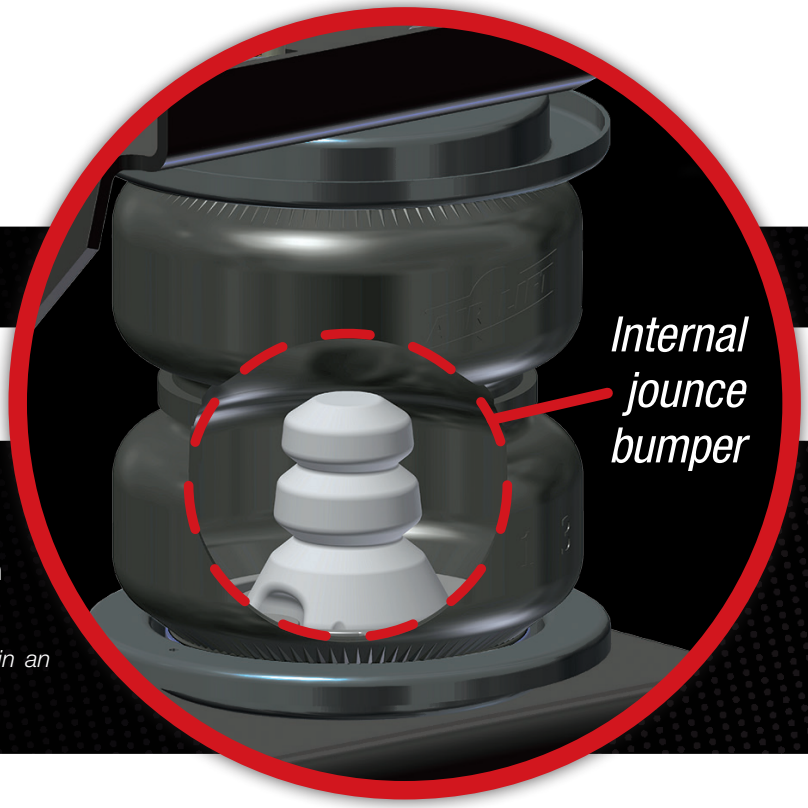
LoadLIFTER 5000™ ULTIMATE

ADJUSTABLE AIR HELPER SPRINGS

AIR LIFT™ Since 1949

Kit Number

88390



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.

MN-829 • (031602) • ECR 8439

TABLE OF CONTENTS

Installation Diagram

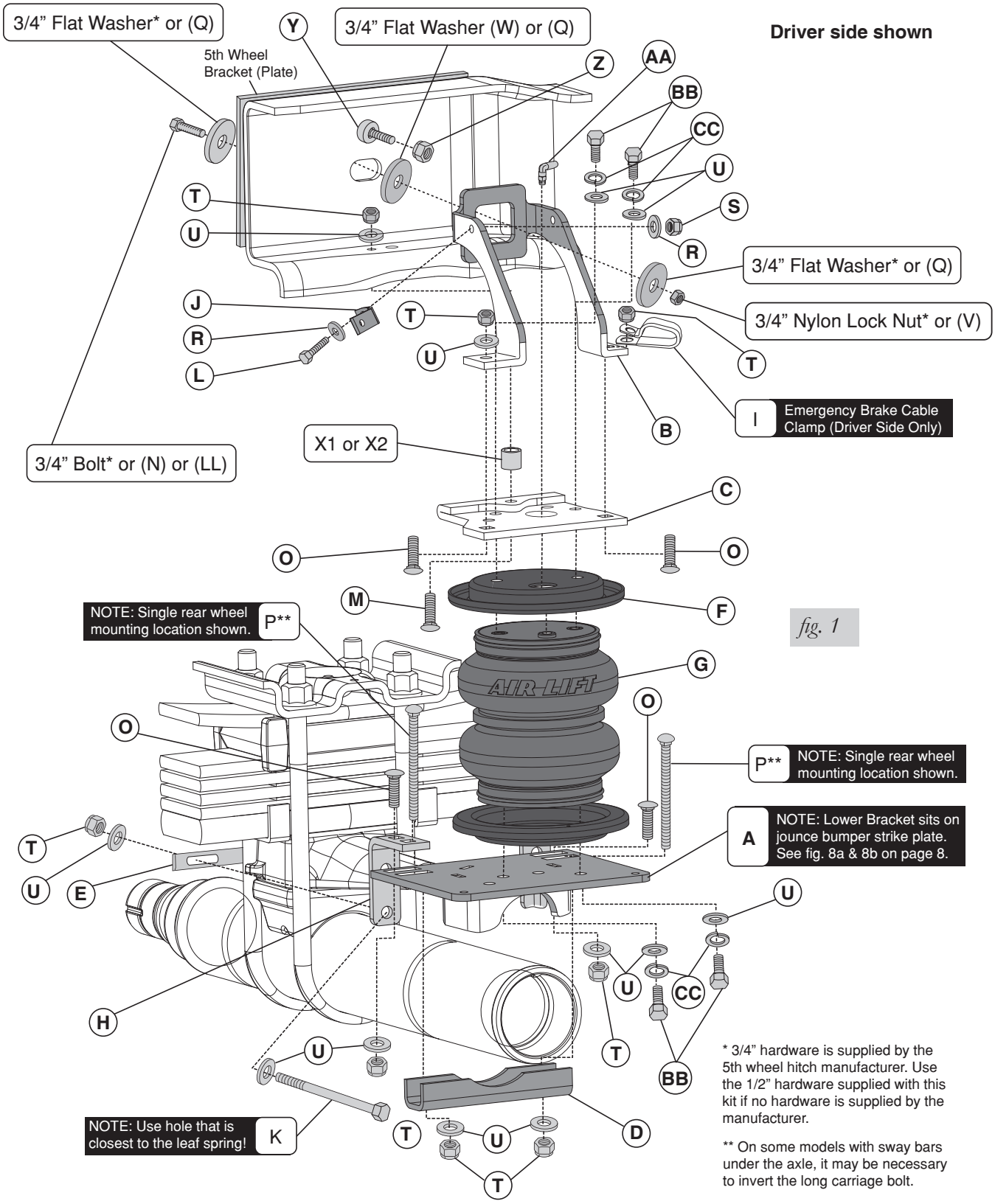


fig. 1

* 3/4” hardware is supplied by the 5th wheel hitch manufacturer. Use the 1/2” hardware supplied with this kit if no hardware is supplied by the manufacturer.

