

Load**LIFTER** 5000™ **ULTIMATE**

ADJUSTABLE AIR HELPER SPRINGS

TOW AND HAUL WITH SAFETY AND COMFORT™



Kit Number
88299

INSTALLATION GUIDE

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.

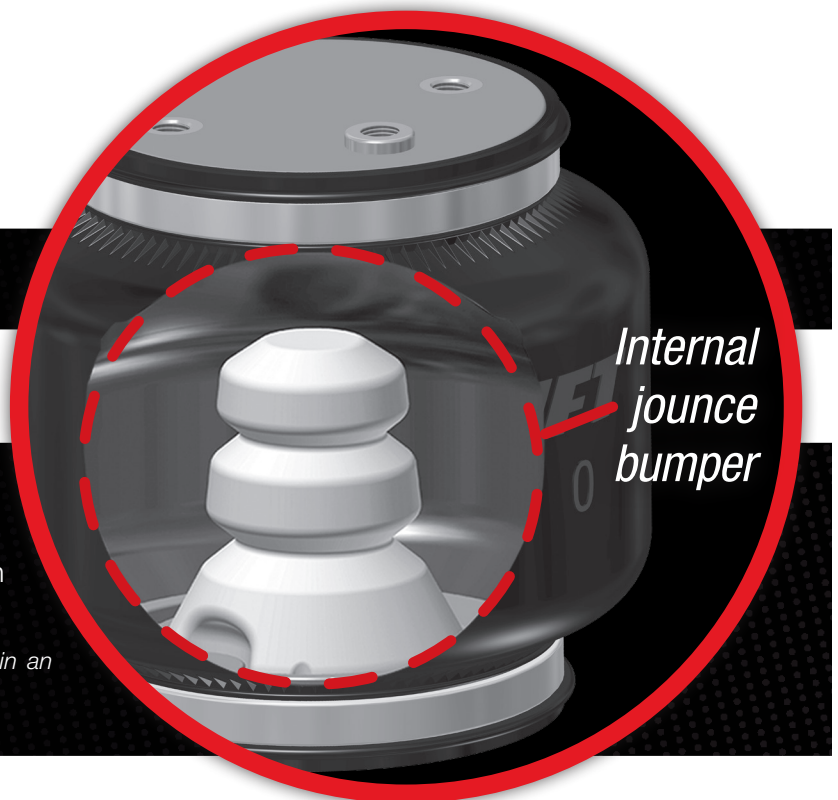


TABLE OF CONTENTS

Introduction	2
Notation Explanation.....	2
Installation Diagram	3
Hardware List.....	3
Tools List.....	4
Installing the LoadLifter 5000 Ultimate System	4
Getting Started.....	4
Assembling the Air Spring.....	5
Installing the Air Spring Assembly.....	6
Installing the Air Lines	8
Installation Checklist.....	9
Maintenance and Use Guidelines	9
Minimum Recommended Pressure and Maximum Pressure.....	9

Introduction

The purpose of this publication is to assist with the installation and maintenance of the LoadLifter 5000 Ultimate air spring kits. All LoadLifter 5000 Ultimate 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 Ultimate 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.

