

ADJUSTABLE AIR HELPER SPRINGS

TOW AND HAUL WITH SAFETY AND COMFORT™

Since 1949

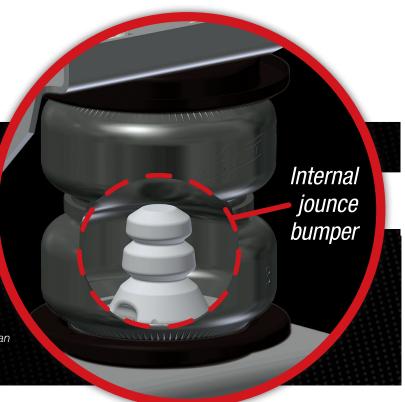
Kit Number

88250

### **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	
Tools List	
Installing the LoadLifter 5000 Ultimate System	4
Getting Started	
Assembling the Air Spring Unit	 5
Attaching the Air Spring Assembly	
Driver Side Only - Secure Brake Line	
Install the Other Air Spring	 10
Installing the Air Lines	
Installing the Heat Shield	
Checking for Leaks	
Fixing Leaks	
Before Operating	
Installation Checklist	
Post-Installation Checklist	 13
Product Use, Maintenance and Servicing	 . 14
Minimum and Maximum Pressure	 14
Maintenance Guidelines	 14
Troubleshooting Guide	 14
Frequently Asked Questions	 15
Tuning the Air Pressure	 15
Guidelines for Adding Air	 16
Limited Warranty and Return Policy	 . 20
Replacement Information	 . 21
Contact Information	21



### 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. An internal jounce bumper inside the spring absorbs shock and eliminates harsh jarring on rough roads. The internal jounce bumper replaces the factory bumper and allows the air springs to safely be run at zero air pressure. 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 lbs. of load-leveling support with air adjustability from 5-100 PSI. The kits are 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 tips, safety information and a troubleshooting guide.

### 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 vehicle 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

DANGER





NOTE

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

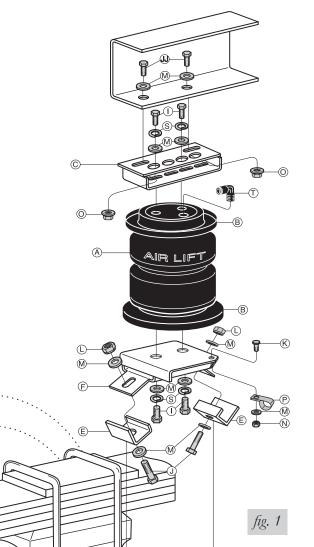
TO THE MACHINE OR MINOR PERSONAL INJURY.



# **Installation Diagram**

### **HARDWARE LIST**

Item	Description Quant	ity
Α	Air Springs	2
В	Roll Plates	4
С	Upper Bracket	2
E	Retaining Brackets	4
F	Lower Brackets	2
G	Heat Shield Kit	1
I	3/8"-24 x 7/8" Hex Head Bolts	8
J	3/8"-16 x 2" Hex Head Bolts	4
K	5/16" Clinch Bolt (Driver's Side Only)	1
L	3/8"-16 Lock Nut	4
M	Flat Washer	2
N	5/16" Lock Nut (Driver's Side Only)	1
0	3/8" Whiz Nut	4
Р	Hose Clip (Driver's Side Only)	1
S	Lock Washers	8
Т	90° Swivel Fitting	2
AA	Air Line Assembly	1
BB	Tie Strap	6
CC	Valve Caps	2
DD	5/16" Flat Washers	2
EE	Rubber Washer	2
FF	Star Washer	2
GG	5/16" Hex Nut	4
HH	Thermal Sleeve	2
JJ	3/8"-16 X 7/8" Hex Head Bolts	4



### **TOOLS LIST**

### **Description**

Jack

Jack Stands or hoist

Safety glasses

Air compressor or compressed air source

Spray bottle with dish soap/water solution

9/16" open-end box wrenches

Crescent Wrench

Ratchet with 15mm, 7/16", 9/16" and 1/2" deep well sockets

3/8" & 5/16" drill bits (very sharp)

Heavy Duty Drill

Torque Wrench

Hose cutter, razor blade, or sharp knife

3/4" Wrench



# **Installing the LoadLifter 5000 Ultimate System**

**IMPORTANT:** Your vehicle may be equipped with a rear brake proportioning valve. Any type of load assist product could affect brake performance. We recommend that you check with your dealer before installing this type of product. If your vehicle DOES NOT have a rear brake proportioning valve or is equipped with an anti-lock type brake system, installation of a load assist product will have NO EFFECT ON BRAKE SYSTEM PERFORMANCE.

