LoadLIFTER 5000™ SERIES

Installation Guide

2017-current Ford Super Duty

Kits 57399 | 88399 | 89399

4WD (Single and dual rear wheel)

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

MN-1054 • (021805) • ECR 9027

Failure to read these instructions can result in an incorrect 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.

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.

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

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A. Installation Diagram

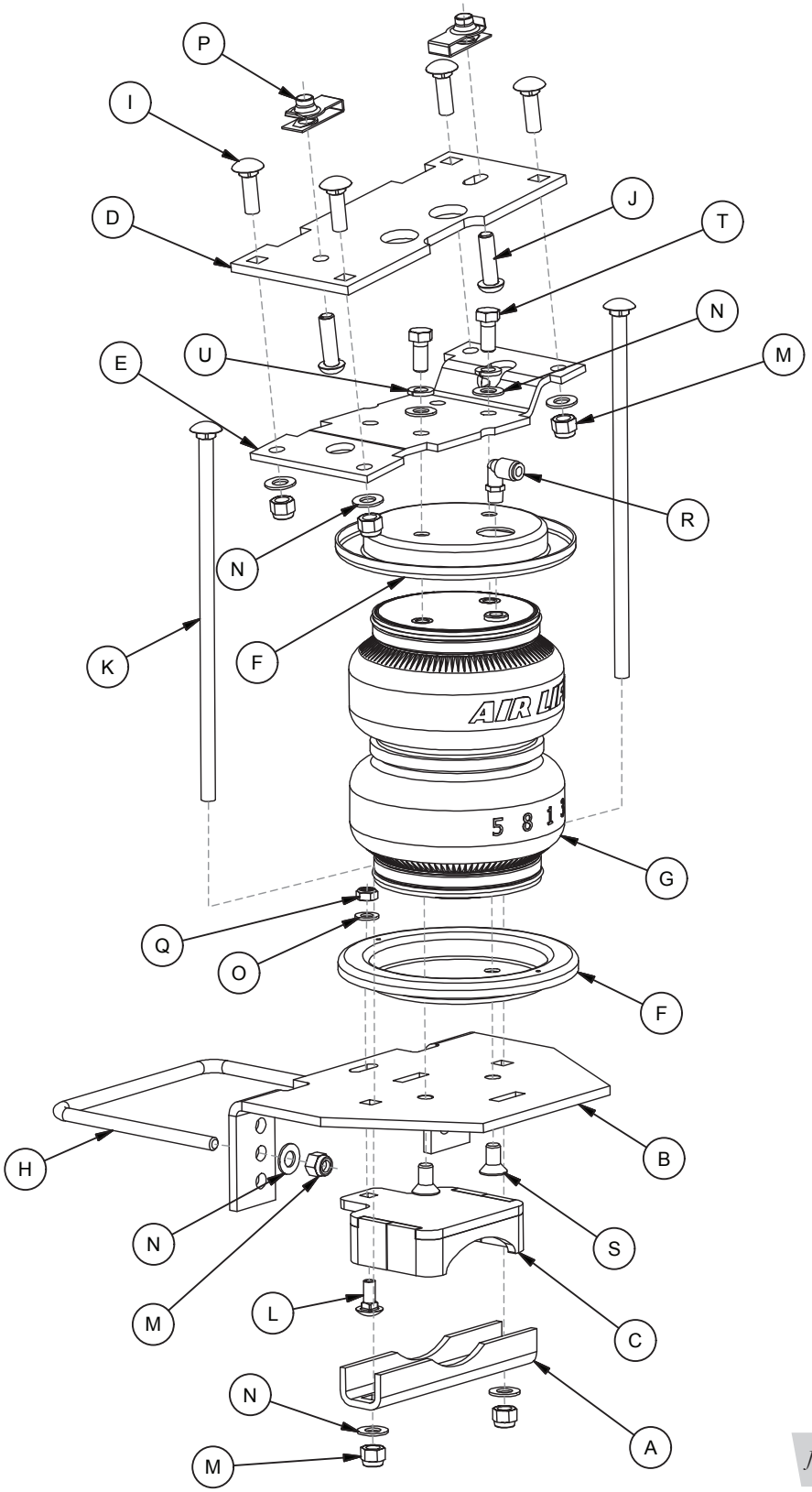


fig. A.1

B. Hardware and Tools Lists

Common Parts Included in All 3 Kits

Item	Part#	Description	Qty
A	01531	Clamp bar	2
B	03014	Lower brackets, main plate	2
C	03225	Lower brackets, cup	2
D	07045	Upper brackets, frame	2
E	07220	Upper brackets, air spring	2
H	11770	U-bolts	2
I	17361	3/8”-16 x 1.25” Carriage bolt	8
J	17366	M10-1.5 x 35 Button-head cap screw	4
K	17387	3/8”-16 x 10” Carriage bolt	4
L	17500	5/16”-18 x 3/4” Carriage bolt	2
M	18435	3/8”-16 Nylon lock nut	16
P	18622	M10-1.5mm Universal nut	4
Q	18613	5/16”-18 Nylon lock nut	2
DD*	21234	Rubber washer	2

* not pictured in the Installation Diagram

TOOLS LIST

Description	Qty
Standard and metric open-end or box wrenches	SET
Ratchet	1
Standard and metric sockets	SET
5/16” drill bit (very sharp)	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	1
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

The photos in this manual show the LoadLifter 5000 kit.

