AIR LIFT®
Since 1949

LoadLIFTER 5000™ SERIES

Installation Guide

2017-current Ford Super Duty

Kits 57391 | 88391

2WD (Single and dual rear wheel)

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.

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 or LoadLifter 5000 Ultimate. The kits are easily identifiable by looking at the roll plates.

☐ Standard **LoadLifter 5000** — Zinc-plated steel roll plates.

☐ **LoadLifter 5000 Ultimate** — Black powder-coated roll plates.

LoadLifter 5000
silver zinc-plated steel
roll plate

LoadLifter 5000 Ultimate
black powder-coated
roll plate

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A. Installation Diagram

Driver's (left) side shown

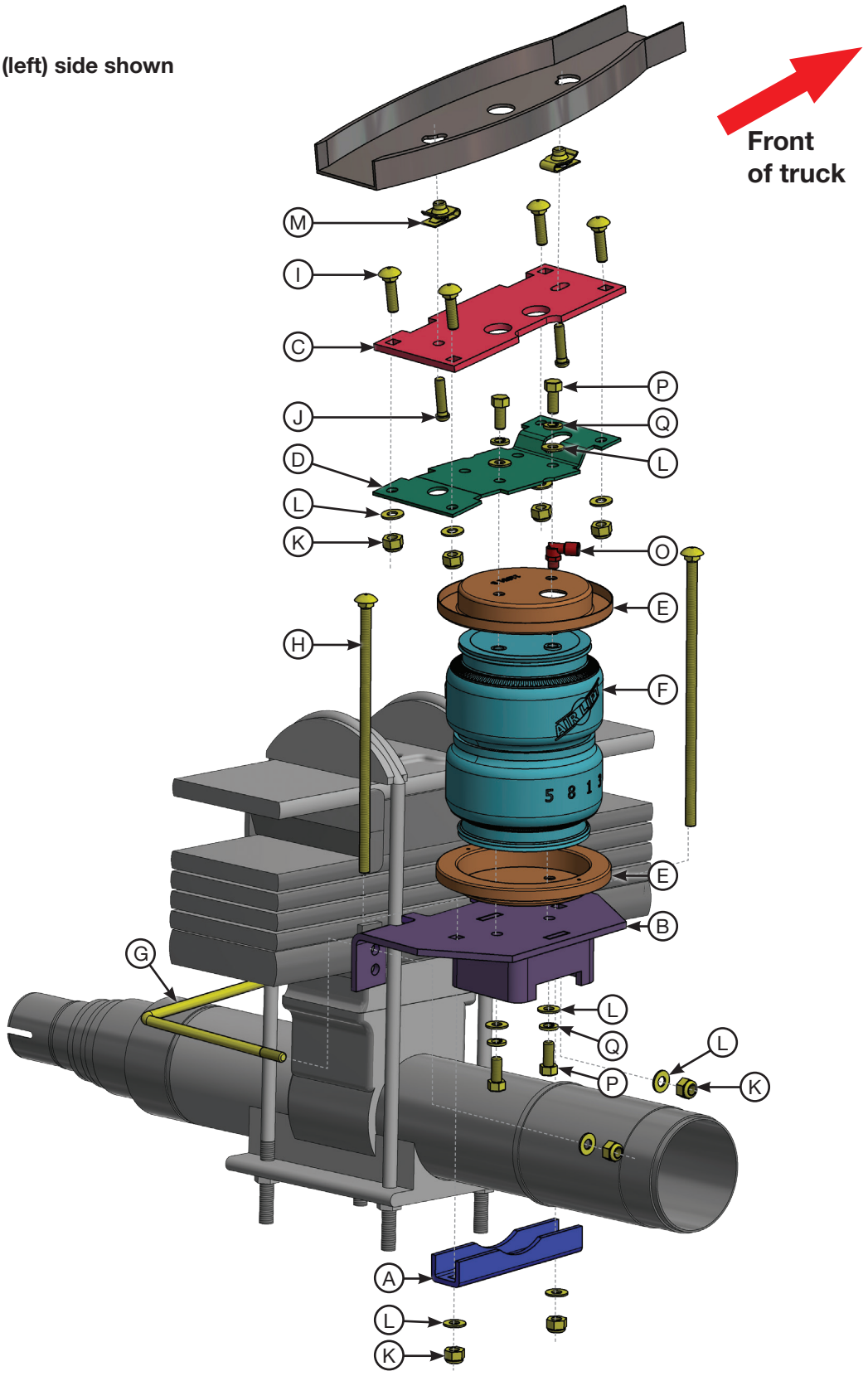


fig. A.1

B. Hardware and Tools Lists

Common Parts Included in Both Kits

Item	Part#	Description	Qty
A	01531	Clamp bar	2
B	03027	Lower bracket	2
C	07045	Upper frame bracket	2
D	07220	Upper air spring bracket	2
G	11770	U-bolt	2
H	17152	3/8”-16 x 8” Carriage bolt	4
I	17361	3/8”-16 x 1 1/4” Carriage bolt	8
J	17366	M10-1.50 x 35mm Button-head cap screw	4
K	18435	3/8”-16 Nylon lock nut	16
L	18444	3/8” Flat washer	24
M	18622	M10 X 1.5mm Universal nut	4
N*	11409	Tree mount	1
O	21837	90-degree Push-to-connect (PTC) fitting	2
P	17203	3/8”-24 x 7/8” Hex-head cap screw	8
Q	18427	3/8” Split-lock washer	8
AA*	20086	Air line	1
BB*	10466	Zip ties	6
CC*	18501	M8 Stainless steel flat washer	2
DD*	18411	Stainless steel star washer	2
EE*	21230	Poly cap	2
FF*	21233	5/16”-32 Hex nut	4
GG*	21234	5/16” x 11/16” Flat washer	2

* Not shown in installation diagram

TOOLS LIST

Description	Qty
Standard and metric open-end or box wrenches	SET
