

Load**LIFTER** 5000™ **ULTIMATE**

ADJUSTABLE AIR HELPER SPRINGS

TOW AND HAUL WITH SAFETY AND COMFORT™



Kit Number
88255

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.

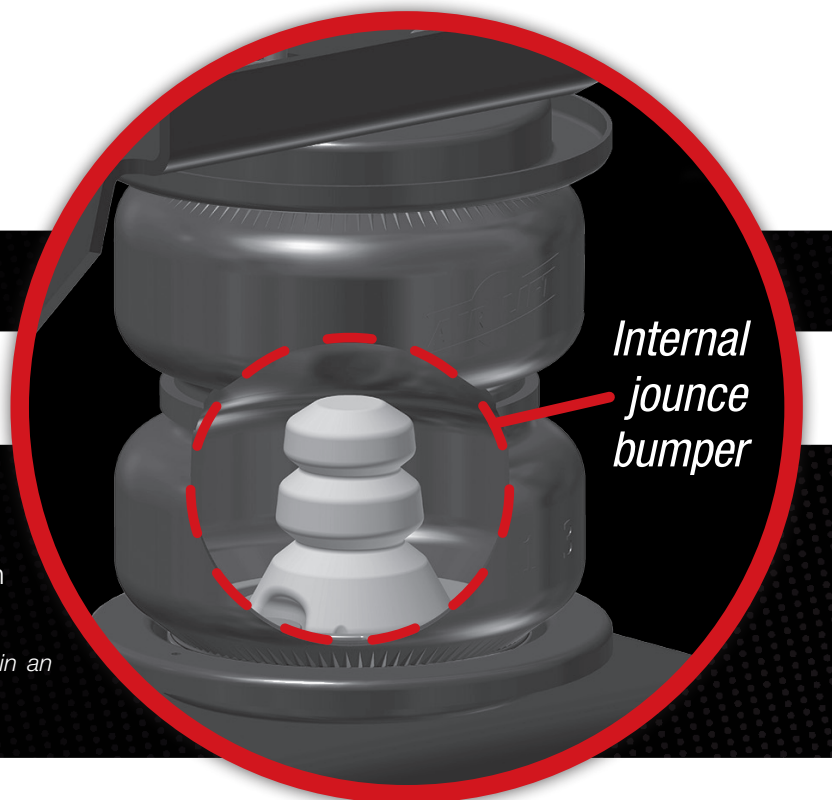


TABLE OF CONTENTS

Introduction	2
Important Safety Notice	2
Notation Explanation	2
Installation Diagram	3
Hardware List	3
Tools List	3
Installing the LoadLifter 5000 Ultimate System	4
Getting Started	4
Assembling the Air Springs	6
Finished Assemblies	8
Attaching the Assemblies to the Frame	8
Installing the Air Lines	10
Installing the Heat Shield	10
Finished Installation Photos	11
Installation Checklist	12
Maintenance and Use Guidelines	12
Minimum and Maximum Pressure	12
Limited Warranty and Returns Policy	13

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting 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.



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.

Installation Diagram

HARDWARE LIST

Item	Part #	Description.....	Qty
A	01531	Clamp bar.....	2
B1	07149	Frame upper bracket.....	2
B2	07256	Air spring upper bracket.....	2
C1	03018	Right hand lower bracket.....	1
C2	03033	Left hand lower bracket.....	1
D	58496	Air spring.....	2
E	11967	Roll plates.....	4
F	17215	3/8"-24 x 3/4" Flat head screws.....	4
G	17365	3/8"-24 x 7/8" Button head screw.....	4
H	21837	90-degree Swivel fitting.....	2
I	10181	Frame clamp.....	1
J*	11219	E-brake adapter.....	1
K	17103	5/16"-18 x 1 1/4" Hex cap screw.....	1
L	17361	3/8"-16 x 1 1/4" Carriage bolts.....	4
M	17366	M10-15 x 35 Button head screw.....	4
N	17490	3/8"-16 x 6 1/2" Carriage bolts.....	4
O	18435	3/8" Nylon lock nuts.....	8
P*	18438	5/16" Nylon lock nut.....	1
Q	18444	3/8" Flat washer.....	8
R*	18501	5/16" Flat washer.....	2
S*	09484	Thermal sleeve.....	1
AA*	20086	Air line.....	1
BB*	10466	Zip ties.....	6
CC*	21230	Valve cap.....	2
DD*	18501	5/16" Flat washer.....	2
EE*	21234	Rubber washer.....	2
FF*	18411	Star washer.....	2
GG*	21233	5/16" Hex nut.....	2

