



LoadLifter 5000™

S E R I E S

Installation
Guide



Dodge/RAM 2500/3500

Kits 57295 | 88295 | 89295

57297 | 88297

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

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 LoadLifter 5000 Ultimate Plus. The kits are easily identifiable by looking at the roll plates and air lines.

- Standard **LoadLifter 5000** – Zinc-plated steel roll plates and black nylon air lines.
- LoadLifter 5000 Ultimate** – Black powder-coated roll plates and black nylon air lines.
- LoadLifter 5000 Ultimate Plus** – Stainless steel roll plates, braided stainless steel air lines, stainless steel air spring mounting hardware.



LoadLifter 5000
silver zinc-plated steel
roll plate



LoadLifter 5000 Ultimate
black powder-coated roll
plate



LoadLifter 5000 Ultimate Plus
stainless steel
roll plate



LoadLifter 5000
nylon air line



LoadLifter 5000 Ultimate
nylon air line



LoadLifter 5000 Ultimate PLUS
braided stainless steel air line

Air Lift offers two Ultimate Plus upgrade kits:

52300 - Braided stainless steel air line and fittings.

52301 - Stainless steel roll plates, air spring mounting hardware, braided stainless steel air lines and fittings.

TABLE OF CONTENTS

A. Installation Diagram	2
B. Hardware and Tools Lists	3
C. Introduction	4
Notation Explanation	4
D. Installing the LoadLifter 5000 Series System	5
Important System Information	5
Removing the Jounce Bumper and Installing the Frame Bracket	5
Assembling the Air Spring	7
Installing the Assemblies	9
E. Installing the Air Lines	12
Installing Nylon Air Lines	12
Installing Braided Stainless Steel Air Lines	13
Installing the Heat Shield	13
F. Finished Installation Photos	14
Installation Checklist	15
G. Maintenance and Use Guidelines	15

