

LoadLifter 5000™ SERIES + Air Lift® ProSeries



Installation Guide



Watch the video
Info on Table of Contents page

GM Silverado/Sierra 1500

Kits 57288 | 88288 | 93288

GM Trail Boss/Sierra AT4

Kits 57388 | 88388 | 93388

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 to access our installation video archive*.

System Overview

NOTE: If the truck has fifth-wheel hitch brackets along the side of the frame, these U-bolts may not be used.

* Optional hardware for vehicles equipped with fifth-wheel hitches that have frame side plates (see page 9 for details)

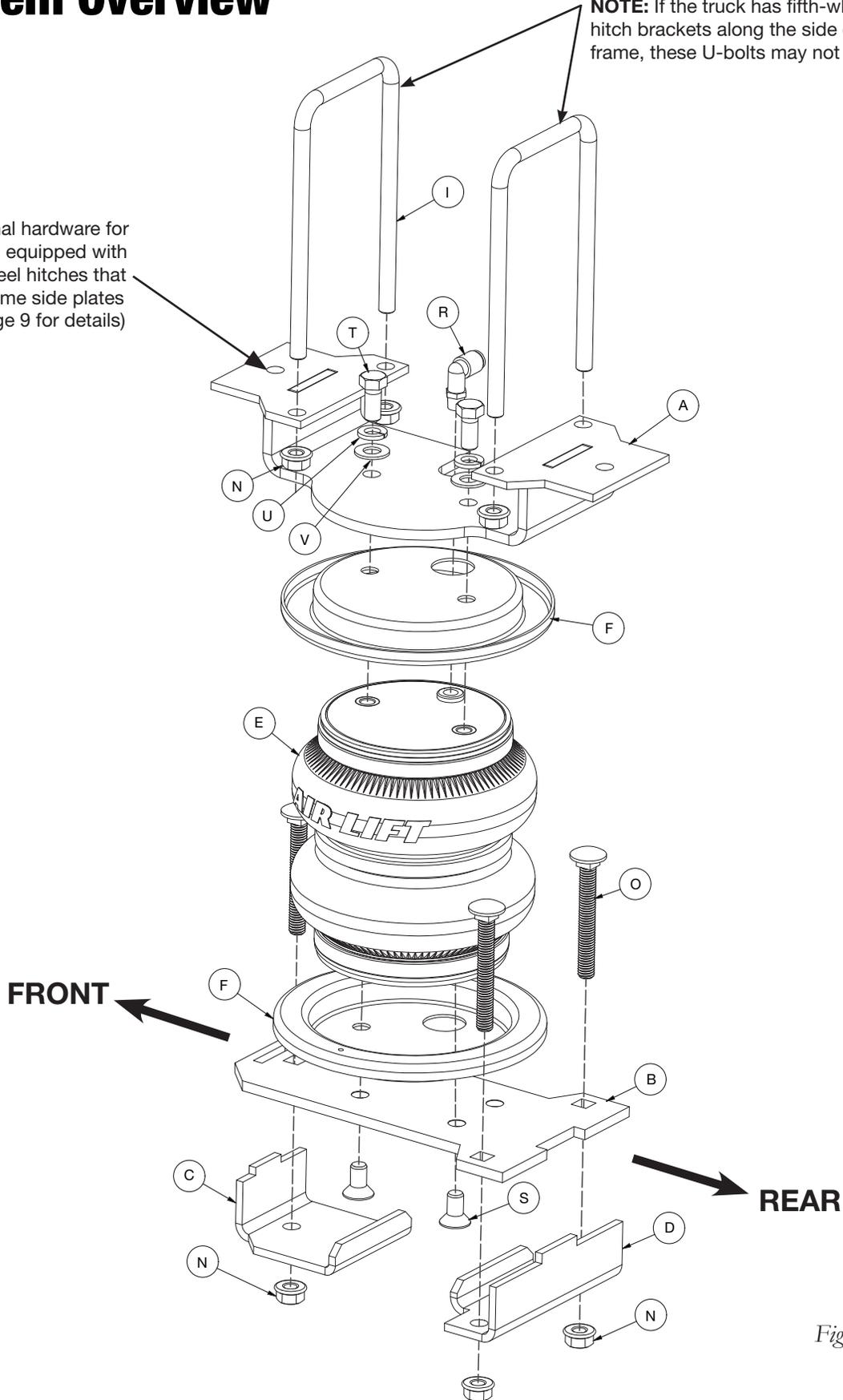


Fig. 1

Hardware and Tools

Common Parts Included in All 6 Kits

| Item | Part# | Description | Qty |
|------|-------|---|-----|
| A | 07856 | Upper bracket (GM 1500)..... | 2 |
| A | 07388 | Upper bracket (Trail Boss/Sierra AT4) | 2 |
| B | 03156 | Lower bracket..... | 2 |
| C | 01656 | Forward clamp bracket | 2 |
| D | 01646 | Rear clamp bracket | 2 |
| G* | 01615 | Brake line tab bracket | 2 |
| H* | 13964 | Spacer | 2 |
| I | 11456 | U-bolt 3/8"-16 x 6 1/2" | 4 |
| J* | 17496 | M8 -1.5 x 20 Hex-head cap screw | 2 |
| K* | 17414 | M8 -1.25 x 50 Hex-head cap screw | 2 |
| L* | 18501 | M8 Stainless steel flat washer | 4 |
| M* | 18522 | M8 x 1.25 Nylon lock nut..... | 2 |
| N | 18422 | 3/8"-16 Serrated flange lock nut | 14 |
| O | 17277 | 3/8"-16 x 3" Carriage bolt | 6 |
| P* | 17129 | 3/8" x 1" Thread cutting screw | 4 |
| R | 21837 | 90-degree Swivel elbow fitting | 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 LIST

| Description..... | Qty |
|--|-----|
| Standard and metric open-end or box wrenches | 2 |
| Adjustable wrench..... | 1 |
| Ratchet w/ 10mm & 9/16" deep-well sockets..... | 1 |
| 3/8" Nut driver..... | 1 |
| T40 Torx bit..... | 1 |
| Torque wrench..... | 1 |
| Standard and metric hex head wrenches | 1 |
| Rat tail file or die grinder w/ small metal grinding bit | 1 |
| Hack or band saw (for removing metal) | 1 |