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

TOOLS LIST

Description.....	Qty
9/16" Crow's foot adapter.....	1
Standard open-end combo wrenches.....	1
Ratchet.....	1
5/16" Drill bits (very sharp).....	1
Metric and standard sockets.....	1
Heavy duty drill.....	1
Torque wrench.....	1
#6 Metric hex key wrench (socket if available).....	1
7/32" Hex key wrench (socket if available).....	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

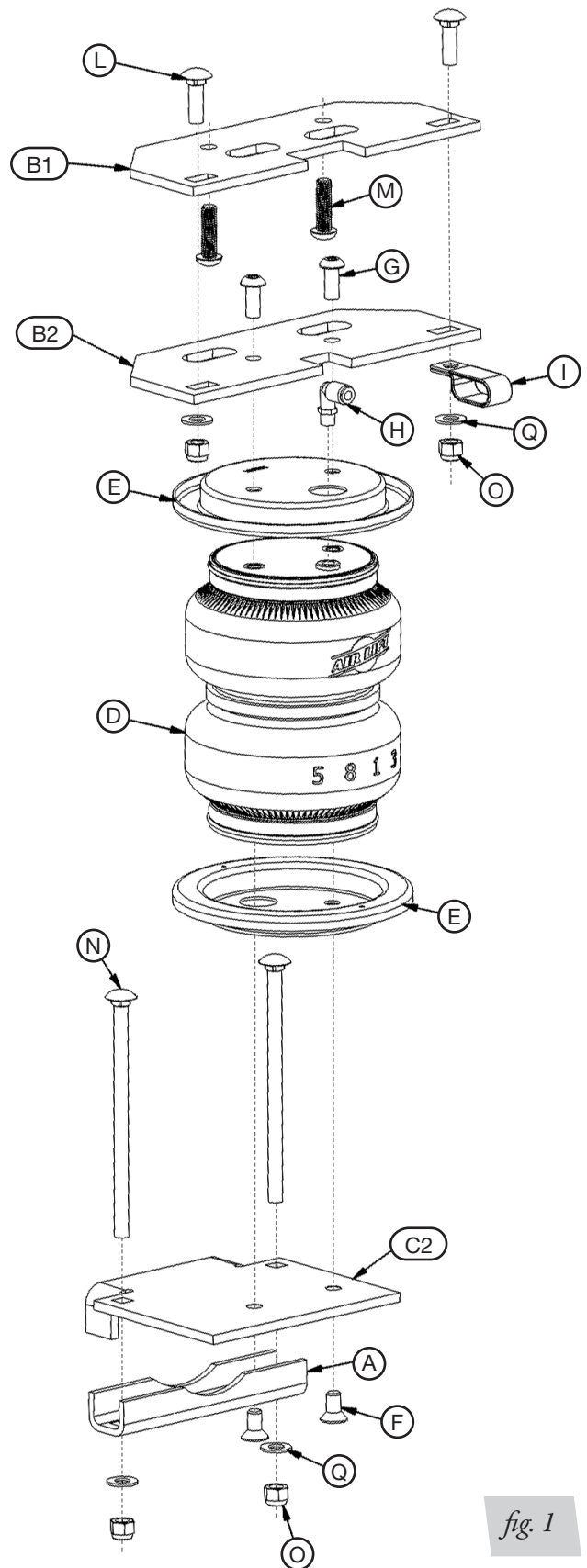


fig. 1



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

Installing the LoadLifter 5000 Ultimate System

GETTING STARTED

1. Raise the vehicle and support the frame with safety stands. Drop the axle down to make room for the air spring assemblies to be put into position between the frame and axle (Fig. 2).

