



LoadLifter 5000™

S E R I E S

Installation
Guide



2001-10 Chevrolet/GMC 2500/3500

Kits 57275 | 88275 | 89275



Watch the video

Info on next page

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

MN-1047 • (031908) • ECR 9350

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.



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.

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Installation Diagram

2500 HD model,
driver's (left) side shown

*The 3500 model has a
different style strike plate.

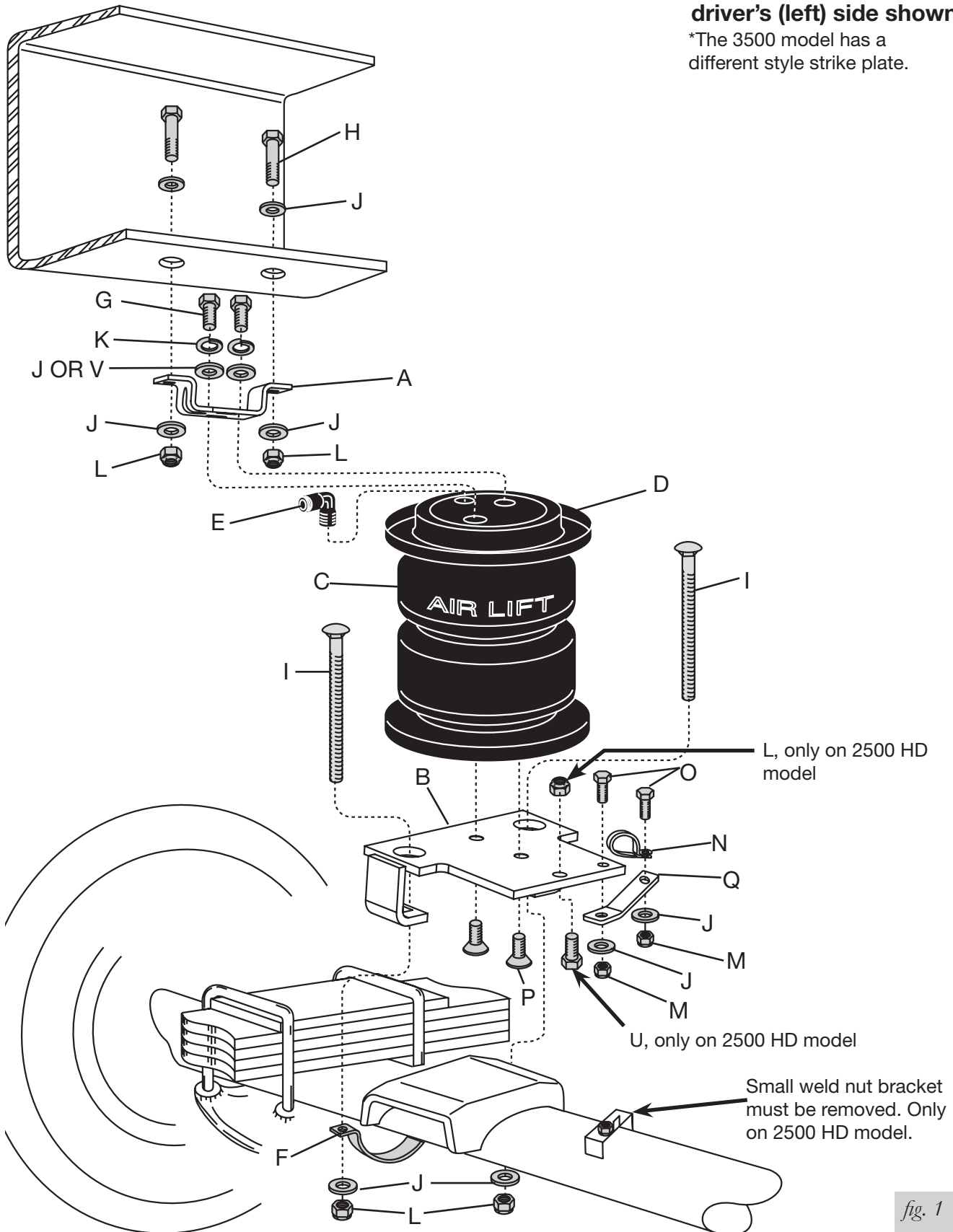


fig. 1

Hardware and Tools Lists

Common Parts Included in All 3 Kits

Item	Part#	Description	Qty
A	07634	Upper bracket	2
B	03633	Lower bracket	2
F	10451	Axle strap	2
H	17108	3/8"-16 x 1 1/2" Bolt	4
I	17141	3/8"-16 x 2 1/2" Carriage bolt	4
L	18435	3/8" Nylon lock nut	10
M	18438	5/16" Nylon lock nut	2
N	10465	5/8" Brake line clip	1
O	17103	5/16" -18 x 1" Bolt	2
Q	10421	Brake line bracket	1
U	17101	3/8"-16 x 3/4" Bolt	2
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
Metric, 9/16", and 1/2" deep-well sockets	SET
3/8" and 5/16" drill bits (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 57275

Item	Part#	Description	Qty
C	58437	Air spring	2
D	11951	Roll plate (silver zinc plated)	4
E	21848	Push-to-connect (PTC) fitting	2
G	17203	3/8"-24 x 7/8" Bolt	4
J	18444	3/8" Flat washer	19
K	18427	3/8" Lock washer	4
P	17215	3/8"-24 x 3/4" Flat-head screw	4
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

KIT 88275

Item	Part#	Description	Qty
C	58496	Air spring with internal jounce bumper	2
