

LoadLifter 5000™ SERIES



Installation Guide



Nissan Titan



Watch the video

Info on Table of Contents page

Kits 57331 | 88331

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.

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Installation Diagram

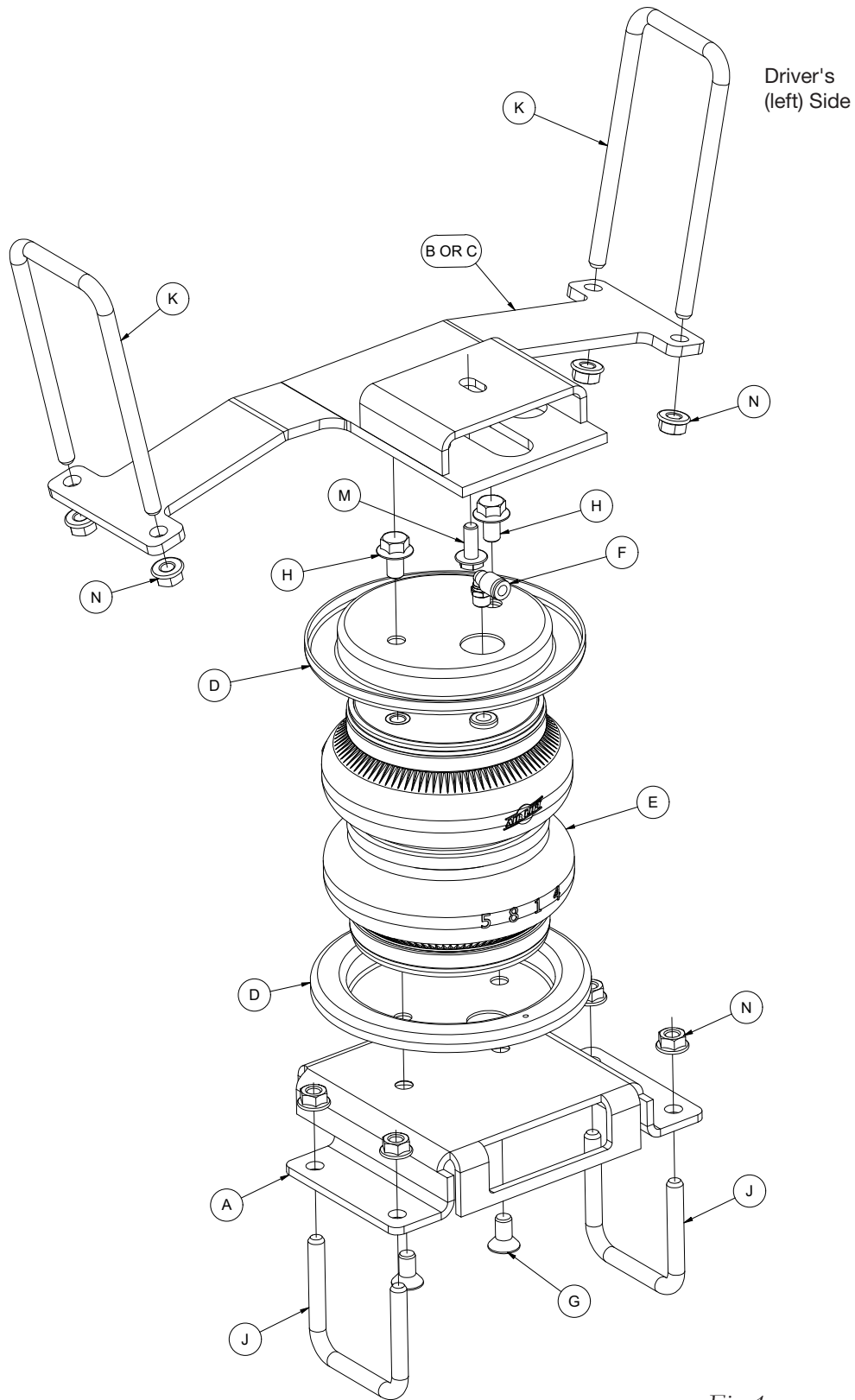


Fig. 1

Hardware and Tools Lists

Common Parts Included in All Kits

Item	Part#	Description	Qty
A	03034	Lower bracket	2
B	07062	Right hand upper bracket	1
C	07072	Left hand upper bracket	1
F	21848	90 Degree swivel elbow fitting	2
G	17215	3/8"-24 x 3/4" Flat head screw	4
H	17523	3/8"-24 x 5/8" Hex flange bolt	4
I*	10465	5/8" P-clamp.....	2
J	11161	3/8"-16 x 3" U-bolt, leaf spring.....	4
K	11162	3/8"-16 x 6 3/4" U-bolt, Frame.....	4
L*	17173	#14-1/4" x 3/4" Self-tapping screw	2
M	17444	M8 x 1.25 x 20 Hex flange bolt.....	2
N	18422	3/8"-16 Serrated flange nut	16
AA*	20086	Air line assembly	1
BB*	10466	Zip ties	6
CC*	18411	5/16" Lock washer	2
DD*	21234	Rubber washer.....	2
EE*	18501	M8 Flat washer.....	2
FF*	21233	5/16" Hex nut.....	4
GG*	21230	Valve cap.....	2

* These parts are not shown in the Installation Diagram (Fig.1).

TOOLS LIST

Description.....	Qty
Standard and metric open-end or boxed wrenches	Set
Standard and metric regular and deep-well sockets	Set
Ratchet.....	1
Torque wrench.....	1