** On some models with sway bars under the axle, it may be necessary to invert the long carriage bolt.

Hardware and Tools Lists

HARDWARE LIST

Item	Part #	Description	Qty
A	03990	Lower Bracket	2
B	07996	Upper Brace	2
C	07997	Upper Bracket	2
D	01531	Axle Clamp Bar	2
E	10861	Spring Clamp Bar	2
F	11967	Roll Plate	4
G	58496	Bellows	2
H	10880	Four Hole Locating Bracket	4
I	10181	Emergency Brake Cable Clamp	1
J	10886	“L” Bracket	1
K	17110	3/8”-16 x 5.5” Hex Head Cap Screw	4
L	17135	1/4”-20 x 1” Hex Head Cap Screw	1
M	17141	3/8”-16 x 2.5” Carriage Bolt	2
N	17271	1/2”-13 x 3” Hex Head Cap Screw	2
O	17361	3/8”-16 x 1.25” Carriage Bolt	8
P	17387	3/8”-16 x 10” Carriage Bolt	4
Q	18207	1/2” Thick Flat Washer	6
R	18419	Flat Washer #12	2
S	18425	1/4”-20 Nylon Lock Nut	1
T	18435	3/8”-16 Nylon Lock Nut	18
U	18444	3/8” Flat Washer	33
V	18460	1/2”-13 Nylon Lock Nut	2
W	18556	3/4” Flat Washer	2
X1	13964	Spacer	2
X2	13978	Spacer	2
Y	18443	7/16” Spacer	1
Z	18495	M10-1.5 Nylon Lock Nut	1
AA	21837	90˚ Swivel Elbow Fitting	2
BB	17203	3/8”-24 x 7/8” Hex Head Cap Screw	8
CC	18427	3/8” Lock Washer	8
DD*	10466	Zip Ties	6
EE	18411	5/16” Lock Washer	2
FF	21230	Valve Caps	2
GG	21233	5/16” Hex Nut	4
HH	21234	Rubber Washer	2
II	18501	Flat Washer	2
JJ	20086	Air Line Assembly	1
KK*	34924	Heat Shield Kit	1
LL	17208	1/2”-13 x 2” Hex Head Cap Screw	2

*Not shown

TOOLS LIST

Description	Qty
Standard and Metric Open-end or box wrenches	2
Crescent wrench	1
Ratchet with 3/8”, 9/16”, & 1/2” deep well sockets	1
5/16” drill bits (very sharp)	1
DIR grinder	1
Hacksaw	1
Heavy duty drill	1
Torque wrench	1
Standard, metric and SAE sockets and wrenches	1
Hose cutter, razor blade, or sharp knife	1
Hoist or floor jacks	1
Safety stands	1
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

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

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the LoadLifter 5000 Ultimate air spring kit. LoadLifter 5000 Ultimate utilizes sturdy, reinforced, commercial grade single or double, depending on the kit, convolute bellows. The bellows are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 Ultimate kits are recommended for most 3/4- and 1-ton pickups and SUVs with leaf springs and provide up to 5,000 pounds of load-leveling support with air adjustability from 5-100 PSI. The kits are also used in motor home rear applications and various front applications where leaf springs are used.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information here includes a hardware list, tool list, step-by-step installation information, maintenance guidelines and operating tips.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Company at **(800) 248-0892** or visit **airliftcompany.com**.

IMPORTANT SAFETY NOTICE

The installation of this kit does not alter the gross vehicle weight rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual and do not exceed the maximum load listed for your vehicle.

Gross vehicle weight rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined, maximum allowable weight of cargo and passengers that the truck is designed to carry. Payload is GVWR minus the base curb weight.

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.

NOTE *Indicates a procedure, practice or hint which is important to highlight.*

Installing the LoadLifter 5000 Ultimate System

GETTING STARTED

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

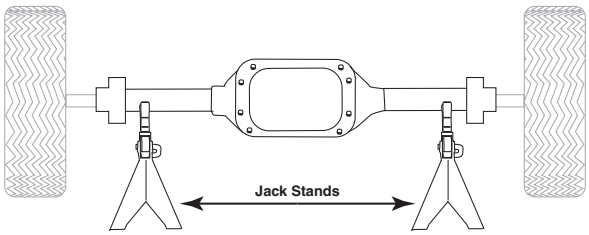


fig. 2

2. Remove the jounce bumpers from under the frame, over the axle.
3. If necessary, disconnect the wiring harness from the driver side frame rail to gain clearance for the upper bracket.
4. For all dual rear wheel vehicles (DRW) it will be necessary to remove the sway bar strap and bolts holding the sway bar to the axle. Retain for later reinstallation.
5. If you have a fifth wheel hitch already installed, it will be necessary to remove the 3/4" hardware that bolts the side bracket to the outside of the frame above the axle (Fig. 1).

NOTE

Some hitch models have a spacer between the bracket and the frame rail. Be sure to reinstall the spacer when attaching the upper bracket.

6. In order to obtain clearance between the upper bracket and the emergency brake cable bolt, on the inside of the frame, it will be necessary to remove the bolt and re-insert through the emergency brake cable bracket, from the outside of the frame in. Install the 7/16" spacer (Y) on the bolt and cap with the new M10-1.5 nylon lock nut (Z) (Fig. 1). Tighten hardware securely.

NOTE

If your model truck has emission lines running along the inside of the frame rail (Fig. 3), it will be necessary to relocate those lines as follows. Follow the directions in the section, "Attaching the Assemblies to the Frame" for reattaching these lines.