| Hose cutter, razor blade, or sharp knife | 1 |
| Hoist or floor jacks | 1 |
| Safety stands..... | 1 |
| Safety glasses | 1 |
| Air compressor or compressed air source | 1 |
| Spray bottle w/ dish soap/water solution..... | 1 |

The photos in this manual show the LoadLifter 5000 kit

Unique Parts in Each Kit

LoadLifter 5000™ KITS 57288 & 57388

| Item | Part# | Description | Qty |
|------|-------|---|-----|
| E | 58439 | Air spring (GM 1500)..... | 2 |
| E | 58437 | Air spring ext (Trail Boss/Sierra AT4) | 2 |
| F | 11951 | Roll plate (silver zinc-plated)..... | 4 |
| S | 17215 | 3/8"-24 x 3/4" Flat-head socket cap screw ... | 4 |
| T | 17203 | 3/8"-24 x 7/8" Hex-head cap screw..... | 4 |
| U | 18427 | 3/8" Split lock washer..... | 4 |
| V | 18444 | 3/8" Flat washer | 4 |

LoadLifter 5000™ KITS 88288 & 88388 ULTIMATE

| Item | Part# | Description | Qty |
|------|-------|---|-----|
| E | 58494 | Air spring w/ jounce bumper (GM 1500)..... | 2 |
| E | 58496 | Air spring w/ jounce bumper (Trail Boss/Sierra AT4).. | 2 |
| F | 11967 | Roll plate (black powder-coated)..... | 4 |
| S | 17215 | 3/8"-24 x 3/4" Flat-head socket cap screw ... | 4 |
| T | 17203 | 3/8"-24 x 7/8" Hex-head cap screw..... | 4 |
| U | 18427 | 3/8" Split lock washer..... | 4 |
| V | 18444 | 3/8" Flat washer | 4 |

Air Lift® ProSeries KITS 93288 & 93388

| Item | Part# | Description | Qty |
|------|-------|---|-----|
| E | 58939 | Air spring (GM 1500)..... | 2 |
| E | 58937 | Air spring ext (Trail Boss/Sierra AT4) | 2 |
| F | 11951 | Roll plate (silver zinc-plated)..... | 4 |
| S | 17363 | 3/8"-24 x 3/4" Flat-head socket cap screw (SS) .. | 4 |
| T | 17284 | 3/8"-24 x 7/8" Hex-head cap screw (SS) | 4 |
| U | 18504 | 3/8" Split lock washer..... | 4 |
| V | 18507 | 3/8" Flat washer (SS)..... | 4 |
| HH* | 21838 | Tee fitting | 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 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.



