LoadLifter 7500 XL™

ULTIMATE

AIR LIFT Since 1949

Installation Guide

Watch the video
Info on Table of Contents page

Chevrolet 3500 Chassis Cab Dual Rear Wheel (DRW)

Kit 57543

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-1212 • Revision 012506 • ERN 10467

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

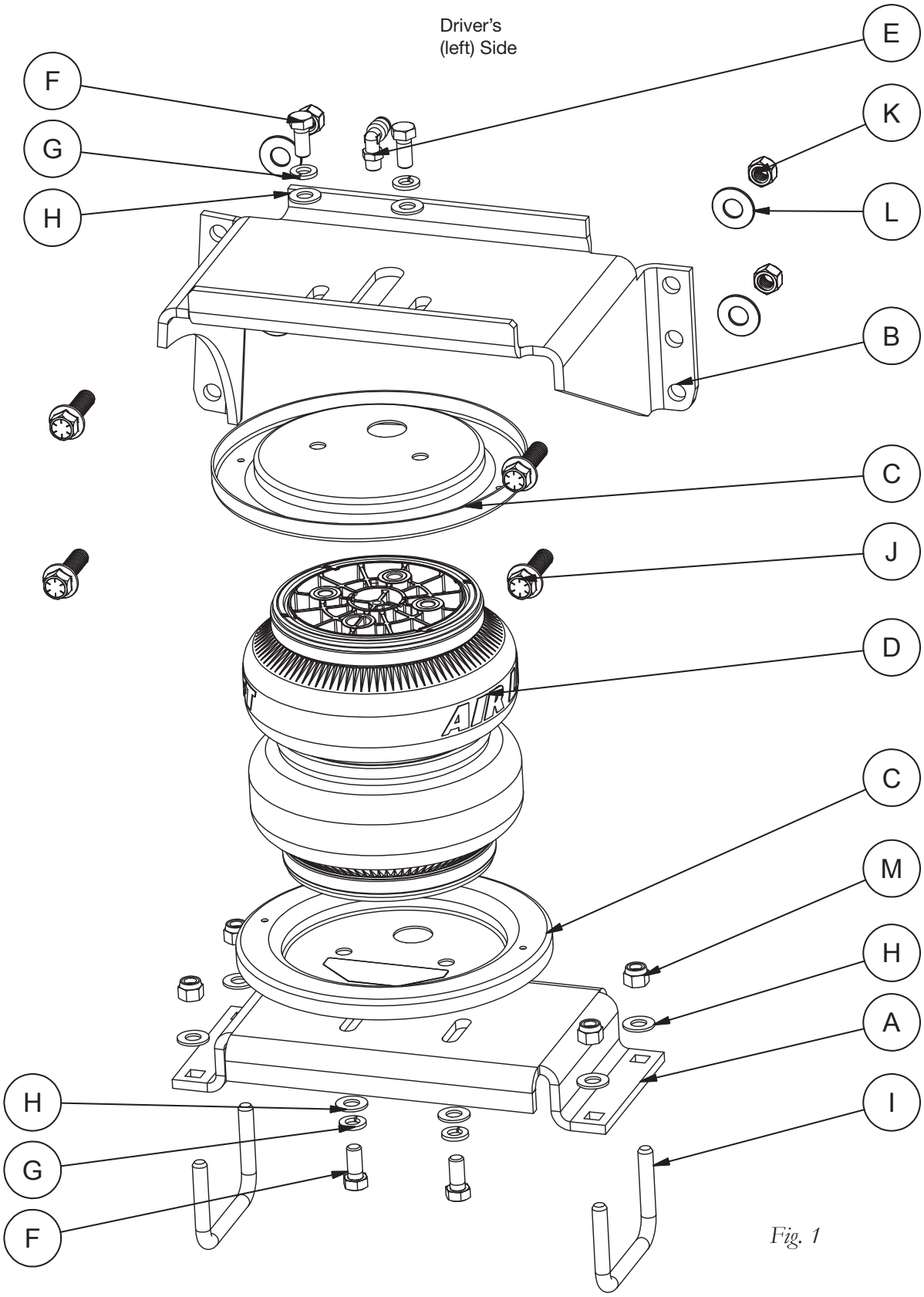


Fig. 1

Hardware and Tools

HARDWARE LIST

Item	Part#	Description	Qty
A	03110	Lower bracket	2
B	07158	Upper bracket	2
C	11897	Roll plates	4
D	58120	Air spring	2
E	21837	90-degree Swivel fitting	2
F	17203	3/8-24 X 7/8″ Hex cap screw	8
G	18427	3/8″ Lock washer	8
H	18444	3/8″ Flat washer	16
I	10594	3/8″ U-bolt	4
J	17255	7/16-14 X 1 1/2″ Hex-head bolt	8
K	18467	7/16″ Nylon lock nut	8
L	18466	7/16″ Flat washer	8
M	18435	3/8″-16 Nylon lock nut	8
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
Hose cutter, razor blade, or sharp knife	1
Hoist or floor jack	1
Safety glasses	1
Safety stands	2
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