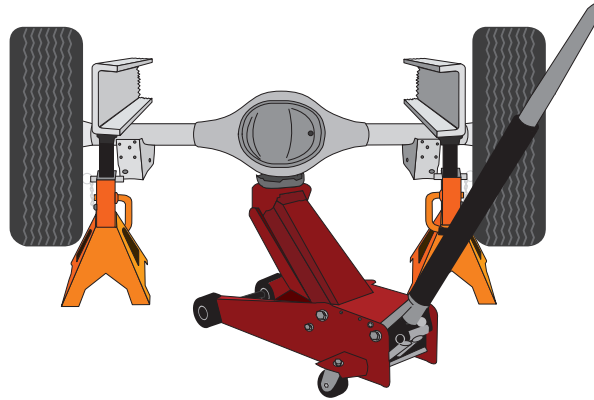


fig. 2

2. Unbolt and remove the left- and right-hand jounce bumpers (and spacers if equipped) (Fig. 3) from both frames above the axle.



fig. 3

- Using the stock jounce bumper holes, attach the frame upper brackets (B1) to the frame using the button head screws (M) (Figs. 1 & 4) on both sides, and torque mounting hardware to 30 lb.-ft. (41Nm).



fig. 4

- On the right-side axle, above the shock, is an emergency brake line bracket (Fig. 5). Remove and retain the bolt holding the bracket to the axle.



fig. 5

- Attach the e-brake adapter (J) to the axle using the stock bolt previously removed and tighten securely. Attach the stock e-brake cable bracket to the adapter using one 5/16" cap screw (K) two flat washers (R) and one lock nut (P) (Fig. 6). Tighten securely.



fig. 6

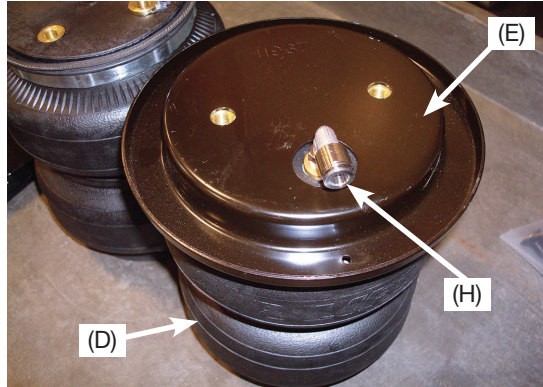
ASSEMBLING THE AIR SPRINGS

1. Set a roll plate (E) over the top of each air spring (D).

NOTE

The radiused (rounded) edge of the roll plate (E) will be towards the air spring so that the air spring is seated inside both roll plates.

2. Install the swivel fitting (H) into the top of the air spring finger-tight plus one-and-a-half turns (Fig. 7). Repeat for both air springs.


fig. 7

3. Attach the air spring upper bracket (B2) to the air spring with two 3/8"-24 button head screws (G) and torque to no more than 20 lb.-ft. (27Nm) (Figs. 1 & 8). Repeat for the other air spring.


fig. 8

4. Flip over both air spring assemblies and set a roll plate over both ends.

NOTE

The radiused (rounded) edge of the roll plate (E) will be towards the air spring so that the air spring is seated inside both roll plates.

5. Insert the long 3/8" carriage bolt (N) into the lower bracket (C1 & C2) using the round hole which corresponds to the tapered hole (that is closest to the edge of the bracket) (Figs. 1 & 9) so that it points in the same direction as the flanges that come off the bracket.

