

LoadLifter 5000™

ULTIMATE



Installation Guide



RAM TRX/RHO



Watch the video
Info on Table of Contents page

Kit 88377

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

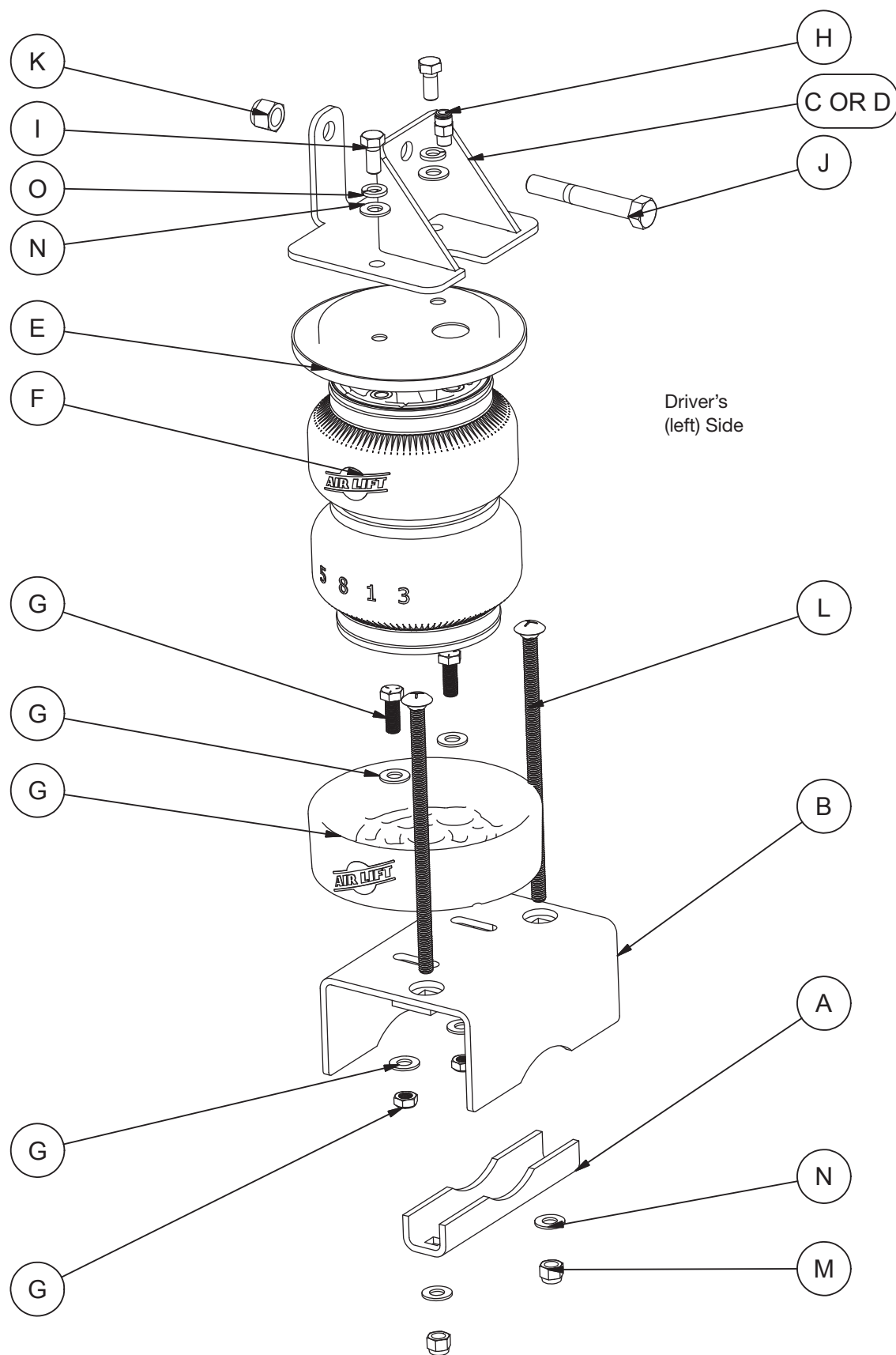


Fig. 1

Hardware and Tools

HARDWARE LIST

Item	Part#	Description.....	Qty
A	01531	Clamp bar.....	2
B	03880	Lower bracket.....	2
C	07421	Upper bracket, left-hand side.....	1
D	07420	Upper bracket, right-hand side	1
E	11967	Roll plate.....	2
F	58496	Air spring	2
G	52500	Air spring cradle kit.....	1
H	21839	Straight air fitting	2
I	17203	3/8"-24 X 7/8" Hex cap screw.....	4
J	17561	1/2"-13 X 3 1/2" Hex cap screw.....	2
K	18270	1/2"-13 Nylon lock nut.....	2
L	17152	3/8"-16 X 8" Carriage bolt	4
M	18435	3/8"-16 Nylon lock nut.....	4
N	18444	3/8" Flat washer	8
O	18427	3/8" Lock washer.....	4
P*	33107	Heat shield kit.....	1
Q*	09484	Thermal heat sleeve.....	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

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



NOTE