7/32" hex-key wrench (socket preferable).....	1
Large screw driver or equivalent	1
Hose cutter, razor blade, or sharp knife	1
Hoist or floor jack	1
Safety stands.....	2
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 57331

Item	Part#	Description	Qty
D	11951	Roll plate	4
E	58439	Air spring.....	2

LoadLifter 5000™ **ULTIMATE** KIT 88331

Item	Part#	Description	Qty
D	11967	Roll plate	4
E	58494	Air spring.....	2

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.

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.

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

Installing the System

PREPARING THE VEHICLE

1. Lift the vehicle and support the frame with safety stands. Leave enough room to drop the axle down low enough to set the air spring assemblies into position between the jounce bumper bracket and leaf spring (Fig. 2). Remove the rear wheels.

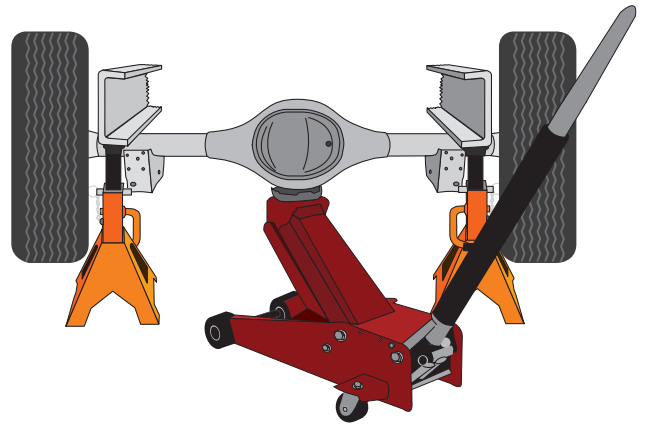


Fig. 2

2. Remove the jounce bumper (if equipped) from the mounting cup and unbolt the mounting cup from the jounce bumper mounting bracket, welded to the frame (Fig. 3). Discard jounce bumper and mounting cup.

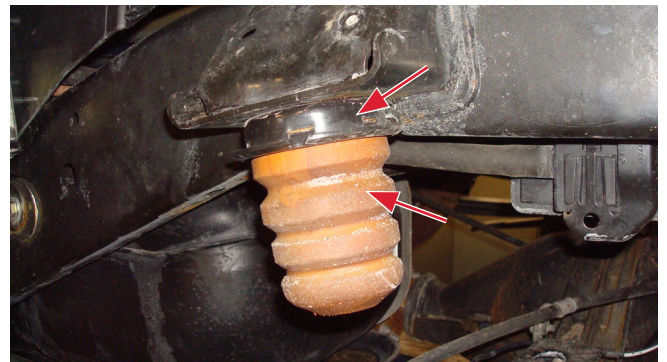


Fig. 3

3. Use a large regular screwdriver or equivalent and pry the brake line holders away from the frame (Fig. 4). Create enough clearance to install U-bolts as shown in Fig. 5.