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 7500 XL Ultimate air spring kit. LoadLifter 7500 XL Ultimate kits utilize sturdy, reinforced, commercial-grade double-convolute bellows.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 7500 XL Ultimate kits are recommended for most 3/4- and 1-ton pickups and SUVs with leaf springs and provide up to 7,500 pounds (3,402kg) 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

IMPORTANT: MEASURE THE VEHICLE

1. Measure the distance between the frame and the tire. This kit requires a minimum of 9″ (229mm) for a fully inflated air spring (Fig. 2).

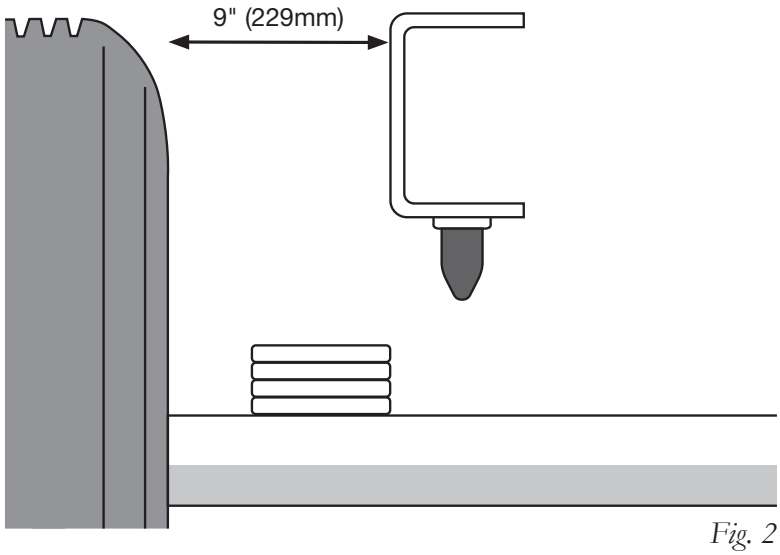


Fig. 2

2. This kit also requires that the body above the axle be at least 1.75″ (45mm) in height above the frame for the kit's upper bracket to mount correctly, or the body must be flush with or inside the frame's web for the bracket to mount (Fig. 3).

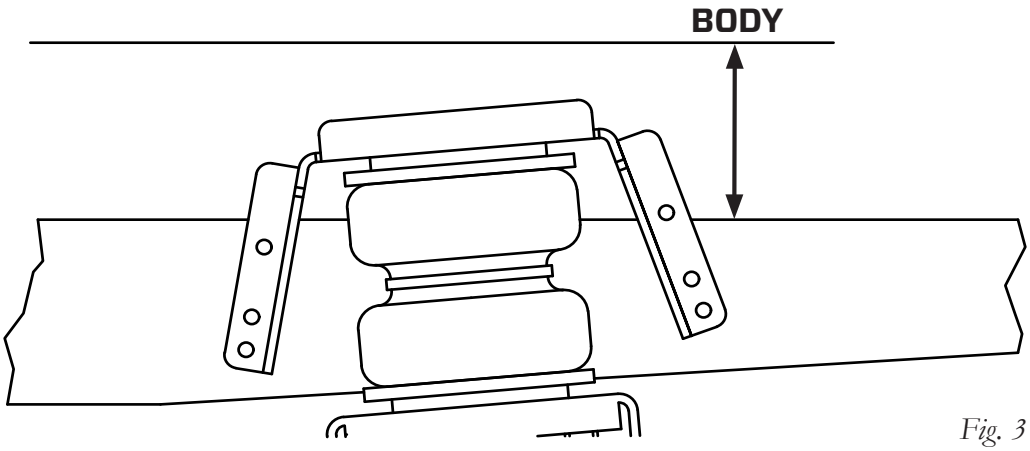


Fig. 3

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. 4).