**IMPORTANT:** Failure to maintain correct minimum pressure (or pressure proportional to load), bottoming out, overextension, or rubbing against another component will void the warranty.



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.

### **GETTING STARTED**

- Determine the Normal Ride Height. The Normal Ride Height is the distance between the bottom edge of the wheel-well and the center of the hub with the vehicle in the "as delivered" condition. In some cases, Normal Ride Height is not perfectly level.
  - Remove unusual loads and examine your vehicle from the side to ensure it is on a level surface.
  - b. If necessary (in cases where your leaf springs are sagging badly), use a jack to raise the rear end so that the vehicle achieves the original "as delivered" ride height.



fig. 2

2. Measure the distance between the center of the hub and the bottom edge of the wheel well (see Fig. 3). This is the Normal Ride Height. Enter the measurement below:

NORMAL	
RIDE HEIGHT:	inche

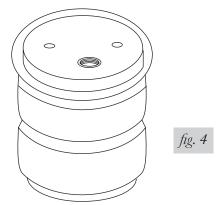




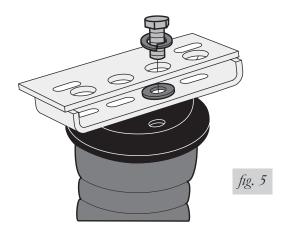
fig. 3

### ASSEMBLING THE AIR SPRING UNIT

1. Set a roll plate (B) on both ends of the air spring (A). The radiused (rounded) edge of the roll plate will be towards the air spring, so that the air spring is "seated" in both roll plates (Fig. 4).



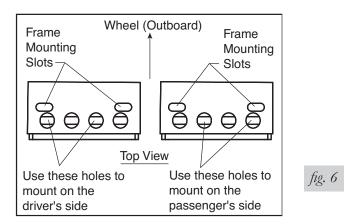
2. Attach the upper brackets (C) to the air springs with two 3/8-24x7/8" hex head bolts (I), lockwashers(S) and flat washers (M). Leave loose at this time (Fig. 5).



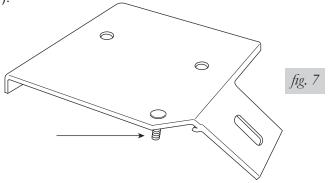
NOTE

It will be necessary to use the correct holes for driver and passenger side mounting. See diagram to correctly index the bellows and the upper bracket (Fig. 6).





**DRIVERS SIDE ONLY** - Insert 5/16" clinch bolt (K) into the small hole of the lower bracket before attaching the lower bracket to the air spring. Supporting the lower bracket will ease installation of the clinch bolt. Use a hammer to drive the bolt into the hole in the lower bracket (Fig. 7).



3. The lower bracket must be attached with the small hole in the lower bracket on the same side as the air port in the air spring.

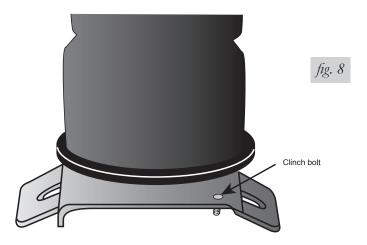
### **NOTE**

Be sure to install the assembly with the clinch bolt on the driver side. Refer to diagram (Fig. 7) on page 6.

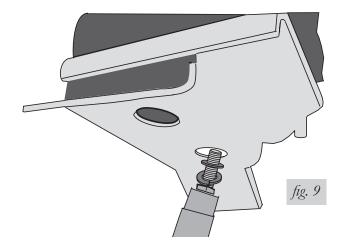
- 4. Attach the air spring to the lower bracket (Figs. 8 & 9). Secure the lower bracket (F) to the air spring (A) with two 3/8"-24 x 7/8" hex head bolts (I), lockwashers (S) and flat washers (M). (Fig. 9)
- 5. Torque to 20 lb.-ft. It may be helpful to use a socket to install the mounting hardware.



DO NOT CROSS THREAD THE BOLT.