Fig. 4

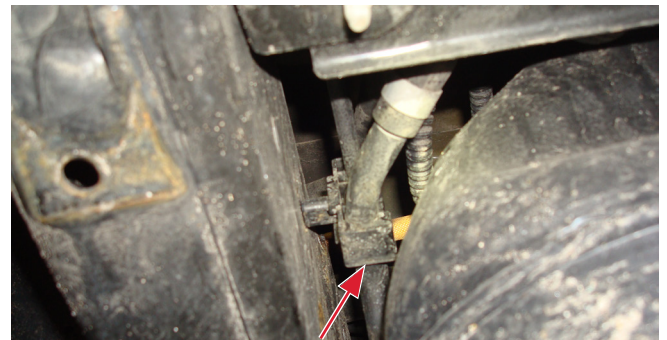


Fig. 5

NOTE

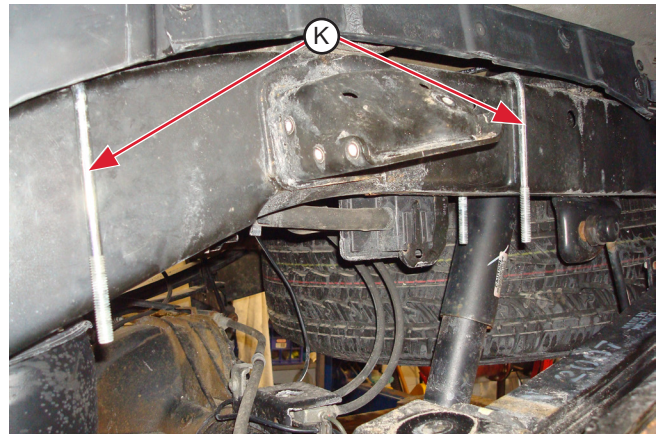
Do not completely remove the brake line holders from the frame.

INSTALLING THE UPPER BRACKETS

1. Set the frame U-bolts (K) over the frame, forward and rearward of the axle, for the driver's (left) and passenger's (right) sides (Fig. 6 & Fig. 7).

⚠ CAUTION

DO NOT PINCH ANY BRAKE OR STOCK WIRING HARNESS COMPONENTS BETWEEN THE U-BOLT AND FRAME (Fig. 8).



Driver's (left) Side

Fig. 6



Passenger's (right) Side

Fig. 7



Fig. 8

2. Using a long socket, insert the M8 hex flange bolt (M) through the passenger's (right) side upper bracket (B). Position the upper bracket under the jounce bumper bracket while inserting the U-bolts through the mounting holes. Install the M8 bolt into the jounce bumper mounting hole and tighten the bolt finger tight. Tighten U-bolts finger tight using the 3/8"-16 serrated flange nuts (N) (Fig. 9). Torque the M8 hex flange bolt first to 15 lb.-ft. (11Nm), then tighten the 3/8"-16 serrated flange nuts evenly to 15 lb.-ft. (11Nm). Repeat for the driver's (left) side.