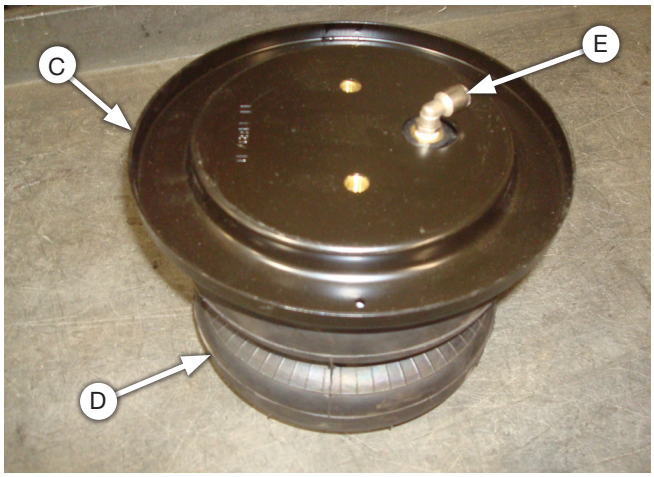


Fig. 4

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 washers (G) and 3/8″ flat washers (H) (Fig. 5). Leave finger-tight at this time.

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 that the slot in the lower bracket aligns with the slots on the upper bracket (Figs. 6 & 7). Attach to the air spring with 3/8″ hex cap screws (F), 3/8″ lock washers (G) and 3/8″ flat washers (H). Center the air spring in the slots and torque the lower bracket hardware to no more than 20 lb.-ft. (27Nm).

4. A completed assembly is shown in Figure 7.

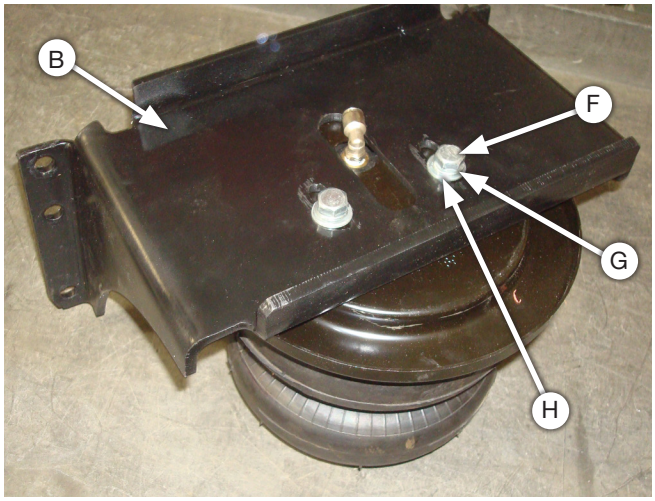


Fig. 5

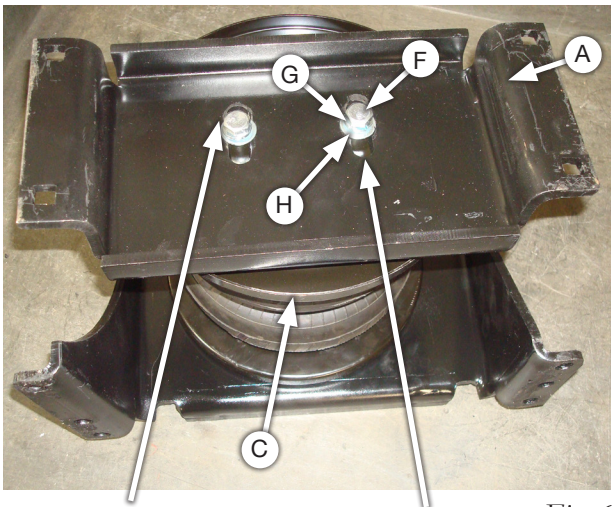


Fig. 6

Locate the air spring in the lower bracket in the middle of the slot and tighten the hardware to specifications.

Slot in lower bracket must be on the same side as the slot in the upper bracket.