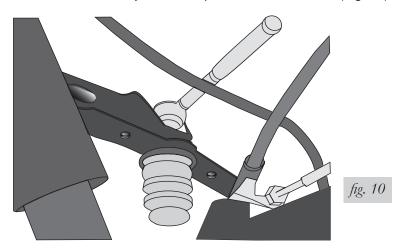




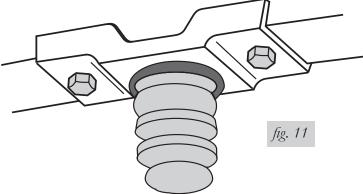


### REMOVING THE JOUNCE BUMPER

1. Using a 15mm Socket, remove the jounce bumper from the frame rail (Fig. 10).



- 2. The style of jounce bumper will vary depending on the model of the truck.
- 3. On some models the jounce bumper may be attached to the frame with a bracket.
- 4. Remove the entire jounce bumper bracket and the jounce bumper from the frame rail (Fig. 11).



### ATTACHING THE AIR SPRING ASSEMBLY

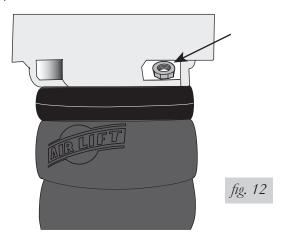
1. Set assembly on the axle with the air port on top of the bellows toward the inside of the frame rail (Fig. 1).



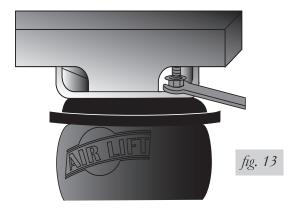
NOTE

Reference Assembling the Air Spring Unit (page 5), Attaching the Upper Bracket, for driver side and passenger side assemblies.

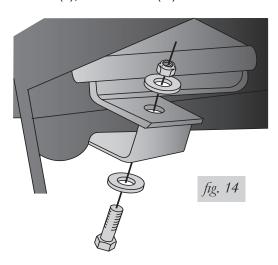
- 2. Set whiz nut (O) up inside of the upper bracket (Fig. 12 & 13) with flange up (Fig. 12).
- 3. Hold in place with an open end 9/16" wrench.



4. Put 3/8" x 7/8" hex head bolts (I) with flat washers (M) down through the existing jounce bumper hole from the inside of the frame, and attach to the whiz nuts (Fig. 13). Leave loose for adjustment later.

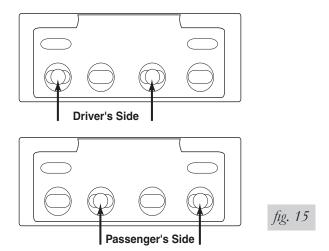


5. Secure the lower bracket to the jounce bumper strike pad using the retaining bracket (E), 3/8" x 2" hex head bolt (J), flat washers (M) and 3/8" lock nut (L) (Fig. 14).

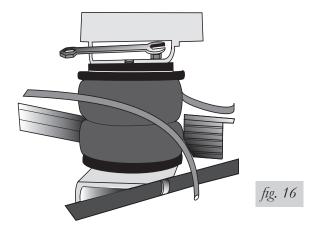




- 6. The short leg of the retaining bracket must be under the edge of the jounce bumper strike pad.
- 7. Tighten evenly front to back to keep the lower bracket flat and centered on the jounce bumper pad.
- 8. Center the upper bracket, so the bolts are in the center of the slots (Fig. 15).



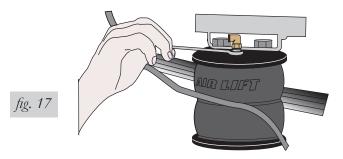
- 9. Adjust bellows at top so bellows is perpendicular to both upper and lower brackets.
- 10. Tighten both bellows to top bracket mounting bolts (Fig. 16).



- 11. Tighten bracket to frame mounting hardware.
- 12. Install the swivel air fitting (T) into the top of the air spring (A). This fitting is pre-coated with sealant. Finger-tight plus two full turns with an open-end wrench will seal the fitting (Fig. 17).
- 13. Use a 7/16" open end wrench being careful to tighten on the metal hex nut only.

**A** CAUTION

DO NOT OVERTIGHTEN.