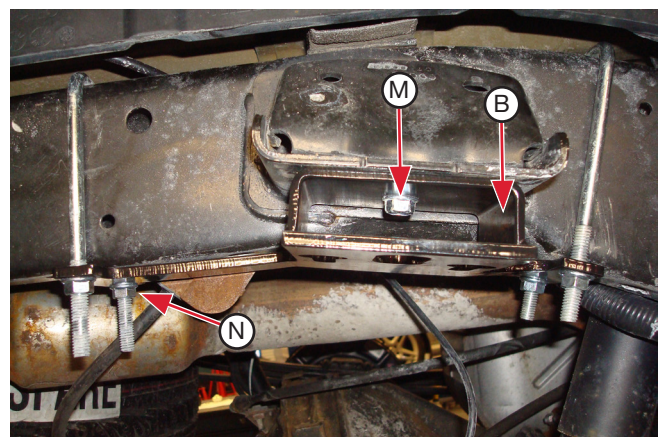


Fig. 9

3. On some models it may be necessary to move the wiring harness inside of the passenger's (right) side frame, forward of the axle, away from the corner of the upper bracket (Fig. 10). Pull the Christmas tree hanger away from the frame and the bracket and then zip tie the harness to the crossmember above the axle.

NOTE

Fig. 10 shows an acceptable installation. No further modification is needed unless interference is more direct.

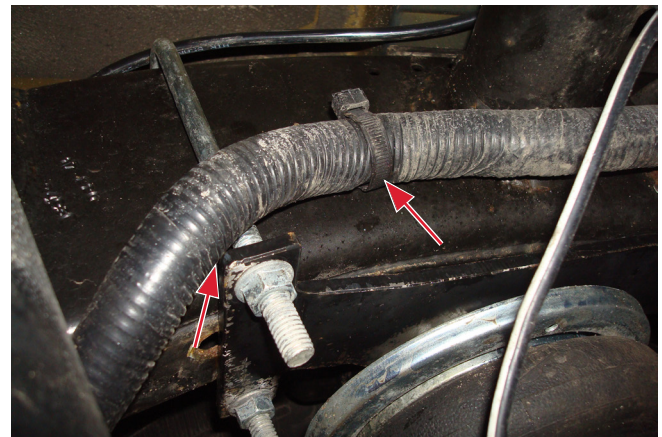


Fig. 10

ASSEMBLING THE AIR SPRING

1. Place the roll plates (D) on the air springs (E) (Fig. 11). Install the swivel elbow air fittings (F) onto the air springs. Tighten the air fittings finger tight plus 1 1/2 turns.

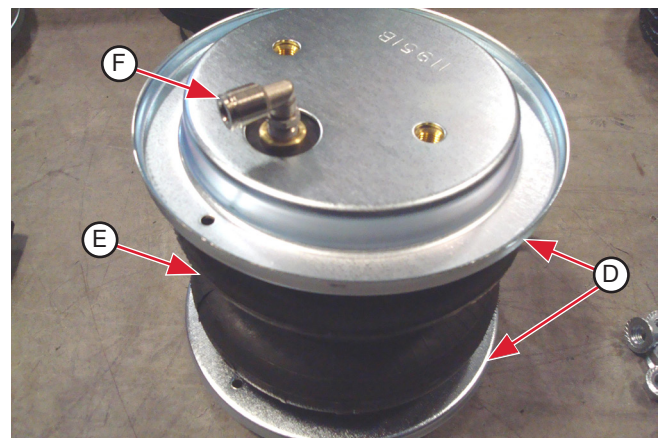


Fig. 11

2. Flip both air springs over so the fitting is down. Install the lower brackets (A) so that the “window” on the bracket is on the same side as the fitting (Fig. 12). Attach with the 3/8”-24 x 3/4” flat head screws (G) and torque to no more than 20 lb.-ft. (27Nm).

CAUTION

USE CAUTION WHEN FLIPPING THE AIR SPRING ASSEMBLIES SO AS NOT TO DAMAGE THE FITTINGS.