D	11967	Roll plate (black powder coated)	4
E	21848	Push-to-connect (PTC) fitting	2
G	17203	3/8"-24 x 7/8" Bolt	4
J	18444	3/8" Flat washer	19
K	18427	3/8" Lock washer	4
P	17215	3/8"-24 x 3/4" Flat-head screw	4
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 89275

Item	Part#	Description	Qty
C	58496	Air spring with internal jounce bumper	2
D	11880	Roll plate (stainless steel)	4
E	21815	AN type fitting	2
G	17284	3/8"-24 x 7/8" Stainless steel bolt	4
J	18444	3/8" Flat washer	15
V	18507	3/8" Stainless steel flat washer	4
K	18504	3/8" Stainless steel lock washer	4
P	17363	3/8"-24 x 3/4" Stainless steel flat-head screw	4
AA*	20987	Stainless steel braided air line	2
BB*	10466	Zip tie	12
HH*	21709	Fill valve with cap & nut	2
II*	21813	PTC to AN adapter fitting	2
JJ*	20084	Air line assembly	1

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.

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



INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.



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



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

Installing the LoadLifter 5000 Series System

GETTING STARTED

Your vehicle may be equipped with a rear brake proportioning valve. Any type of load assist product could affect brake performance. We recommend 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 brake performance.



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.

1. Raise the vehicle and support the axle with safety stands, setting the safety stands as wide as possible on the axle (Fig. 2).