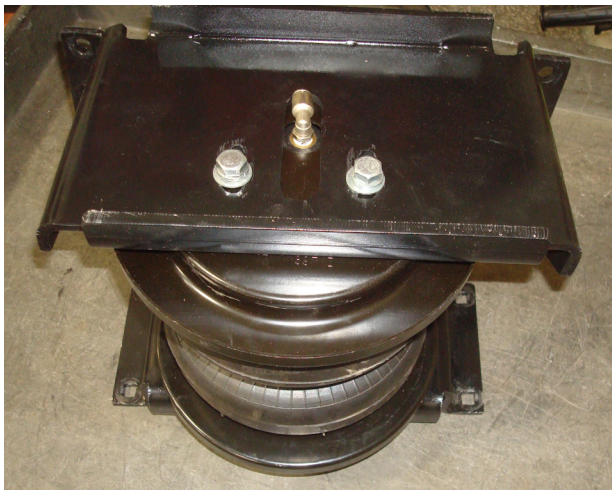


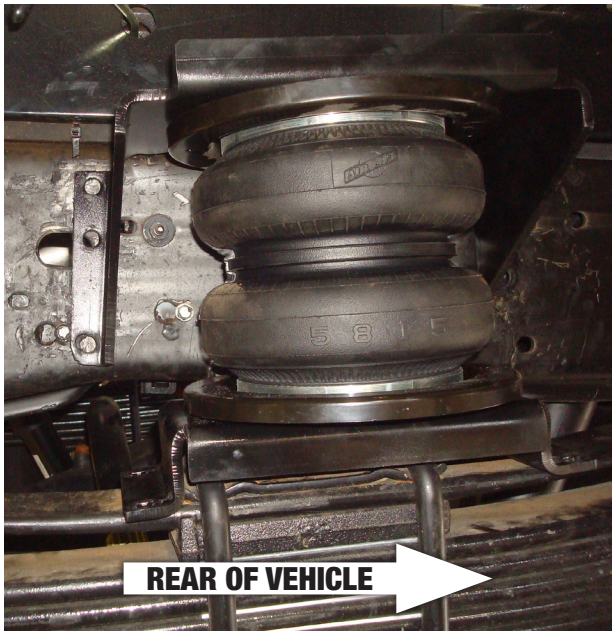
Fig. 7

ATTACH THE AIR SPRING ASSEMBLIES

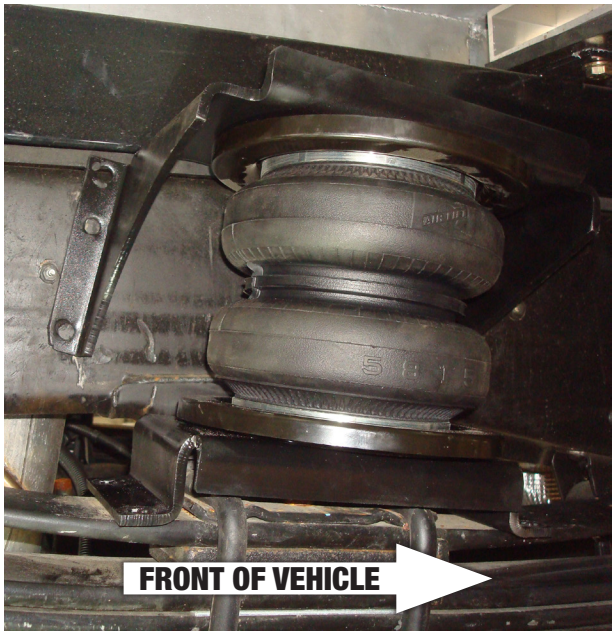
Although it is not necessary in every case to remove the rear wheels, with some applications, it may make it easier to access the area the assembly has to fit in by removing them.

1. If you need to remove the rear wheels for the installation, lift the rear axle and support it with jack stands. Remove the rear wheels and set them aside.

2. Set the air spring assemblies on the leaf springs over the axle and push the driver's (left) side assembly back on the leaf springs as far back as possible so that the lower bracket meets the front of the leaf spring assembly upper spring retainers (Fig. 8). Push the passenger's side assembly as far forward on the leaf spring so that the lower bracket meets the back of the leaf spring assembly upper spring retainers (Fig. 9).