Ratchet	1
Standard and metric sockets	SET
Flathead screwdriver	1
Adjustable wrench	1
5/16” (8mm) 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	2
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

Unique Parts in Each Kit

LoadLifter 5000™ KIT 57391

Item	Part#	Description	Qty
E	11951	Silver zinc-plated roll plate	4
F	58437	Air spring	2

LoadLifter 5000™ ULTIMATE KIT 88391

Item	Part#	Description	Qty
E	11967	Black powder-coated roll plate	4
F	58496	Air spring with internal jounce bumper	2

The photos in this manual show the LoadLifter 5000 kit.

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 and maintenance of the 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. They also incorporate an internal jounce bumper.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 series 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 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.

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

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

D. Installing the LoadLifter 5000 Series System

GETTING STARTED

NOTE

This installation guide shows how to install the air spring on the driver's (left) side of the vehicle. Unless otherwise noted, repeat each step for the passenger's (right) side.

1. Raise the vehicle and support it in a way, using safety 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).

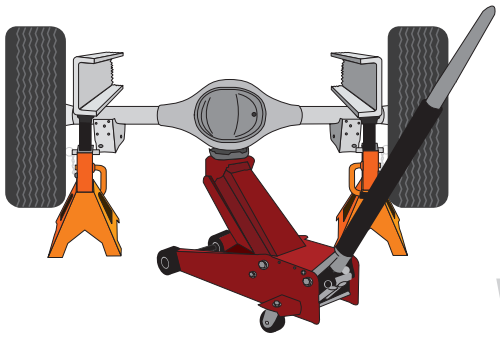
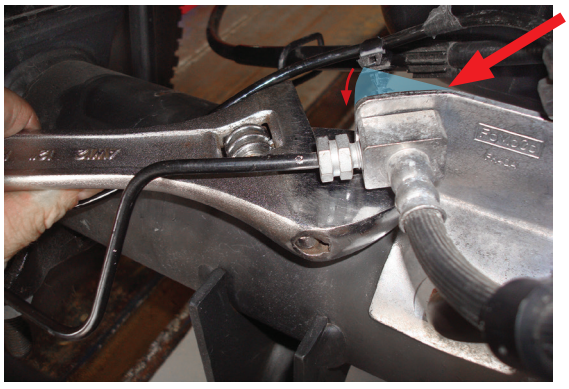


fig. D.1

2. For single-rear-wheel (SRW) models, pull the ABS tree mount out of the bracket behind the axle, on the passenger's (right) side (Fig. D.2). Leave loose at this time.