A. Installation Diagram

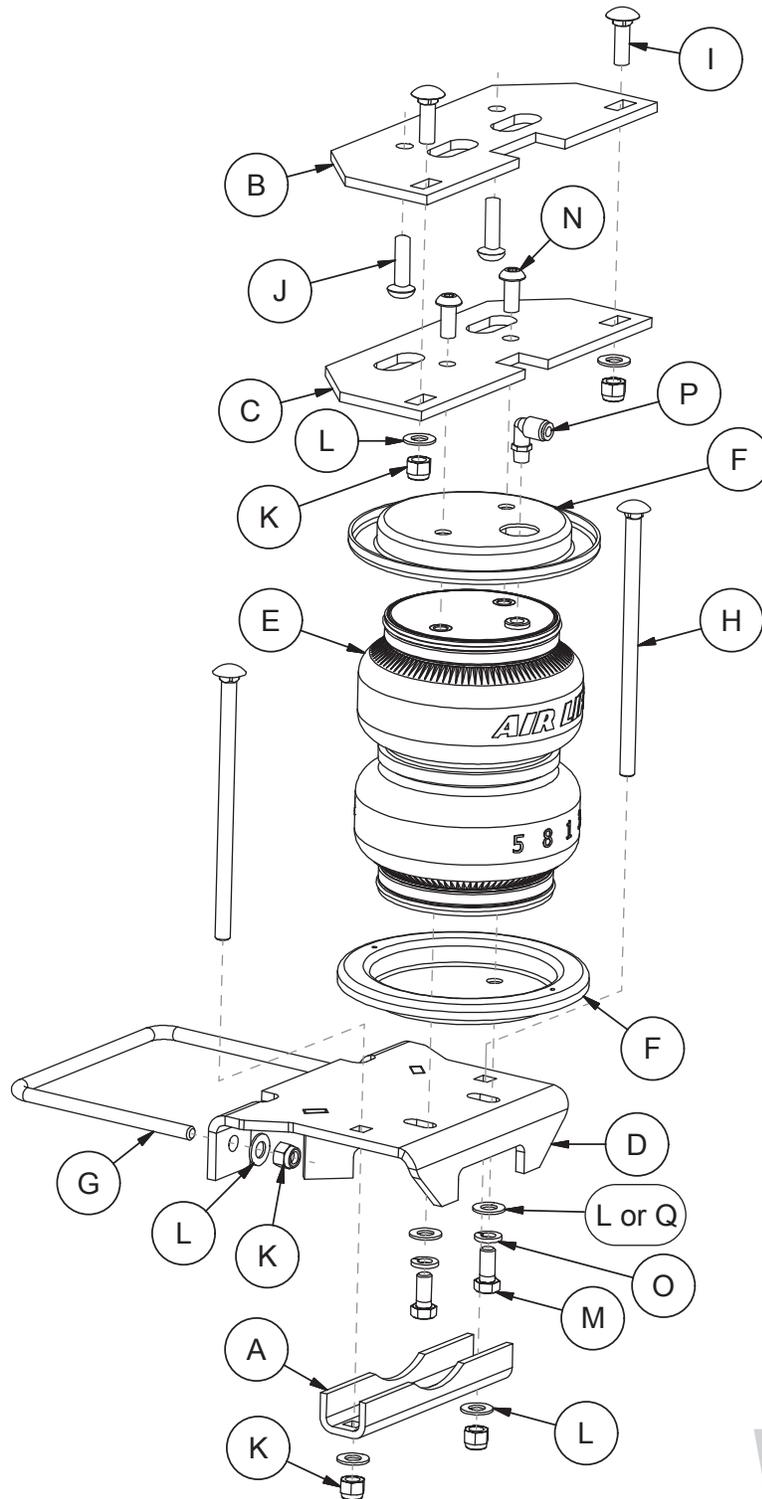


fig. A.1

B. Hardware and Tools Lists

Common Parts Included in All 5 Kits

Item	Part#	Description	Qty
A	01531	Clamp bar	2
B	07149	Upper frame bracket.....	2
C	07256	Upper air spring bracket.....	2
D	03975	Lower bracket	2
G	11717	U-bolt.....	2
H	17163	3/8"-16 x 7" Carriage bolt	4
I	17361	3/8"-16 x 1 1/4" Carriage bolt	4
J	17366	M10-1.5 x 35mm Button-head cap screw.....	4
K	18435	3/8"-16 Nylon lock nut.....	12
DD*	18501	M8 stainless steel flat washer.....	2
EE*	21234	Rubber washer.....	2
FF*	18411	Stainless steel star washer	2

* not pictured in the Installation Diagram

TOOLS LIST

Description.....	Qty
Standard and metric open-end or box wrenches	SET
Adjustable wrench.....	1
Ratchet	1
Standard and metric sockets.....	SET
5/16" drill bit (very sharp)	1
3/8" Nut driver.....	1
Heavy-duty drill	1
Torque wrench.....	1
Standard and metric hex-key wrenches	1
Hose cutter, razor blade, or sharp knife.....	1
Hoist or floor jacks	1
Safety stands.....	2
Safety glasses	1
Air compressor or compressed air source.....	1
Spray bottle with dish soap/water solution.....	1

Most of the photos in this manual show the LoadLifter 5000 kit.

Unique Parts in Each Kit

LoadLifter 5000™ KITS 57295 57297

Item	Part#	Description	Qty
E1	58437	Air spring (57295).....	2
E2	58439	Air spring (57297).....	2
F	11951	Roll plate (silver zinc plated)	4
L	18444	3/8" Flat washer.....	16
M	17203	3/8" x 7/8" Hex-head cap screw.....	4
N	17365	3/8"-24 x 7/8" Button-head screw	4
O	18427	3/8" Lock washer.....	4
P	21837	Push-to-connect (PTC) fitting	2
AA*	20086	Air line	1
BB*	10466	Zip tie.....	6
CC*	21230	Valve cap.....	2
GG*	21233	5/16" Hex nut.....	4

LoadLifter 5000™ KITS 88295 ULTIMATE 88297

Item	Part#	Description	Qty
E1	58496	Air spring with jounce bumper (88295).....	2
E2	58494	Air spring with jounce bumper (88297).....	2
F	11967	Roll plate (black powder coated)	4
L	18444	3/8" Flat washer.....	16
M	17203	3/8" x 7/8" Hex-head cap screw.....	4
N	17365	3/8"-24 x 7/8" Button-head screw	4
O	18427	3/8" Lock washer.....	4
P	21837	Push-to-connect (PTC) fitting	2
AA*	20086	Air line	1
BB*	10466	Zip tie.....	6
CC*	21230	Valve cap.....	2
GG*	21233	5/16" Hex nut	4