- *Carefully push the line holder out of the frame above the axle. Try to minimize damage because it will be reused later. It may also be helpful to remove any holders forward or rearward of the axle to aid in positioning the lines once the upper bracket has been installed (Fig. 3) .*

- *Attach the L-bracket (J) to the back or front leg of the frame brace using the 1/4"-20 x 1" hex head bolt (L), flat washers (R) and 1/4"-20 nylon lock nut (S) supplied (Fig. 1). This L-bracket will eventually be used to attach the previously removed emissions line. Do not attach the line holder to it at this time.*

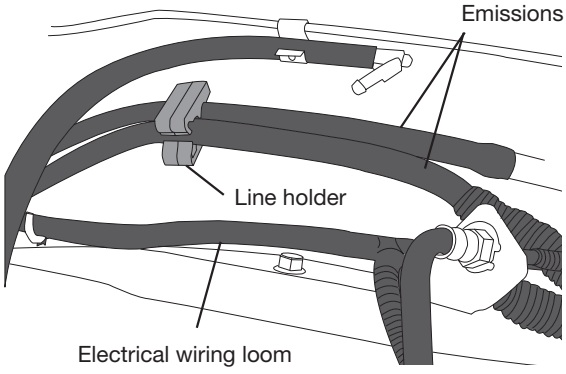


fig. 3

SIDE BRACE INSTALLATION

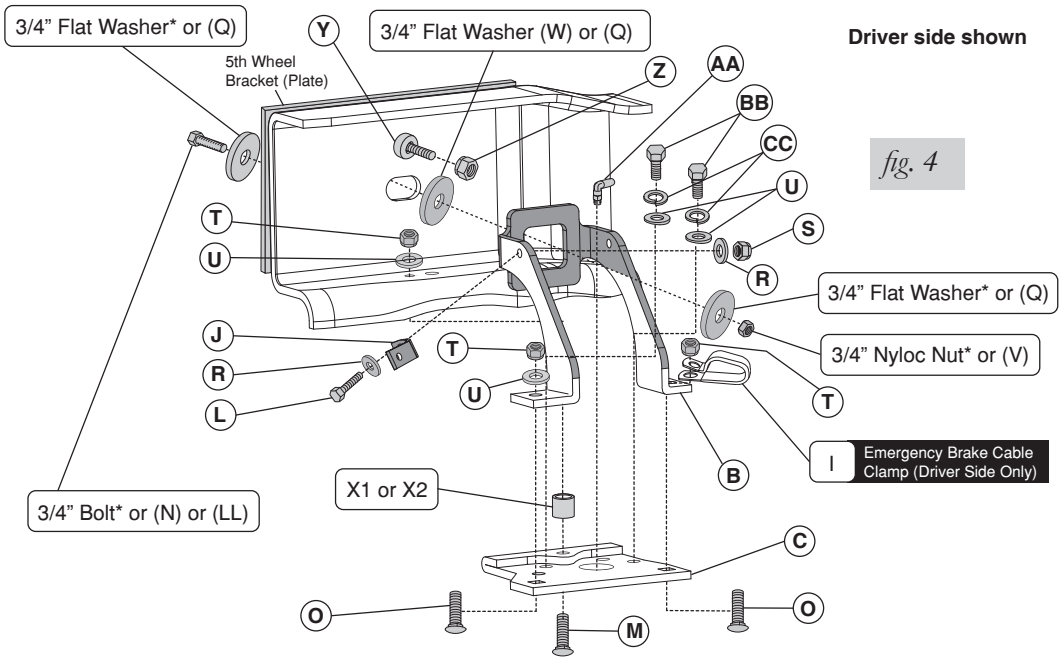


fig. 4

1. Set the upper brace (B) into the driver and passenger side frame (Fig. 4).

   If you have no fifth wheel hitch or a hitch that does not have a plate running alongside the full length of the frame (these will have an "L" bracket forward and behind the axle leaving the middle frame open) use the 1/2"-13 x 2" Hex Cap Screw (LL) with a flat washer (Q) through the slot in the side of the frame, then through another flat washer (Q) and finally through the upper brace. Cap with a flat washer (Q) and a 1/2"-13 nylon lock nut (V) (Fig. 4). Leave loose at this time.

   OR

   If you have an aftermarket fifth wheel hitch that has a bracket (plate) running along side of the frame and it used this slot to secure the bracket to the frame with existing hardware, install the existing hardware previously removed in the "getting started section" from the fifth wheel installation for securing the brace (Fig. 4). Make sure to install the large 3/4" flat washer (W) between the brace and frame (Figs. 1 and 4). Do not tighten at this time.

   OR

   If you have an aftermarket fifth wheel hitch that has a bracket (plate) running along side of the frame and it does not have any attaching hardware on the side where the slot in the frame is, it will be necessary to drill a 1/2" hole through the plate using the slot in the frame as a template.

NOTE *It may be necessary to mark and remove the bracket (plate) from the side of the frame in order to drill the hole correctly. Re-attach once the hole is drilled.*

   Insert a 1/2"-13 x 3" hex head cap screw (N) with a 1/2" thick flat washer (Q) through the fifth wheel plate previously drilled, the frame, then through another 1/2" thick flat washer (Q)and finally the upper frame brace. Cap with a 1/2" thick flat washer (Q) and a 1/2"-13 nylon lock nut (V) (Fig. 4). Leave loose at this time.

BELLOWS AND BRACKET ASSEMBLY

1. Set a roll plate (F) over the top and bottom of the bellows (G) (Fig. 1).

NOTE *The radiused (rounded) edge of the roll plate (F) will be towards the bellows so that the bellows is seated inside both roll plates.*

2. Install the swivel elbow fitting (AA) into the top of the bellows finger tight. Tighten the swivel fitting one and a half turns.
3. The lower bracket (A) has two sets of bellows mounting holes. Using the corresponding holes in the lower bracket designated (Fig. 5), attach the bellows to the brackets using the 3/8” flat washers (U), lock washers (CC), and 3/8”-24 x 7/8” hex head cap screws (BB). Tighten both mounting screws securely.

NOTE

The fitting on top of the bellows points inward (Fig. 7).

