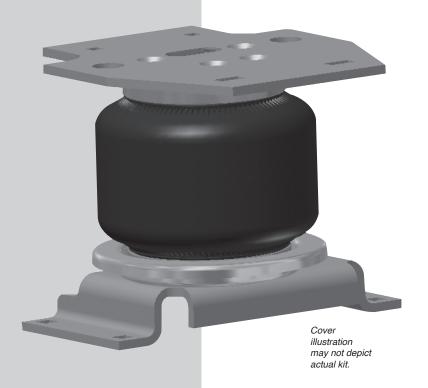


Kit 57205





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.

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Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the LoadLifter 5000 air spring kit. LoadLifter 5000 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. 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.



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.



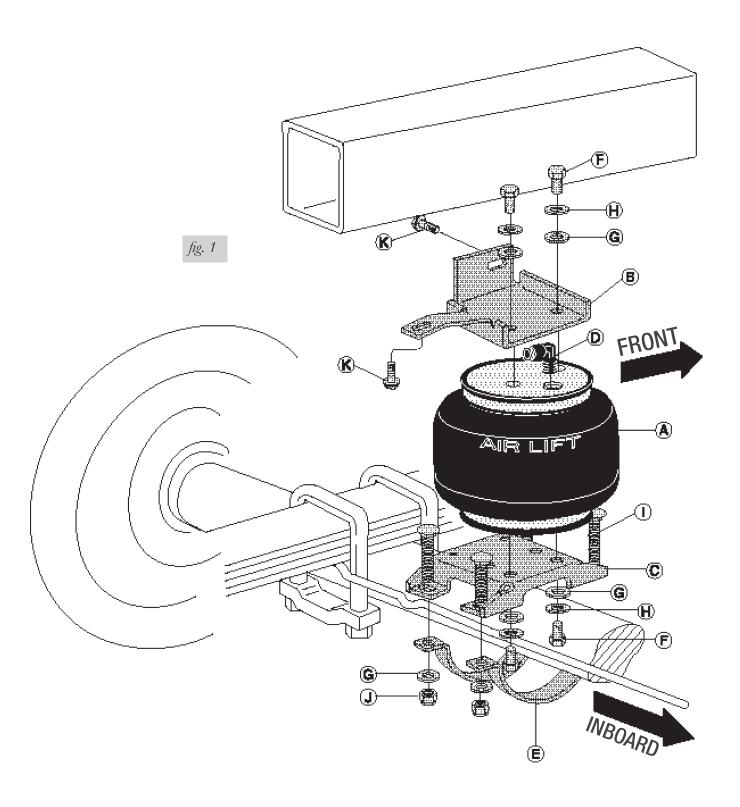
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

NOTE

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



Installation Diagram





HARDWARE LIST

Item	DescriptionQty	Item	Description	. Qty
Α	Air Spring2	M	Thermal Sleeve	-
B1	Upper Bracket (Right)1	N	Heat Shield Clamp	2
B2	Upper Bracket (Left) 1	AA	Air Line Assembly	16'
С	Lower Bracket2	BB	Zip Tie	
D	Elbow Fitting2	CC	Valve Cap	2
E	Axle Strap4	DD	M8 Flat Washer	
F	3/8"-24 x 7/8" Bolt	EE	Rubber Washer	2
G	3/8" Flat Washer	FF	Small Star Washer	2
Н	3/8" Lock Washer 8	GG	5/16" Hex Nut	4
I	3/8"-16 x 2 1/2" Carriage Bolt	HH	Hose Clip	4
J	3/8" Nylon Lock Nut	II	Self Tapping Screw	4
K	3/8" x 1" Self Tapping Screw 4	JJ	Spacer	
L	Heat Shield1	KK	M8-1.25 x 35 Screw	



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

Installing the LoadLifter 5000 System

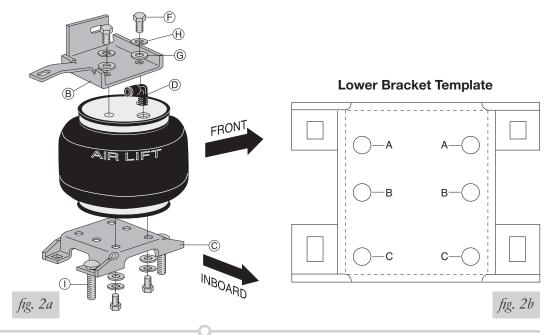
ASSEMBLING THE AIR SPRING

1. Install elbow fitting (D) to the top of the air spring. This fitting is precoated with sealant. Using an open-end wrench, tighten 1 1/2 turns past hand tight (Figs. 1 & 2).