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



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



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



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 standard Air Lift ProSeries. The kits are easily identifiable by looking at the end caps on the air spring and the roll plates.

- Standard **LoadLifter 5000™** — Plastic end cap and Zinc-plated steel roll plates.
- LoadLifter 5000™ Ultimate** — Plastic end cap and Black powder-coated roll plates.
- Standard **Air Lift® ProSeries** — Aluminum end cap and Zinc-plated steel roll plates.



LoadLifter 5000
Plastic end cap



LoadLifter 5000
silver zinc-plated steel roll plate



LoadLifter 5000 Ultimate
Plastic end cap



LoadLifter 5000 Ultimate
black powder-coated roll plate



Air Lift ProSeries
Aluminum end cap



Air Lift ProSeries
silver zinc-plated steel roll plate

Install the System

PREPARE THE VEHICLE

1. Raise and support the vehicle in a way, using safety stands or equivalent, that the axle can be safely dropped away from the frame. This will need to be done for the air spring assembly to be put into position between the axles and frame (Fig. 2).

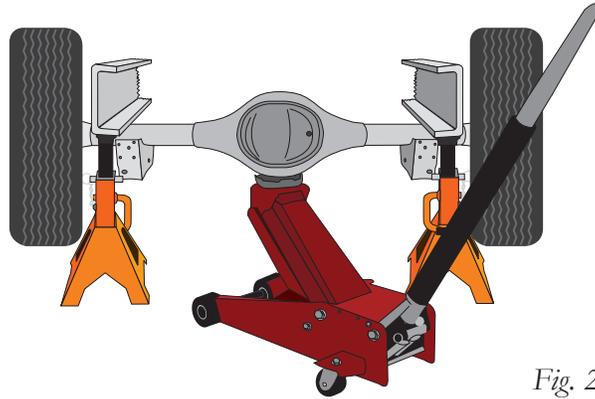


Fig. 2

2. Remove the factory bolts that hold the upper brake line bracket in place. Reattach the bracket using the two new M8-1.25 x 50 hex-head cap screws (K), two new M8 flat washers (L), and two new spacers (H) (Figs. 3 & 4). Torque bolts to 10 lb.-ft. (14Nm).



Fig. 3

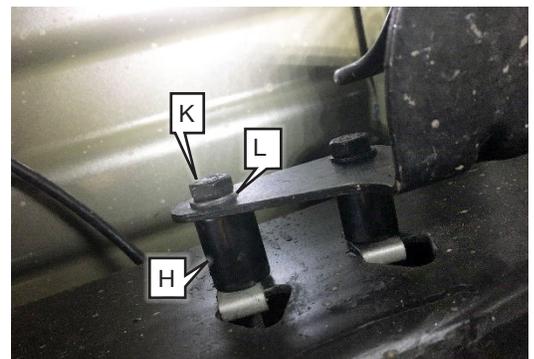


Fig. 4

3. Locate the jounce bumpers. Using a 10mm deep socket, remove the jounce bumpers (both sides) and discard (Figs. 5 & 6).

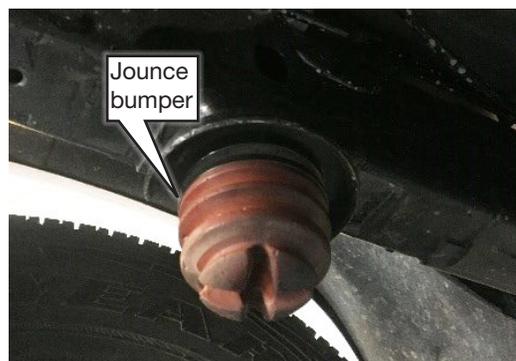


Fig. 5



Fig. 6

- For Trail Boss/Sierra AT4 models, unfasten 4 bolts and remove spacer (Fig. 7).



Fig. 7

- Using a T40-sized Torx bit, remove the Torx head screws on both wire harness guards located on the front side of the axle. Pry out the harness retainers and remove the guards on both sides. Set the screws and the guards aside to be re-installed later (Fig 8).