Installation Diagram

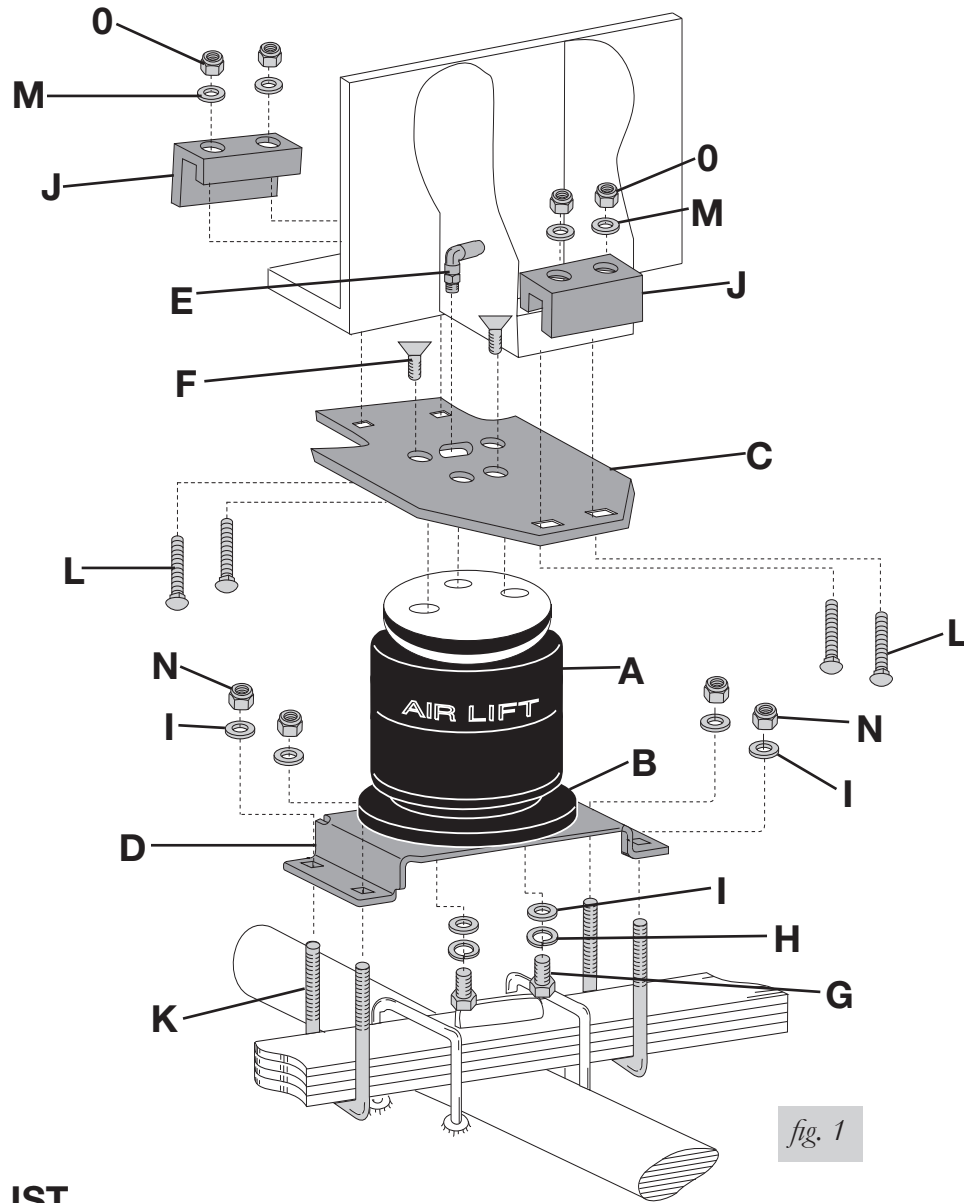


fig. 1

HARDWARE LIST

Item	Part #	Description.....Qty	Item	Part #	Description.....Qty
A	58740	Air spring2	L	17374	5/16" Carriage bolt.....8
B	11967	Roll plate2	M	18433	5/16" Flat washer8
C	07510	Upper bracket2	N	18435	3/8" Nylon lock nut.....8
D	03008	Lower bracket2	O	18438	5/16" Nylon lock nut.....8
E	21953	Swivel elbow fitting2	AA*	20086	Air line.....1
F	17215	3/8" Flat-head screw4	BB*	10466	Zip tie6
G	17203	3/8" Hex-head cap screw4	CC*	21230	Valve cap2
H	18427	3/8" Lock washer4	DD*	18501	M8 Flat washer.....2
I	18444	3/8" Flat washer12	EE*	21234	Rubber washer2
J	01801	Clamp bar.....4	FF*	18411	Star washer2
K	10583	3/8" U-bolt.....4	GG*	21233	5/16" Hex nut.....4

* not pictured in the Installation Diagram

TOOLS LIST

Description.....	Qty	Description.....	Qty
Hoist or floor jacks	1	Ratchet with 9/16", metric, & 1/2" deep well sockets... 1	
Safety stands.....	2	5/16" drill bit (very sharp)	2
Safety glasses	1	Heavy duty drill.....	1
Torque wrench.....	1	Hose cutter, razor blade, or sharp knife.....	1
5/16" open-end or box wrench	1	Air compressor or compressed air source	1
7/16" open-end or box wrench	1	Spray bottle with dish soap/water solution.....	1
9/16" open-end or box wrench	1		

Installing the LoadLifter 5000 Ultimate System

GETTING STARTED

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.

1. Jack up the rear of the vehicle using a jack or a hoist. Support the rear axle with safety stands and remove the rear wheels (Fig. 2).