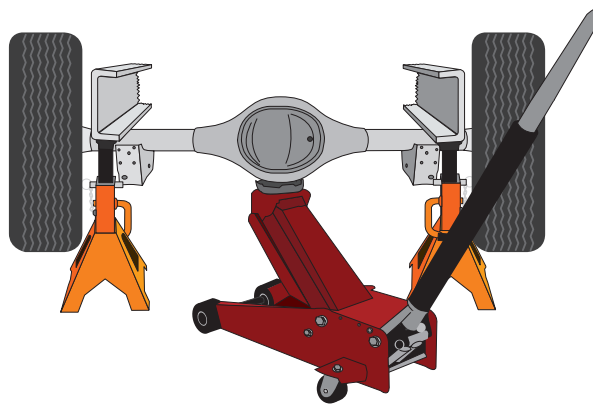


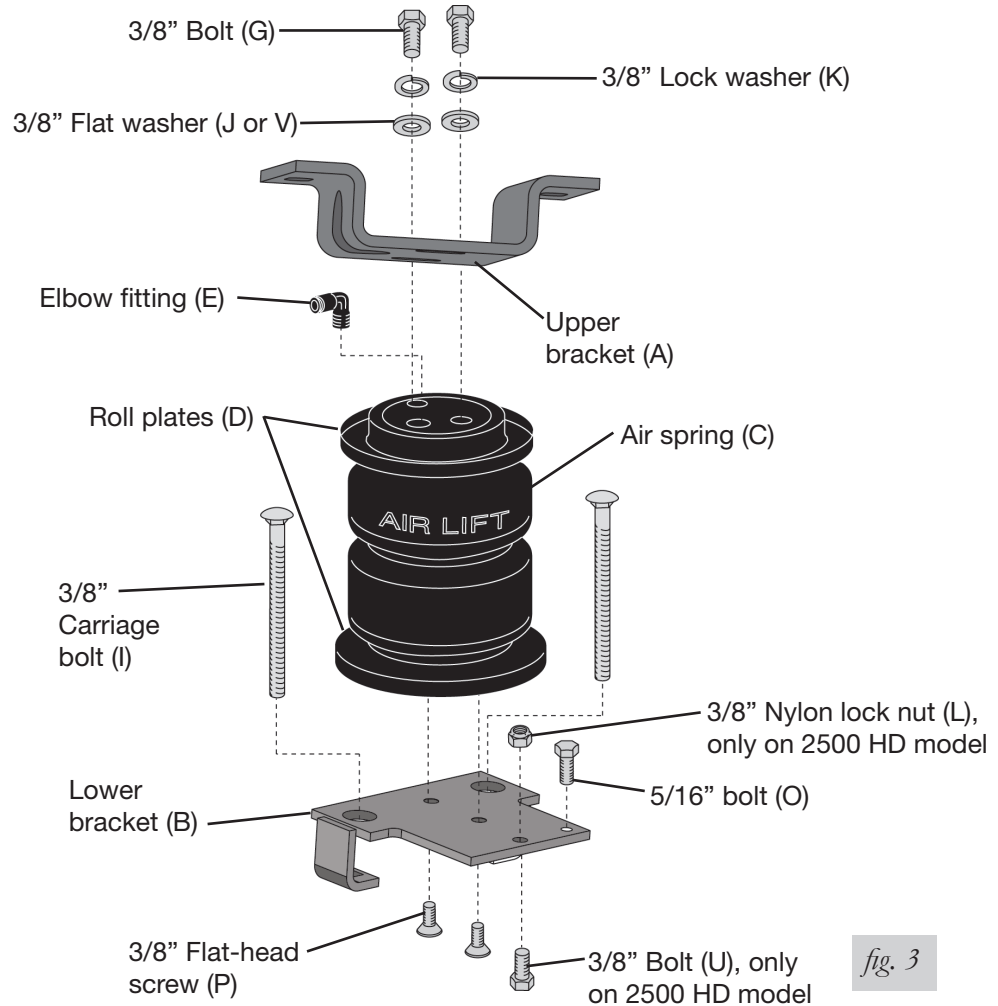
fig. 2

2. Drop the axle or raise the frame up to make room for the assemblies to be put into position between the frame and axle.

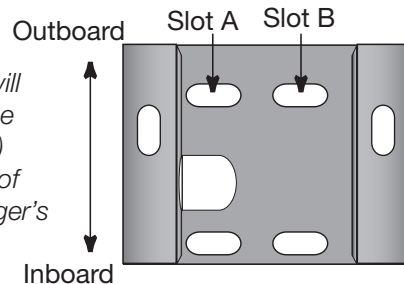
ASSEMBLING THE AIR SPRING ASSEMBLY

1. Set a roll plate (D) on both ends of the air spring (C). The radiused (rounded) edge of the roll plate will be toward the air spring, enabling the air spring to be seated in both roll plates (Fig. 3).
2. Install 90-degree elbow fitting (E) to the top of the air spring. Tighten finger tight plus 1 1/2 turns. Be careful to only tighten on the metal hex nut. Do not overtighten (Fig. 3).
3. Install the upper bracket (A) onto the air spring assembly. Use slot "A" when installing on the driver's (left) side and use slot "B" when installing on the passenger's (right) side. Attach using two 3/8" bolts (G), lock washers (K), and flat washers (J or V). Leave the bolts loose at this time (Figs. 3 & 4).