fig. D.2

3. Also for SRW models, it will be necessary to slightly bend the driver's (left) side brake line/axle vent tube bracket to make room to install the driver's side assembly. To do this, pull the ABS tree mount out of the hole in the bracket. Using an adjustable wrench under where the brake hard line junction is, bend the bracket back 1/8" (3mm) and reinstall the ABS tree mount (Fig. D.3).



Bend bracket 1/8" (3mm) to gain clearance for the ABS line once the air spring assembly is installed.

fig. D.3

4. Remove the jounce bumper assemblies from under the frame (Fig. D.4). Remove the clip-in studs by prying on the hinged end with a flathead screwdriver. Pull all four — two from each side — out of the frame (Fig. D.5).

fig. D.4

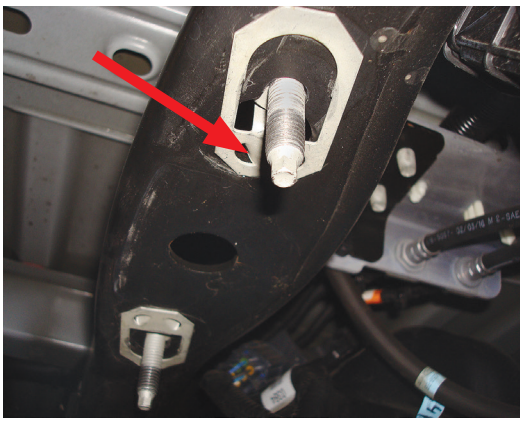


fig. D.5

5. Install the universal nuts (M) 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.6). A flathead screwdriver works well to pry the universal nut into position.

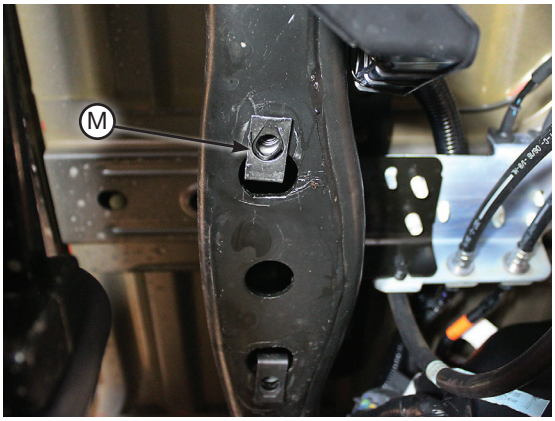


fig. D.6

6. Insert the 3/8”-16 x 1 1/4” carriage bolts (I) into the upper frame bracket (C) and install the upper bracket onto the frame using the M10-1.5 x 35mm button-head cap screws (J). The side of the bracket with the single slot should be inboard of the frame rail (Figs. D.7 & D.8). The elongated hole should be toward the front of the truck (Fig. D.8). Torque hardware to 38 lb.-ft. (52Nm).