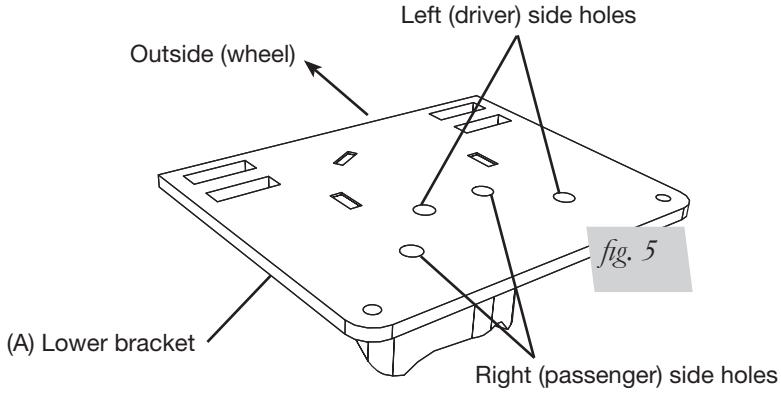


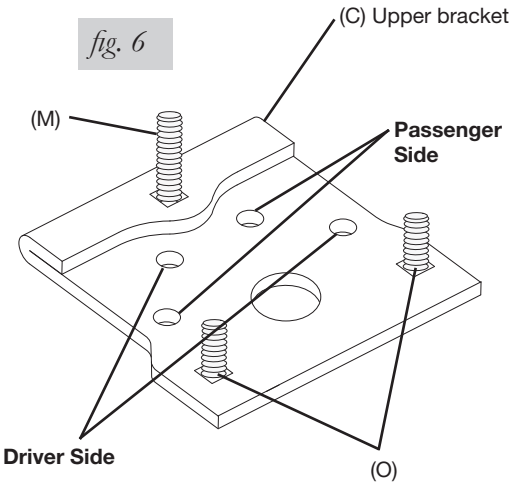
fig. 5

4. Insert two 3/8”-16 x 1.25” carriage bolts (O) up through the bottom of the upper brackets (fig. 6), through the two square holes that are on the corresponding side. Also, insert one 3/8”-16 x 2.5” carriage bolt (M) through the remaining hole. The head of this carriage bolt will be hidden once mounted to the bellows.
5. Set the driver side (left) upper bracket onto the driver side bellows assembly previously assembled, using the holes in the upper bracket designated (Fig. 6), and attach to the bellows with two 3/8” flat washers (U), lock washers (CC), and 3/8”-24 x 7/8” hex head cap screws (BB). Tighten both mounting screws securely.
6. Repeat the above process for the opposite side assembly (Fig. 7).
7. Depending on the model of the truck, there are two spacer (X1 or X2) lengths that are supplied to properly fit between the frame jounce bumper bracket and frame. Use the spacer that can be inserted where the stock jounce bumper was removed, which when butted against the frame, will be flush (or close to) the bottom of the jounce bumper bracket that is riveted to the frame.

NOTE

The upper bracket, when in position, should rest on the spacer and the stock jounce bumper bracket.

fig. 6



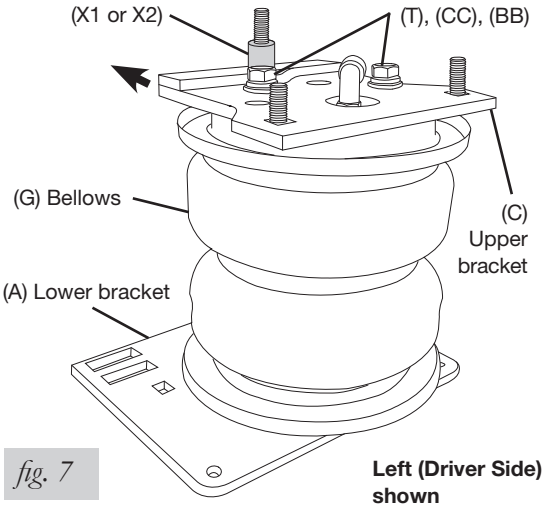


fig. 7

Left (Driver Side) shown

ATTACHING THE ASSEMBLIES TO THE FRAME

1. If not done so yet, drop the axle or raise the frame up to make room for the assemblies to be put into position.
2. Set the left (driver side) assembly onto the jounce bumper strike plate (Figs. 8a & 8b). Raise the axle just enough to insert the 3/8”-16 x 2.5” long carriage bolt (M) (that is installed in the upper bracket) through the existing jounce bumper hole in the bottom of the frame. At the same time, line up the upper brace previously installed onto the remaining two 3/8”-16 x 1.25” carriage bolts (O) in the upper bracket. Do this just enough for the carriage bolt to hold the assembly into position on the jounce bumper strike plate (Figs. 1 & 8b).

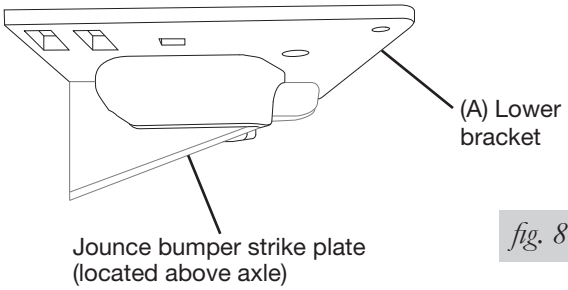


fig. 8a

fig. 8b

3. Set the right (passenger side) assembly into position on the axle the same way the left side was positioned (Fig. 1).
4. Raise the axle or lower the frame down so that the round spacer (X1 or X2) on the upper bracket inserts into the stock jounce bumper bracket hole (on both sides).
5. Install the 3/8” Flat Washer (U) and a 3/8”-16 nylon lock nut (T) on the 3/8”-16 x 2.5” carriage bolt (M) that went through the existing jounce bumper hole and tighten securely on both sides (Fig. 1).

⚠ CAUTION

BE SURE NOT TO PINCH THE PREVIOUSLY MOVED WIRING OR LINES INSIDE THE LEFT FRAME RAIL.