4. **Driver's side only:** Insert a 5/16" bolt (O) into the small hole on the lower bracket (B) before attaching the lower bracket to the air spring assembly (Fig. 3).
5. **2500 HD models only:** Install a 3/8" bolt (U) and lock nut (L) through the hole in the lower bracket (Fig. 3) with the head of the bolt facing down. Tighten securely.
6. Insert two 3/8" carriage bolts (I) through the large holes and into the square holes of the legs in the lower bracket (Fig. 3).


fig. 3

NOTE: The elbow fitting will point toward the rear of the vehicle on the driver's (left) side and toward the front of the vehicle on the passenger's (right) side.


fig. 4

7. Attach the lower bracket (B) to the bottom of the air spring assembly using two 3/8" flat-head screws (P). Tighten securely.

REMOVING THE JOUNCE BUMPER AND POSITIONING THE ASSEMBLY ON THE AXLE

1. Remove both jounce bumpers under the frame rail and discard.

NOTE

On the 2500 HD models only, the driver's (left) side of the axle may have a small bracket with a nut that has nothing attached to it. This bracket must be trimmed off of the axle in order to install the assembly (Fig. 5a).

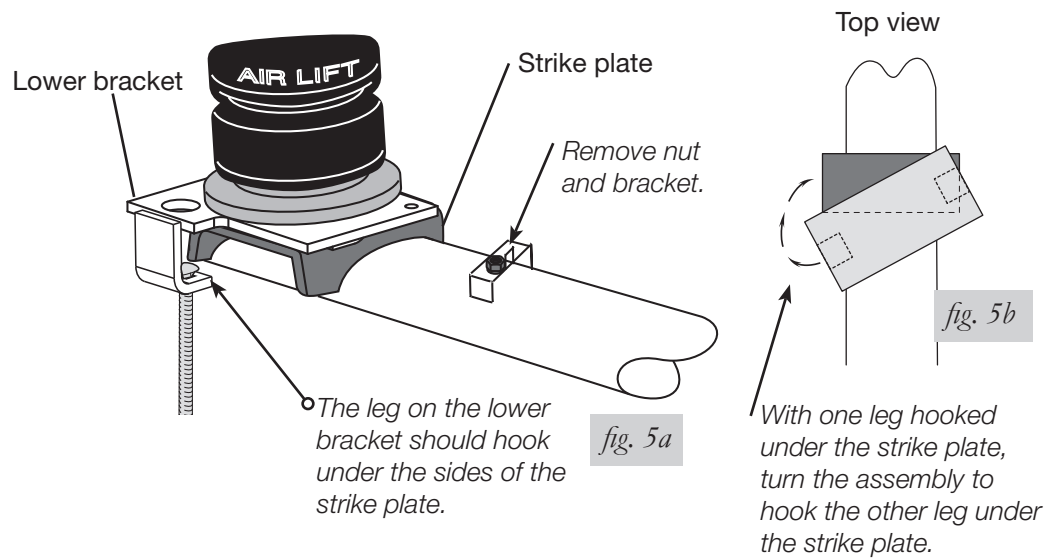
2500 HD models:

1. Set the assembly that has the cinch bolt onto the driver's (left) side.

NOTE

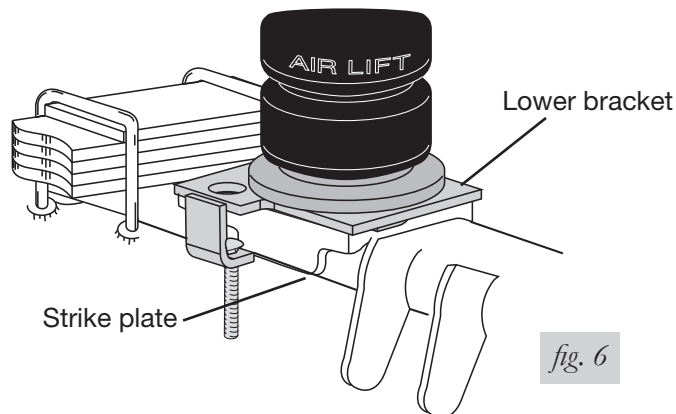
Index the lower legs under the jounce bumper strike plate.