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

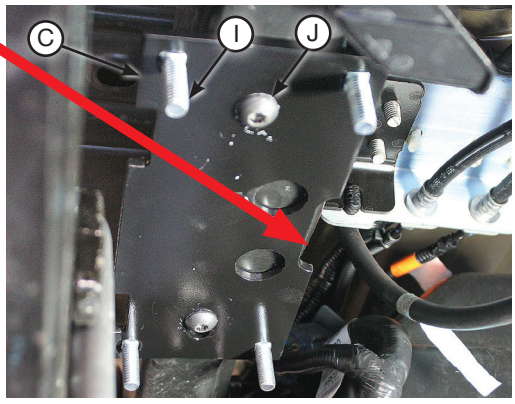


fig. D.7

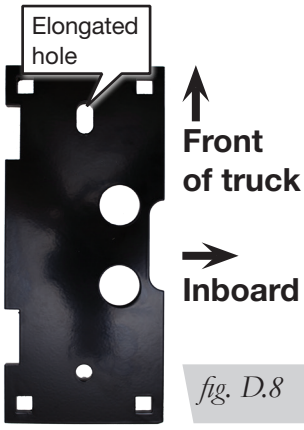


fig. D.8

ASSEMBLING THE AIR SPRINGS

1. Position roll plates (E) and install the swivel air fittings (O) on top of the air springs (F) (Fig. D.9). Tighten the air fittings finger tight plus 1 1/2 turns.
2. Use two 3/8”-24 x 7/8” hex-head cap screws (P), 3/8” lock washers (Q) and 3/8” flat washers (L) to attach the upper air spring bracket (D) to each of the air springs. Torque the hardware to no more than 20 lb.-ft. (27Nm).

NOTE *Once the upper brackets are installed, the assemblies will be left- and right-hand specific.*