Parts labeled "G" in the System Overview and Hardware List are included hardware in the air spring cradle kit. Please reference the cradle kit manual (MN-1180) for hardware identification.

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



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 Ultimate air spring kits. All LoadLifter 5000 Ultimate 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 Ultimate 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 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. Jack up the rear of the vehicle or raise on a hoist.
Support the frame with safety stands (Fig. 2). Lower the axle or raise the body of the vehicle until the springs are completely extended.

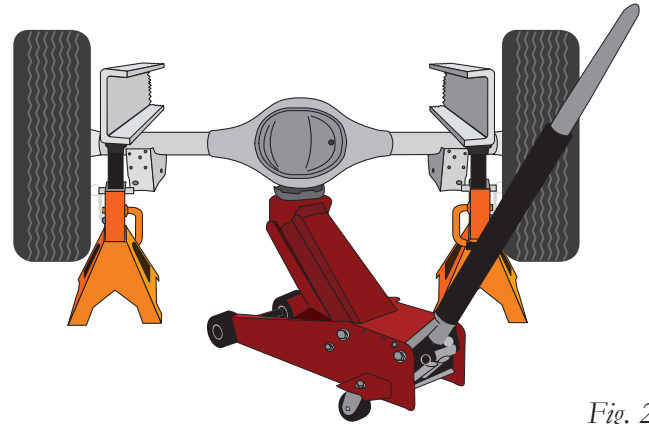


Fig. 2

ASSEMBLE THE LOWER BRACKET/CRADLE ASSEMBLIES

2. The lower bracket assemblies will be the same for each side of the vehicle, so they can be assembled the same way. Set the lower brackets (B) in a location which allows the 3/8"-16 x 8" carriage bolts (L) to be dropped in each of the hex holes in the lower brackets shown (Fig. 3).

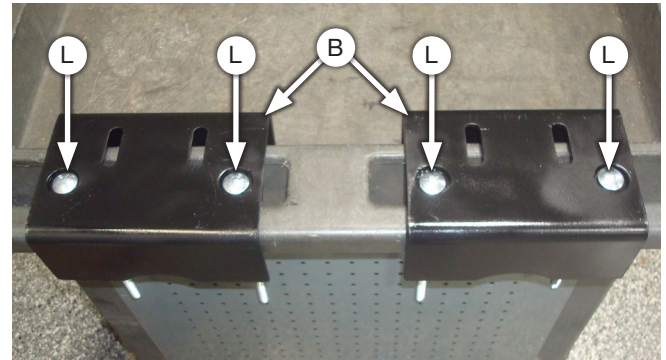
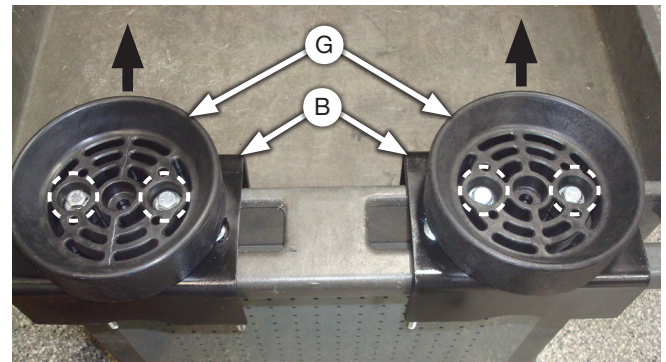