2. With the lower bracket parallel to the strike plate, hook one leg under the side of the strike plate and turn the assembly until the other leg is under the strike plate on the other side (Fig. 5b).
3. Once the legs are under the strike plate, proceed with the upper bracket instructions.



3500 models:

1. Set the assembly on the strike plate so that the legs of the lower bracket are forward and behind the axle (Fig. 6).



ATTACHING THE UPPER BRACKET

1. The elbow fitting points toward the rear of the vehicle on the driver's (left) side and toward the front of the vehicle on the passenger's (right) side.
2. Insert two 3/8" bolts (H) and flat washers (J) through the existing jounce bumper holes and through the slotted holes in the upper bracket (Fig. 7).

NOTE

It may be helpful to raise the axle at this point so that the upper bracket touches the frame.

3. Attach the upper bracket using two flat washers (J) and nylon lock nuts (L) on each previously installed bolt (Fig. 7).
4. Push the bracket inboard and tighten both upper bolts.

NOTE

There should be a thumbs width between the air spring roll plate (D) and the leaf spring U-bolt.

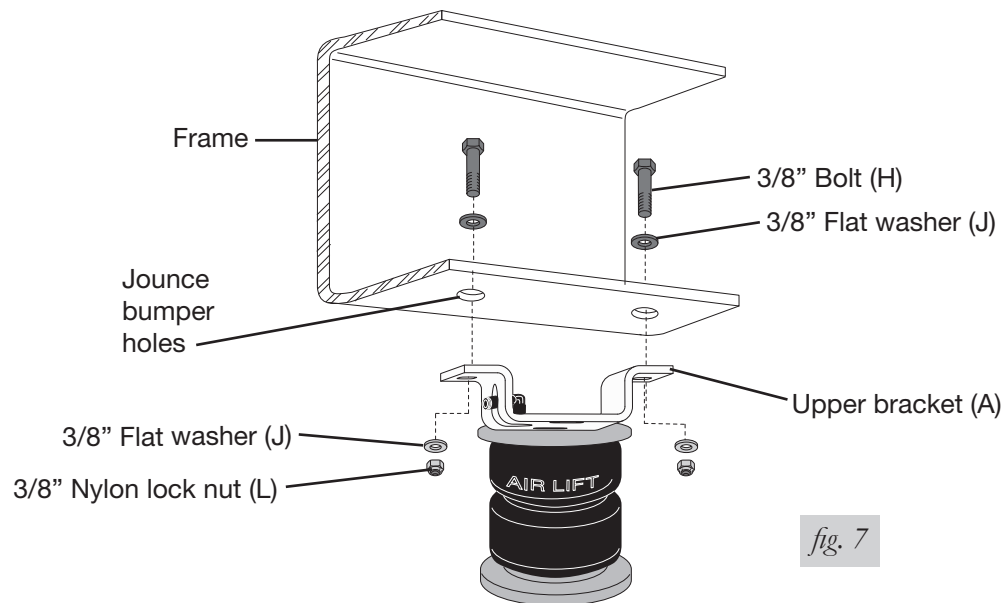


fig. 7

ALIGNING AND ATTACHING THE ASSEMBLY AND LOWER BRACKET

1. Bring the axle all the way up and remove the safety stands previously used to support the frame when removing the jounce bumper.

NOTE

The upper bracket is slotted for forward and backward adjustment. The bottom adjusts by moving the bracket on the axle in or out (Fig. 8).

2. Adjust the assembly so that the air spring is perpendicular to the bottom and top mounting brackets.
3. Tighten the top mounting bolts to 20 lb.-ft. (27Nm).

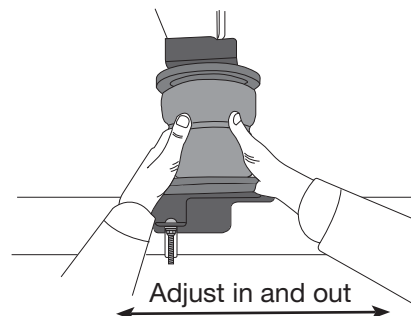


fig. 8

4. Attach the axle strap (F) to both lower bracket carriage bolts using two flat washers (J) and two nylon lock nuts (L). Torque evenly to 16 lb.-ft. (22Nm) (Fig. 9).