6. Install the emergency brake cable clamp (I) over the emergency brake cable and attach to the forward brace/upper bracket bolt (O) (Fig. 1). Cap with a 3/8” nylon lock nut (T).

   Both sides: Cap the remaining brace/upper bracket carriage bolts (O) with a 3/8” flat washer (U) and 3/8”-16 nylon lock nut (T) and tighten all hardware securely.
7. With the spacers (X1 or X2) on the upper brackets tight in the frame and the braces tight to the upper bracket, tighten the 1/2” or 3/4” hardware previously installed, that hold the braces to the frame. Tighten both sides securely.
8. If so equipped with the emissions line previously loosened from the frame, insert the line holder post into the L-bracket (J) attached to the back or front leg of the upper left brace (B) (Fig. 9). It may be necessary to move the line holder post forward or back on the lines to line up correctly with the L-bracket hole. Reattach any line holders removed forward or behind the axle, if possible, that were removed to aid in positioning the upper bracket.

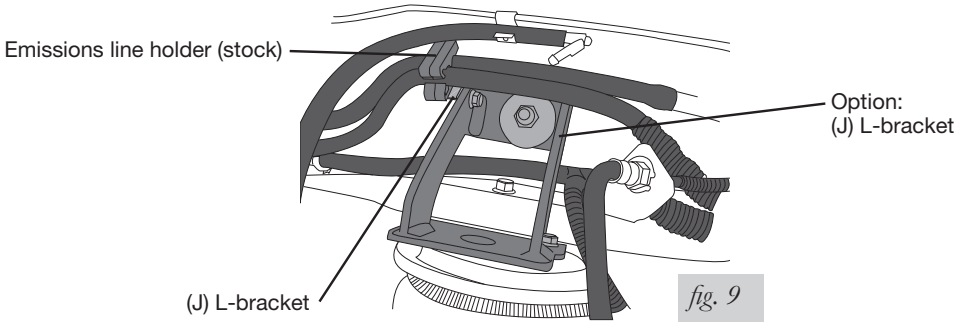


fig. 9

ATTACHING THE LOWER BRACKET

⚠ CAUTION

ATTACHING THE LOWER BRACKET WILL DEPEND ON THE MODEL TRUCK YOU HAVE. SEE FIGURES 10 AND 11 TO DETERMINE WHICH HOLES TO USE FOR INSERTING THE CARRIAGE BOLTS.

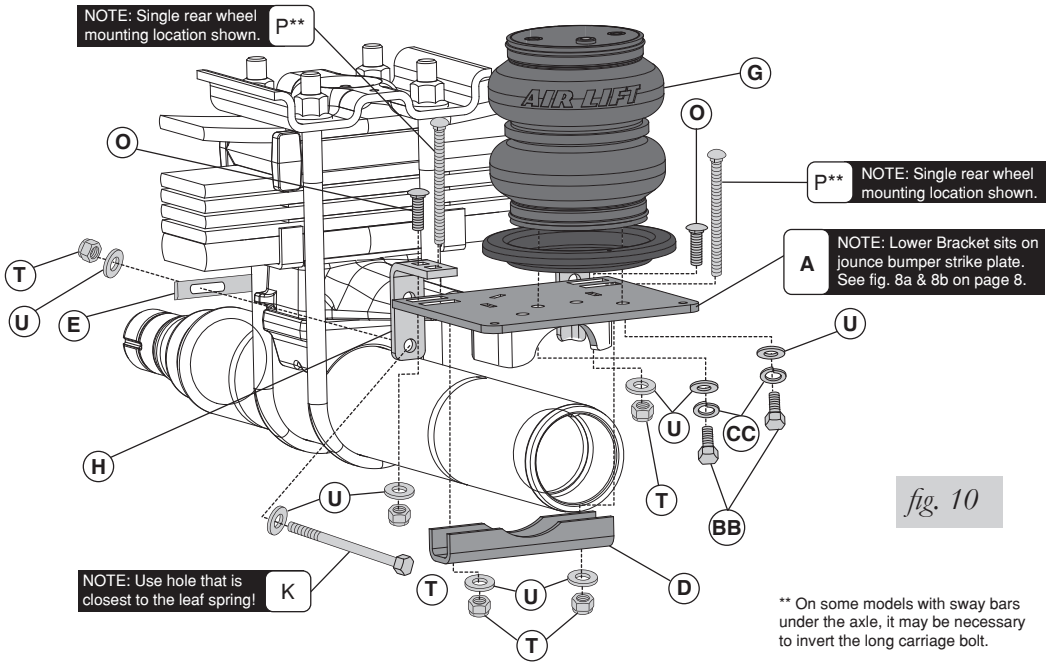


fig. 10

** On some models with sway bars under the axle, it may be necessary to invert the long carriage bolt.

1. Insert a 3/8”-16 x 5.5” hex head bolt bolt (K) and 3/8” flat washer (U) into one of the two bottom holes of the locating bracket (H) (Fig. 11).

NOTE

Use the hole that is closest to the leaf spring.

2a. If you are installing this kit on a single rear wheel (SRW) vehicle, use position 2 to insert the long 3/8”-16 x 10” carriage bolt (P) through the top of the locating bracket and lower bracket (Fig. 11).

2b. If you are installing this kit on a dual rear wheel (DRW) vehicle, use position 1 to insert the long 3/8”-16 x 10” carriage bolt (P) through the top of the locating bracket and lower bracket (Fig. 11).

3. Attach the locating bracket (H) to the lower bracket with a 3/8”-16 x 1.25” carriage bolt (O), 3/8” flat washer (U) and 3/8”-16 nylon lock nut (T) using the remaining slot in the top of the locating bracket. Leave loose at this time.

4. Push the front and back locating brackets against the stock u-bolts and tighten the short carriage bolts at this time.

5. Using the 3/8”-16 x 5.5” hex head bolts (K) and 3/8” flat washers (U) previously installed on the locating brackets, insert them into the spring clamp bar (E) on the opposite side of the leaf spring assembly (Fig. 11). Cap with 3/8” flat washers (U) and 3/8”-16 nylon lock nuts (T). Leave loose at this time.