Fig. 3

3. The air spring cradle kit will go onto the lower brackets next (Fig. 4). Set the air spring cradles (G) onto the lower brackets (B). Insert the provided 3/8"-16 bolts (G) and 3/8" flat washer (G) into each of the air spring cradle mounting holes (circled in Fig. 4) and through the lower brackets. Place a 3/8" flat washer (G) and 3/8"-16 thin nylon lock nut (G) onto the cradle bolts. Push the cradles away from the carriage bolts as far as possible in the slots. Tighten the bolts (G) to 16 lb.-ft. (21.7Nm).



Push the cradles away from the carriage bolts as far as possible in the slots (see black arrows in Figure 4).

Fig. 4

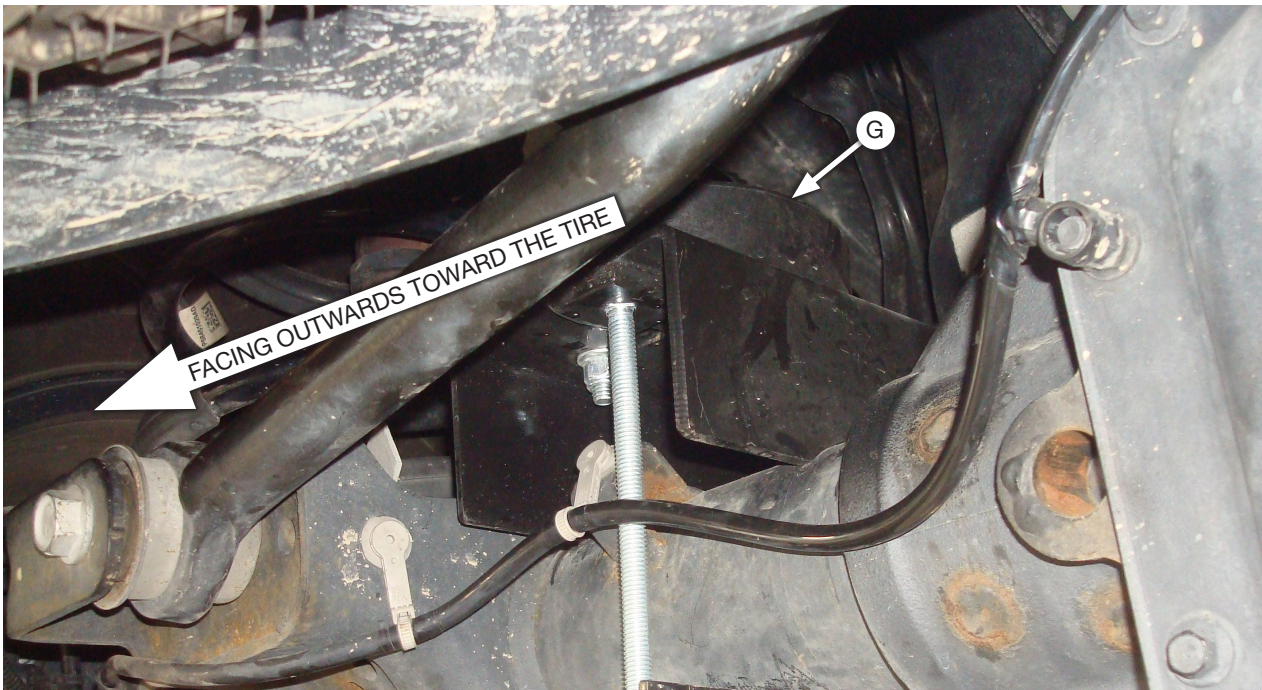


NOTE

Parts labeled (G) in step 3 above are included hardware in the air spring cradle kit. Please reference the cradle kit manual (MN-1180) for hardware identification.