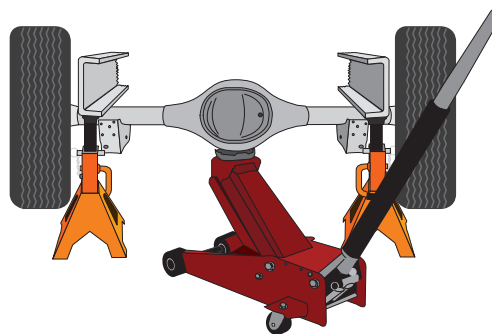


fig. 2

2. Bend the emergency brake cable bracket forward slightly on both sides of the vehicle (Fig. 3).
3. It will be necessary to trim the stock jounce bumper to gain clearance for the air spring assembly's lower bracket. Measure up from the base 3/4" and mark a line on the jounce bumper. Using a box cutter or equivalent, cut the top of the jounce bumper off (Fig. 3).

CAUTION

USE EXTREME CAUTION WHEN CUTTING OFF THE JOUNCE BUMPER WITH THE CUTTING TOOL.

Measure up from the base of the jounce bumper 3/4" and trim the jounce bumper.

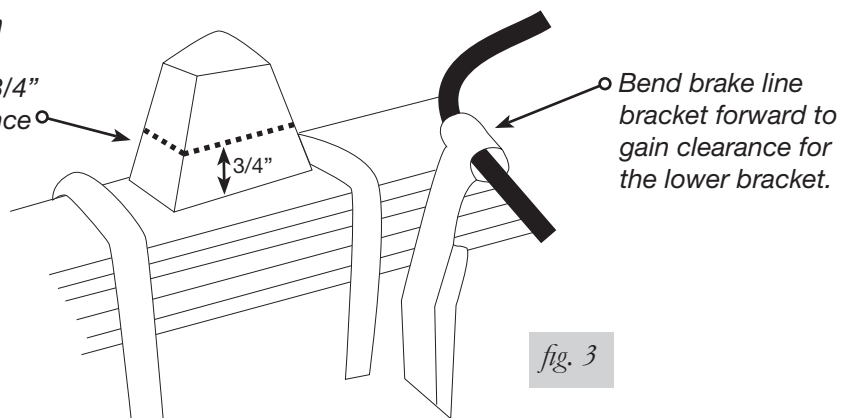
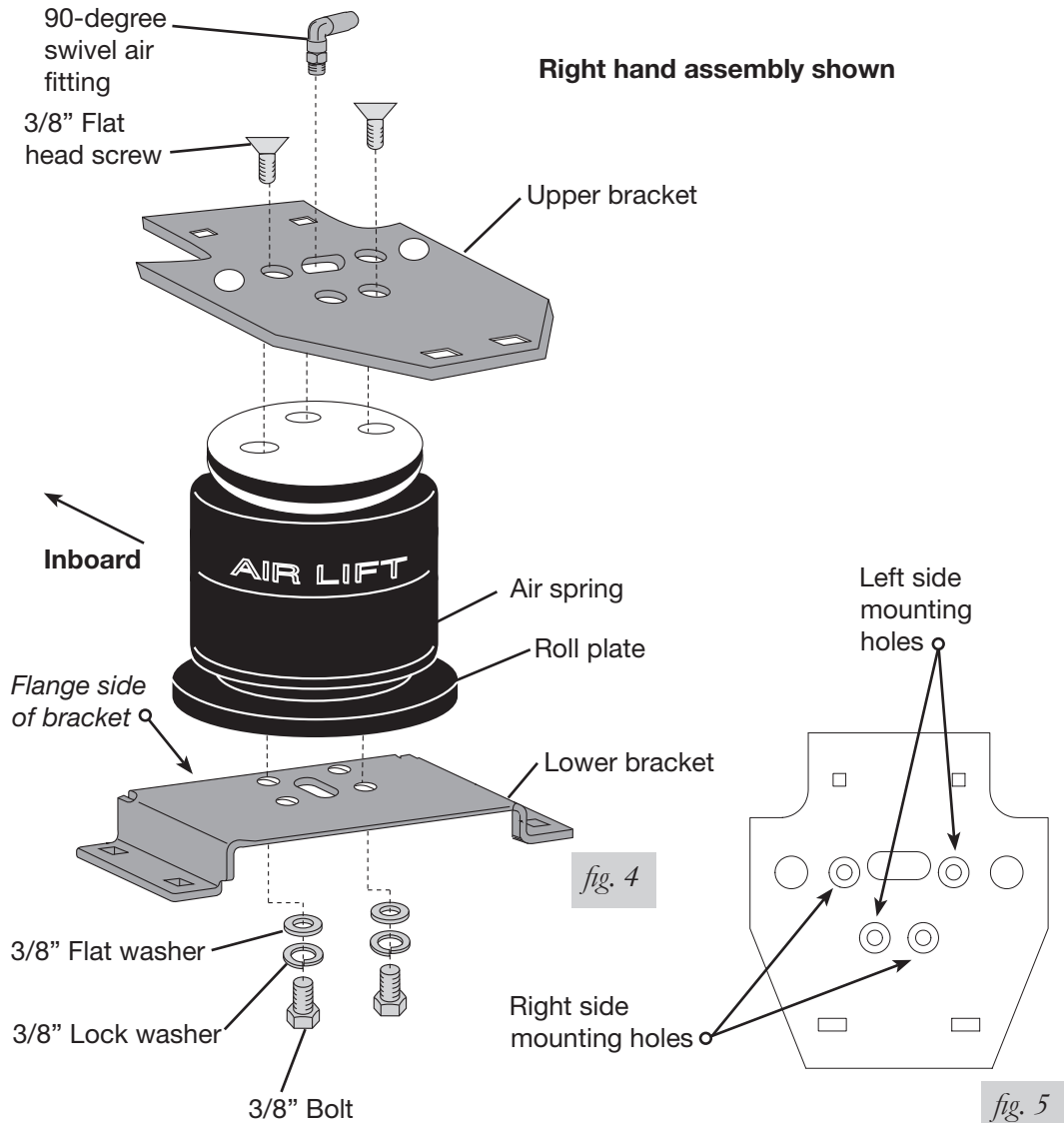