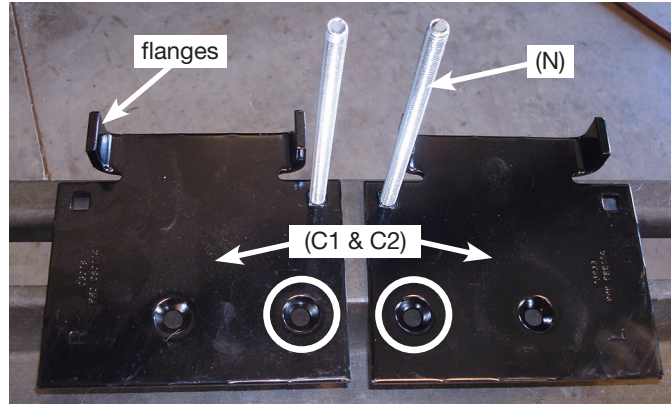


fig. 9

6. Attach the lower brackets with the carriage bolt and flanges mounted on the opposite side of the fitting, using the 3/8"-24 flat head screws (F) to the air spring assembly (Figs. 1 & 10). Torque to no more than 20 lb.-ft. (27Nm).

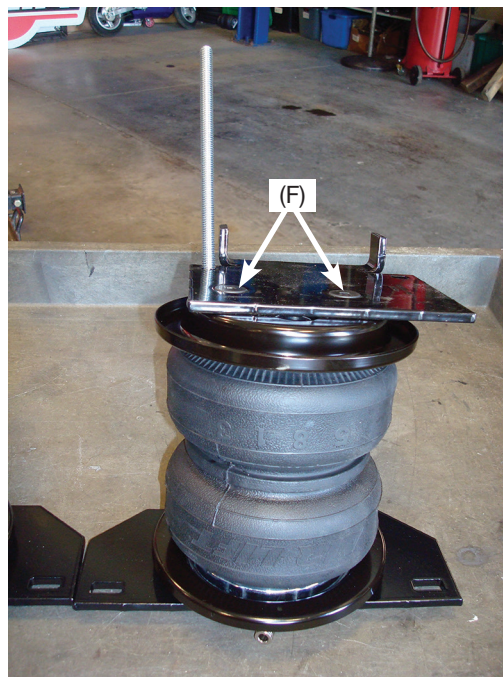


fig. 10

FINISHED ASSEMBLIES

*Right
(passenger) side
assembly*



*Left
(driver) side
assembly*

fig. 11

ATTACHING THE ASSEMBLIES TO THE FRAME

1. With the axle still suspended, set the left side assembly into position above the axle and insert one long 3/8" carriage bolt (N) into the remaining hole in the lower bracket (Fig. 12). Repeat for the right hand side.

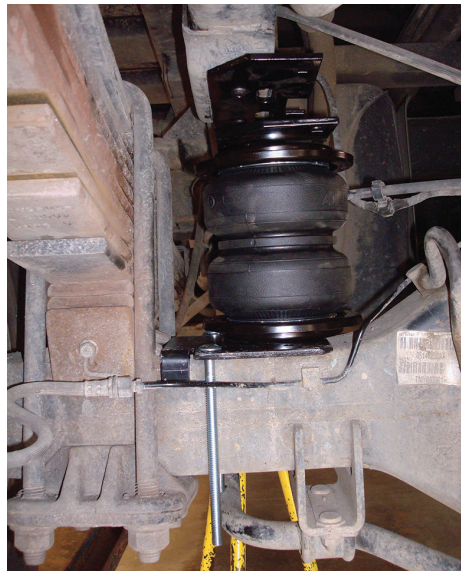
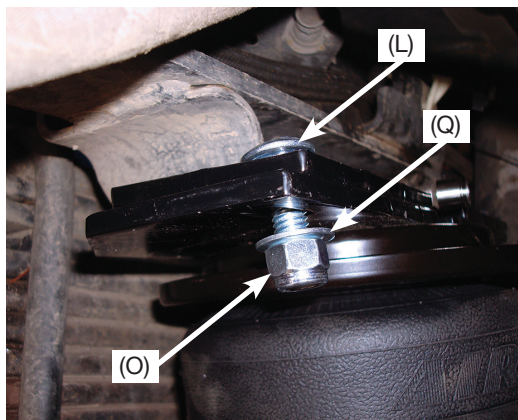