INSTALL THE LOWER BRACKET/CRADLE ASSEMBLIES

1. With the suspension at full extension, set the driver's (left-hand) and passenger's (right-hand) side assemblies over the axle (Fig. 5). The air spring cradles (G) should be facing outwards toward the tire on both sides.



The air spring cradles (G) should be facing outwards toward the tire on both sides. Driver's (left-hand) side shown here.

Fig. 5

2. Place the clamp bar (A) over the carriage bolts (L). Install a 3/8" flat washer (N) and 3/8"-16 nylon lock nut (M) onto each carriage bolt (Fig. 6). It is important to leave the clamp bars loose at this time.

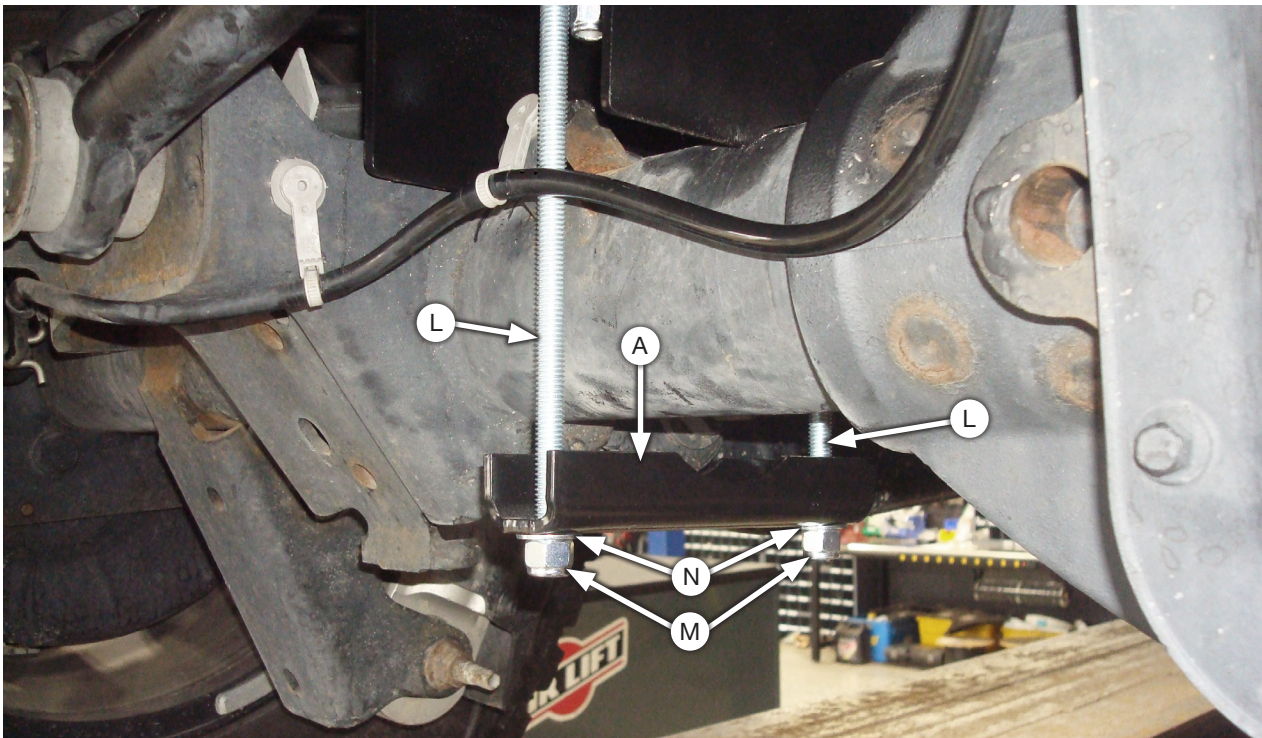


Fig. 6

ASSEMBLE THE AIR SPRINGS

1. Install a straight air fitting (H) into each air spring (F) and tighten 1 1/2 turns past finger-tight. Set a roll plate (E) over each air spring, and then place each upper bracket (C or D) over each air spring. Place a 3/8" lock washer (O) and 3/8" flat washer (N) onto each 3/8"-24 x 3/4" bolt (I). Tighten the bolts to 16 lb.-ft. (21.7Nm) (Fig. 7)