NOTE

Tighten on the metal hex nut only. Do not over tighten.

- Attach the upper bracket to the top plate (label end) of the air spring with two bolts (F), lock washers (H), and flat washers (G). Torque to 20 lb.-ft. (27Nm). Assemble both units (Figs. 1 & 2a) in this manner. There are left- and right-hand units (indicated by "LH" or "RH" stamped in the bracket).
- 3. Insert two carriage bolts in the lower, inboard holes of the lower bracket before attaching the air spring (Fig. 2a).





4. Use the lower bracket template (Fig. 2b) to determine the proper mounting location for the air spring. Use the holes marked "A" for mounting. Attach the lower bracket to the air spring assembly using two bolts (F), two lock washers (H), and two flat washers (G). Torque to 20 lb.-ft. (27Nm).

NOTE

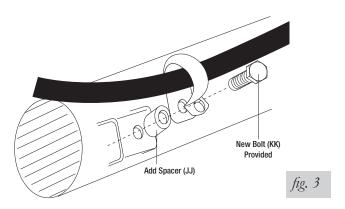
On some models, it may be necessary to use holes "C" for mounting.

INSTALLING THE AIR SPRING ASSEMBLY

- 1. Jack up rear of vehicle or raise on hoist. Place safety jack stands under axle.
- 2. Remove the rubber jounce bumper by pulling it out of the slotted track or by prying it out with a screwdriver. This will not be reused.
- 3. Models with disc brakes: Remove the bolt holding the cable onto the back-side of the passenger's side axle. Install the supplied spacer (JJ) between the bracket and the emergency brake cable clip. Insert the supplied bolt (KK) and tighten the cable down securely (Fig. 3).

NOTE

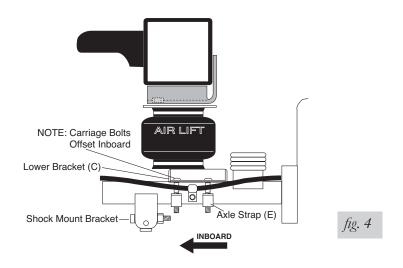
Models with disc brakes: The inside strap on the passenger-side goes between the emergency brake cable bracket and the shock bracket on the axle.



4. Set the assembly on the axle housing between the shock absorber bracket and the leaf spring (Fig. 4). Loosely attach lower bracket (C) and straps (E) around the axle using carriage bolts (I), flat washers (G) and lock nuts (J) (Fig. 4).

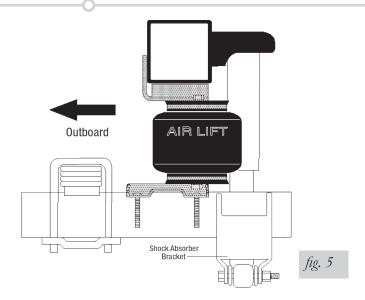
NOTE

Non-disc brake models only: The brake line should be between the carriage bolt and the axle housing (Fig. 6).



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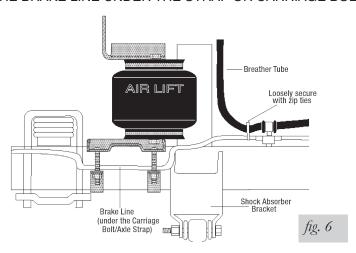




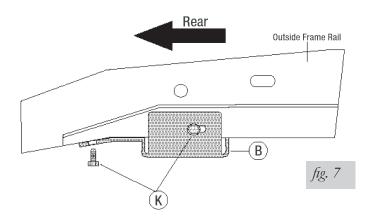
- 5. On the driver's (left) side only: Secure the breather tube away from the air spring using provided zip ties (BB). Refer to Figure 6.
- 6. With the unit aligned vertically and horizontally, tighten the lower assembly to the axle housing. It is important to tighten the forward straps to the lower bracket first, and then the back. Tighten the lock nuts (J) to 16 lb.-ft. (22Nm).

CAUTION DO NOT

DO NOT PINCH THE BRAKE LINE UNDER THE STRAP OR CARRIAGE BOLT.