Unique Parts in Each Kit

LoadLIFTER 5000™ KIT 57399

Item	Part#	Description	Qty
F	11951	Roll plate (silver zinc plated)	4
G	58437	Air spring	2
N	18444	3/8” Flat washer	20
O	18501	M8 Flat washer	4
R	21837	Push-to-connect (PTC) fitting	2
S	17215	3/8”-24 x 3/4” Flat-head socket-cap screw	4
T	17203	3/8”-24 x 7/8” Hex-cap screw	4
U	18427	3/8” Lock washer	4
AA*	20086	Air line	1
BB*	10466	Zip tie	6
CC*	21230	Valve cap	2
EE*	18411	Star washer	2
FF*	21233	5/16" Hex nut	4

LoadLIFTER 5000™ ULTIMATE KIT 88399

Item	Part#	Description	Qty
F	11967	Roll plate (black powder coated)	4
G	58496	Air spring with jounce bumper	2
N	18444	3/8” Flat washer	20
O	18501	M8 Flat washer	4
R	21837	Push-to-connect (PTC) fitting	2
S	17215	3/8”-24 x 3/4” Flat-head socket-cap screw	4
T	17203	3/8”-24 x 7/8” Hex-cap screw	4
U	18427	3/8” Lock washer	4
AA*	20086	Air line	1
BB*	10466	Zip tie	6
CC*	21230	Valve cap	2
EE*	18411	Star washer	2
FF*	21233	5/16" Hex nut	4

LoadLIFTER 5000™ ULTIMATE PLUS KIT 89399

Item	Part#	Description	Qty
F	11880	Roll plate (stainless steel)	4
G	58496	Air spring with jounce bumper	2
N	18444	3/8” Flat washer	16
O	18501	M8 Flat washer	2
R	21815	AN-type fitting	2
S	17363	3/8”-24 x 3/4” Stainless flat-head socket-cap screw	4
T	17284	3/8”-24 x 7/8” Stainless steel hex-cap screw	4
U	18504	3/8” Stainless steel lock washer	4
V	18507	3/8” Stainless steel flat washer	4
W	18572	M8 Stainless steel flat washer	2
AA*	20987	Stainless steel braided air line	2
BB*	10466	Zip tie	12
EE*	18623	Stainless steel star washer	2
GG*	21709	Schrader valve w/ cap & nut	2
HH*	21813	AN to PTC fitting	2
II*	20084	Air line assembly	1

STOP! Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

C. Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the standard LoadLifter 5000, LoadLifter 5000 Ultimate or LoadLifter 5000 Ultimate Plus 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 an internal jounce bumper and black powder-coated roll plates. LoadLifter 5000 Ultimate Plus kits also have an internal jounce bumper, 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 recommended for most 3/4- and 1-ton pickups and SUVs with leaf springs and provide up to 5,000 pounds of load-leveling support with air adjustability from 5-100 PSI.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Company at **(800) 248-0892** or visit **airliftcompany.com**.

IMPORTANT SAFETY NOTICE

The installation of this kit does not alter the gross vehicle weight rating (GVWR) or payload of the vehicle. Check the vehicle's owner's manual and do not exceed the maximum load listed for this vehicle.

Gross vehicle weight rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined, maximum allowable weight of cargo and passengers that the truck is designed to carry. Payload is GVWR minus the base curb weight.

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.

NOTE — *Indicates a procedure, practice or hint which is important to highlight.*

D. Installing the LoadLifter 5000 Series System

GETTING STARTED

1. Raise the vehicle and support it in a way, using jack stands or equivalent, so that the axle can be safely dropped away from the frame. This needs to be done in order for the air spring assembly to be put into position between the axle and frame (Fig. D.1).

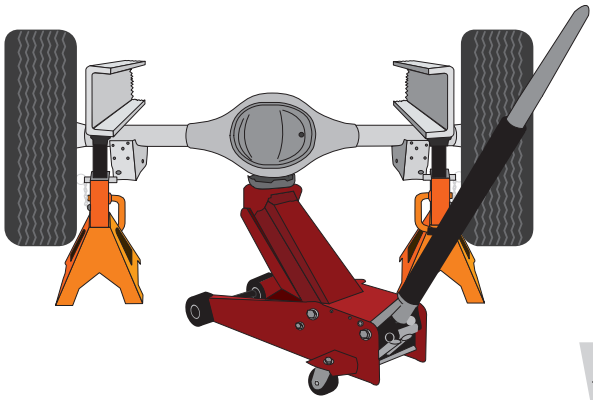


fig. D.1

2. Unbolt and remove the jounce bumper assembly from under the frame on both sides (Fig. D.2).

fig. D.2

3. Remove the clip-in studs by prying on the hinged end with a screwdriver. Pull all four – two from each side – out from the frame (Fig. D.3).