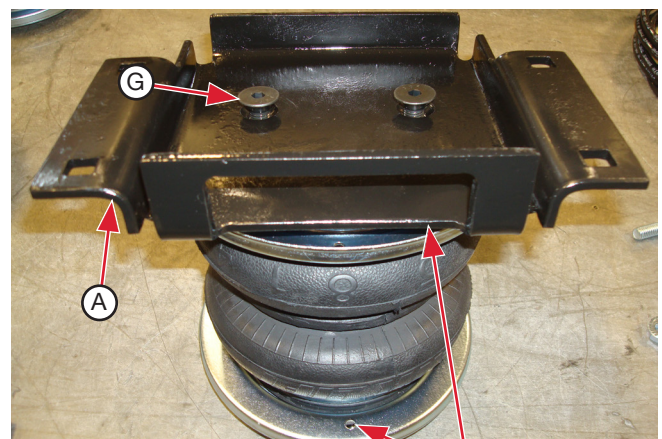
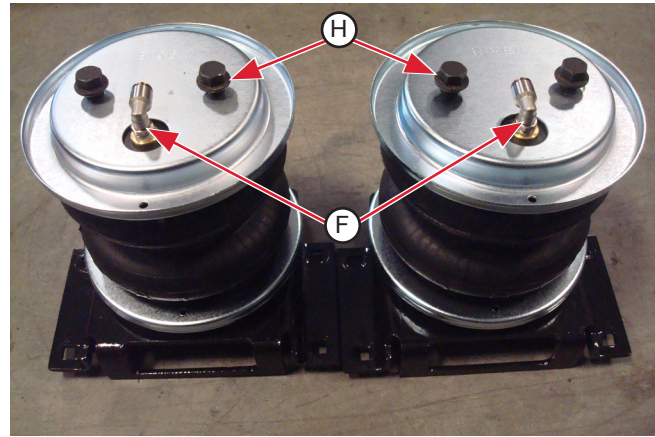


Fig. 12

The window in the lower bracket must be on the same side as the fitting

3. Flip both assemblies so that the lower bracket is down. Loosely install the 3/8"-24 x 5/8" hex flange bolts (H) in the top mounting holes (Fig. 13). These bolts must stay loose in order to install the assemblies into position on the vehicle. Point the fittings (F) inward toward the center of the air spring.

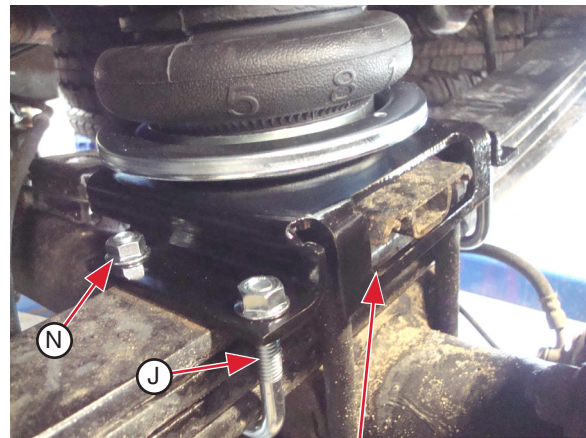

Fig. 13

INSTALLING THE AIR SPRING ASSEMBLIES

1. Drop the axle down low enough to put the assemblies onto the leaf spring. Set the assemblies into position, ensuring the fitting is on the tire (not the frame) side of the vehicle and pointing inward, toward the center of the vehicle (Fig. 14). Set the assemblies into position. Raise the axle up until the hex flange bolts and the fittings index into the large opening of the "keyhole" mounting holes in the upper brackets on both sides. Raise the axle up far enough to seat the upper spring assembly against the upper bracket.


Fig. 14

2. Push the lower bracket/air spring assembly inward far enough to install the leaf spring U-bolts (J) through the holes in the lower bracket (Fig. 15). Install the U-bolts and loosely thread the 3/8" serrated flange nuts (N) over the U-bolts. Raise the axle all the way up and adjust the lower bracket forward or backward to align the air spring. Evenly torque the lower mounting hardware to 15 lb.-ft. (11Nm).



Window on lower bracket must be locked around the tire side of the leaf spring retainer *Fig. 15*

3. Adjust the upper mounting bracket in and out to align the air spring and evenly tighten the upper flange bolts with a 9/16" boxed end wrench (Fig. 16). Tighten the hardware until secure. Do not overtighten.
4. Rotate the fittings so they face outward for hose installation and routing.

