (517) 322-2144.



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