LoadLifter 5000™ ULTIMATE PLUS+ KIT 89295

Item	Part#	Description	Qty
E1	58496	Air spring with jounce bumper	2
F	11880	Roll plate (stainless steel).....	4
L	18444	3/8" Flat washer.....	12
M	17284	3/8" x 7/8" Stainless steel Hex-head cap screw ...	4
N	17376	3/8"-24 x 7/8" Stainless steel button-head screw..	4
O	18504	3/8" Stainless steel lock washer	4
P	21815	AN fitting.....	2
Q	18507	3/8" Stainless steel flat washer.....	4
AA*	20987	Stainless steel braided air line	2
BB*	10466	Zip tie	12
HH*	21709	Fill valve with cap & nuts.....	2
II*	21813	PTC to AN adapter fitting	2
JJ*	20084	Nylon air line assembly	1

C. Introduction

The purpose of this publication is to assist with the installation and maintenance of the standard LoadLifter 5000 series air spring kits. All LoadLifter 5000 series kits utilize sturdy, reinforced, commercial-grade single or double, depending on the kit, convolute bellows. LoadLifter 5000 Ultimate kits add internal jounce bumpers and black powder-coated roll plates. LoadLifter 5000 Ultimate Plus kits also have internal jounce bumpers, but add stainless steel roll plates, air lines and air spring mounting hardware.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 series kits are available for most 1/2-, 3/4- and 1-ton vehicles with leaf springs and 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 which is 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 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.

D. Installing the LoadLifter 5000 Series System

IMPORTANT SYSTEM INFORMATION

The air springs will last much longer if they are not the suspension limiter in either compression or extension. The air spring in the 88295 kit (E1) compresses to 2 5/16" (58mm) and extends to 9 1/8" (231mm). The air spring in the 88297 kit (E2) compresses to 2 5/16" (58mm) and extends to 7 11/16" (196mm). Regardless of the load, the air pressure should be adjusted so that the normal ride height is maintained at all times. The shock absorber is usually the limiter on extension. If this is not the case, the use of limiting straps should be considered, particularly for off-road vehicles.

 **CAUTION**

A DISTANCE OF 4" (102MM) OR GREATER MUST BE MAINTAINED BETWEEN THE UPPER AND LOWER BRACKET FOR KIT #88297 (2WD). ADD SUFFICIENT PRESSURE TO MAINTAIN THIS HEIGHT.

The vehicle may be equipped with a rear brake proportioning valve. Any type of load assist product could affect braking performance. Air Lift recommends that you check with your dealer before installing this type of product. If your vehicle DOES NOT have a rear brake proportioning valve or is equipped with an anti-lock type brake system, installation of a load assist product will have NO EFFECT on braking system performance.

 **CAUTION**

COMPRESSED AIR CAN CAUSE INJURY AND DAMAGE TO THE VEHICLE AND PARTS IF IT IS NOT HANDLED PROPERLY. FOR YOUR SAFETY, DO NOT TRY TO INFLATE THE AIR SPRINGS UNTIL THEY HAVE BEEN PROPERLY SECURED TO THE VEHICLE.

REMOVING THE JOUNCE BUMPER AND INSTALLING THE FRAME BRACKET

1. Raise the vehicle and support it 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 in order for the air spring assemblies to be put into position between the axle and frame (Fig. D.1).

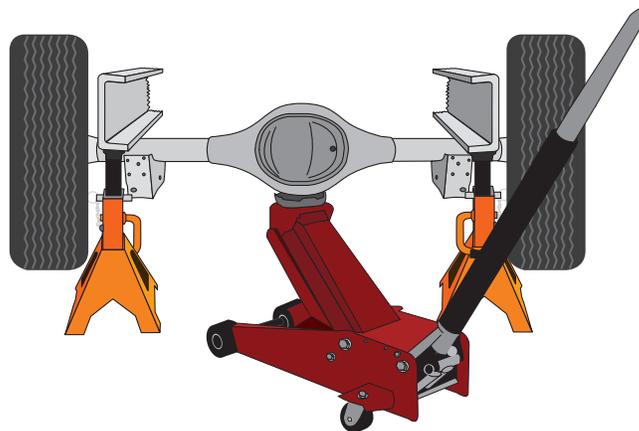


fig. D.1

- Unbolt and remove the jounce bumper from under the frame or remove it from the jounce bumper bracket that is welded to the frame (Figs. D.2 & D.3). Figure D.4 shows the jounce bumper removed on a 4WD model.



fig. D.2

Most 2WD models have the jounce bumper bolted under the frame.



