

# LoadLifter™



## Installation Guide



*Jeep Gladiator*



**Watch the video**

Info on Table of Contents page

# Kit 57415

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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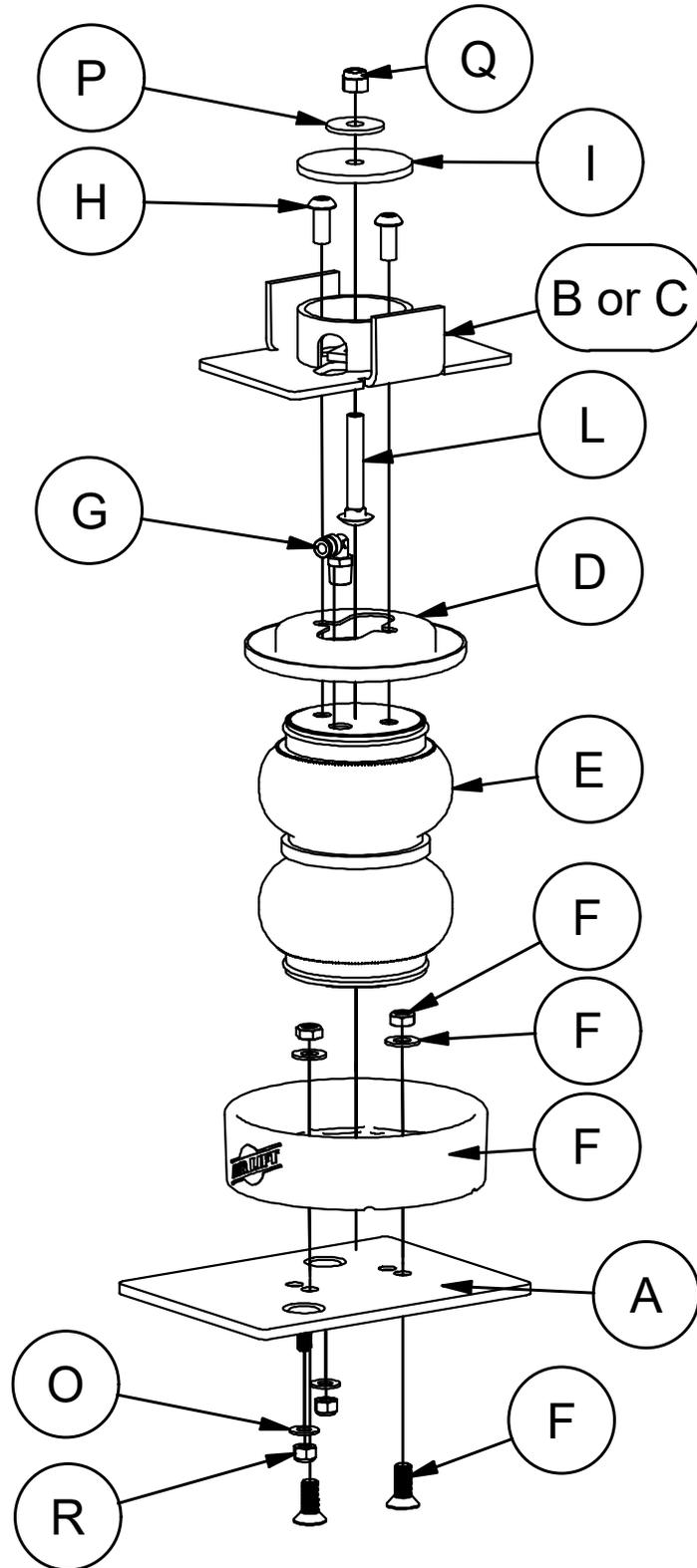
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## **Video-enhanced installation guides**