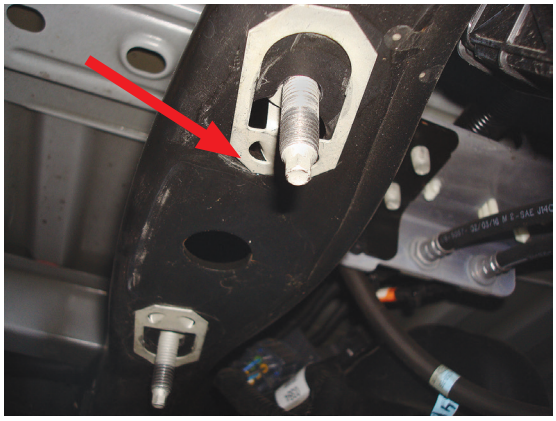


fig. D.3

4. Install the universal nuts (P) into the frame rail, lining up the holes in the frame and the threads in the nuts so that a bolt can be installed (Fig. D.4). **TECH TIP:** a flat-tip screwdriver works well in prying the universal nut into position.

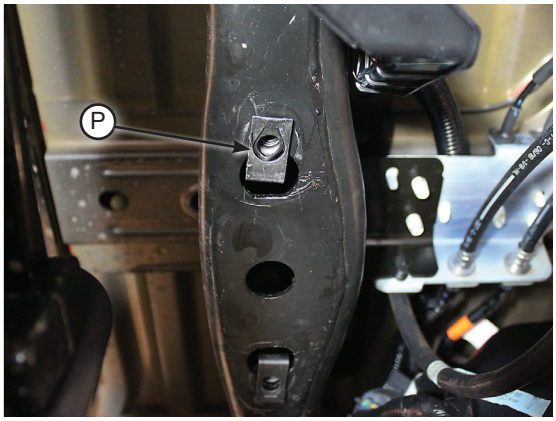


fig. D.4

5. Insert the 3/8”-16 x 1.25” carriage bolts (I) into the upper frame brackets (D) and install the upper bracket onto the frame using the M10-1.5 x 35mm button-head cap screws (J). The slot that is on the side of the bracket should be inboard of the frame rail (Figs. D.5 & 6). The elongated hole should be toward the front of the truck (Fig. D.6). Torque hardware to 38 lb.-ft. (52Nm).

This slot in the bracket goes inboard away from leaf spring and tire.

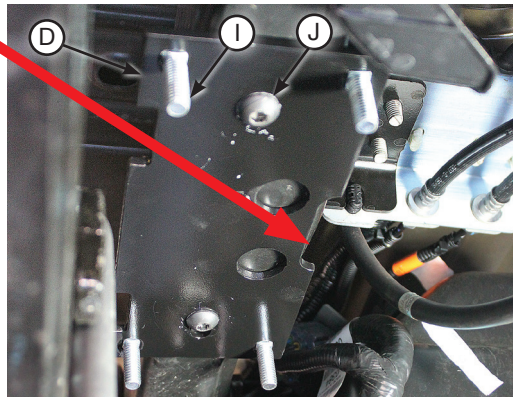


fig. D.5

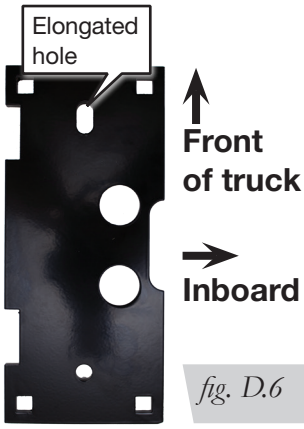


fig. D.6

ASSEMBLING THE AIR SPRING

1. Set a roll plate (F) on top of the air spring (G). The radiused, or rounded, edge of the roll plate should be toward the air spring so that it is seated inside the roll plate (Fig. D.7). Install the 90-degree swivel fitting (R) into the port on top of the air spring, finger tight plus 1 1/2 turns.

fig. D.7

2. Set the upper air spring bracket (E) onto the top of the air spring using one set of holes with the 3/8”-24 x 7/8” hex-cap screw (T), 3/8” lock washer (U) and 3/8” flat washer (N or V) (Fig. D.8). Install the remaining air spring bracket onto the remaining air spring, using the opposite holes from those that were previously used. This makes the air spring assemblies into left- and right-hand units. Torque the hardware to no more than 20 lb.-ft. (27Nm).