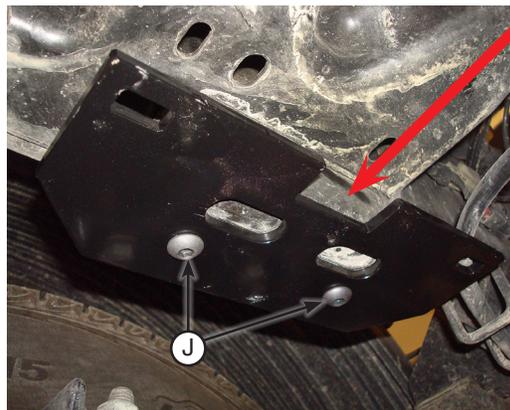
fig. D.3

Most 4WD models have the jounce bumper bolted to a bracket.



fig. D.4

- Install the upper frame brackets (B) onto both sides of the frame with the M10-1.5 x 35 button head cap screws (J) making sure the cutout in the brackets face inboard, away from the tire (Fig. D.5). Torque the hardware to 37 lb.-ft. (50Nm).



Cutout goes inboard on both sides of the truck.

fig. D.5

ASSEMBLING THE AIR SPRING

1. Set a roll plate (F) on top of the air spring (E). The radiused, or rounded, edge of the roll plate will be toward the air spring so that it is seated inside the roll plate (Fig. D.6). Install the 90-degree swivel elbow fitting (P) into the top of the air spring, finger tight plus 1 1/2 turns.



fig. D.6

2. Install the upper air spring brackets (C) onto the air spring assemblies with the 3/8"-24 x 7/8" button head cap screws (N) (Fig. D.7) and torque to no more than 20 lb.-ft. (27Nm).



fig. D.7

3. Insert two 3/8"-16 x 7" carriage bolts (H) into the square holes of both lower brackets (D) (Fig. D.8).

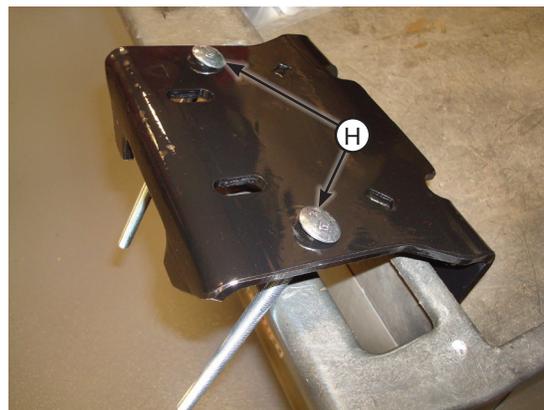


fig. D.8

- Set the lower brackets with the carriage bolts installed, onto the air spring assemblies so that the long flanges of the lower bracket are on the opposite side of the fitting at the top of the assemblies (Fig. D.9).



The flanges on the lower bracket must be on the opposite side of the fitting that is on the top of the air spring assemblies.

fig. D.9

- Install the lower bracket onto the air spring assemblies using the 3/8" x 7/8" hex cap screws (M), 3/8" lock washers (O) and 3/8" flat washers (L or Q). Leave finger tight at this time (Fig. D.10).

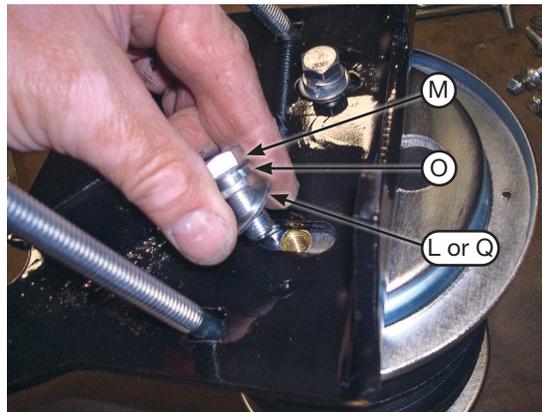


fig. D.10

- Figure D.11 shows both assemblies ready for installation.