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

# System Overview



Driver's  
(left) Side

Fig. 1

# Hardware and Tools

## HARDWARE LIST

Item	Part#	Description .....	Qty
A	03072	Lower bracket .....	2
B	07067	Left hand upper bracket .....	1
C	07176	Right hand upper bracket .....	1
D	11803	Roll plate .....	2
E	58535	Air spring .....	2
F	52500	Air spring cradle (kit) .....	1
G	21830	90-degree Swivel air fitting .....	2
H	24527	3/8"-24 X 3/4" Button-head cap screw .....	4
I	10956	Large flat washer .....	2
J*	11195	LH brake line relocation bracket .....	1
K*	11198	RH brake line relocation bracket .....	1
L	17141	3/8"-16 X 2.5" Carriage bolt .....	2
M*	17377	M6 X 1 X 30 Hex head cap screw .....	2
N*	17520	M6 X 1 X 20 Flat head cap screw .....	2
O	18433	5/16" Flat washer .....	4
P	18447	Medium 3/8" flat washer .....	2
Q	18435	3/8"-16 Nylon lock nut .....	2
R	18438	5/16"-18 Nylon lock nut .....	4
S	18579	M6 flat washer .....	2
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

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

## TOOLS NEEDED

Description .....	Qty
Standard and metric open-end or box wrenches .....	Set
9/16 ratchet wrench .....	1
Ratchet .....	1
Standard and metric regular and deep-well sockets .....	Set
Torque wrench .....	1
Die grinder or angle grinder with cut off wheel .....	1
4mm and 7/32" hex-key wrench (socket preferable) .....	1
Needle nose pliers .....	1
White China marker or crayon .....	1
Hose cutter, razor blade, or sharp knife .....	1
Hoist or floor jack .....	1
Safety glasses .....	1
Safety stands .....	2
Black spray paint .....	1
Air compressor or compressed air source .....	1
Spray bottle with dish soap/water solution .....	1



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 air spring kits. All LoadLifter 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. This LoadLifter kit provides up to 3,400 pounds (1,542kg) 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 and Tech Tips 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.*



### TECH TIP

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

# Install the System

## PREPARE THE VEHICLE

1. Lift the vehicle and support the frame with safety stands. Remove the rear wheels and drop the axle down low enough to later set the air springs into position between the frame and axle (Fig. 2).

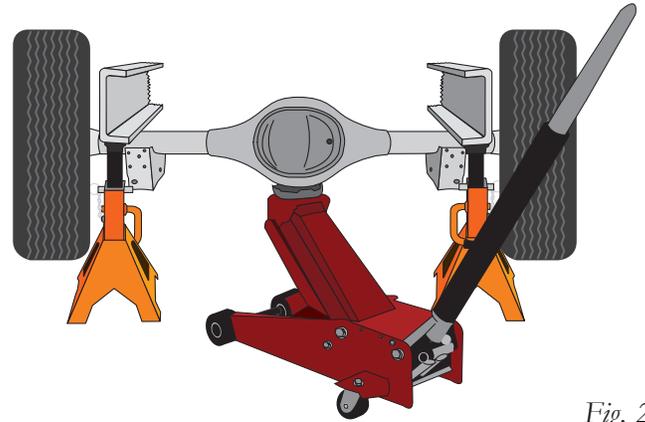


Fig. 2

2. Remove both jounce bumpers out from their cups by pulling them sideways (Fig. 3).



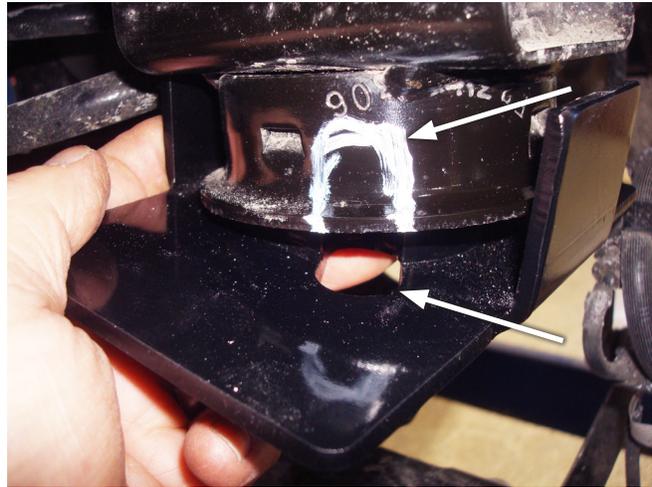
Fig. 3

3. Remove the 6mm bolt holding the rear brake line brackets on both sides of the frame (Fig. 4). Pull the bracket away from the frame and let hang loose.