Driver's (left) side *Fig. 8*



Passenger's (right) side *Fig. 9*

3. Ensure the X and Y are the same between the upper and lower bracket (Fig. 10).

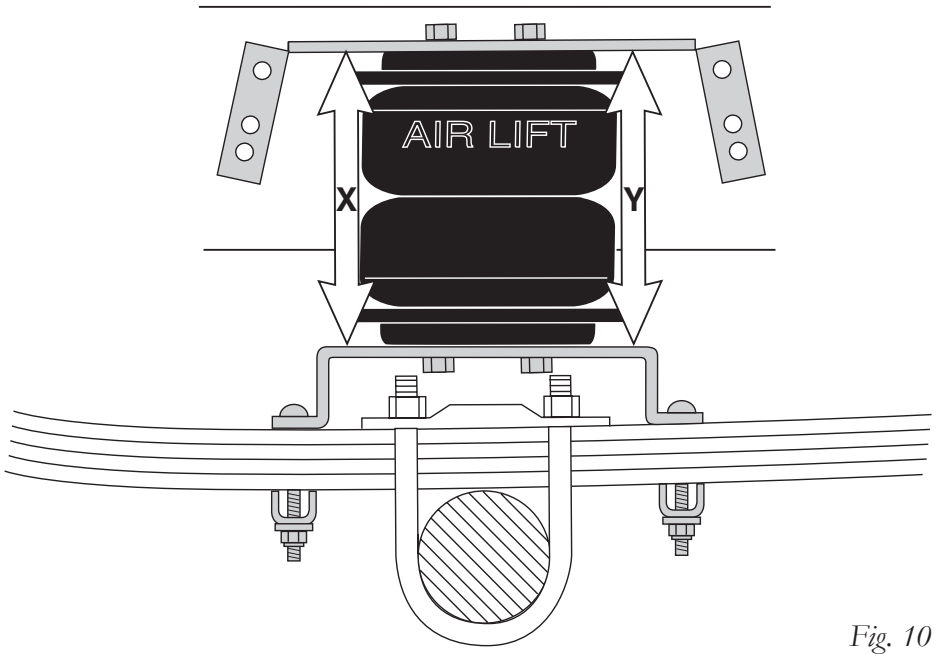
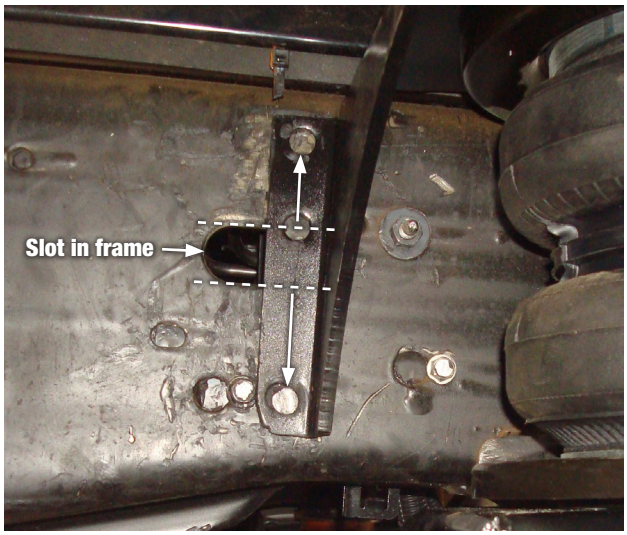
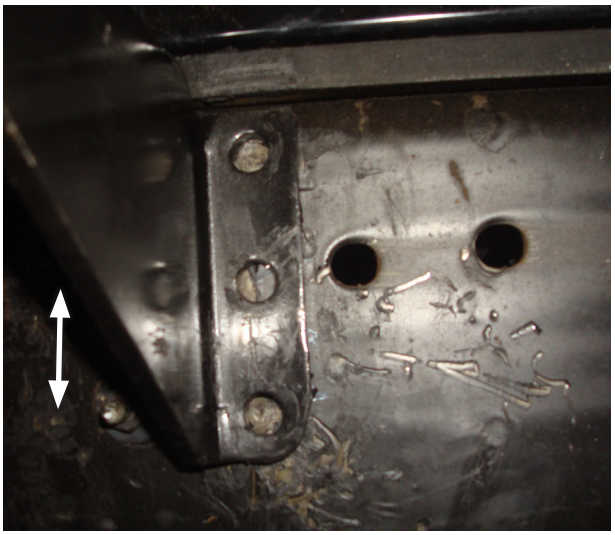


Fig. 10

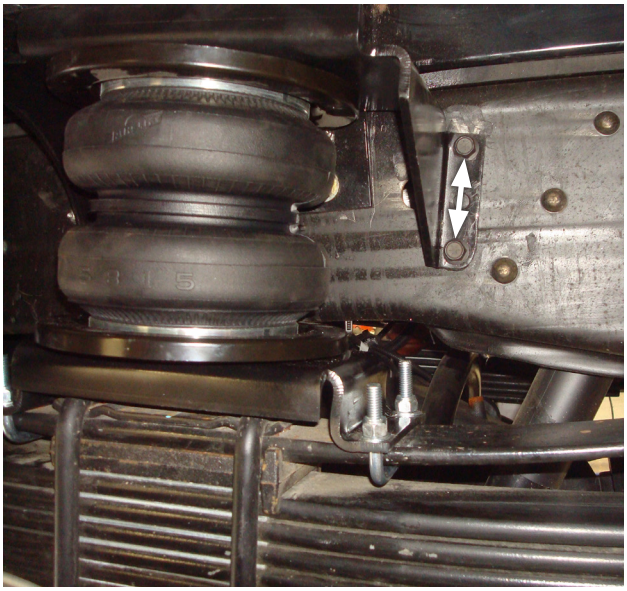
4. Adjust the driver's (left) side upper bracket into position on the frame so that the front upper and lower holes (forward of the axle) in the flange are spaced above and below the large slot in the frame and the lower two holes in the rear of the upper bracket flange are in the middle of the frame (Figs. 11 & 12). Adjust the passenger's (right) side upper bracket into position on the frame so that the front top and bottom holes are positioned equally across the frame (Fig. 13). The rear lower holes should be equally spaced apart across the Nox sensor mounting bolt (Fig. 14).