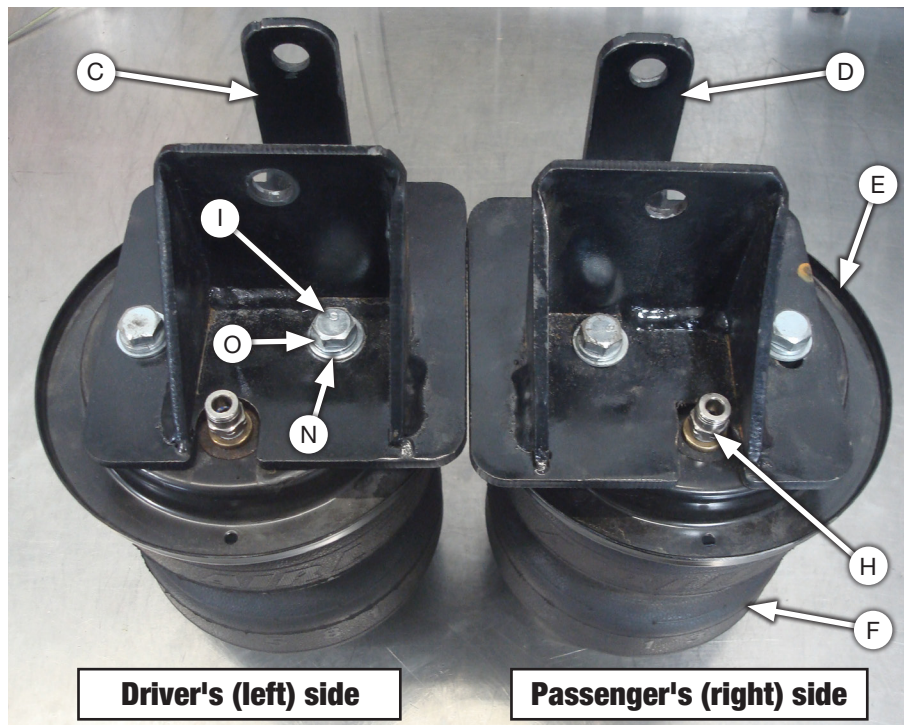


Fig. 7

ATTACH THE HEAT SHIELD

1. Place hose clamps (P) around the exhaust pipe on the passenger side, in the locations noted in (Fig. 8). Then, bend the heat shield (P) in a circular pattern and slip the tabs into the hose clamps and tighten (Fig. 9).



NOTE

Parts labeled (P) in step 1 (and Figures 8 & 9) are included hardware in the heat shield kit.



NOTE

It may be necessary to slightly adjust heat shield location once the upper bracket is installed.