Fig. 4

- When installing the air spring assemblies, it will be necessary to create a slot for the fitting/airline to come out of the existing welded on jounce bumper cup. To do this, hold the upper brackets (B or C) in place up against the frame, making sure that the slots in the upper brackets are pointing forward and outside toward the wheel opening (see *Finished Installation* images for an example). Using a China marker or crayon, mark where the slot would line up on the cup. Mark the cup just above halfway, as shown (Fig 5).



Driver's (left) side shown.

Fig. 5

- Using a grinder with a cut off wheel or equivalent, cut out the area previously marked (Fig. 6).



Fig. 6

- Finish cutting out the slot by deburring the cut edges (Fig. 7). Do this on both sides of the vehicle.



Fig. 7

## ASSEMBLE THE AIR SPRING AND LOWER BRACKET ASSEMBLIES

1. Set the roll plates (D) over the air springs (E) (Fig. 8) and install the 90-degree air fitting (G) onto the endcap finger-tight, then tighten one and a half turns with a wrench.



Fig. 8

2. Install the 3/8" Carriage bolts (L) through the bottom of the upper brackets (B and C) (Fig. 9).

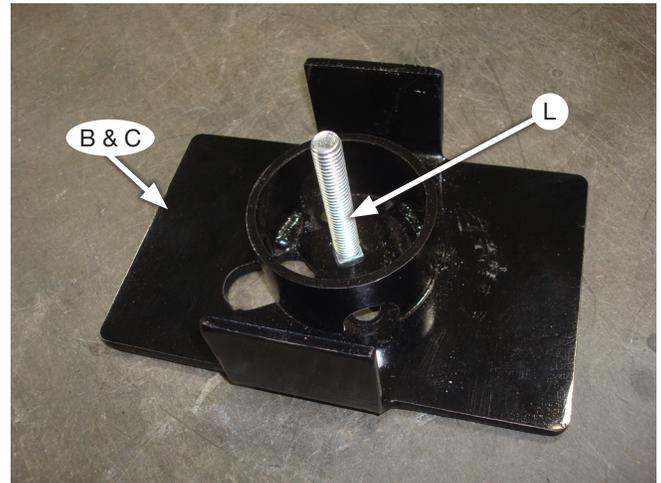


Fig. 9

3. Align the fitting in the air spring assemblies with the slot in the upper brackets (Fig. 10) and install the upper brackets onto the air spring assemblies using the button-head cap screws (H).



### NOTE

*Start each bolt first with the bracket loose and slowly tighten them evenly until both have bottomed out. Also, make sure the carriage bolt indexes properly in the upper bracket.*

4. Torque the button-head cap screws to no more than 20 lb.-ft. (27Nm).

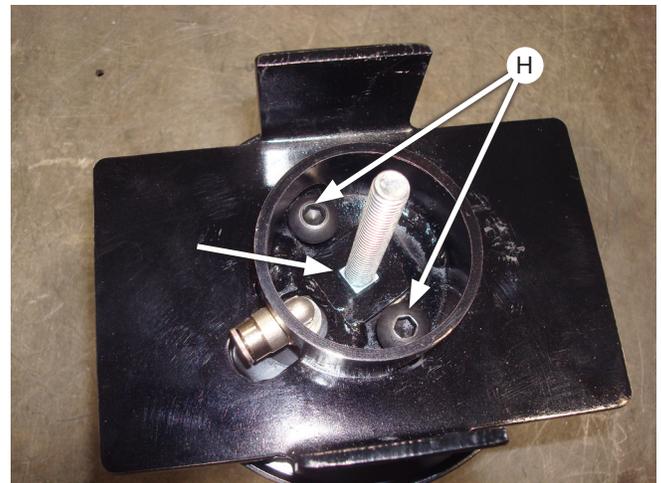


Fig. 10

- Set the large flat washer (I) over the top of the carriage bolts (Fig. 11).