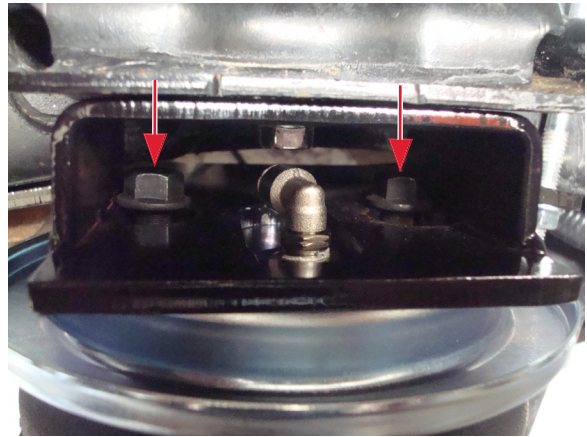


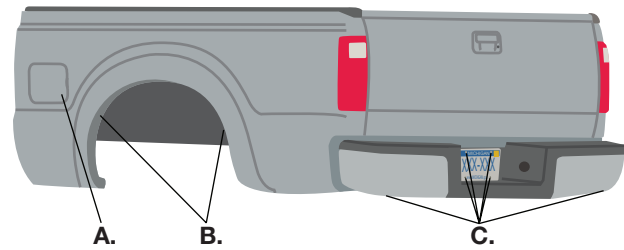
Fig. 16

Installing the Air Lines

1. Air lines are routed from the Schrader valve mounting location (already attached to the end of the hose), to the air springs. Begin by choosing locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. 17).

CAUTION

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



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

Fig. 17

2. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. 18). Do not use scissors or wire cutters.

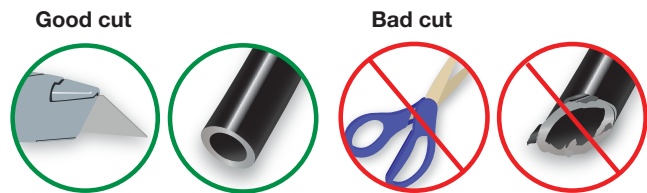


Fig. 18

3. For the air line, it is recommended that the air line be routed along the top of the frame, in front or behind the axle, then down to the fitting (Fig. 19). After cutting the air line to length, insert the air line into the fitting. Secure the air line to the upper jounce bumper mounting bracket, by attaching a P-clamp (I) around the hose and attaching it to the jounce bumper bracket by driving the #14-1/4" x 3/4" self-tapping screw (L) using the small hole as a pilot. Secure the air line to the frame or where needed using the zip ties (BB) supplied.

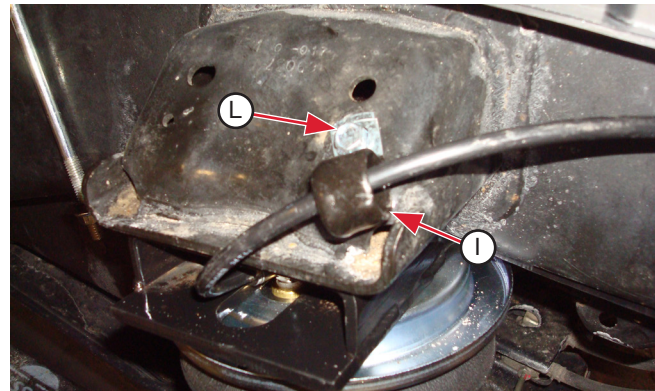


Fig. 19

4. 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.