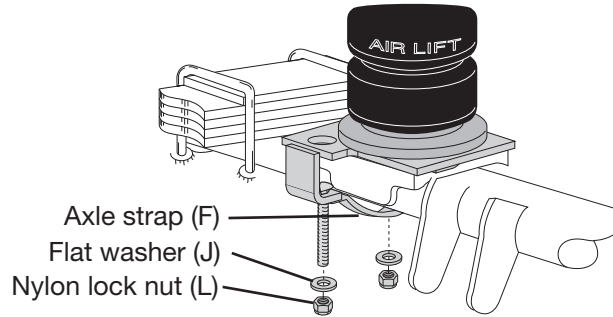


fig. 9

INSTALLING THE EMERGENCY BRAKE LINE BRACKET AND CLIP (DRIVER'S SIDE ONLY)

1. Attach the brake line bracket (Q) to the lower bracket using the previously installed 5/16" bolt (O) with one flat washer (J) and a nylon lock nut (M) (Fig. 1 & 10).
2. Attach the brake line clip (N) onto the emergency brake line bracket (Fig. 1 & 10).
3. Attach the clip assembly to the brake line bracket using a 5/16" bolt (O), two flat washers (J), and a nylon lock nut (M) (Fig. 1 & 10).
4. Align the brake line bracket and clip assembly so that the two do not bind to the cable. Tighten all mounting hardware in this assembly securely.

NOTE

Be sure the cable does not rub against the air spring when it is fully inflated. If it does, adjust the assembly accordingly.

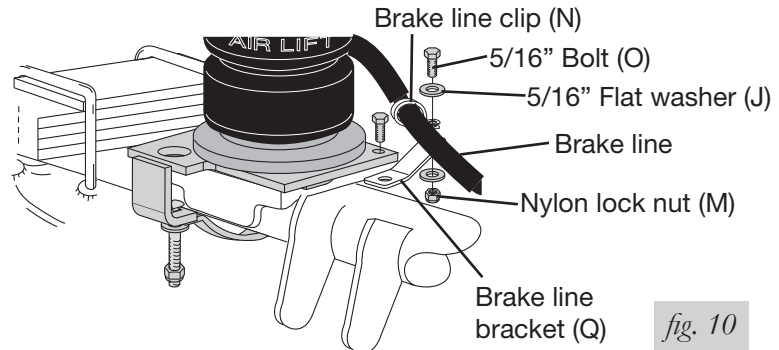
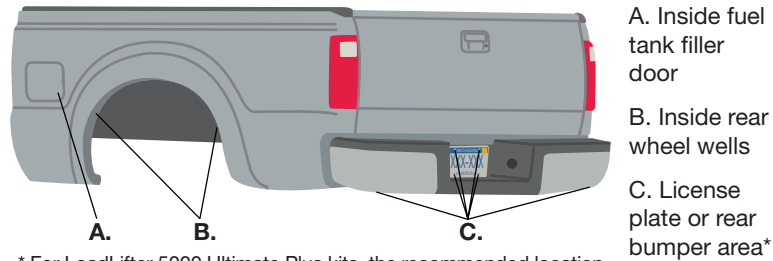


fig. 10

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. 11).



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

fig. 11

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. 12). Do not use scissors or wire cutters.

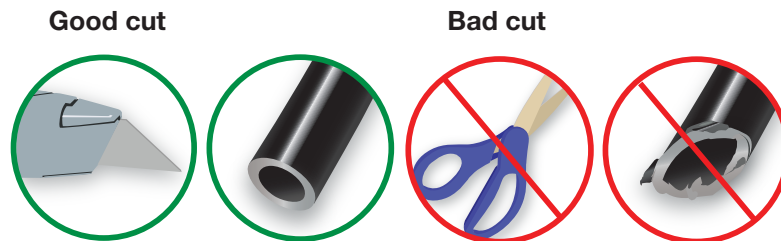


fig. 12

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. 13).