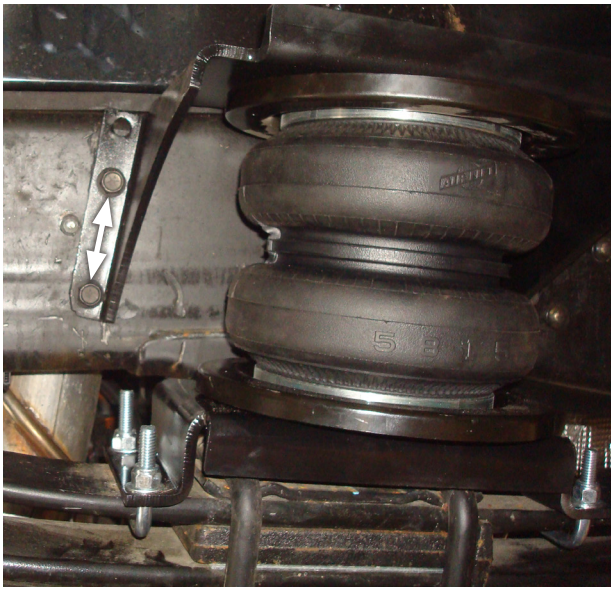
Adjust the upper bracket so the upper and lower holes in the upper bracket flange are spaced above and below the slot in the frame, forward of the axle, ensuring the forward upper bracket flange sits below the frame. *Fig. 11*



The two lower holes in the upper bracket flange should be in the center of the frame. *Fig. 12*



Adjust the upper bracket so the upper hole and lower hole in the upper bracket flange are equally spaced in the middle of the frame. *Fig. 13*



Adjust the upper bracket so the two lower holes in the upper bracket flange are equally spaced above and below the Nox sensor mounting bolt. *Fig. 14*

5. With the upper bracket in position, mark one hole location and remove the assemblies from the leaf springs. Center punch the mark and drill a 7/16″ hole through the frame on both sides (Fig. 15).

WARNING

IMPORTANT: DO NOT DRILL ANY HOLES INTO THE FRAME WITHOUT FIRST CHECKING FOR INTERFERENCE SUCH AS HYDRAULIC LINES, GAS LINES, AND/OR ELECTRICAL WIRES. IF THERE ARE ANY SUCH INTERFERENCES, MOVE THEM ASIDE TO PROCEED WITH THE INSTALLATION.

6. Set the U-bolts (I) into position under the overload leaf springs (Fig. 16) and set the assemblies back into position making sure the U-bolts go through the lower bracket mounting holes. Again, push the driver's (left) side assembly as far back on the leaf spring as possible so the forward lower bracket is touching the upper stock spring retainer on the leaf stack (the hole drilled in the frame and the top hole in the front flange of the upper bracket, should line up at this point). Push the passenger's (right) side assembly as far forward as possible, so the rear of the lower bracket is touching the upper stock spring retainer on the leaf stack. Cap the U-bolts with 3/8″ flat washers (H) and nylon lock nuts (M). Evenly torque to 16 lb. ft. (21Nm).

7. Insert the 7/16″ hex flange bolts (J) through the upper brackets, frame, and cap with 7/16″ large flat washer (L) (forward of axle only) and 7/16″ nylon lock nut (K) (Fig. 1). Snug the hardware only at this point. Again, ensure the X and Y are equal distances and use the remaining holes in the bracket as a template. Drill the remaining holes in the locations pointed out in section four. Install the remaining hardware, and torque all upper brackets to the frame hardware to 70 lb.-ft. (60Nm). Secure any lines or wires away from the hardware installed inside the frame rails.

8. Once the upper and lower brackets are mounted, push the upper air spring inward or outward in the upper bracket slot to align the air spring perpendicular to the brackets and torque the air spring mounting hardware to no more than 20 lb.-ft. (27Nm) (Fig. 17).

9. If the wheels were removed in the *"Attach the Air Spring Assemblies"* section, reinstall them and torque the wheel nuts to factory specifications.