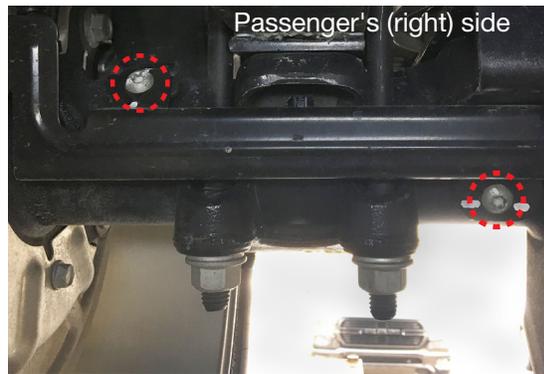


Fig. 8

- Remove the brake line bracket attached to the axle under the leaf spring on both sides of the vehicle. Set bolt aside for reinstallation.
- Attach the brake line tab bracket (G) using the previously removed factory hardware and tighten securely on both sides of the vehicle (Figs. 9 & 10).
- Attach the brake line bracket to the brake line tab bracket using M8 hardware (J, L & M) on both sides of the vehicle (Fig. 10). Torque bolts to 16 lb.-ft. (22Nm).

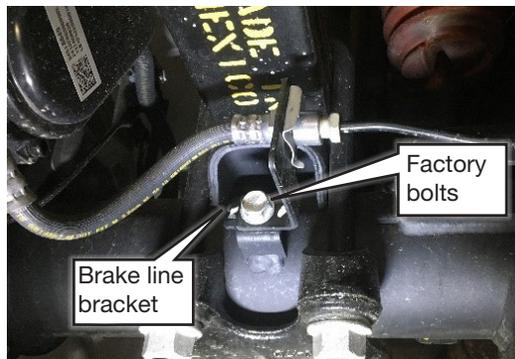


Fig. 9

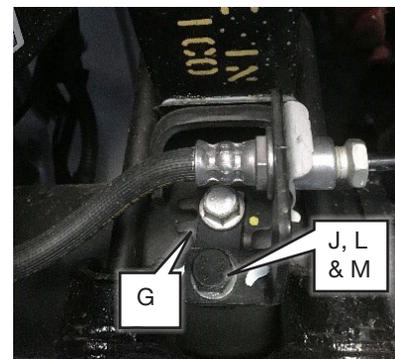


Fig. 10

- Position the forward clamp bracket (C) on the front side of the axle (Figs. 11 & 12).



Fig. 11



Fig. 12

ASSEMBLE THE AIR SPRINGS

- Place a 3/8"-16 x 3" carriage bolt (O) through the innermost square hole on the rear side of each lower bracket (B) (Fig. 13).



Fig. 13

NOTE The radiused (rounded) edge of the roll plate (F) will be toward the air spring so that the air spring is seated inside the roll plate.

- Install a lower bracket (B) and roll plate (F) on each air spring (E) using two 3/8"-24 x 3/4" flat-head socket cap screws (S) through the innermost mounting holes (Fig. 13). Torque the flat-head screws to no more than 20 lb.-ft. (27Nm).
- Install the 90-degree swivel elbow fitting (R) into the top of each air spring finger-tight. Tighten the swivel fittings an additional one and a half turns (Fig. 14).



Fig. 14

- Attach the upper roll plates (F) and upper brackets (A) to the air springs (E) using two 3/8"-24 x 7/8" bolts (T), two 3/8" lock washers (U) and two 3/8" flat washers (V) for each assembly (Fig. 15). Torque bolts to no more than 20 lb.-ft. (27Nm). These brackets are left- and right-hand specific (Fig. 16).

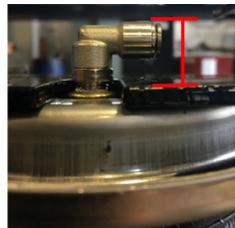


Fig. 15



Fig. 16

- With the bracket installed, ensure the swivel fitting is less than 7/8" in height, and if not, tighten the fitting until this height is achieved (Fig. 17).



Ensure fitting is less than 7/8" in height

Fig. 17

INSTALL THE AIR SPRINGS

- Drop the frame to make room to put the assemblies into position.



ENSURE VEHICLE IS PROPERLY SUPPORTED PRIOR TO BEGINNING INSTALLATION.

- Place the assemblies on the lower strike plate with the fitting side of the assembly to the outside (wheel side) of the vehicle. Align the tab on the forward clamp bracket (C) with the hole on the front of the lower bracket (B) (Fig. 18).
- Insert two carriage bolts (O) on the rear square holes and one carriage bolt on the front square hole of the lower bracket (B) (both sides) (Figs. 18 & 19).