5. Install the Schrader valve in the chosen location (Fig. 20).

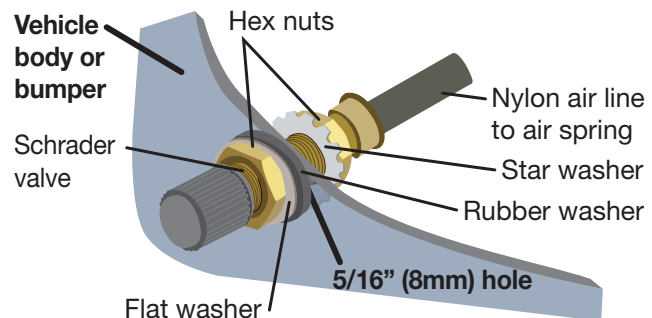
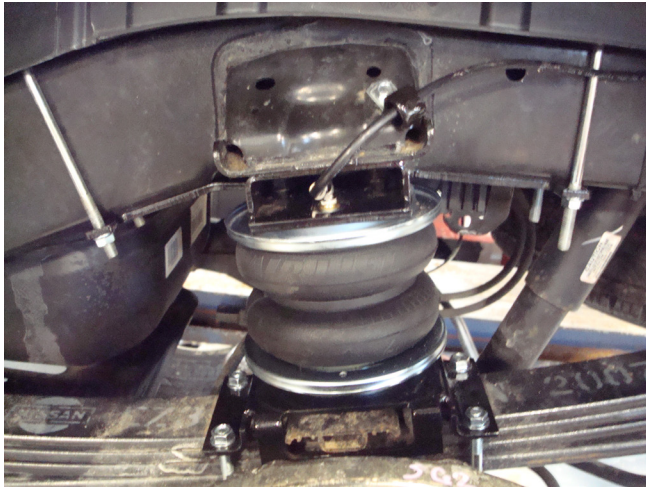


Fig. 20

6. Finish the installation by raising the axle up far enough to remove the safety stands. Remove the safety stands and install the wheels. Torque the lug nuts in a criss cross pattern to 100 lb.-ft. (135Nm).

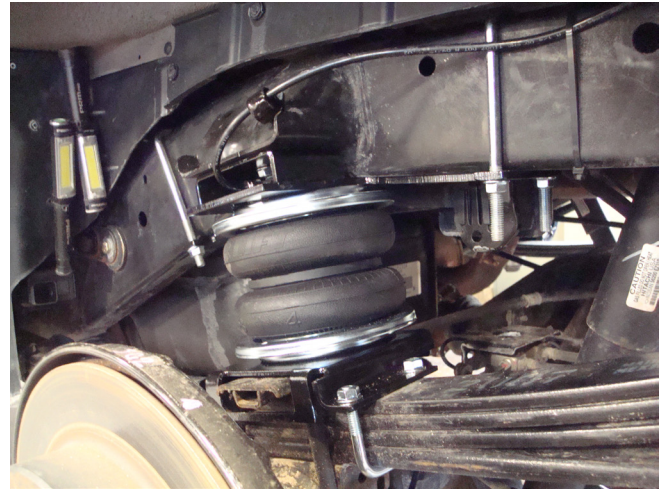
Finished Installation

The images show the finished installation of both sides (Fig. 21 - Fig. 24).



Driver's (left) side, side view

Fig. 21



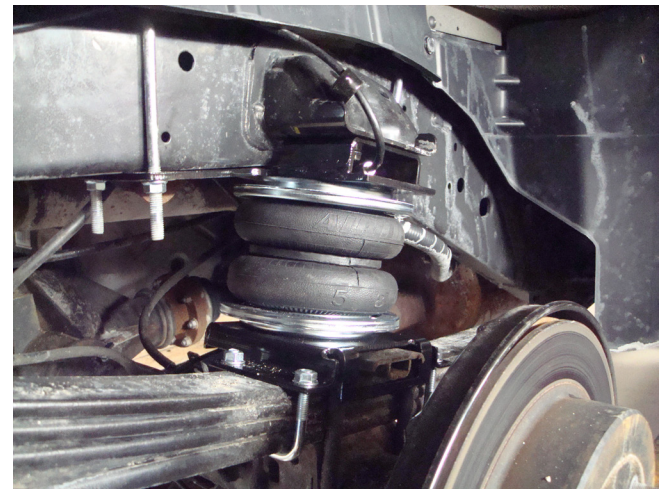
Driver's (left) side, back view

Fig. 22



Passenger's (right) side, side view

Fig. 23



Passenger's (right) side, back view

Fig. 24

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** — After 500 miles, 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.

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
5 PSI (.34BAR)

Maximum Air Pressure
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.

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.