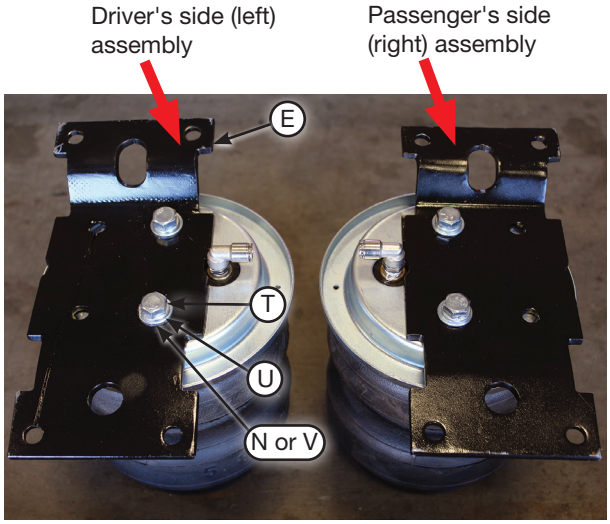


fig. D.8

3. Flip the assemblies over and set a roll plate (F) onto the bottom of the air springs (Fig. D.9).

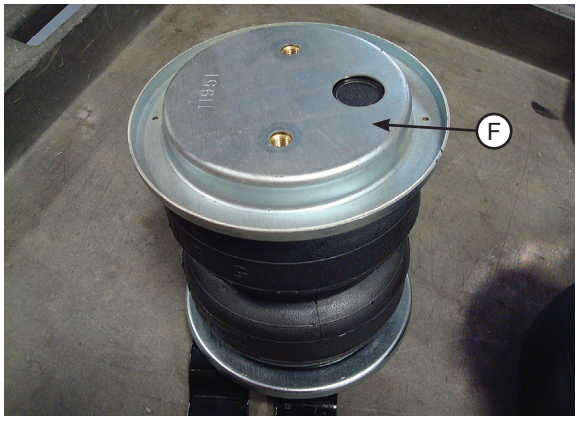


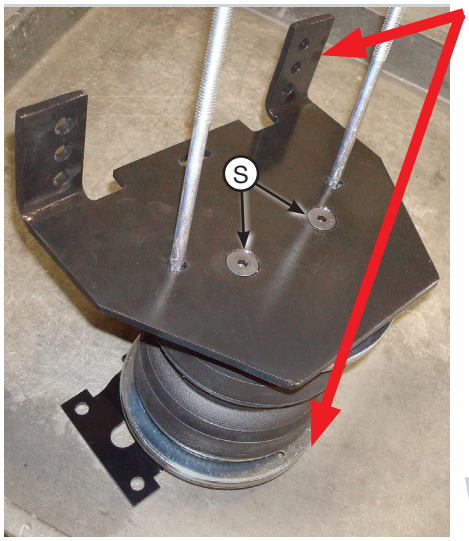
fig. D.9

4. Insert two 3/8”-16 x 10” carriage bolts (K) through the square holes in the lower bracket main plate (B) (Fig. D.10).

fig. D.10

5. Set the lower bracket main plate assemblies onto the air springs with the roll plates installed. Attach with the 3/8”-24 x 3/4” flat-head socket cap screws (S) (Fig. D.11). Torque the hardware to no more than 20 lb.-ft. (27Nm).

NOTE *The flange on the lower bracket must be on the opposite side of the fitting that is located on the top of the air spring.*



The flanges on the lower bracket must be installed so they are on the opposite side of the fitting that is on the top of the air spring.

fig. D.11

6. Install the lower bracket cup (C) onto the lower bracket main plate using the 5/16”-18 x 3/4” carriage bolt (L) (Fig. D.12). Cap with M8 flat washer (O) and 5/16”-18 nylon lock nut (Q) (Fig. D.13). Snug bolt down but leave loose enough for bracket to move freely in slot.