### **DRIVERS SIDE ONLY - SECURE BRAKE LINE**

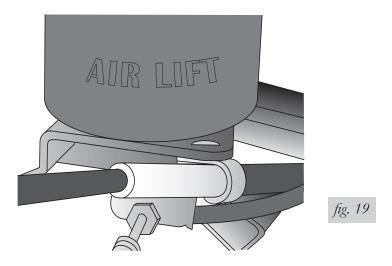
 Slide the provided clip (P) onto the rubber coated brake line (Fig. 18). Secure the clip (P) to the clinch bolt already installed on the lower bracket (F) with a flat washer (M) and 5/16" nut (N).



fig. 18



BE SURE THE CLIP IS UNDER THE LOWER BRACKET (FIG. 19).



### INSTALL THE OTHER AIR SPRING

 You have now completed the installation for one air spring. Repeat the steps on pages 4 through 10 for the other side of the vehicle before you proceed to "Installing the Air Lines".

### INSTALLING THE AIR LINES

- 1. Choose a convenient location for mounting the inflation valves. 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

### NOTE

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

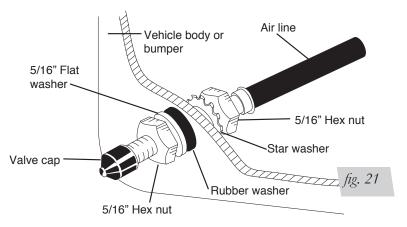
- 2. Drill two 5/16" holes to install the inflation valves.
- 3. Cut the air line assembly in two equal lengths.



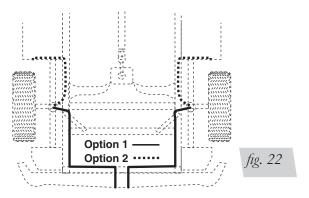


### **A** CAUTION

WHEN CUTTING OR TRIMMING THE AIR LINE, USE A HOSE CUTTER, A RAZOR BLADE, OR A SHARP KNIFE. A CLEAN, SQUARE CUT WILL ENSURE AGAINST LEAKS. DO NOT USE WIRE CUTTERS OR SCISSORS TO CUT THE AIR LINE. THESE TOOLS MAY FLATTEN OR CRIMP THE AIR LINE CAUSING IT TO LEAK AROUND THE O-RING SEAL INSIDE THE ELBOW FITTING (FIG. 20).



- 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. 21).
- 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 air fitting on the air spring (Fig. 22). Keep AT LEAST 6" of clearance between the air line and heat sources, such as the exhaust pipes, muffler, or catalytic converter. Avoid sharp bends and edges. Use the plastic tie straps to secure the air line to fixed, non-moving 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 (Fig. 22).

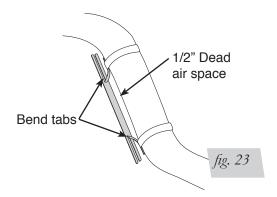


7. Cut off the air line, leaving approximately 12" of extra air line. A clean square cut will ensure against leaks. Insert the air line into the air fitting. This is a push-to-connect fitting. Simply push the air line into the 90° swivel fitting until it bottoms out (9/16" of air line should be in the fitting).



### INSTALLING THE HEAT SHIELD

- 1. Bend tabs to provide a 1/2" dead air space between exhaust pipe and heat shield (Fig. 23).
- 2. Attach the heat shield to the exhaust pipe using the clamps. Bend the heat shield for maximum clearance to the air spring (Fig. 23).



### 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 lbs.

### **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. 20). Reinsert the air line into the push-to-connect fitting.
  - b. Check the threaded connection by tightening the swivel fitting another 1/2 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.



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



# **Before Operating**

### INSTALLATION CHECKLIST (To be completed by installer)

D	ate			
Technician's Signature				
	Operating instructions — If professionally installed, the installer should review the $Product\ Use,\ Maintenance\ and\ Servicing\ section\ with\ the\ owner.$ Be sure to provide the owner with all of the paperwork which came with the kit.			
	Road test — The vehicle should be road tested after the preceding tests. Inflate the air springs to 25 PSI (50 PSI if the vehicle is loaded). Drive the vehicle 10 miles and recheck for clearance, loose fasteners and air leaks.			
	Fastener test — Recheck all bolts for proper torque. Retorque after 100 miles.			
	Leak test before road test — Inflate the air springs to 60 PSI, check all connections for leaks with a soapy water solution. See the <i>Checking for Leaks</i> section for tips on how to spot leaks. All leaks must be eliminated before the vehicle is road tested.			
_	clearance test — Inflate the air springs to 60 PSI and ensure there is at least 1/2" clearance around each bellow, away from anything that might rub against them. Be sure to check the tire, brake drum, frame, shock absorbers and brake cables.			