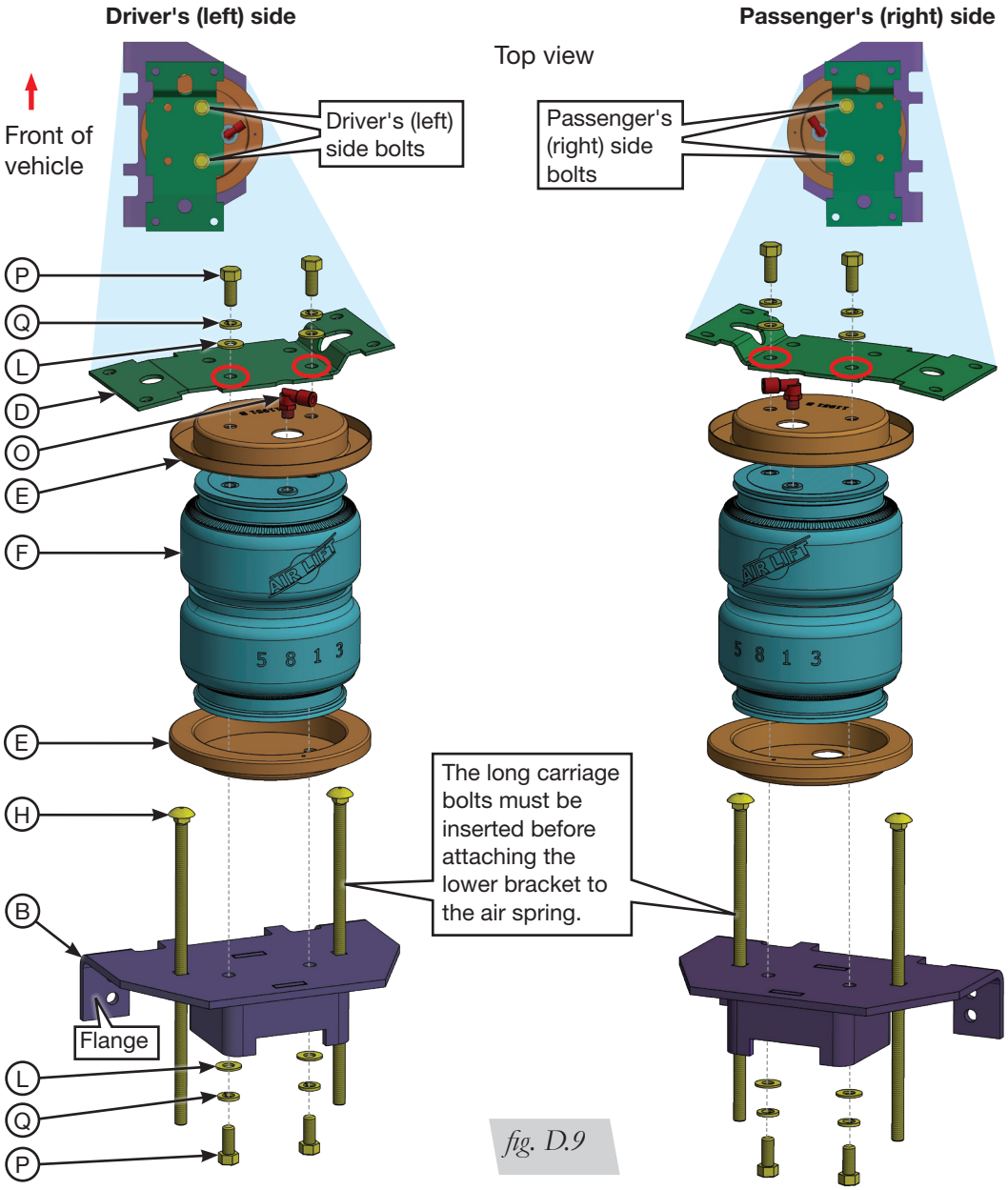


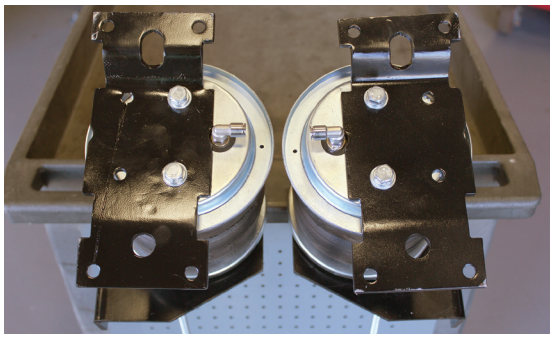
fig. D.9

3. Insert two 3/8”-16 x 8” carriage bolts (H) into the square holes on the lower bracket (B). The bolts will protrude in the same direction as the lower bracket flanges.
4. Use two 3/8”-24 x 7/8” hex-head cap screws (P), 3/8” lock washers (Q) and 3/8” flat washers (L) to attach the lower bracket and roll plate to the bottom of the air spring. Torque the hardware to no more than 20 lb.-ft. (27Nm).

NOTE *Flanges on the lower bracket (B) must be on the opposite side from the swivel air fitting (O).*

5. Figure D.10 shows the finished air spring assemblies.

Driver's (left) side

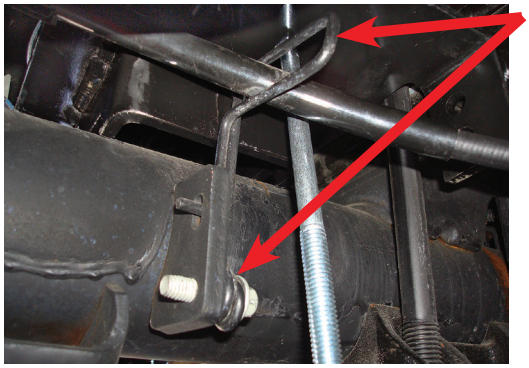


Passenger's (right) side

fig. D.10

INSTALLING THE ASSEMBLIES

1. With the vehicle supported by safety stands, drop the axle or raise the body so that the assemblies can be put into position in between the axle and frame.
2. Before setting the driver's (left) side assembly into position, it may be necessary to move the emergency brake cable wire retainer that is on the front side of the driver's side axle to make room for the lower bracket to fit onto the axle properly. Do this by loosening the bolt holding the wire hanger onto the axle bracket, then pulling the wire hanger forward until it stops. Tighten the bolt and if needed, bend the wire hanger slightly if it still contacts the lower bracket (Fig. D.11).



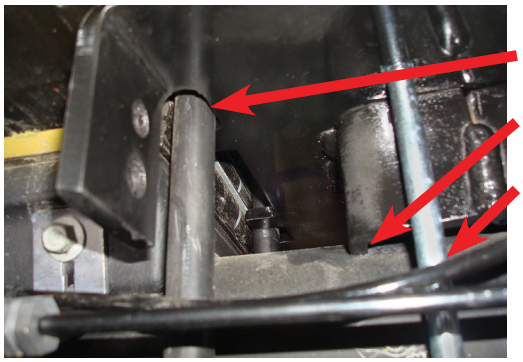
The wire emergency brake cable hanger may need to be moved forward slightly to clear the lower bracket.