fig. 3

ASSEMBLING THE AIR SPRING

1. Install the 90-degree swivel air fitting to the top of the air spring. Tighten finger tight plus 1 1/2 turns.
2. Attach the upper bracket to the air spring using the supplied 3/8" flat-head screws (Fig. 4). Torque to 20 lb.-ft. (27Nm).



NOTE

The fitting goes through an existing hole in the frame that is forward of the axle. Attach the left side bracket using the holes specified and attach the right side bracket using the holes specified (Fig. 5).

3. Set a roll plate over the bottom of the air spring and attach the lower bracket to the air spring using the 3/8" bolt, lock and flat washer provided (Fig. 4).

NOTE

The flange on the lower bracket should be on the same side of the air spring as the fitting on the upper bracket (Fig. 4). These will both face the inside of the truck once installed.

INSTALLING THE AIR SPRING ASSEMBLY

1. Set the assembly onto the leaf spring. Index the fitting into the existing hole in the frame flange, forward of the axle (see Fig. 1 & Fig. 6a).

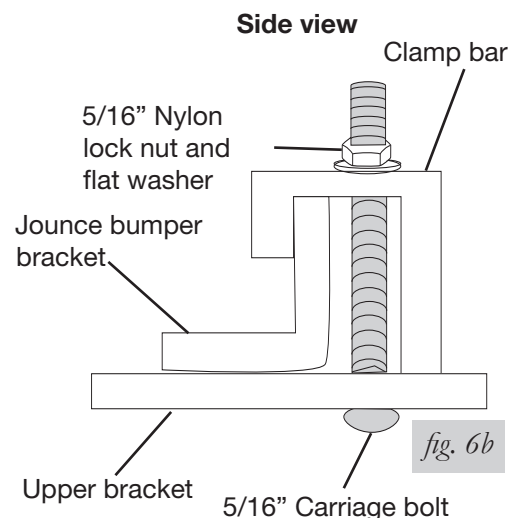
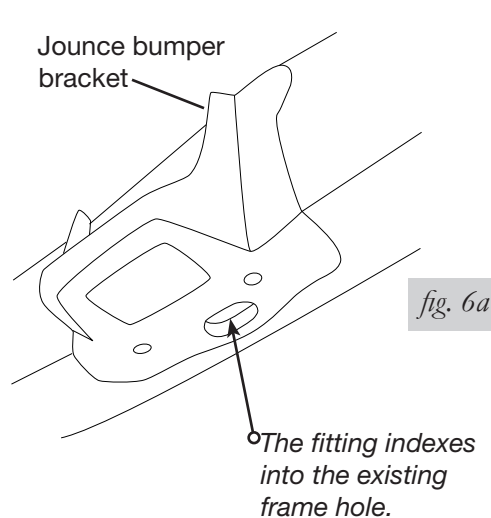
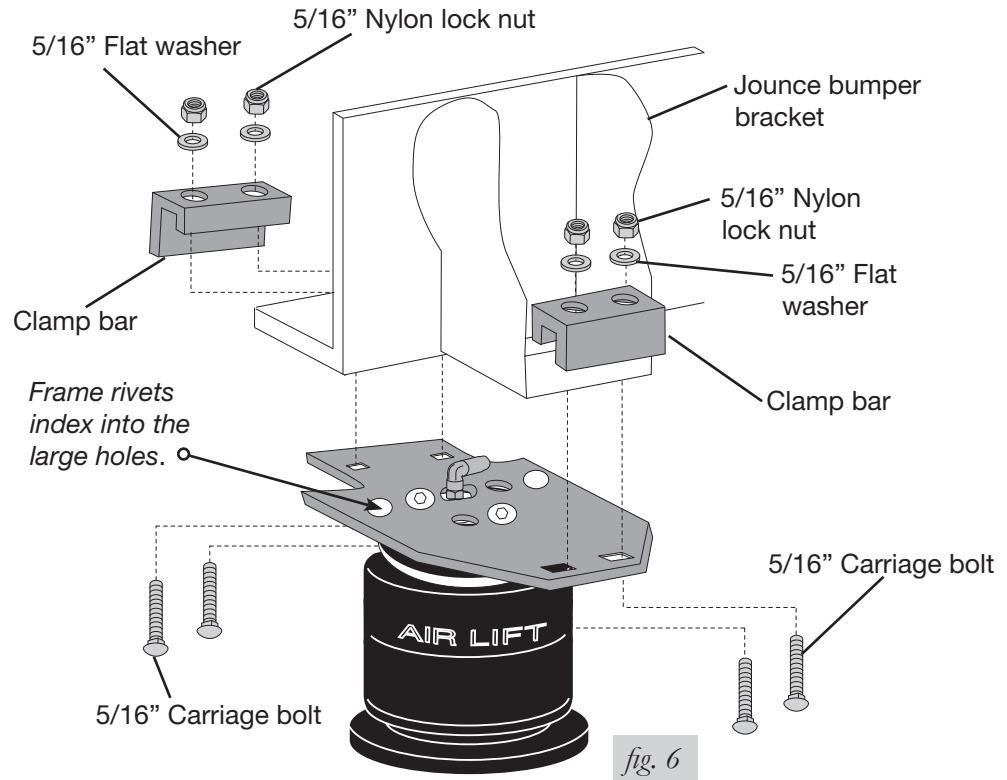
NOTE

The existing rivets in the frame will index into the large holes in the upper bracket (Fig. 6).

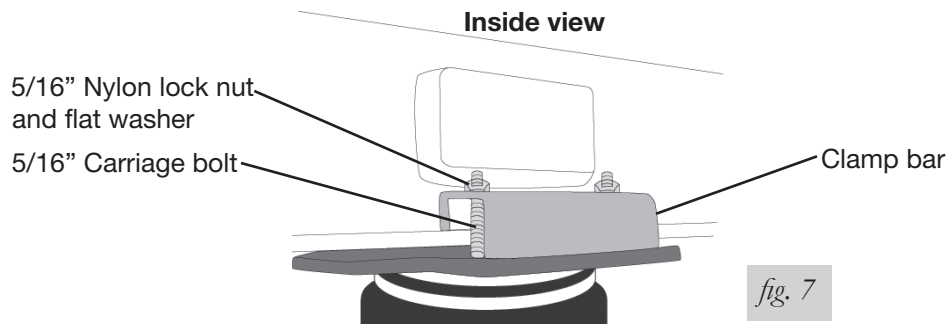
CAUTION

THE FITTING ON THE ASSEMBLY IS FRAGILE. TAKE CARE WHEN INSERTING THE FITTING THROUGH THE HOLE IN THE FRAME.

2. Set the short leg of one clamp bar over the outside jounce bumper bracket and attach using the 5/16" carriage bolts, flat washers and nylon lock nuts (Figs. 6 & 6b). Do not tighten at this time.