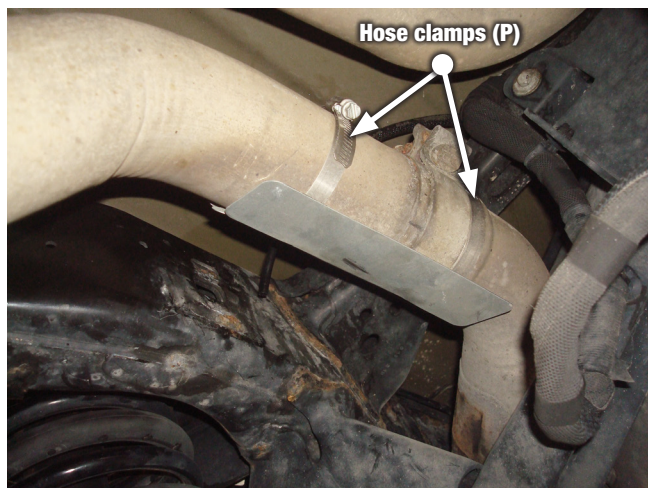


Fig. 8

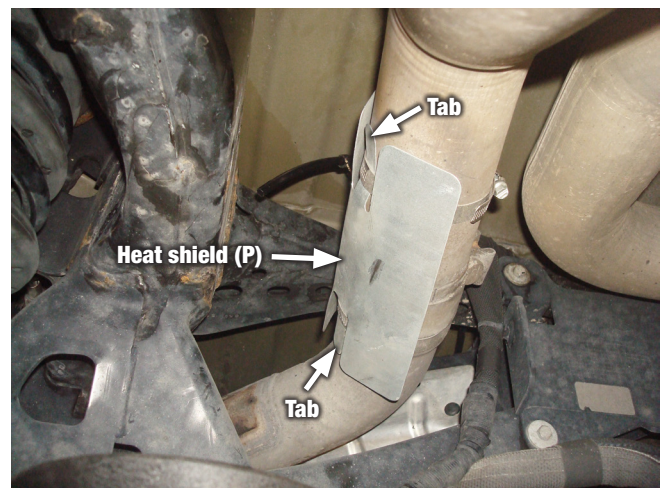


Fig. 9

ATTACH THE AIR SPRING ASSEMBLIES

1. Take each air spring assembly and push them up into place (Fig. 10) making sure that the correct assembly is being used on each side. To check this, the air spring should be relatively centered over the axle tube. If it is not, the assemblies will need to be swapped.



Fig. 10

2. Insert a 1/2"-13 x 3 1/2" hex bolt (J) through the upper bracket and through the truck frame (Fig. 11). The bolt must come from inside the frame. Place a 1/2"-13 nylon lock nut (K) onto the bolt, but leave loose at this time (Fig. 12).

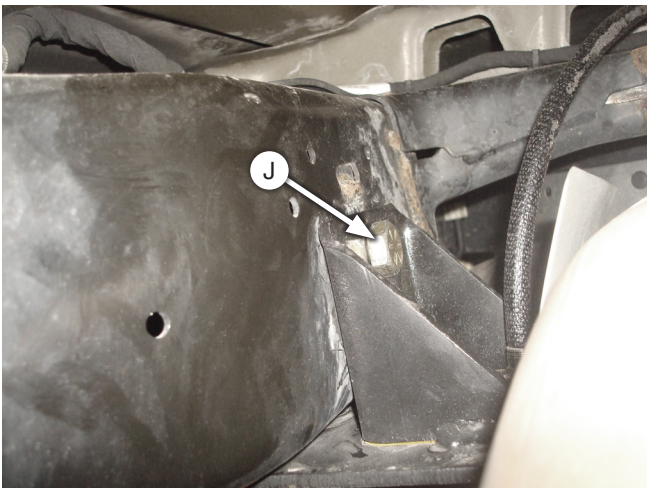


Fig. 11

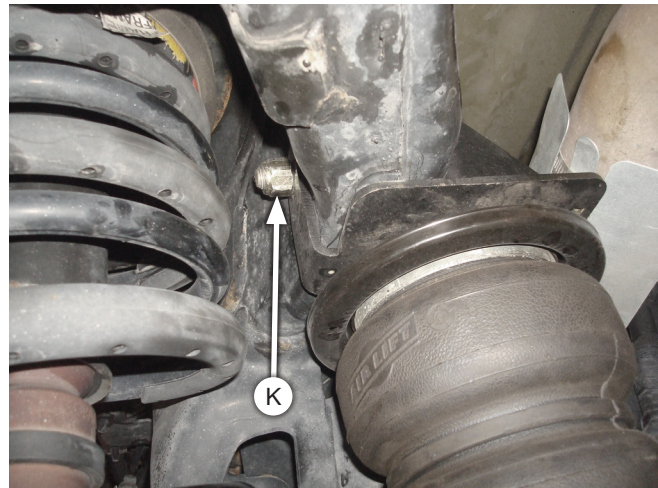


Fig. 12

3. Lower the vehicle down until the air spring is just above the air spring cradle (G), then adjust the lower bracket assembly until the lower portion of the air spring is centered in the cradle. At this time, tighten the nylon lock nuts (M) onto the carriage bolts (L) and torque to 16 lb.-ft. (21.7Nm). (Fig. 13)