7. Using the holes in the upper bracket as a template, drill two 5/16" holes into the frame. Insert and tighten the self tapping bolts (K) and torque to 15 lb.-ft. (20Nm) (Figs. 1 & 7).



CAUTION



INSTALLING THE AIR LINES

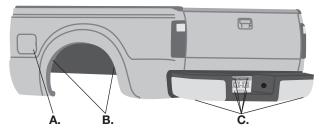
Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. 8).

Cut the air line in half.
 Make clean, square cuts with a razor blade or hose cutter (Fig. 9). Do not use scissors or wire cutters.

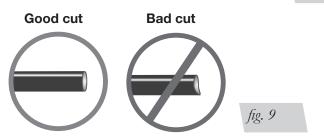
KEEP AT LEAST 6" (152MM) OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

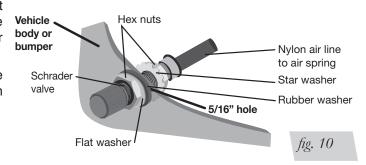
- Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. Leave at least 2" (51mm) of slack in the air line to allow for any movement that might pull on the air line. The minimum bend radius for the air line is 1" (25mm).
- 3. Install the Schrader valve in the chosen location (Fig. 10).

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



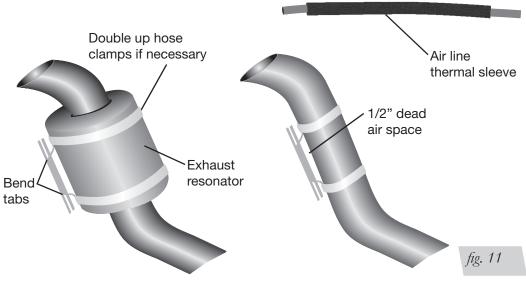






INSTALLING THE HEAT SHIELD

1. Attach the metal heat shield to the exhaust where it is closest to the side 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. 11).





Before Operating

CHECKING FOR LEAKS

- 1. Inflate the air spring to 30 PSI (2BAR).
- 2. Spray all connections and the inflation valves with a solution of liquid dish soap and 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 (.34BAR).
- 4. Check the air pressure again after 24 hours. A 2-4 PSI (.14-.28BAR) loss after initial installation is normal. Retest for leaks if the loss is more than 5 PSI (.34BAR).

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" (25mm) off the end of the air line. Be sure the cut is clean and square (see Fig. 9). 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 fitting. Cut the air line off a few inches in front of the fitting and use a pair of pliers or locking pliers to pull/ twist the air line off of the fitting.



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

Ц	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 75-90 PSI (5.2-6.2BAR) 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.
	${f Road\ test}$ — 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.
F	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 (.34BAR), then there is a leak that must be fixed. Either fix the leak yourself or return to the installer for service.
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	Thirty-day or 500-mile (800km) test — Recheck the air spring system after 30 days or 500 miles (800km), 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 (.34BAR)

100 PSI (6.9BAR)

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 (6.9BAR).
- 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.



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 (6.9BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.

- 4. Loaded vehicles require at least 25 PSI (1.7BAR). 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 (18kg) of load (combined on both springs) for each 1 PSI (.07BAR) 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 be necessary to raise the vehicle by the frame, make sure the system is at minimum pressure (5 PSI [.34BAR]) 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

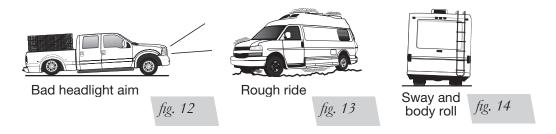
If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (Fig.12). Raise the air pressure to correct either of these problems and level the vehicle.

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. 13). Try different pressures to determine the best ride comfort.

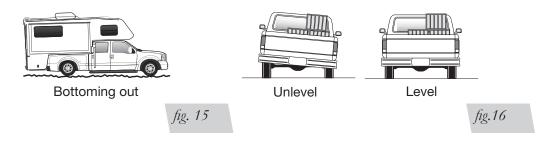
3. Stability

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. 14). Tuning out these problems usually requires an increase in pressure.



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. 15).
- 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.16). As much as a 50 PSI (3.5BAR) difference is not uncommon.





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, the recommended minimum air pressure is 5 PSI (.34BAR), Ultimate & Ultimate Plus 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.



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 2727 Snow Road for returns Lansing, MI 48917

Phone Toll free: (800) 248-0892

International: (517) 322-2144

Email service@airliftcompany.com

Web address www.airliftcompany.com

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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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