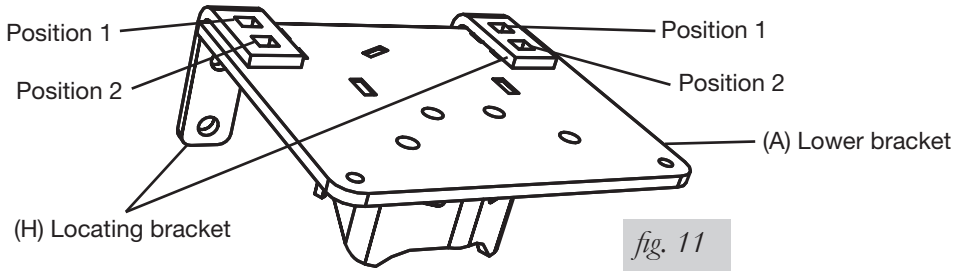


fig. 11

6. Set the axle clamp bar (D) onto the long 3/8”-16 x 10” carriage bolts (Q) (Fig. 1) and cap with 3/8” flat washers (U) and 3/8”-16 nylon lock nuts (T).

NOTE

If you have a sway bar under the axle and the 3/8”-16 x 10” long carriage bolt (P) interferes, invert the carriage bolt.

7. Carefully draw the side hardware and axle hardware evenly. Torque the spring clamp bar bolts to 10 ft/lbs and the axle clamp bar bolts to 16 lb.-ft. Repeat for opposite side. Trim carriage bolts below nylon lock nuts if necessary.

NOTE

For 2WD and 4WD DRW vehicles, in order to install the sway bar and sway bar retaining straps back onto the axle, it will be necessary to slot the retaining straps (Fig. 12). Reattach the sway bar once this is done.

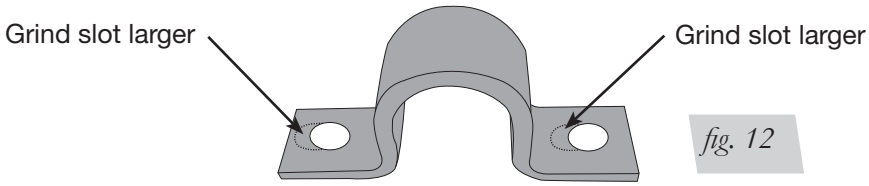


fig. 12

Installing the Air Lines

This section explains how to set up the air spring kit to be controlled with Schrader valves and a separate compressed air source. An on-board air compressor system allows for hassle-free control of the air springs. Learn more about Air Lift control systems at **www.airliftcompany.com/products/compressor-systems**.

1. Choose a convenient location for mounting the inflation valves (Fig. 13). Popular locations for the inflation valve are:
   a. The wheel well flanges
   b. The license plate recess in bumper
   c. Under the gas cap access door
   d. Through the license plate

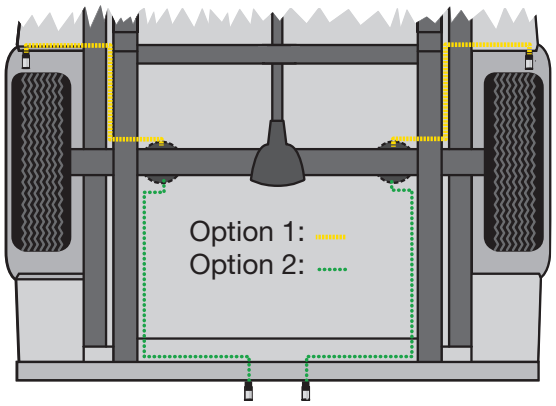


fig. 13

NOTE

Whatever the chosen location, make sure there is enough clearance around the inflation valves for an air chuck.

2. Drill 5/16” holes to install the inflation valves.
3. Cut the air line assembly in two equal lengths.
4. Place a 5/16” nut and star washer on the air valve. Leave enough of the inflation valve in front of the nut to extend through the hole and have room for the rubber washer, flat washer, and 5/16” nut and cap. There should be enough valve exposed after installation – approximately 1/2” – to easily apply a pressure gauge or an air chuck (Fig. 14).

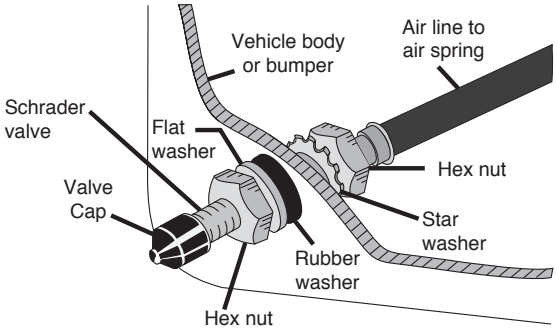


fig. 14

5. Push the inflation valve through the hole and use the rubber washer, flat washer, and another 5/16” nut to secure it in place. Tighten the nuts to secure the assembly.
6. Route the air line along the frame to the fitting on the air spring. Keep AT LEAST 6” of clearance between the air line and the exhaust system. Avoid sharp bends and edges. Use zip ties to secure the air line to fixed points along the chassis. Be sure that the tie straps are tight, but do not pinch the air line. Leave at least 2” of slack to allow for any movement that might pull on the air line.
7. Cut off the air line, leaving approximately 12” of extra air line. A clean square cut will prevent leaks. Insert the air line into the air fitting. This is a push-to-connect fitting. Simply push the air line into the 90° swivel fitting until it bottoms out (9/16” of air line should be in the fitting).

TIPS FOR INSTALLING AIR LINES

When cutting air lines, use a sharp knife or a hose cutter and make clean, square cuts (Fig. 15). Do not use scissors or wire cutters because these tools may deform the air line, causing it to leak around fittings. Do not cut the lines at an angle.

Do not bend the 1/4” hose at a radius of less than 1” or bend the 3/8” hose at a radius of less than 1 1/2”. Do not put side load pressure on fitting. The hose should be straight beyond the fitting for 1” before bending.