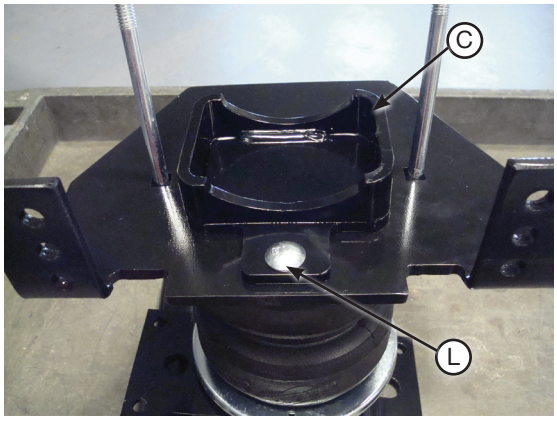


fig. D.12

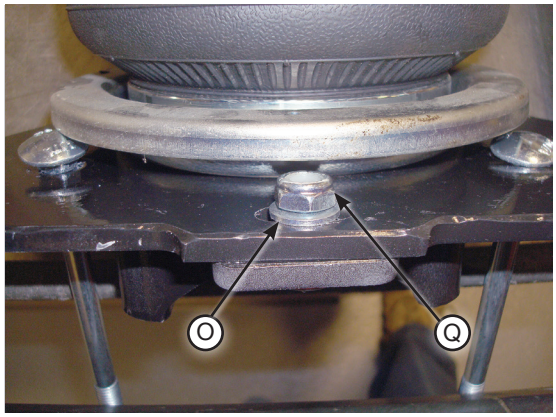


fig. D.13

7. Figure D.14 shows the driver's (left) and passenger's (right) side assemblies.

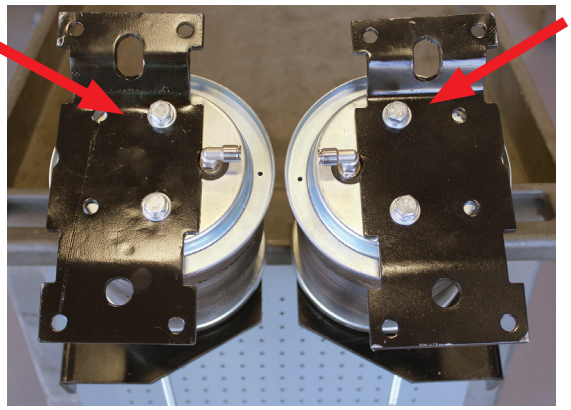


fig. D.14

INSTALLING THE ASSEMBLIES

1. With the vehicle supported by jack stands, drop the axle or raise the body so that the assemblies can be put into position in between the axle and frame. Set the driver's side (left) and passenger's side (right) assemblies into position so that the lower bracket cup rests on the jounce bumper strike plate. Push the lower bracket so that it is flush against the leaf spring stack. The flanges on the lower bracket main plate should lock on the sides of the U-bolt (Fig. D.15).

NOTE

On the driver's side (left), the long carriage bolt in the lower bracket main plate should be located between the hard brake line and axle (Fig. D.20). On the passenger's side (right), the carriage bolt should be located on the backside of the brake line (Fig. D.21).

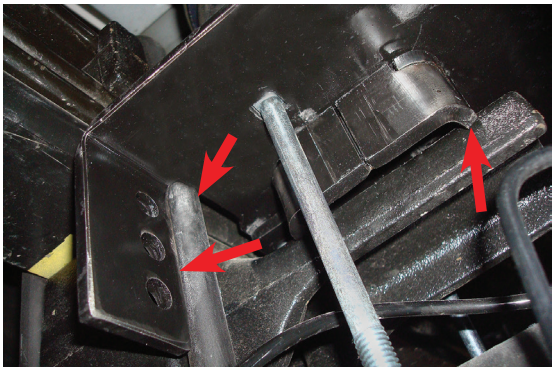


fig. D.15

2. Install the U-bolts (H) around the jounce bumper strike plate/spacer blocks and insert through the topmost holes in the lower bracket main plates (Fig. D.16). Cap with the 3/8" flat washers (N) and 3/8"-16 nylon lock nuts (M). Snug bolts evenly, just enough to hold the lower bracket main plate flush against the stock U-bolts.

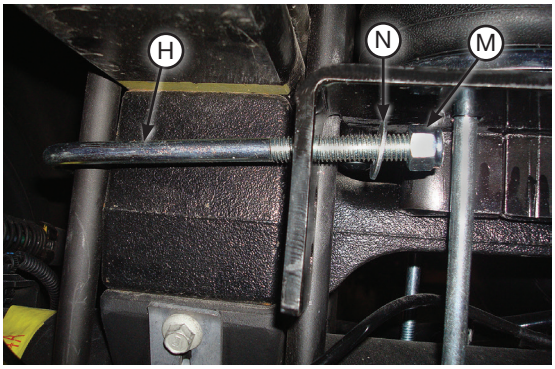


fig. D.16

3. Set the lower clamp bars (A) over the carriage bolts located under the axle (Fig. D.17). Attach with the 3/8” flat washers (N) and 3/8”-16 nylon lock nuts (M). Evenly torque the lower clamp bar hardware to 16 lb.-ft. (22Nm). Finish tightening the U-bolt hardware previously snugged by torquing to 10 lb.-ft. (14Nm).

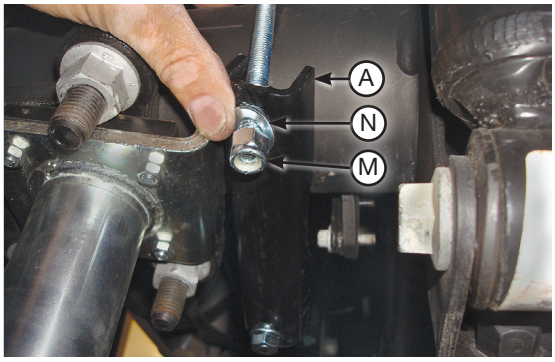


fig. D.17

4. On vehicles with an anti-roll bar, it might be necessary to cut the rear carriage bolt so it does not contact the anti-roll bar (Fig. D.18).