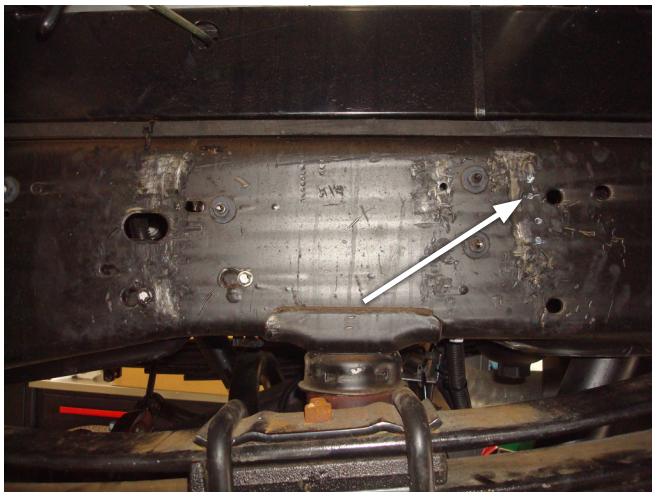


Fig. 15

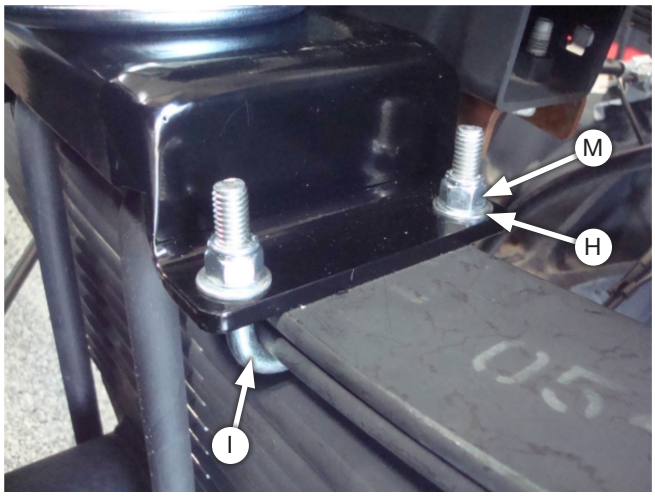
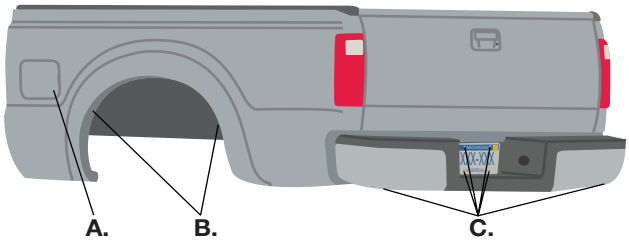


Fig. 16

Fig. 17

Install the Air Lines

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

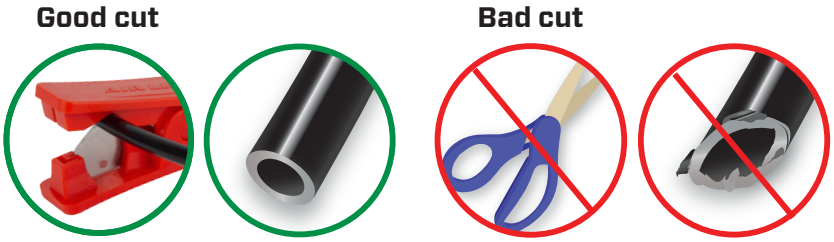


A. Inside fuel tank filler door
B. Inside rear wheel wells
C. License plate or rear bumper area

CAUTION

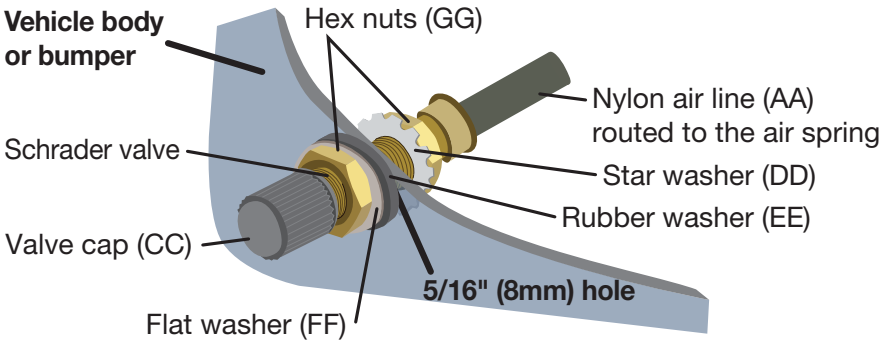
KEEP AT LEAST 6" (152MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