fig. D.11

⚠ CAUTION

WHEN ATTACHING THE LOWER BRACKET ASSEMBLY, PLACE THE CARRIAGE BOLT IN BETWEEN OR BEHIND THE HARD BRAKE LINE, BEHIND THE AXLE, WHICHEVER PROVIDES THE MOST CLEARANCE. IT MAY BE NECESSARY TO ADJUST THE BRAKE LINE SLIGHTLY TO PROVIDE PROPER CLEARANCE. THE BRAKE LINE MUST NOT TOUCH THE CARRIAGE BOLT.

3. Set the air spring assembly into position so that the lower bracket is resting on the axle. Push the lower bracket so that it is flush against the leaf spring stack/stock U-bolts. The flanges on the lower bracket should lock on the sides of the U-bolt (Fig. D.12).



Driver's (left) side

Bracket tight against stock U-bolt

Lower bracket mount on top of axle

Back side carriage bolt between hard brake line/ ABS line and axle

fig. D.12

4. Install the U-bolts (G) around the stock spring perch/U-bolts (Fig. D.13). Insert the U-bolts through the holes in the lower bracket flange that are closest to the stock leaf springs. Cap with 3/8” flat washers (L) and 3/8”-16 nylon lock nuts (K) (Fig. D.14). Snug the bolts evenly, just enough to hold the lower bracket flush against the stock U-bolts.

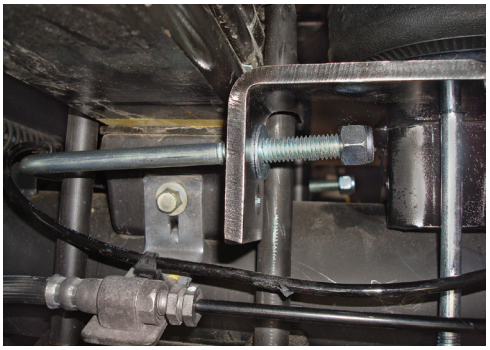


fig. D.13

5. Set the clamp bar (A) over the carriage bolts located under the axle (Fig. D.14). Attach with 3/8” flat washers (L) and 3/8”-16 nylon lock nuts (K). 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). Do this for both sides.

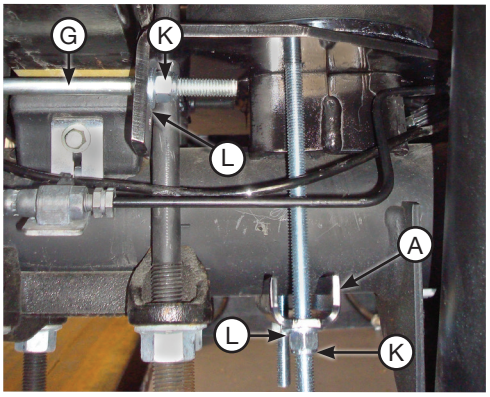


fig. D.14

6. On vehicles with a sway bar, it might be necessary to cut the rear carriage bolt so it does not contact the sway bar (Fig. D.15).

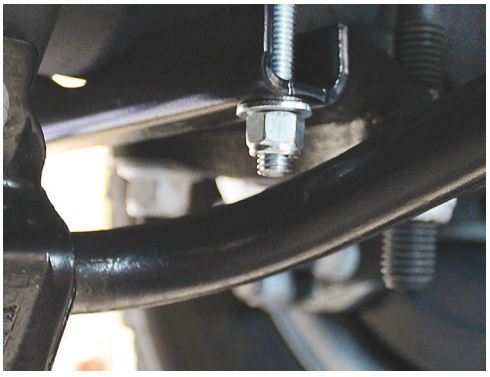


fig. D.15

7. In the “Getting Started" section, step one, it was necessary on the SRW models to remove the tree mount that held the ABS cable to the backside bracket on the axle. Reattach by installing the new tree mount (N) into the original installation hole on the back side of the axle bracket (Fig. D.16) making sure the slot for the zip tie is up and down when inserting it into the bracket.