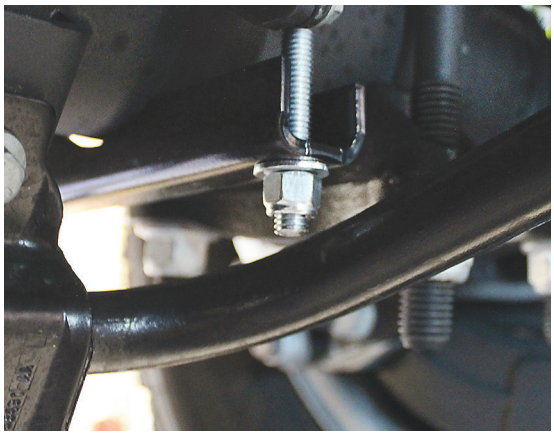


fig. D.18

5. Snug the nut that holds the lower bracket main plate and lower bracket cup together to finish the lower bracket installation (Fig. D.19).

NOTE

This nut will be difficult to tighten. It may be necessary to flip the wrench over a couple times and/or move from the front/back side of the axle to get this tightened.

fig. D.19

6. Figures D.20 & D.21 show the lower bracket installed.

Driver's side (left) assembly

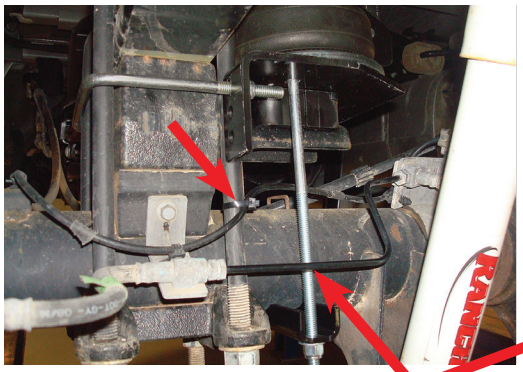


fig. D.20

Passenger's side (right) assembly

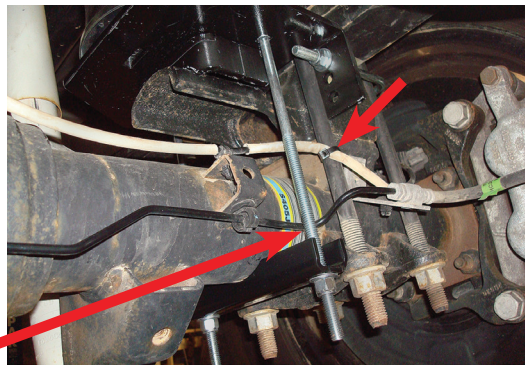


fig. D.21

If the hard brake line is resting on the lower bracket carriage bolt on either side, push or pull the brake line out of the way.

7. Finish the lower bracket install by tying off the ABS lines with zip ties (BB) so that they will not chafe on the lower bracket carriage bolts.

⚠ CAUTION

IT WILL BE NECESSARY TO PUSH THE HARD BRAKE LINE AWAY FROM THE LOWER BRACKET CARRIAGE BOLT IF THE LINE IS RESTING ON IT (FIGS. D.20 & D.21).

8. Before proceeding, make sure that the 90-degree fittings are pointing inboard toward the center of the vehicle. While raising or lowering the axle or body of the vehicle, align the previously installed upper air spring bracket carriage bolts with the frame bracket so the carriage bolts protrude through the bracket. Cap the carriage bolts with the 3/8” flat washers (N) and 3/8”-16 nylon lock nuts (M) (Fig. D.22). Snug the nuts down first then torque to 31 lb.-ft. (42Nm). Raise the axle or lower the body and remove jack stands.

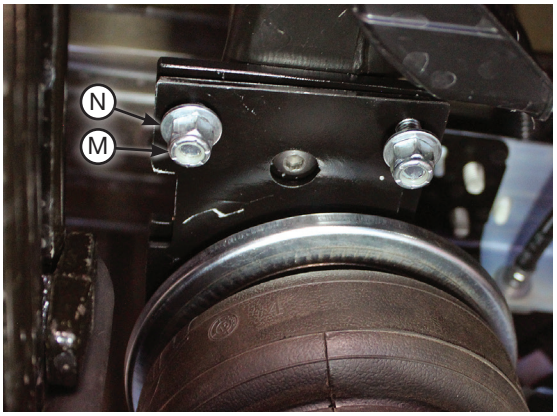
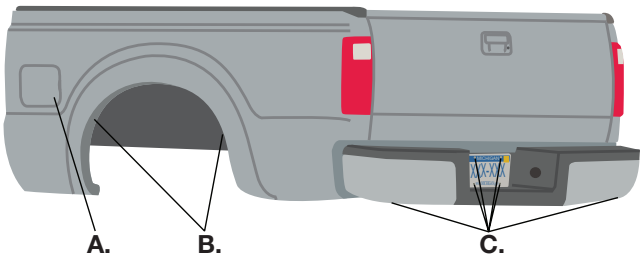


fig. D.22

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).



A. Inside fuel tank filler door

B. Inside rear wheel wells

C. License plate or rear bumper area*

* For LoadLifter 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” (152MM) 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.

