

# ***Air Lift*1000**

by AIR LIFT®

# **No. 81560**



## **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 Air Lift 1000 air spring kit.

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, tools list, step-by-step installation information, installation checklist, maintenance tips, safety information and a troubleshooting guide.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. Contact Air Lift Company at (800) 248-0892 or go online at [www.airliftcompany.com](http://www.airliftcompany.com) for the latest version of this manual.

## 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.

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**NOTE**

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

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**HARDWARE LIST**

Item	Part #	Description.....Qty
A	#	Air spring..... 2
B	#	Upper & lower protectors ..... 4
C	10551	Air line clip..... 2
D	10466	Tie strap ..... 4
E	#	Valve cap ..... 2
F	21233	5/16" Hex nut ..... 4
G	21234	Rubber washer..... 2
H	18411	Star washer..... 2
I	18405	5/16" Flat washer ..... 2
J	18422	3/8" Lock nut ..... 2

**TOOLS LIST**

Description.....	Qty
Hoist or floor jacks.....	2
Safety stands.....	1
Safety glasses.....	1
Air compressor or compressed air source.....	1
Spray bottle with dish soap/water solution.....	1



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

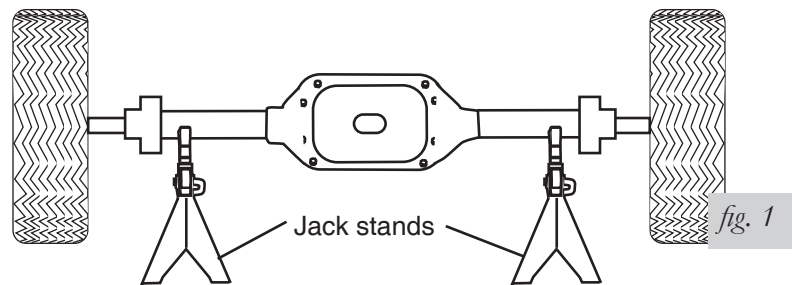
# Installing the Air Lift 1000 System



COMPRESSED AIR CAN CAUSE INJURY AND DAMAGE TO THE VEHICLE AND COMPONENTS 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

1. Set the brake, block the wheels and jack up front of vehicle. Place safety stands under the frame and allow the suspension to be fully extended.



**If replacing black O.E.M. air springs:**

2. Deflate air springs by removing the valve cores using a tooled valve cap or a knife to puncture the air spring.
3. Use 1" - 1½" hole saw cutter (drill bit removed), to cut the valve out of the air spring.
4. Use vise grips and clamp onto the bottom of the air spring and pull the air spring through the hole, twisting as you pull. Spraying the air spring with a soapy water solution may ease removal.
5. Remove the upper protector through the side of the coil.

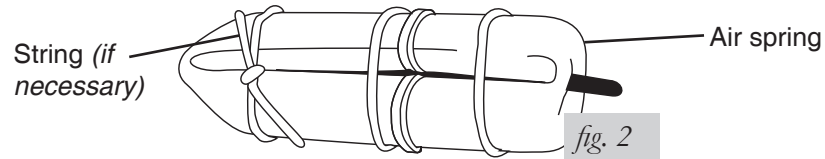
## INSTALLING THE AIR SPRING

1. Remove black valve cap and roll the air spring (A) up toward the stem end to exhaust as much air as possible.
2. Install black valve cap to maintain this compressed shape.

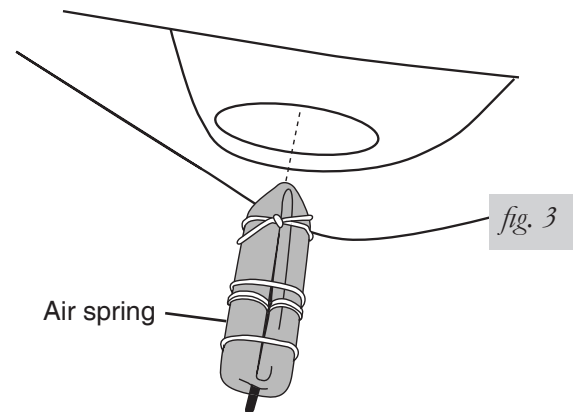
### NOTE

*You may notice some discoloration of the cylinder in the “rolled up” condition. This is normal and does not harm or indicate damage to the cylinder in any way. The “discoloration” actually reflects the natural color of the polyurethane material before we add the red pigment*

3. Unroll the air spring and fold it lengthwise (fig. 2). Use string to hold it in this position, if necessary.

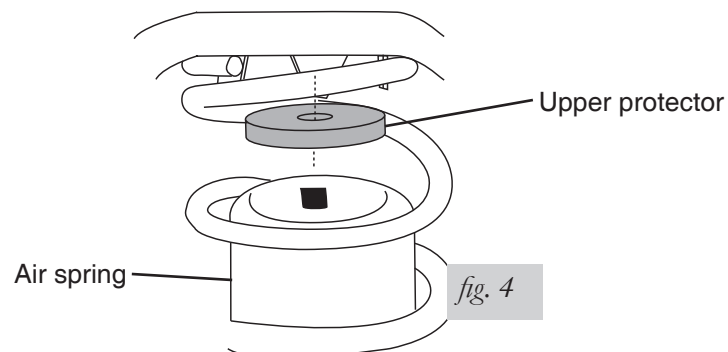


4. Check the hole in the lower control arm and deburr edge, if necessary, to prevent damage to the air spring. Insert the air spring through the hole in the lower control arm (valve stem facing down). Spraying the air spring with a soapy water solution may ease installation.
5. Push the air spring up with a twisting action into the coil, leaving about 2” extended out of the bottom of the coil (fig. 3).