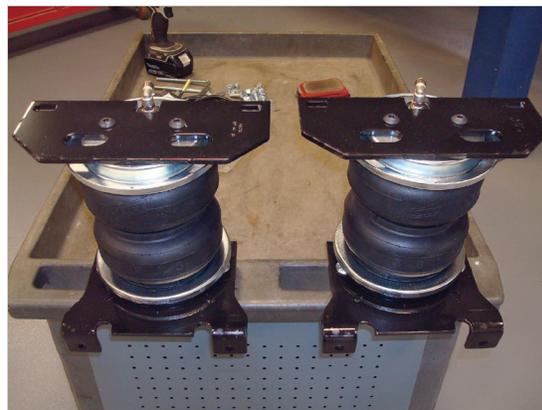


fig. D.11

INSTALLING THE ASSEMBLIES

1. Drop the axle down to make room for installing the assemblies.

NOTE

For the driver's (left) side installation, there are two different ways to set the assembly on the axle based on the early- and late-model brake line installation. Please read the next two steps and review the photos to distinguish what style brake line and the way of the installation that pertains to your model.

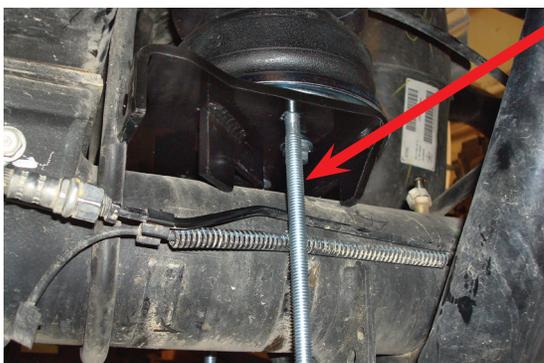
2. For the early-model trucks that have the hard brake line that is behind the axle and that is mounted away from the axle (has a gap between the axle and brake line), as you are setting the driver's (left) side assembly into position, make sure the lower bracket carriage bolt that will be behind the axle is in between the brake line and the axle (Fig. D.12).



Carriage bolt must be between the hard brake line and axle for this model that has the brake line routed off the axle.

fig. D.12

3. For the late-model trucks that have the hard brake line and possibly an ABS harness that is behind and mounted flush to the axle (has no gap between the axle and brake line), set the driver's (left) side assembly into place, making sure the carriage bolt goes on the outside of the brake line (Fig. D.13).



Carriage bolt must be on the outside of the hard brake line and axle for this model that has the brake line flush to the axle.

fig. D.13

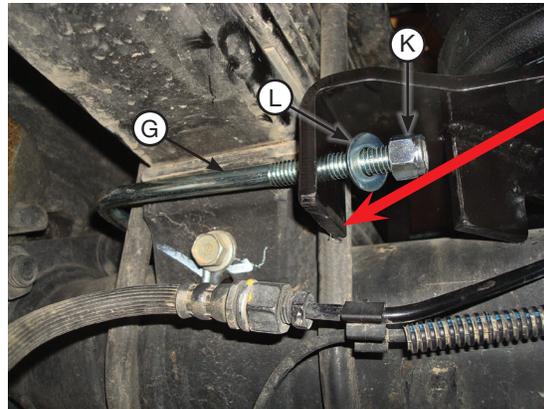
4. On the passenger's (right) side, the lower bracket carriage bolt is always on the outside of the brake line on all early and late model trucks (Fig. D.14).



The carriage bolt is always on the outside of the brake line on the passenger's (right) side, regardless of the year.

fig. D.14

5. Push the lower brackets up against the leaf spring pack so that the front and back legs are locked around the stock U-bolts. Set the U-bolt (G) supplied around the spring stack and through the legs of the lower bracket (Fig. D.15). Install the 3/8" flat washers (L) over the U-bolts and cap with the 3/8" nylon lock nuts (K). Draw the hardware (snug only, do not tighten yet) evenly, making sure that the lower bracket stays nested against the stock leaf spring pack and the legs are around the U-bolts.