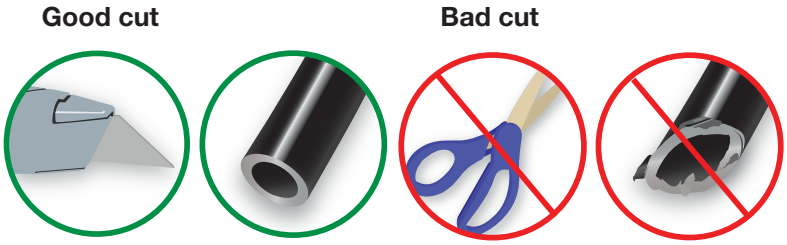


fig. E.2

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” (51mm) 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).

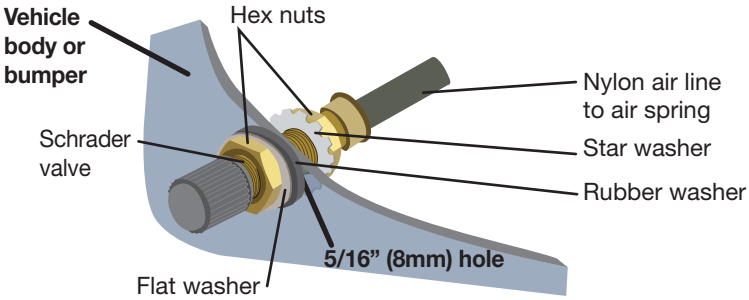


fig. E.3

INSTALLING BRAIDED STAINLESS STEEL AIR LINES

⚠ CAUTION

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” (152 to 203mm). Leave at least 2” (51mm) 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

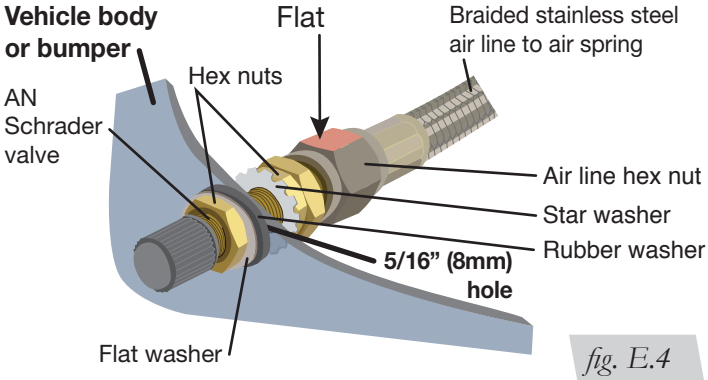


fig. E.4

Air Line Setup for Compressor Integration

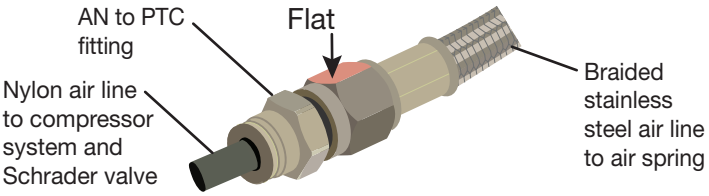


fig. E.5

INSTALLING THE HEAT SHIELD

1. Attach the metal heat shield to the exhaust where it is closest to the air spring. Slide the air line thermal sleeve over the air line and place it where the air line is closest to the exhaust (Fig. E.6).