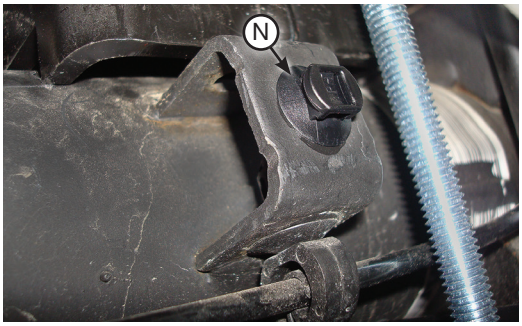


fig. D.16

8. Insert a zip tie (BB) in through the tree mount previously installed, around the ABS line and tie line off tight. The stock tree mount on the ABS line can stay in place. Trim the tie close to the tree mount (Fig. D.17).

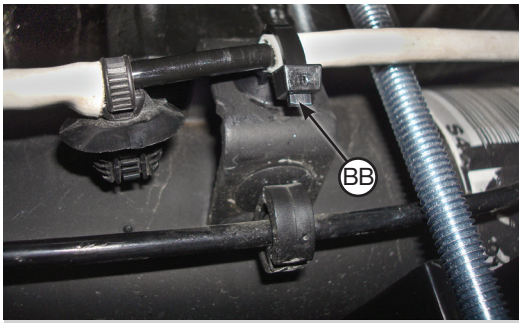


fig. D.17

9. 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 frame bracket carriage bolts with the air spring bracket so the carriage bolts protrude through the bracket. Cap the carriage bolts with the 3/8” flat washers (L) and 3/8”-16 nylon lock nuts (K) (Fig. D.18). Snug the nuts evenly first then torque to 31 lb.-ft. (42Nm).

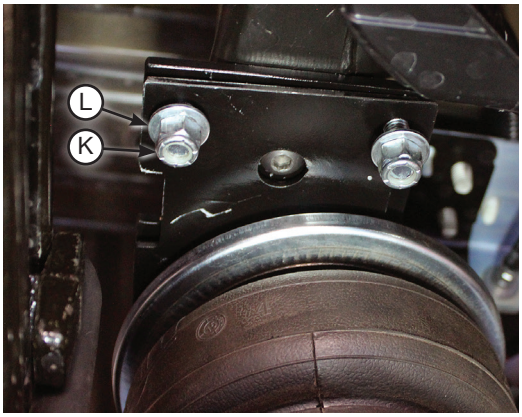


fig. D.18

E. Installing the Air Lines

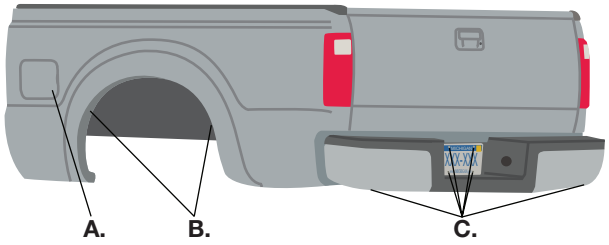
Choose the locations for the Schrader valves and drill a 5/16” (8mm) hole, if necessary (Fig. E.1).

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.

⚠ CAUTION

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

2. Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. Leave at least 2” (50mm) 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).
3. Install the Schrader valve in the chosen location (Fig. E.3).



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

fig. E.1

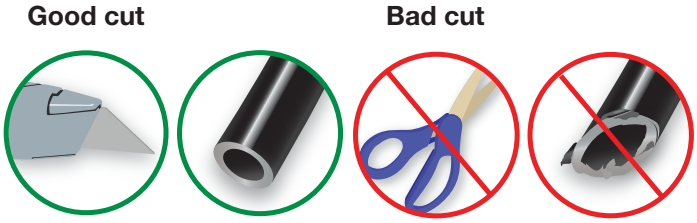


fig. E.2

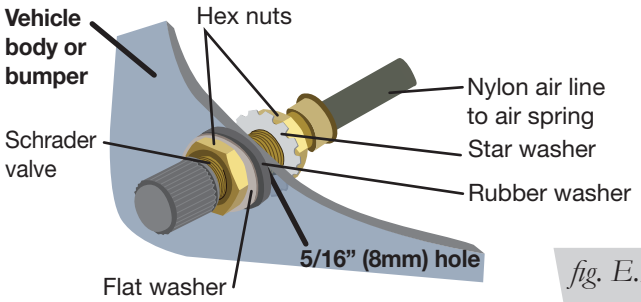


fig. E.3

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.4).