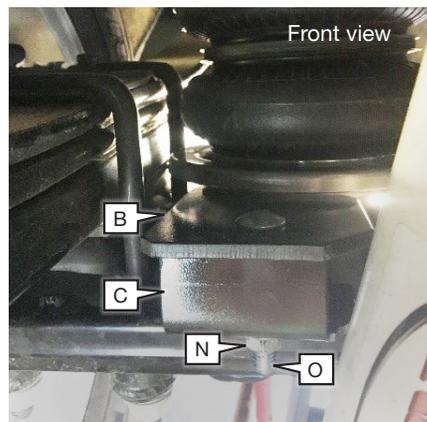


Fig. 18

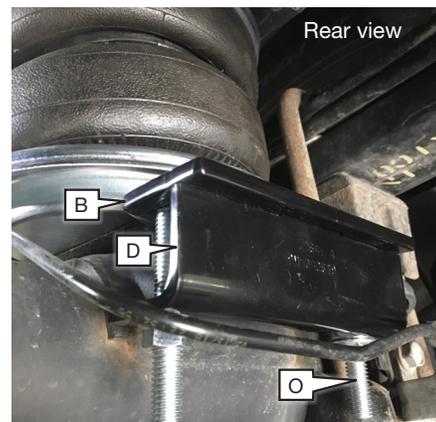


Fig. 19

- Thread the 3/8" flange nuts (N) onto the carriage bolts previously installed. Ensure the front and rear clamps align correctly under the axle jounce bumper strike plate. Torque all flange nuts evenly to 16 lb.-ft. (22Nm).

ATTACH THE UPPER BRACKETS

There are two ways to attach the upper bracket.

For trucks that do not have a fifth-wheel hitch bracket alongside the frame:

1. Place U-bolts (I) over the frame as pictured on both sides of the vehicle (Fig. 20).

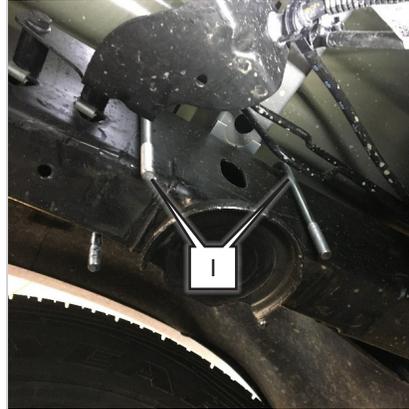


Fig. 20

2. Lower the vehicle or raise the axle while inserting the threaded portions of the U-bolts (I) through the corresponding holes in the upper brackets (A). Install flange nuts (N) finger-tight (Fig. 21).

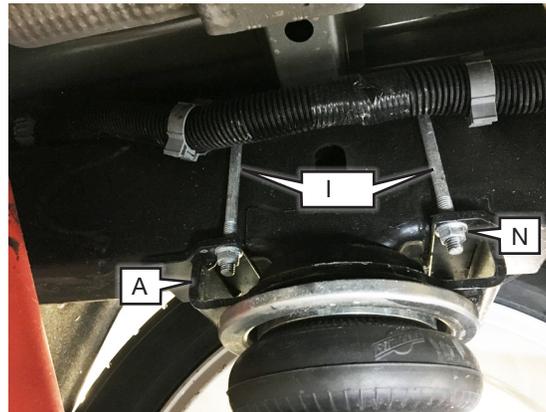


Fig. 21

3. Adjust the upper bracket (A) as needed to vertically align the air spring with the frame (or as close to perpendicular as possible).
4. Torque all flange nuts (N) to 16 lb.-ft. (27Nm).

For trucks that have fifth-wheel hitch brackets alongside the frame rail:

1. There are holes in the middle of the bracket just forward and behind the jounce bumper mounting cups on the upper bracket (Fig. 1). Once the upper brackets are in position, drill two 5/16" holes through the bottom of the frame using the holes as a template and attach the upper brackets using the thread cutting screws (P). Torque all four fasteners to 15 lb.-ft. (20Nm).

For reattaching the wire harness guards on the front of the axles (Fig. 22):

1. If the holes in the cover are slightly misaligned with the threaded holes on the axle, file or die grind slots in the existing bracket holes (Fig. 23) to get the holes to line up enough to reinstall the screws (Fig. 24).