fig. 12

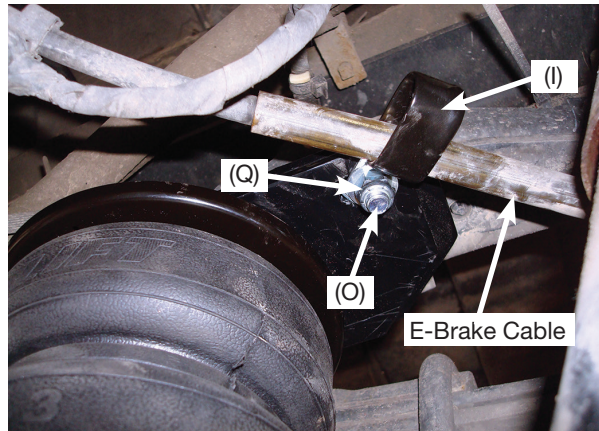
2. Raise the axle back up so the slots in the upper brackets line up with one another. Insert two short 3/8" carriage bolts (L) through the slots in the upper air spring and frame brackets (Figs. 1 & 13) from the top down.



*Back side of left
assembly shown*

fig. 13

3. Insert the frame clamp (I) onto the emergency brake cable (Fig. 14) and attach the frame clamp to the front upper bracket bolt of the driver side only. Cap the carriage bolts with two 3/8" flat washers (Q) and nylon lock nuts (O).



Front side of left assembly shown

fig. 14

4. Align the air spring so it is perpendicular to the upper and lower brackets. Torque the hardware to 16 lb.-ft. (22Nm).
5. Push the lower bracket against the axle/spring retainer (Fig. 15).

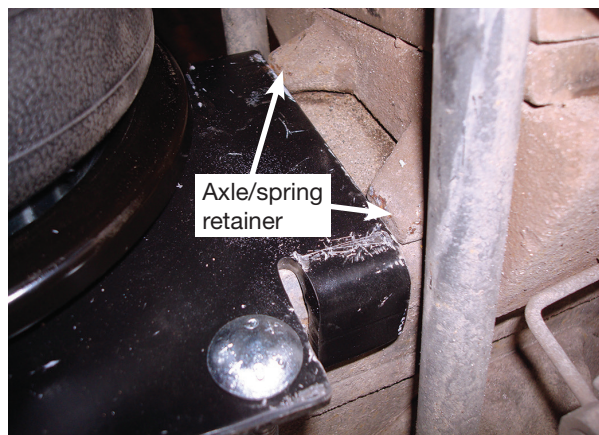


fig. 15

6. Insert the lower clamp bar (A) over the carriage bolts under the axle and cap with flat washers (Q) and nylon lock nuts (O). Repeat for the other side and torque all the lower mounting hardware evenly to 10 lb.-ft. (14Nm) (Fig. 16).

NOTE

It may be necessary to use a 9/16" crowfoot wrench on the forward carriage bolt because of the sway bar interference under the carriage bolt.

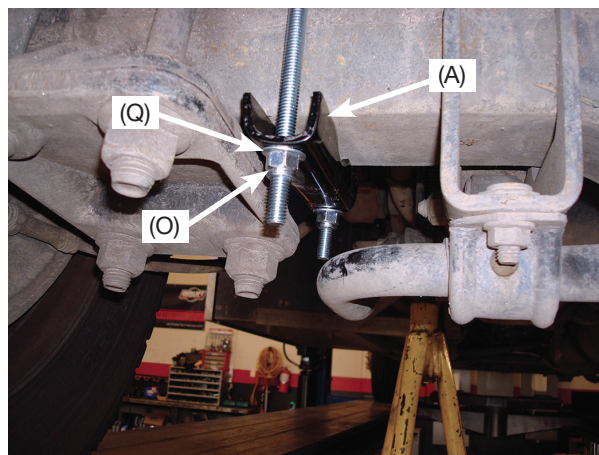


fig. 16

Installing the Air Lines

Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. 17).