Inspect hose for scratches that run lengthwise on hose prior to installation. Contact Air Lift customer service at **(800) 248-0892** if the air line is damaged.

To watch a video demonstrating proper air line cutting, go to **air-lift.co/cuttingairline**.

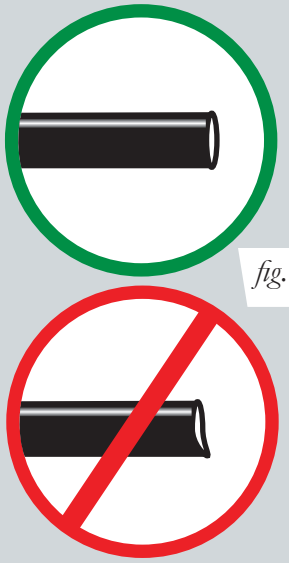


fig. 15

INSTALLING THE HEAT SHIELD

1. Bend tabs to provide a dead air space between exhaust pipe and heat shield. (Fig. 16) Attach the heat shield to the exhaust pipe using the clamps. Bend the heat shield for maximum clearance to the air spring.

NOTE

Some vehicles have large resonators in this area; it will be necessary to double up on the clamps to fit these models (Fig. 16).

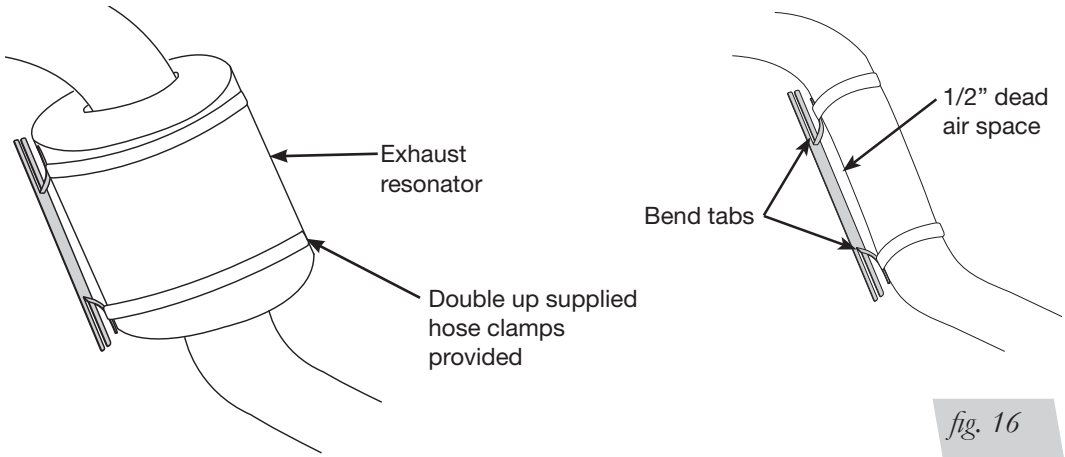


fig. 16

Before Operating

CHECKING FOR LEAKS

1. Inflate the air spring to 30 PSI.
2. Spray all connections and the inflation valves with a solution of 1/5 liquid dish soap and 4/5 water. Spot leaks easily by looking for bubbles in the soapy water.
3. After the test, deflate the springs to the minimum pressure required to restore the system to normal ride height. Do not deflate to lower than 5 PSI.
4. Check the air pressure again after 24 hours. A 2-4 PSI loss after initial installation is normal. Retest for leaks if the loss is more than 5 PSI.

FIXING LEAKS

1. If there is a problem with the swivel fitting:
   a. Check the air line connection by deflating the spring and removing the line by pulling the collar against the fitting and pulling firmly on the air line. Trim 1” off the end of the air line. Be sure the cut is clean and square (see Fig. 15). Reinsert the air line into the push-to-connect fitting.
   b. Check the threaded connection by tightening the swivel fitting another half turn. If it still leaks, deflate the air spring, remove the fitting, and re-coat the threads with thread sealant. Reinstall by hand tightening as much as possible and then use a wrench for an additional two turns.
2. If there is a problem with the inflation valve:
   a. Check the valve core by tightening it with a valve core tool.
   b. Check the air line by removing the air line from the barbed type fitting. Cut the air line off a few inches in front of the fitting and use a pair of pliers or vice grips to pull/twist the air line off of the fitting.

⚠ CAUTION DO NOT CUT OFF THE AIR LINE COMPLETELY AS THIS WILL USUALLY NICK THE BARB AND RENDER THE FITTING USELESS.

3. If the preceding steps have not resolved the problem, call Air Lift customer service at **(800) 248-0892**.

INSTALLATION CHECKLIST

☐ **Clearance test** — Inflate the air springs to 75-90 PSI and make sure there is at least 1/2” 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 75-90 PSI 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” 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 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.

POST-INSTALLATION CHECKLIST

☐ **Overnight leak down test** — Recheck air pressure after the vehicle has been used for 24 hours. If the pressure has dropped more than 5 PSI, then there is a leak that must be fixed. Either fix the leak yourself or return to the installer for service.

☐ **Air pressure requirements** — It is important to understand the air pressure requirements of the air spring system. Regardless of load, the air pressure should always be adjusted to maintain adequate ride height at all times while driving.

☐ **Thirty-day or 500-mile test** —Recheck the air spring system after 30 days or 500 miles, whichever comes first. If any part shows signs of rubbing or abrasion, the source should be identified and moved, if possible. If it is not possible to relocate the cause of the abrasion, the air spring may need to be remounted. If professionally installed, the installer should be consulted. Check all fasteners for tightness.

Product Use, Maintenance and Servicing

Minimum Recommended Pressure	Maximum Air Pressure
5 PSI	100 PSI

MAINTENANCE GUIDELINES

NOTE

By following the steps below, vehicle owners will obtain the longest life and best results from their air springs.

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI.
3. If you develop an air leak in the system, use a soapy water solution (1/5 liquid dish soap and 4/5 water) to check all air line connections and the inflation valve core before deflating and removing the air spring.

⚠ CAUTION

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR), AS INDICATED BY THE VEHICLE MANUFACTURER. ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 100 PSI, THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GVWR.