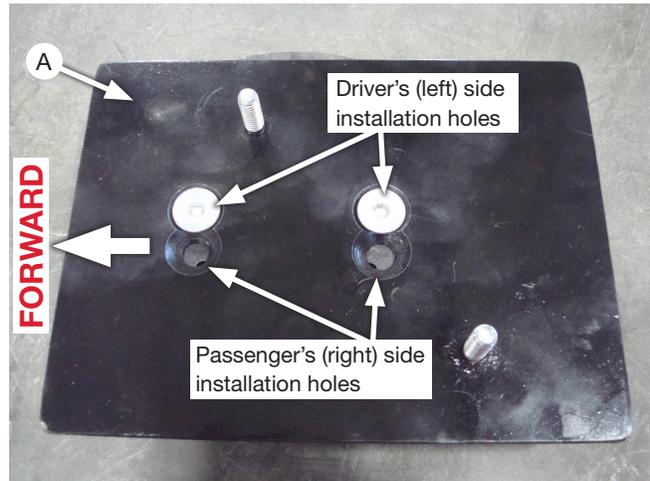


Fig. 11

- There are two sets of tapered holes for the lower bracket assembly (bottom side shown in Fig 12). For the left (driver's) side assembly, insert two 3/8" tapered head screws from the 52500 Cradle kit's hardware supplied into the tapered holes of the lower bracket (A), as shown.


**NOTE**

The arrow in the picture shows the front of the bracket for both left- and right-hand assemblies.



Driver's (left) side shown.

Fig. 12

- Flip the bracket over and set a cradle (F) over the tapered screws (circled). Cap with the 3/8" flat washers and 3/8" thin nylon lock nuts supplied with the 52500 cradle kit (Fig. 13). Torque to 15 lb.-ft. (20Nm). Repeat step 6 for the right (passenger's) side assembly.



Fig. 13

## INSTALL THE AIR SPRING ASSEMBLIES

1. Set the left (driver's) side lower assembly onto the jounce bumper strike plate on the axle by inserting the mounting studs in the lower bracket through the existing holes in the strike plate (Fig. 14). The cup should be a little forward of the axle and to the outside of the lower bracket.



Fig. 14

2. Cap the weld studs on the lower bracket with 5/16" flat washers (O) and nylon lock nuts (R) (Fig. 15). Install the lower assembly on the opposite side and torque the hardware to 13 lb.-ft. (17Nm).

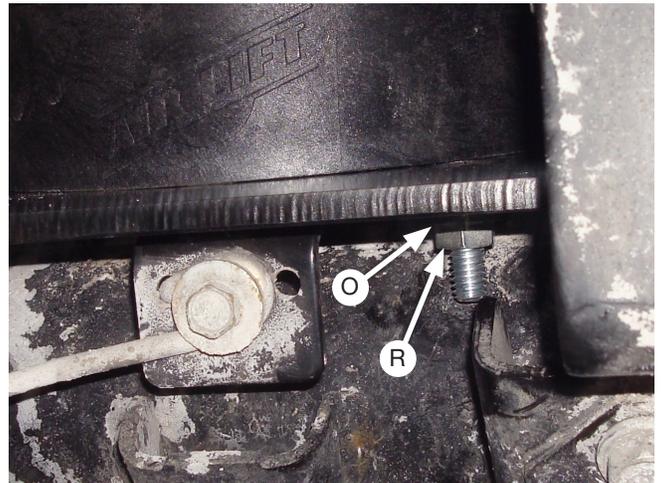


Fig. 15

3. Making sure the axle is still dropped, set the left (driver's) side air spring assembly onto the cradle and nest the upper bracket inside the jounce bumper cup. Repeat for the right-hand side and if needed, bring the axle up far enough to seat the upper brackets against the frame (Fig. 16).