1. 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.

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).

3. Install the Schrader valve in the chosen location (Fig. 19).

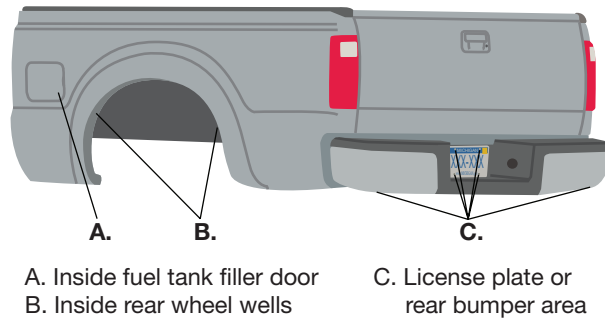


fig. 17

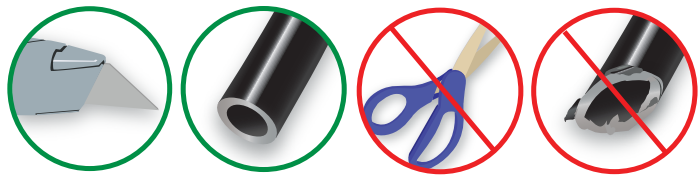


fig. 18

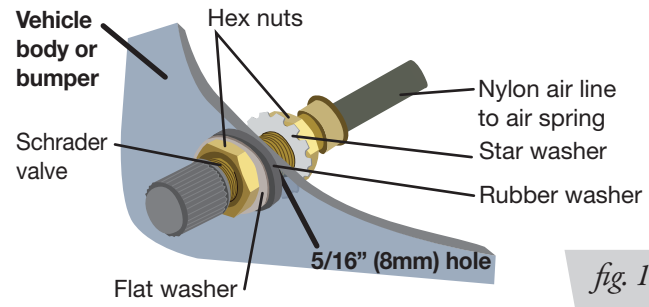


fig. 19

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. 20).