4. Loaded vehicles require at least 25 PSI. A “loaded vehicle” refers to a vehicle with a heavy bed load, a trailer or both. Never exceed GVWR, regardless of air spring, air pressure or other load assist. The springs in this kit will support approximately 40 pounds of load (combined on both springs) for each 1 PSI of pressure. The required air pressure will vary depending on the state of the original suspension. Operating the vehicle below the minimum air spring pressure will void the Air Lift warranty.
5. When increasing load, always adjust air pressure to maintain normal ride height. Increase or decrease pressure from the system as necessary to attain normal ride height for optimal ride and handling. Remember that loads carried behind the axle (including tongue loads) require more leveling force (pressure) than those carried directly over the axle.
6. Always add air to springs in small quantities, checking the pressure frequently.
7. Should it become necessary to raise the vehicle by the frame, make sure the system is at minimum pressure (5 PSI) to reduce the tension on the suspension/brake components. Use of on-board leveling systems do not require deflation or disconnection.
8. Periodically check the air spring system fasteners for tightness. Also, check the air springs for any signs of rubbing. Realign if necessary.
9. On occasion, give the air springs a hard spray with a garden hose to remove mud, sand, gravel or other debris.

TUNING THE AIR PRESSURE

Pressure determination comes down to three things — level vehicle, ride comfort and stability.

1. **Level vehicle**

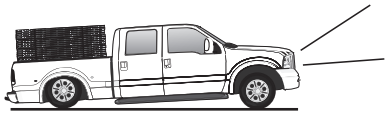
   If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (Fig. 17). Raise the air pressure to correct either of these problems and level the vehicle.

2. **Ride comfort**

   If the vehicle has a rough or harsh ride it may be due to either too much pressure or not enough (Fig. 18). Try different pressures to determine the best ride comfort.

3. **Stability**

   Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess (Fig. 19). Tuning out these problems usually requires an increase in pressure.

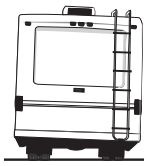


Bad headlight aim

fig. 17

Rough ride

fig. 18



Sway and body roll

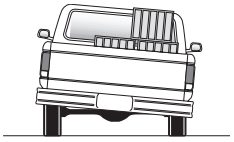
fig. 19

GUIDELINES FOR ADDING AIR

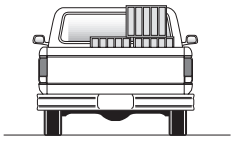
1. Start with the vehicle level or slightly above.
2. When in doubt, always add air.
3. If the front of the vehicle dives while braking, increase the pressure in the front air bags, if equipped.
4. If it is ever suspected that the air bags have bottomed out, increase the pressure (Fig. 20).
5. Adjust the pressure up and down to find the best ride.
6. If the vehicle rocks and rolls, adjust the air pressure to reduce movement.
7. It may be necessary to maintain different pressures on each side of the vehicle. Loads such as water, fuel, and appliances will cause the vehicle to be heavier on one side (Fig. 21). As much as a 50 PSI difference is not uncommon.

Bottoming out

fig. 20



Unlevel



Level

fig. 21

Troubleshooting Guide

PROBLEM	CAUSE	SOLUTION
System won't maintain pressure overnight.	Improperly installed air line, air line has holes or cracks.	Leak test the air line connections, the threaded connection into the air spring, and all fittings in the control system.
Air spring or air line leak.	Fitting seal or air line is compromised.	Check to make sure air lines are seated in connectors. Inspect fittings with soapy water. Trim hose or re-seal fitting. Ensure lines are cut straight.
Corner won't raise or air leak develops.	Look for a kink or fold in the air line.	Replace any air line that has been kinked.

FREQUENTLY ASKED QUESTIONS

Q. Will installing air springs increase the weight ratings of a vehicle?

No. Adding air springs will not change the weight ratings (GAWR, GCWR and/or GVWR) of a vehicle. Exceeding the GVWR is dangerous and voids the Air Lift warranty.

Q. Is it necessary to keep air in the air springs at all times and how much pressure will they need?

For LoadLifter 5000 Ultimate, the recommended minimum air pressure is 5 PSI, but it can safely be run at zero air pressure unladen (no load).

Q. Is it necessary to add a compressor system to the air springs?

No. Air pressure can be adjusted with any type of compressor as long as it can produce sufficient pressure to service the springs. Even a bicycle tire pump can be used, but it's a lot of work.

Q. How long should air springs last?

If the air springs are properly installed and maintained they can last indefinitely.

Q. Will raising the vehicle on a hoist for service work damage the air springs?

No. The vehicle can be lifted on a hoist for short-term service work such as tire rotation or oil changes. However, if the vehicle will be on the hoist for a prolonged period of time, support the axle with jack stands in order to take the tension off of the air springs.

Notes

Notes

Notes

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 online at www.airliftcompany.com/warranty.

For additional warranty information contact Air Lift Company customer service.

Replacement Part Information

If replacement parts are needed, contact the local dealer or call Air Lift customer service at **(800) 248-0892**. Most parts are immediately available and can be shipped the same day.

Contact Air Lift Company customer service at (800) 248-0892 first if:

- Parts are missing from the kit.
- Need technical assistance on installation or operation.
- Broken or defective parts in the kit.
- Wrong parts in the kit.
- Have a warranty claim or question.

Contact the retailer where the kit was purchased:

- If it is necessary to return or exchange the kit for any reason.
- If there is a problem with shipping if shipped from the retailer.
- If there is a problem with the price.

Contact Information

Mailing address	P.O. Box 80167 Lansing, MI 48908-0167
Shipping address for returns	2727 Snow Road Lansing, MI 48917
Phone	Toll free: (800) 248-0892 International: (517) 322-2144
Email	service@airliftcompany.com
Web address	www.airliftcompany.com

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!

Air Lift Company • 2727 Snow Road • Lansing, MI 48917 or P.O. Box 80167 • Lansing, MI 48908-0167
Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240 • www.airliftcompany.com

Printed in the USA
JJC-1116