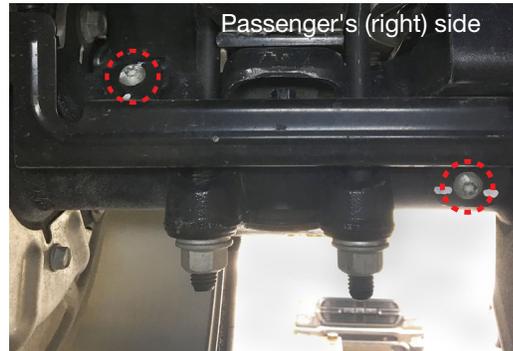


Fig. 22

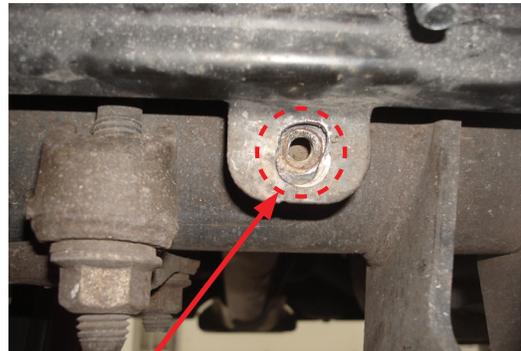


Fig. 23

File or die grind slots in the existing bracket holes to get the holes to line up enough to reinstall the screws



Fig. 24

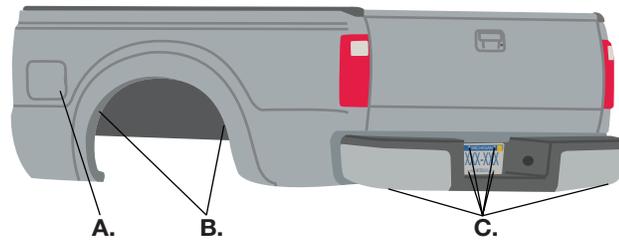
2. If the holes in the cover are very misaligned and slotting the existing bracket holes to line them up will not work, it will be necessary to trim the harness guards in the area that the harness guards line up with the forward clamp brackets (C). To complete this step, hold the harness guard in place and mark the area underneath where the guard comes in contact with the forward clamp bracket. Cut or trim this area out to gain enough clearance to be able to re-install the harness guard. Re-attach the harnesses to the harness guards. Re-attach the harness guards back onto the axle using the previously removed hardware (Fig. 25).



Fig. 25

Install the Air Lines

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

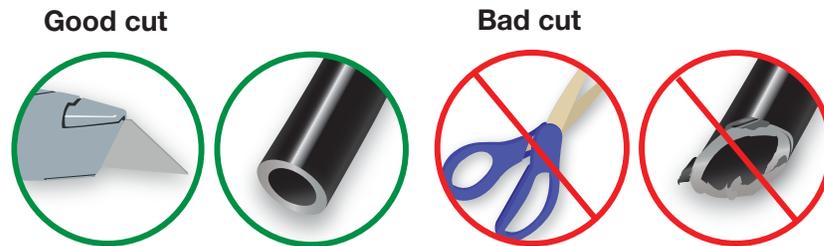


A. Inside fuel tank filler door
 B. Inside rear wheel wells
 C. License plate or rear bumper area



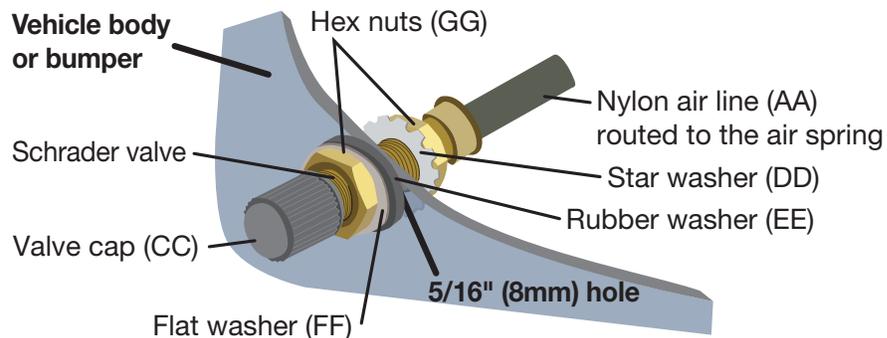
KEEP AT LEAST 6" (152MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

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.



Finished Installation

1. The images show the finished installation of both sides.



Finished installation images show the LoadLifter 5000 Ultimate Plus kit installed.



Driver's (left) side rear view.



Passenger's (right) side front view.



Driver's (left) side front view.



Passenger's (right) side rear view.

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



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 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.

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



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