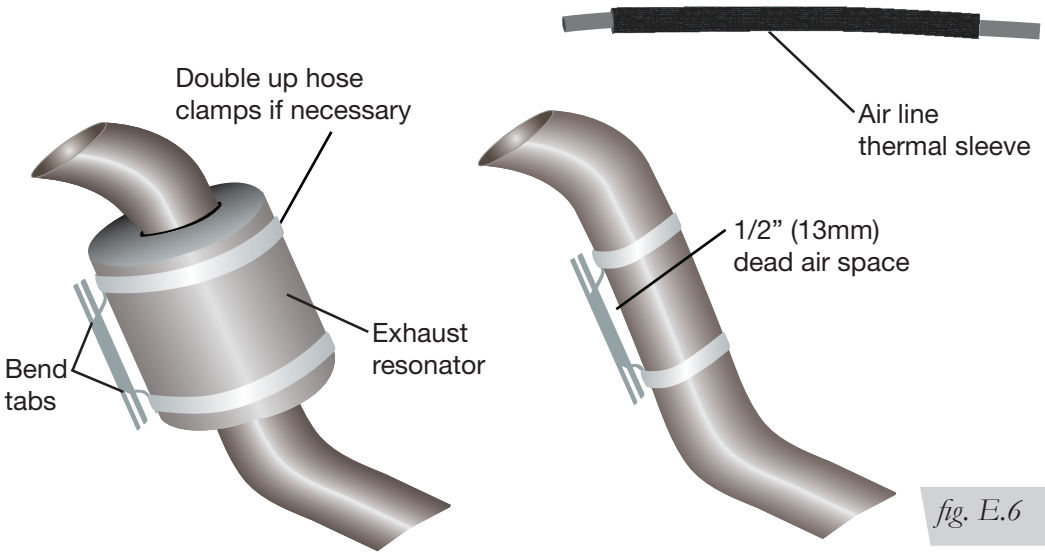
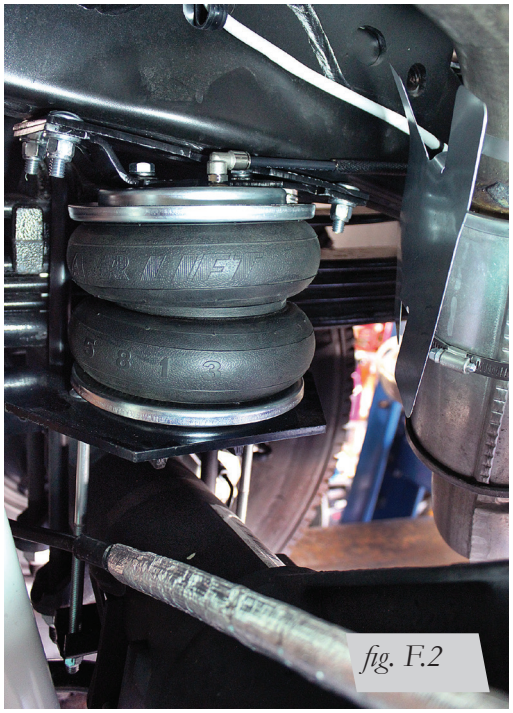


fig. E.6

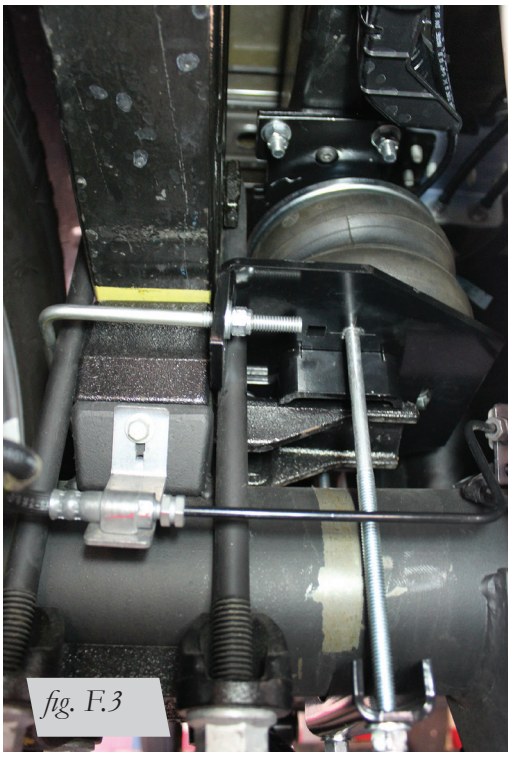
F. Finished Installation Photos

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

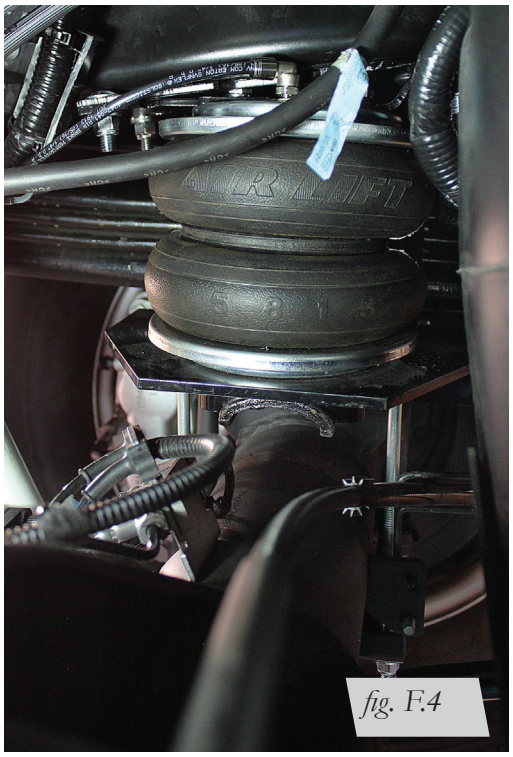
Passenger's (right) side front view of kit installed.



Passenger's (right) side inside frame view of kit installed.



Driver's (left) rear view of kit installed.



Driver's (left) side inside frame view of kit installed.

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)

⚠ 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.

⚠ CAUTION 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.

Notes

Limited Warranty and Return Policy

Air Lift Company provides a limited lifetime warranty to the original purchaser of its load support products, 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 that is available at **www.airliftcompany.com/warranty**.

For additional warranty information contact Air Lift Company customer service.

Thank you for purchasing Air Lift Products — the Authorized Installer's choice!

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 (517) 322-2144.

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