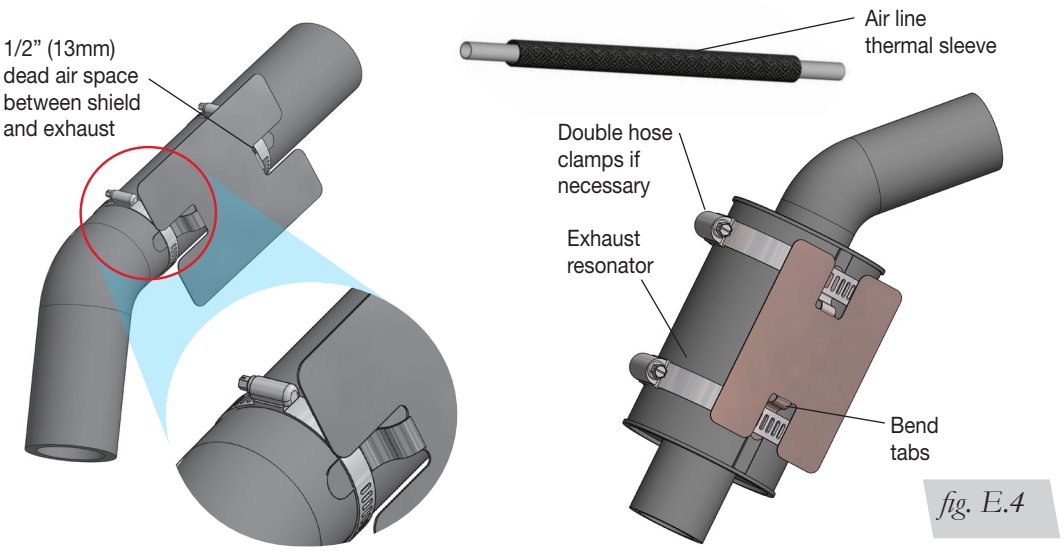
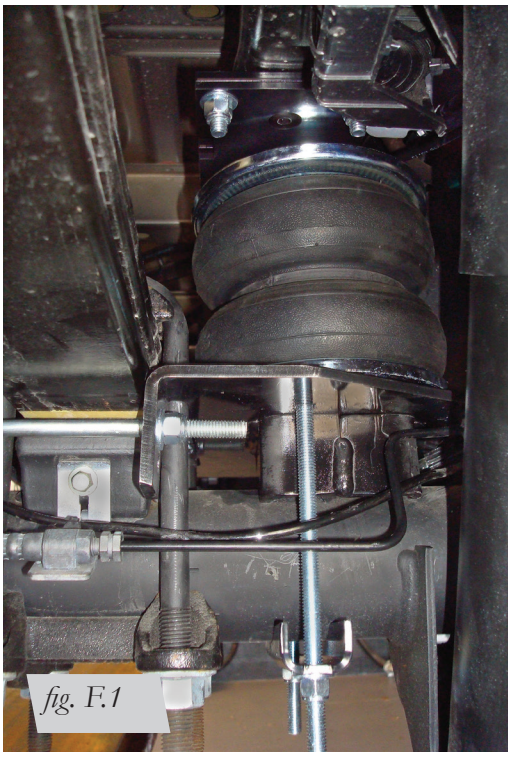


fig. E.4

F. Finished Installation Photos

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



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

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

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

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

INSTALLATION CHECKLIST

- ☐ **Clearance test** — Inflate the air springs to 40-50 PSI (2.8-3.4BAR) 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 40-50 PSI (2.8-3.4BAR) 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.

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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WITH GLOBAL
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California: ⚠WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

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