Draw hardware evenly (snug only, do not tighten yet) making sure the lower bracket stays in position and locked around the U-bolts.

fig. D.15

6. Install the clamp bar (A) over the long lower bracket carriage bolts under the axle and cap with the 3/8" flat washers (L) and 3/8" nylon lock nuts (K) (Fig. D.16). Tighten the hardware evenly and torque to 16 lb.-ft. (22Nm).



fig. D.16

7. After torquing the lower clamp bar hardware, torque the leaf spring U-bolt that was previously installed and snugged to 10 lb.-ft. (14Nm).
8. Raise the axle or lower the frame until the air spring and frame brackets just touch. Insert the 3/8"-16 x 1 1/4" carriage bolts (I) down through the top frame brackets as shown (Fig. D.17) and cap with 3/8" flat washers (L) and 3/8"-16 nylon lock nuts (K). Leave loose at this time.



fig. D.17

- Using the slot in the lower bracket, push the bottom of the air spring in or out to align it so that it is perpendicular (or as perpendicular as possible) to the upper and lower bracket. Torque the lower bracket/air spring hardware to no more than 20 lb.-ft. (27Nm) (Fig. D.18).

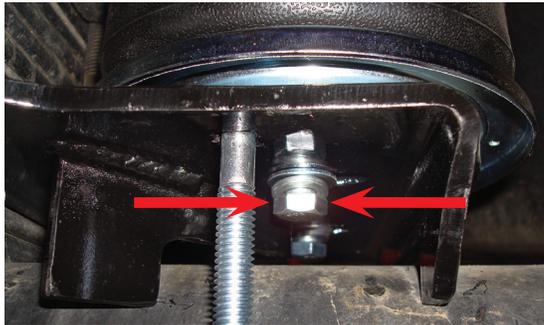


fig. D.18

- Raise the axle or lower the frame so that the safety stands can be removed. Using the slot in the upper bracket, push the top of the air spring forward or backward to align the air spring so that it is perpendicular (as possible) to both the upper and lower brackets. Torque the upper bracket hardware to 31 lb.-ft. (42Nm) (Fig. D.19).

NOTE

Once tight, the upper and lower brackets will not be parallel and may look like they are out of alignment. This condition is acceptable because of the way the lower bracket and upper bracket mounts are designed. Some variance from one unit to another is considered normal (Fig. D.20).



fig. D.19

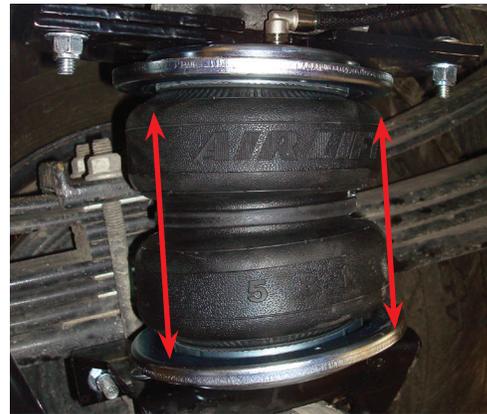
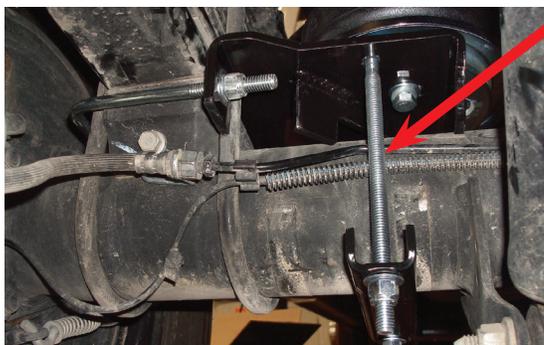


fig. D.20

CAUTION

ONCE THE ASSEMBLIES ARE ADJUSTED AND TIGHT, MAKE SURE THE BRAKE LINES ON THE BACK (BOTH SIDES) DO NOT COME IN CONTACT WITH THE REAR CARRIAGE BOLTS. ADJUST BY PUSHING THE LINE OVER TO GAIN CLEARANCE IF NECESSARY (FIG. D.21).