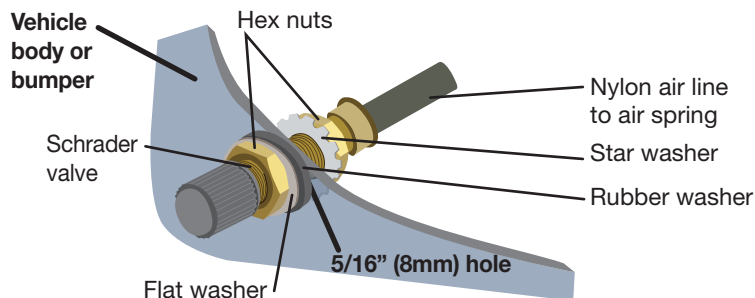


fig. 13

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" (152-203mm). 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. 14 or 15). 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

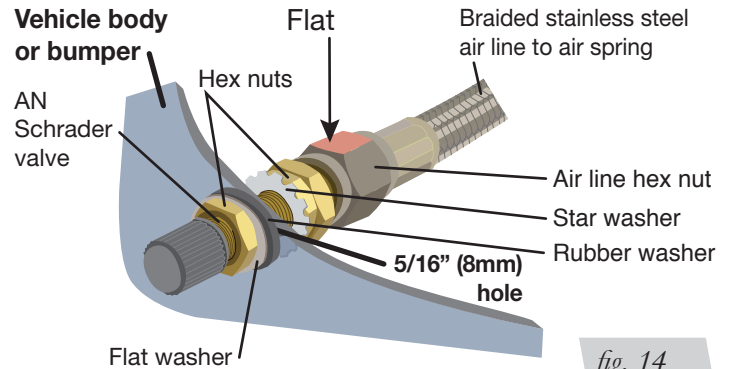


fig. 14

Air Line Setup for Compressor Integration

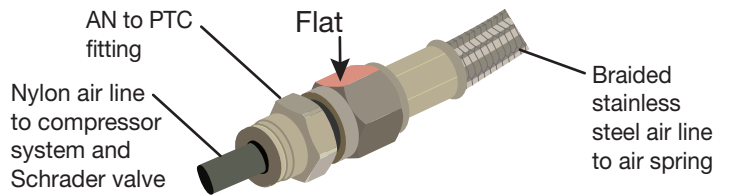


fig. 15

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. 16).

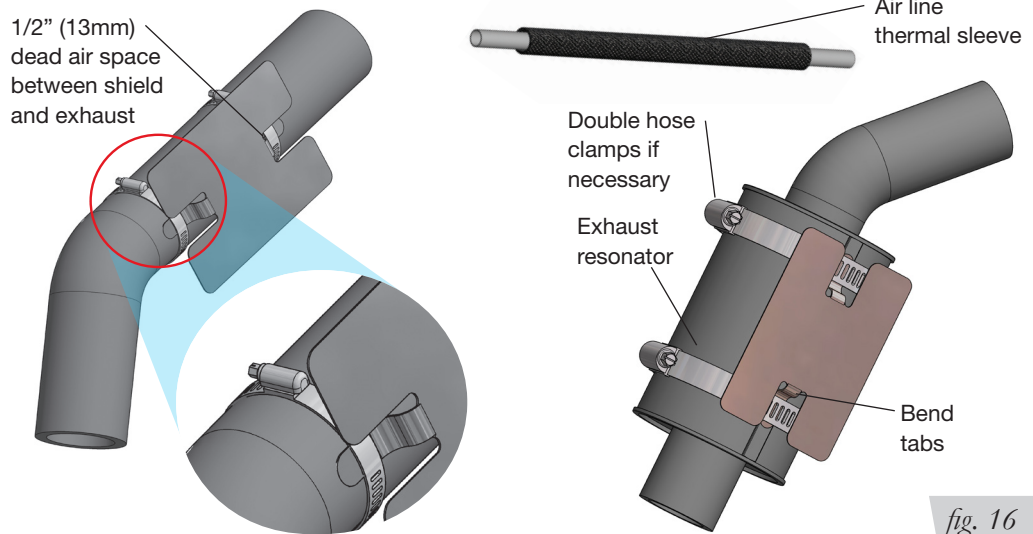


fig. 16

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 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.

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.