### NOTE

*Make sure the fittings in the upper air spring assemblies line up with the slots that were ground out in the jounce bumper cup, and the carriage bolt goes through the hole in the underside of the jounce bumper bracket.*



Fig. 16

4. Insert the medium size 3/8" flat washer (P) over the carriage bolt on the inside of the jounce bumper bracket and cap with 3/8" nylon lock nut (Q) (Fig. 17). Tighten the nylon lock nut down using a ratchet wrench and torque to 16 lb.-ft. (22Nm). Raise the axle all the way up if not done so already.

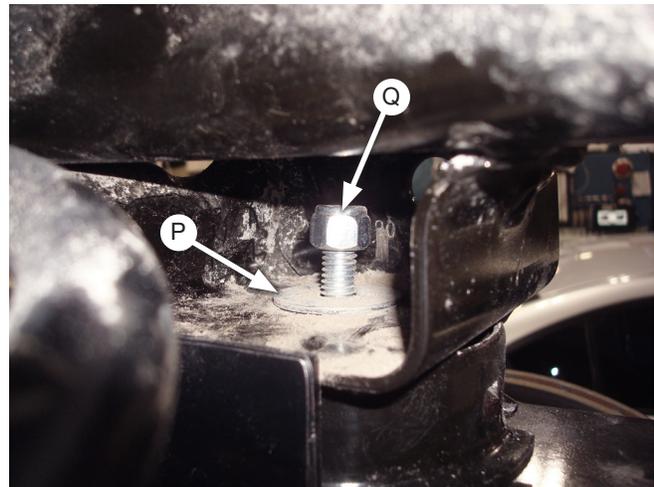
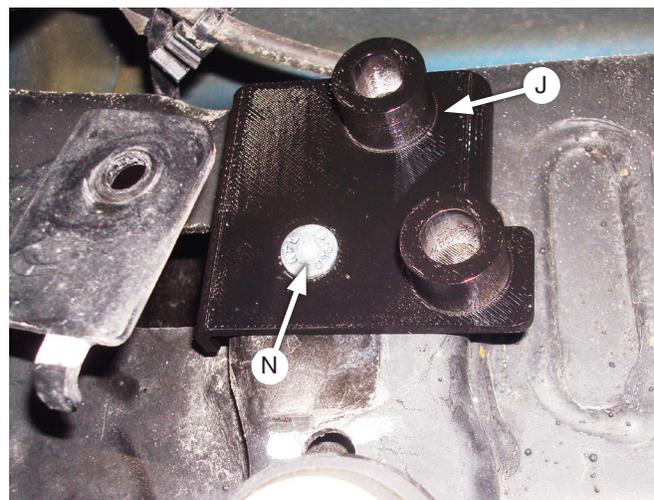


Fig. 17

## INSTALL THE BRAKE LINE RELOCATION BRACKETS

1. Attach the left-hand (J) and right-hand (K) brake line relocation brackets over the frame bracket, which the stock brake line bracket was attached to, with the M6 flat head screw (N) (Fig. 18). Tighten securely.



Driver's (left) side shown.

Fig. 18

2. Install the stock brake line brackets to the relocation brackets with the M6 hex cap screw (M) and M6 flat washer (S) (Fig. 19).



### NOTE

Make sure the small tab on the bottom of the stock bracket indexes into the tube on the brake line bracket adapter, as shown in Figure 19. Also, it will be necessary to lightly relocate the hard brake line to this location. Tighten the M6 bolt securely.