3. Set another clamp bar on the inside of the frame so that the short side of the clamp bar is on the frame. Attach using the 5/16" carriage bolts, flat washers and nylon lock nuts (Figs. 6 & 7).
4. With the existing frame rivets indexed into the upper bracket holes, tighten the carriage bolts down evenly using a cross pattern. Torque the bolts to 12 lb.-ft. (16Nm).



5. Move the lower bracket on the leaf spring to align the air spring so that it is close to being perpendicular between both brackets (Fig. 8).

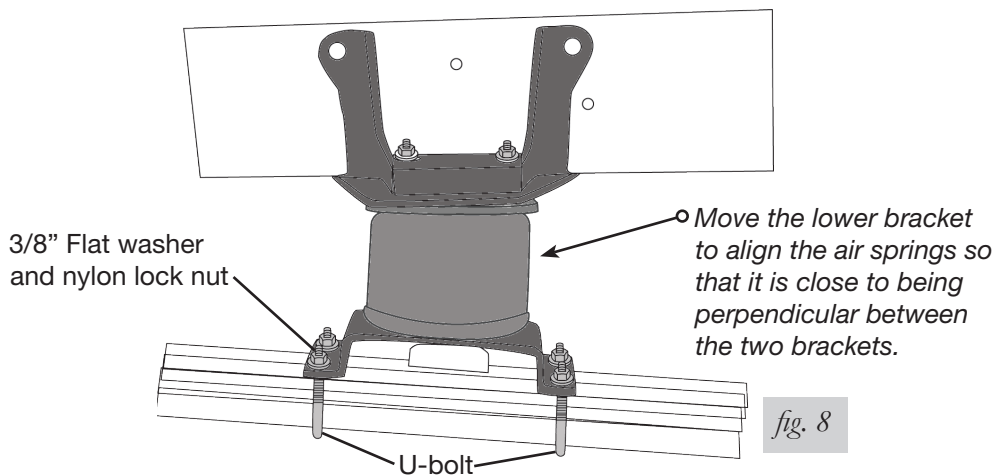
NOTE

The upper and lower brackets will not be parallel to each other once installed.

6. Install the U-bolts under the leaf spring, through the lower bracket and cap with a 3/8" flat washer and nylon lock nut. Torque the U-bolts evenly to 16 lb.-ft. (22Nm). Trim the excessive length of the U-bolts close to the nylon lock nut (see Figs. 1 & 8). Repeat for the opposite side.

NOTE

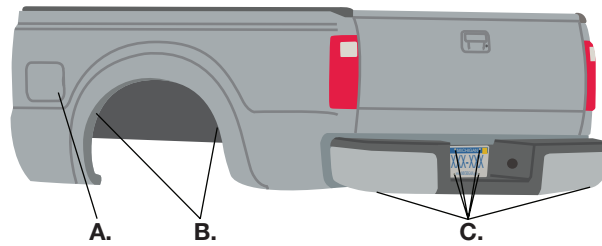
The jounce bumper has been intentionally cut to support the lower bracket. It will be necessary to draw the lower bracket into the jounce bumper using the U-bolts.



Installing the Air Lines

Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. 9).

1. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. 10). Do not use scissors or wire cutters.



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

fig. 9

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" (51mm) 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).

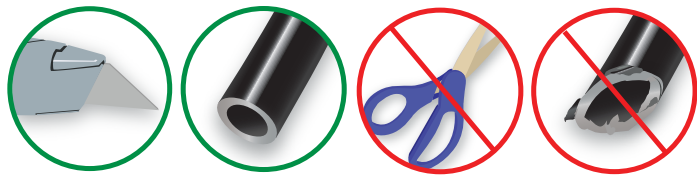


fig. 10

3. Install the Schrader valve in the chosen location (Fig. 11).

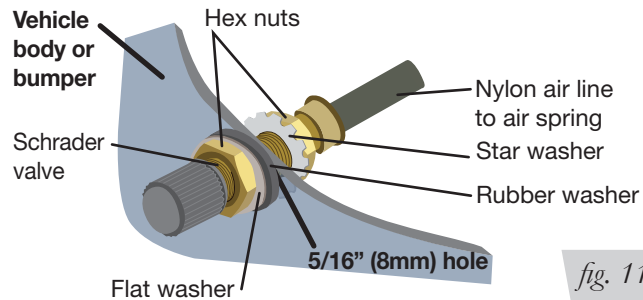


fig. 11

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.

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.