### POST-INSTALLATION CHECKLIST

Ц	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 Regardless of load, the air pressure should always be adjusted to maintain ride height at all times.
- ☐ 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
5 PSI

**Maximum Air Pressure** 

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 the air pressure weekly.
- 2. Always maintain normal ride height. Never inflate beyond 100 PSI.
- 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.



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

- 4. Loaded vehicles require at least 25 PSI or more. A "loaded vehicle" refers to a vehicle with a heavy bed load, a trailer, or both. As discussed above, never exceed GVWR, regardless of air spring, air pressure, or other load assist. The springs in this kit will support approximately 40 lbs. 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 the air pressure to maintain the 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 in order to remove mud, sand, gravel or other abrasive debris.

#### TROUBLESHOOTING GUIDE

- 1. Leak test the air line connections, the threaded connection into the air spring, and all fittings in the control system.
- 2. Inspect the air lines to be sure none are pinched. Tie straps may be too tight. Loosen or replace the strap and replace leaking components.
- 3. Inspect the air line for holes and cracks. Replace as needed.
- 4. Look for a kink or fold in the air line. Reroute as needed.



### 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.

### 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.

### TUNING THE AIR PRESSURE

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

#### 1. Level vehicle

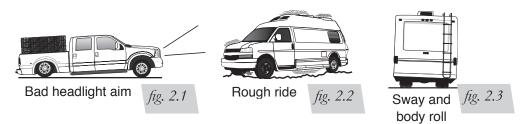
If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (Fig. 2.1). Raise the air pressure to correct either of these problems and level the vehicle.

### 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. 2.2). Try different pressures to determine the best ride comfort.

#### 3. Stability

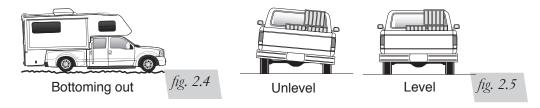
Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess (Fig. 2.3). Tuning out these problems usually requires an increase in pressure.





### **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. 2.4).
- 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. 2.5). As much as a 50 PSI difference is not uncommon.



# **Choosing the Right On-Board Air Compressor System**





Add an on-board air compressor sytem to inflate and deflate your air springs automatically or with the touch of a button — from inside or outside of the vehicle.

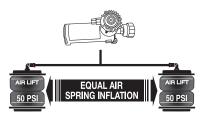
- For convenient, on-the-go control of your air springs, add an Air Lift on-board air compressor system.
- Air Lift on-board air compressor systems eliminate the search for gas stations that have a working compressor, saving you time, energy and money.
- All systems include a compressor, controller and all parts needed for easy installation.
- 1. Choose single or dual path inflation (see illustrations at right)
- 2. Choose wireless, analog control or automatic
  - Wireless: Control your air springs from inside or outside the vehicle. Easiest installation — no wires to the cab.
  - **Analog:** In-cab control of your air springs. Economically priced.
  - **Automatic:** Self-leveling system, keeps the vehicle level no matter what.

#### 3. Choose heavy or standard duty compressor

- · Standard duty: A standard duty compressor will work well for most customers who use their system on an intermittent basis.
- · Heavy duty: For daily use, consider the heavy-duty compressor — it inflates faster and more quietly than the standard compressor.



Dual path systems Air springs are controlled separately to allow for different air pressure from side-to-side. Perfect for uneven or top-heavy loads.



Single path systems Two springs will inflate at the same time. Good for loads that are evenly distributed from left-toright or front-to-back.

WIRELESS

ANALOG

AUTOMATIC

### WirelessAIR



Includes heavy-duty compressor





### **LoadCONTROLLER™**

Dual

Compact, economically priced control.

P/N Standard Duty Compressor LEFT





DEFLATE

INFLATE

25850; P/N Heavy Duty Compressor 25854

### WirelessONE™

- Easy installation
- Includes standardduty compressor



### **LoadCONTROLLER**

Single

Compact, economically priced control.

P/N Standard Duty Compressor 25852; P/N Heavy Duty Compressor 25856



### SmartAIR™ II

- Easy installation
- Automatic self-leveling system
- No in-cab controls required



Single Path P/N 25490. Dual Path P/N 25491

P/N 25870