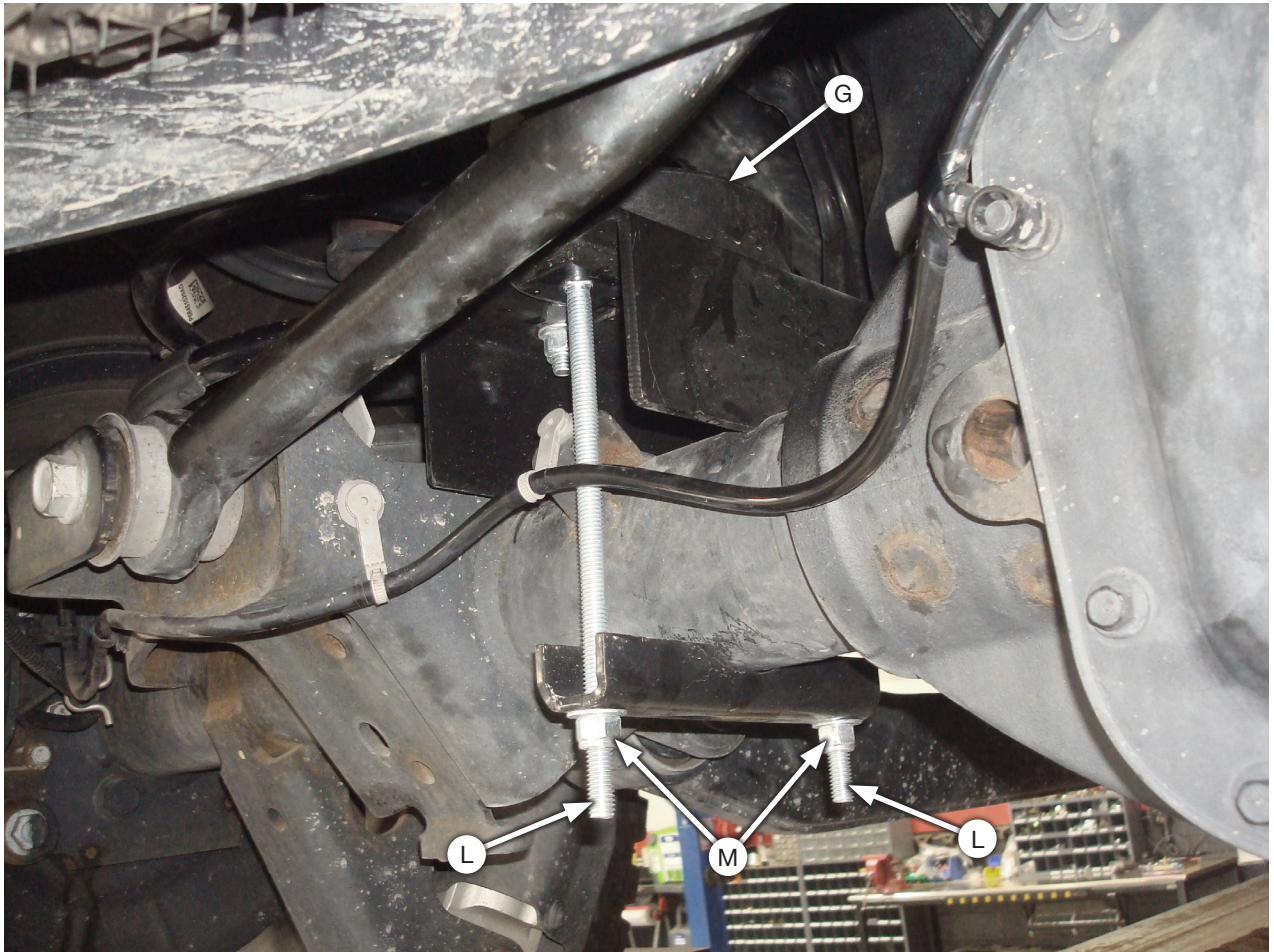


Fig. 13

Install the Air Lines

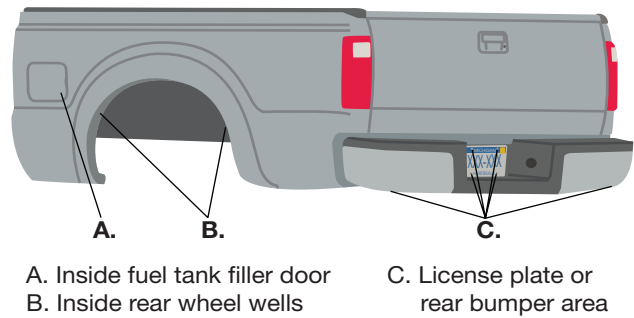
1. Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary.



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.



Good cut

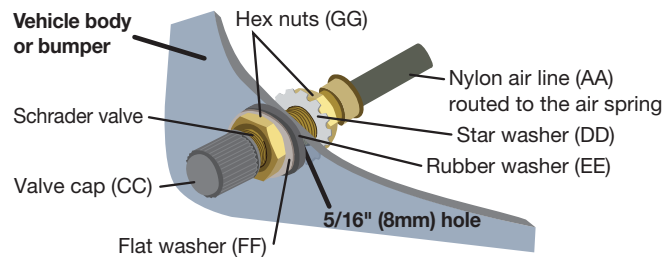


Bad cut



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.



5. Route the air line away from the exhaust and place the thermal heat sleeve (Q) over the end of the air line and push it into the air fitting.



FINISH THE INSTALLATION

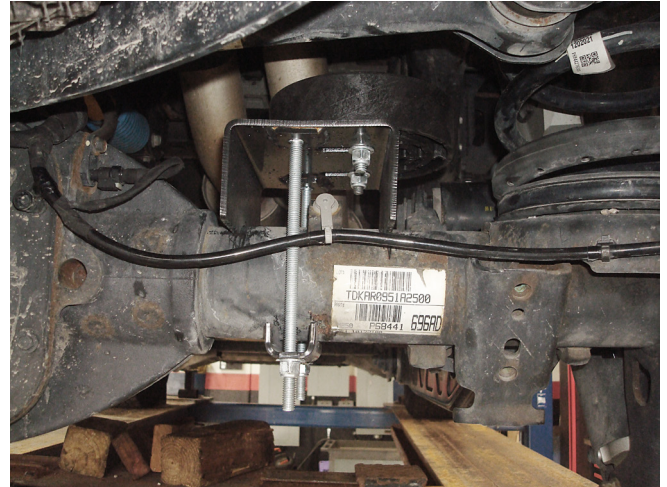
1. Once the hose is installed, lower the vehicle completely, inflate the system to 10 PSI, and torque both upper bracket bolts to 49 lb.-ft. (66Nm).