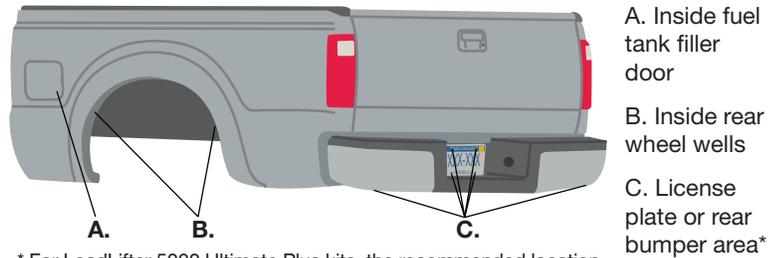


Check driver's (left) and passenger's (right) sides to make sure the hard brake line is not rubbing on the carriage bolts. Adjust by pushing on the line to gain clearance if necessary.

fig. D.21

E. Installing the Air Lines

Air lines are routed from the air springs to Schrader valves. LoadLifter 5000 series air lines come in two styles: nylon and braided stainless steel. Begin by choosing locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. E.1).



* For LoadLifter 5000 Ultimate Plus kits, the recommended location for the Schrader valves is the rear bumper area or license plate.

fig. E.1

CAUTION

KEEP AT LEAST 6" (150MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

INSTALLING NYLON AIR LINES

1. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. E.2). Do not use scissors or wire cutters.

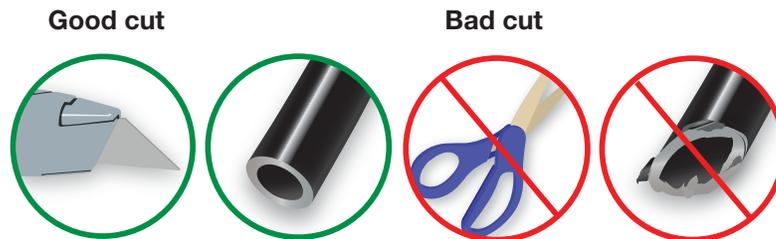


fig. E.2

2. Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. The minimum bend radius for the air line is 1" (25mm). Leave at least 2" (50mm) of slack in the air line to allow for any movement that might pull on the air line.
3. Install the Schrader valve in the chosen location (Fig. E.3).

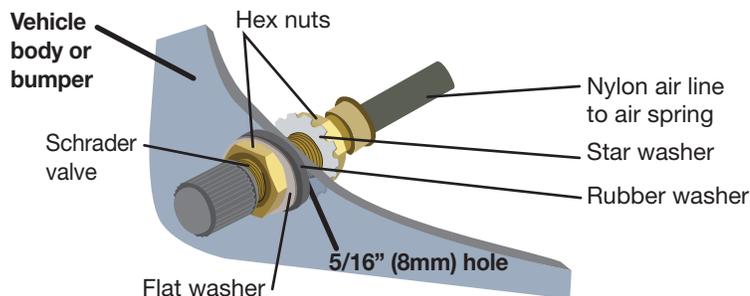


fig. E.3

CAUTION

INSTALLING BRAIDED STAINLESS STEEL AIR LINES

KEEP THE AIR LINE AWAY FROM THE FUEL LINE, BRAKE LINES AND ELECTRICAL WIRES.

1. Use zip ties to secure the air line to fixed points along the chassis every 6" to 8" (150-200mm). Leave at least 2" (50mm) of slack to allow for any movement that might pull on the air line.
2. Tighten the air line hex nut finger tight, then use 2 wrenches to turn 1 additional flat (1/6 of one full turn). **Do not overtighten** (Figs. E.4 or E.5). The easiest way to tighten the fitting is off the vehicle. Install the Schrader valve in the chosen location.
3. Coil and secure any excess air line in an area where it will not be susceptible to damage. The braided stainless steel air line cannot be trimmed.