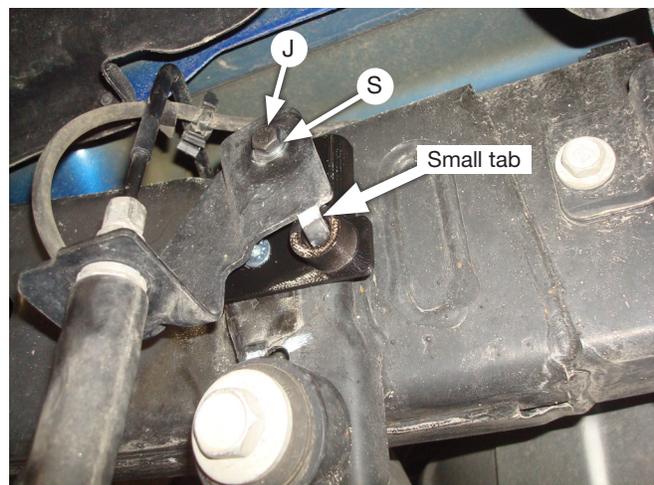
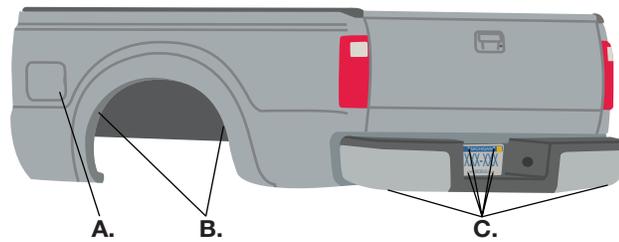


Fig. 19

# Install the Air Lines

1. Choose the 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

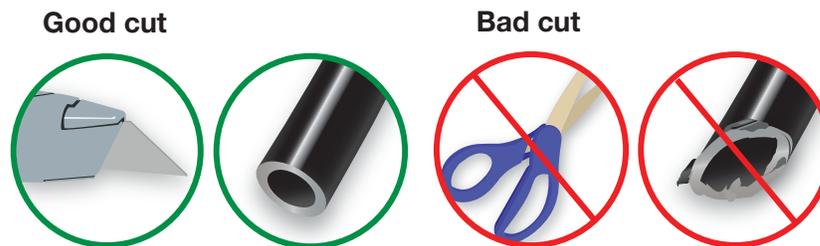
C. License plate or rear bumper area



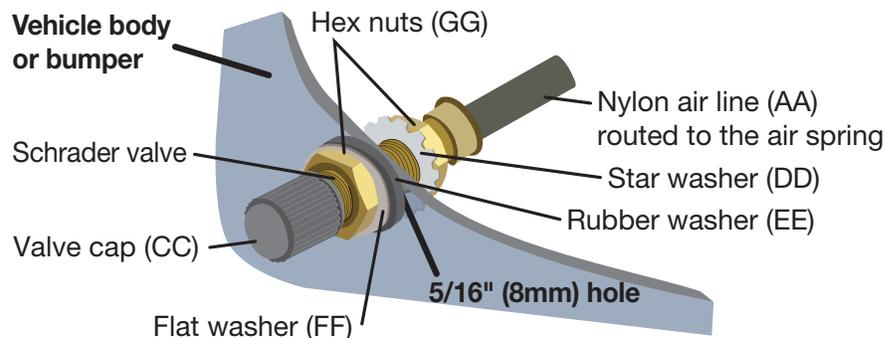
## CAUTION

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.



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.



## Complete the Installation

Once the air lines have been installed, re-install the wheels and torque the wheel nuts using the recommended torque specifications from the OEM manufacturer. Once the wheels have been re-installed, remove the safety stands.

## Finished Installation

The images show the finished installation of the Driver's (left) side.



Driver's (left) side, forward outboard image of the installation



Driver's (left) side, back outboard image of the installation



Driver's (left) side, behind axle image of the installation

## 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 air spring. 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.



### 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.

## 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/>



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



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