Finished Installation

The images show the finished installation of both sides.



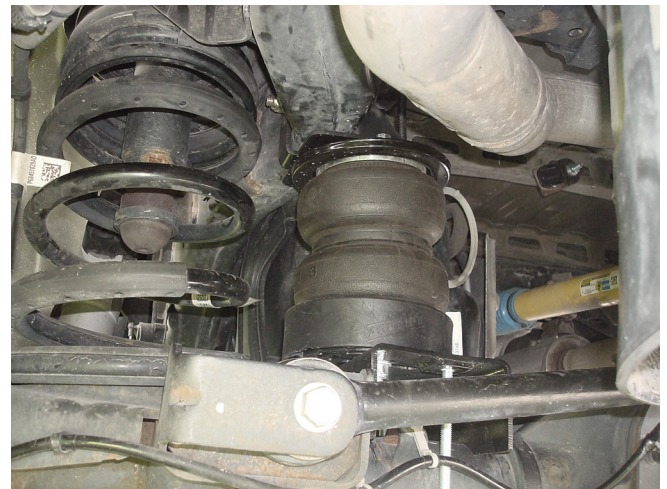
Inside, forward of axle view of passenger's (right) side installation.



Back, rear of axle view of passenger's (right) side installation.



Inside, front of axle view of driver's (left) side installation.



Back, rear of axle view of driver's (left) side 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.



**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.

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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