Air Line Setup Without Compressor System

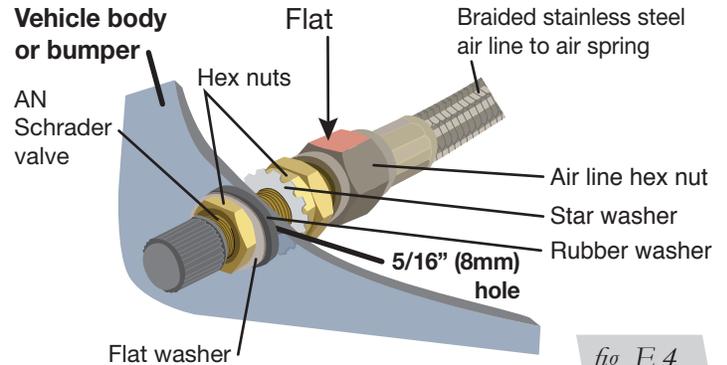


fig. E.4

Air Line Setup for Compressor Integration

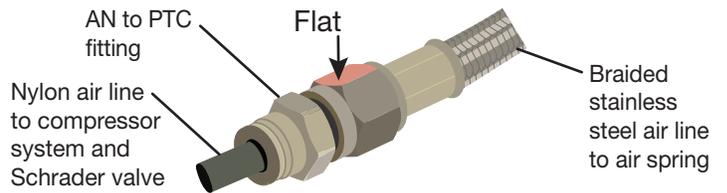


fig. E.5

INSTALLING THE HEAT SHIELD

1. Attach the metal heat shield to the exhaust where it is closest to the passenger's (right) side air spring. Slide the air line thermal sleeve over the air line and position it where the air line is closest to the exhaust. (Fig. E.6).

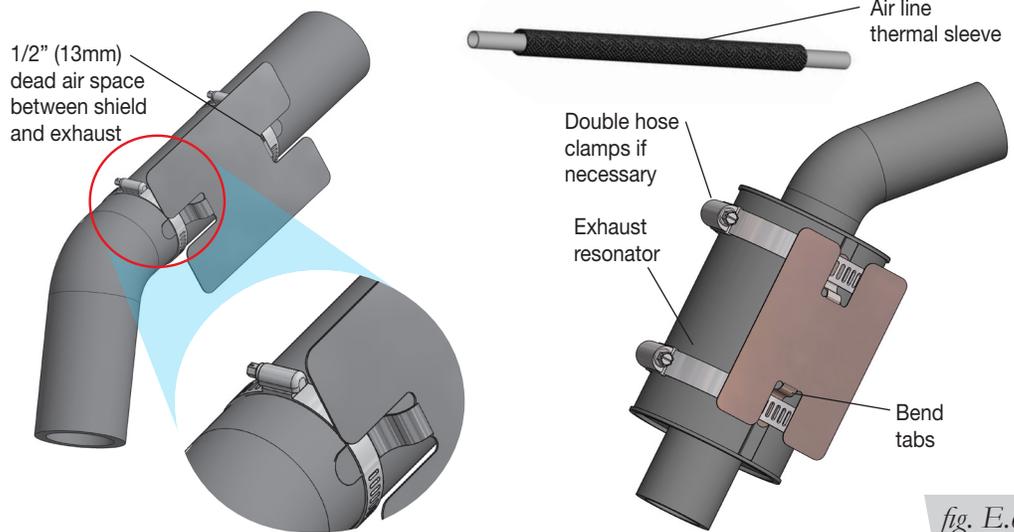


fig. E.6

F. Finished Installation Photos

1. The following images show the finished installation of both sides (Figs. F.1, F.2, F.3 & F.4).

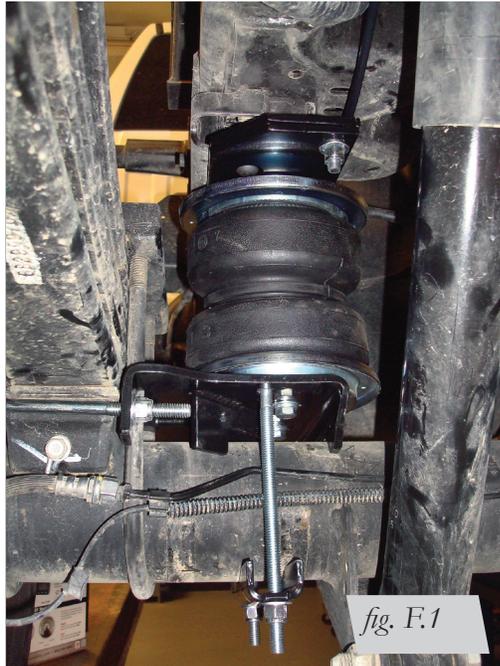


fig. F.1

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



fig. F.2

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



fig. F.3

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



fig. F.4

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

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** — Recheck all bolts for proper torque.
- Road test** — The vehicle should be road tested after the preceding tests. Inflate the 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.

G. 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.

Minimum Recommended Pressure	Maximum Air Pressure
5 PSI (.34BAR)	100 PSI (7BAR)



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.