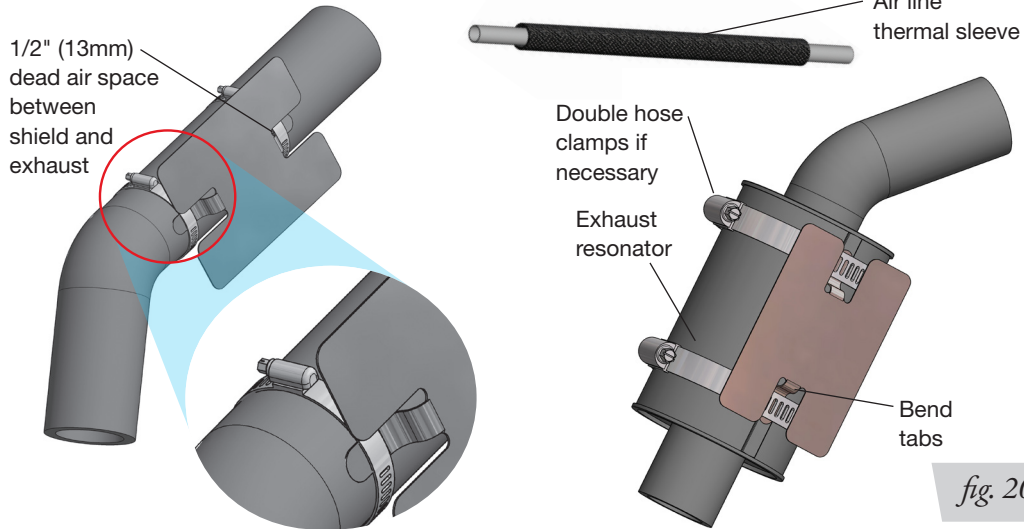


fig. 20

Finished Installation Photos

1. The following images show the finished installation of both sides (Figs. 21, 22, 23 & 24).

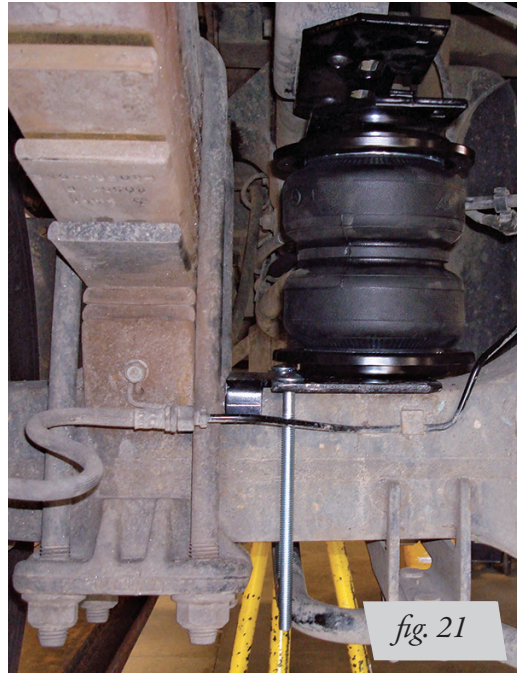


Figure 22 shows a rear view of the left (driver) side assembly.



Figure 23 shows a front view of the left (driver) side assembly.

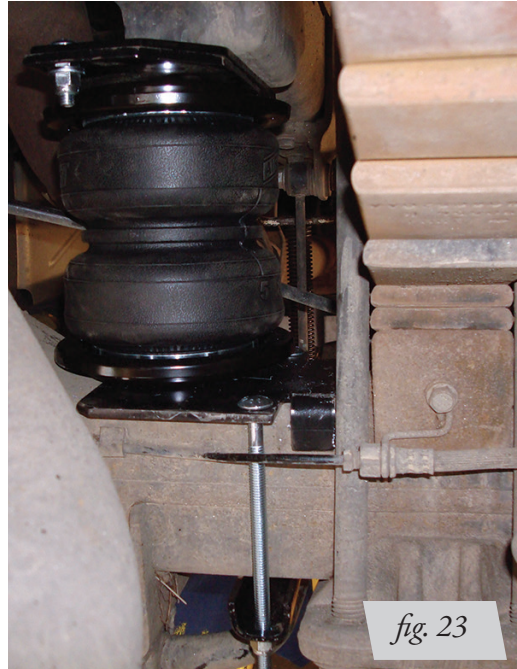


Figure 24 shows an inside rear view of the right (passenger) side assembly.

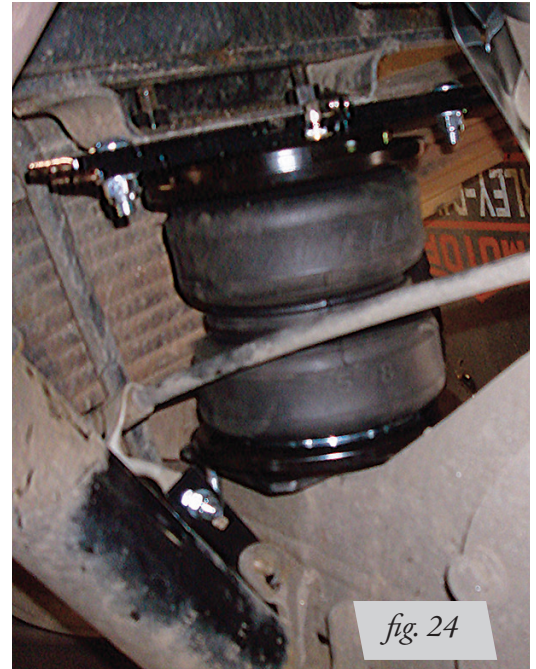


Figure 25 shows a front view of the right (passenger) side assembly.

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.

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.

Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892.

For calls from outside the USA or Canada, dial (517) 322-2144.



Thank you for purchasing Air Lift products — the professional installer's choice!

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