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



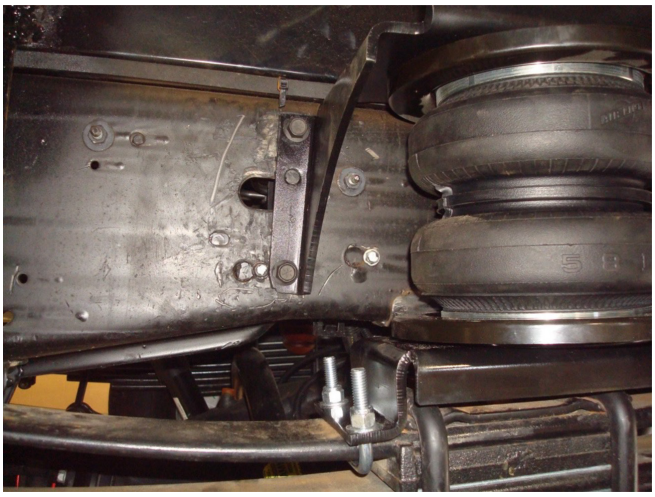
3. Use zip ties (BB) to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. Leave at least 2" (51mm) of slack in the air line to allow for any movement that might pull on the air line. The minimum bend radius for the air line is 1" (25mm).

4. Install the Schrader valve in the chosen location.

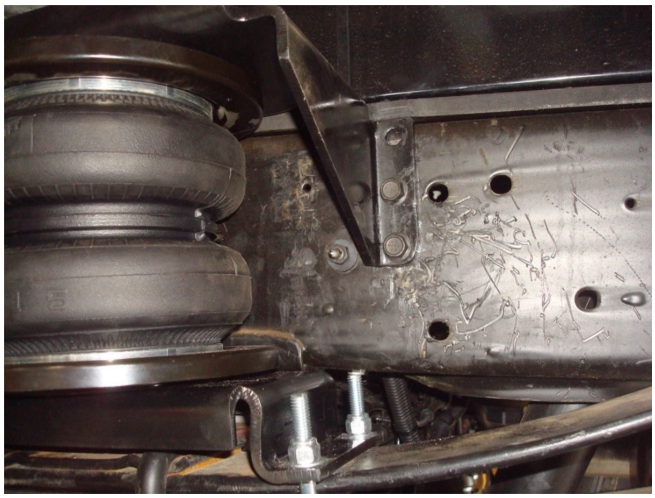


Finished Installation

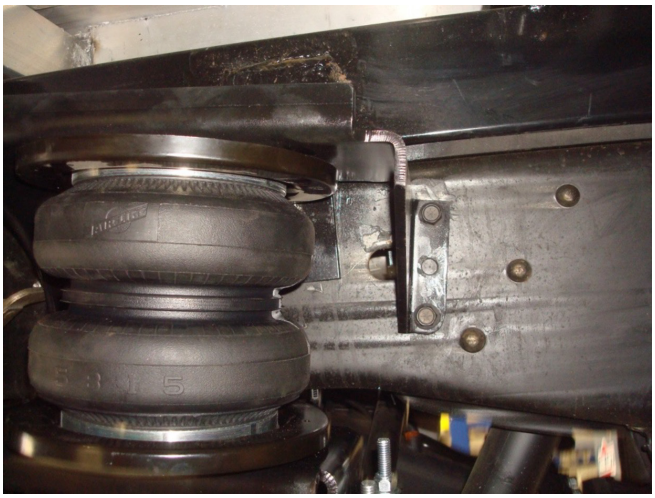
The images show the finished installation of both sides.



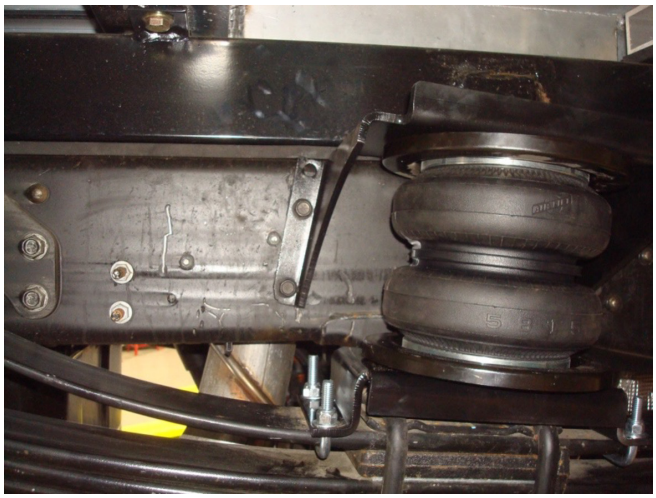
Forward, left (driver's) side view of the installation.



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



Front, right (passenger's) side view of the installation.



Rear, right (passenger's) side view 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 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!

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