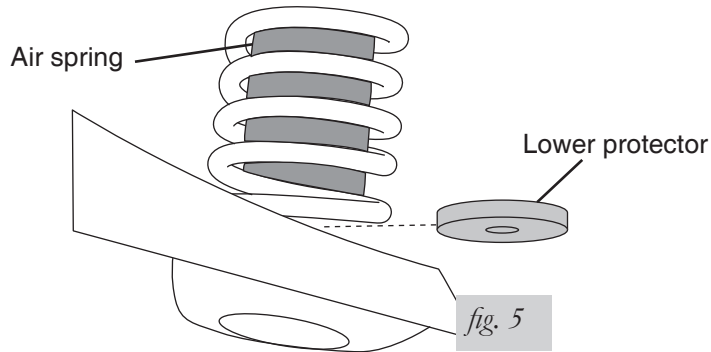
## INSTALLING THE UPPER PROTECTOR

1. Before pushing the air spring completely into the coil, insert and position the upper protector (B) on the stud on the top of the air spring (fig. 4). A light coating of grease on the top side will help hold it in place.



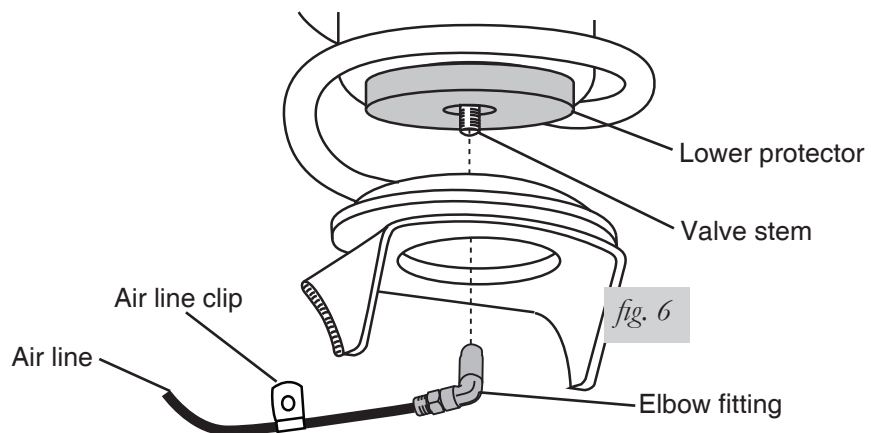
## INSTALLING THE LOWER PROTECTOR

1. Push the air spring into coil spring. If previously used, remove the string from the air spring.
2. Once the air spring is in place, insert and position the lower protector (B) by pushing the air spring up and sliding the protector under the air spring (fig. 5).



## INSTALLING THE AIR LINE

1. Lower the air spring, guiding the valve stem through the hole in the lower protector (fig. 6).
2. Attach the elbow fitting on the air line (AA) to the valve stem. Orient the elbow and air line to line up with the existing sway bar attaching bolts. Finger tighten the elbow nut.
3. Place the supplied clip (BB) around the air line (fig. 6).



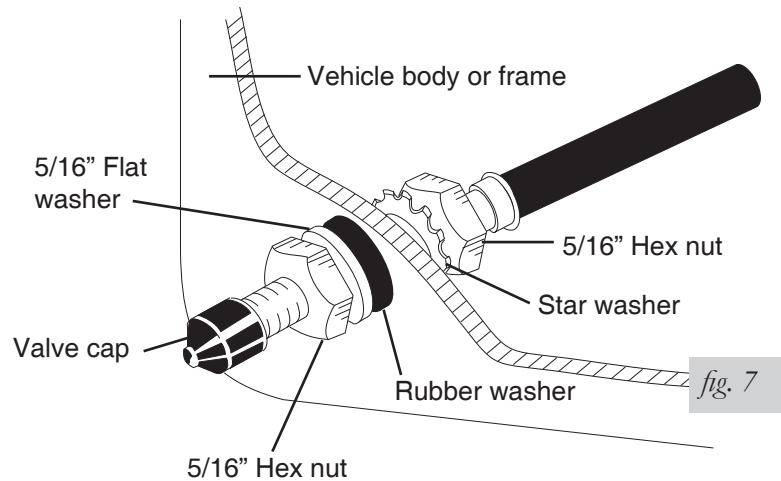
4. Attach the clip to the existing sway bar attaching bolt with the provided 3/8" lock nut (II).
5. Tighten the 3/8" lock nut (II) using a 9/16" ratchet.
6. Route the air line up the lower control arm toward the center of the vehicle.

### CAUTION

BE SURE THAT THE AIR LINE GOES OVER THE TOP OF THE CONTROL ARM AND ALONG THE SUPPORT FRAME.

7. Route the air line through the frame to a selected valve stem mounting location. Secure the air line with plastic tie straps (CC), away from brake lines and battery.
8. Choose a convenient location for mounting the inflation valves. Make sure there is enough clearance around the inflation valve for an air chuck. Popular locations for the inflation valve are the front bumper, license plate recess or under the hood on a radiator bracket.
9. Drill a 5/16" hole for the inflation valve.

10. Mount inflation valve as illustrated (the rubber washer is for outside weather seal). Tighten the outside hex nut (EE) with an  $\frac{1}{2}$ " wrench (fig. 7).
11. Repeat installation on the other side of the vehicle.



## INFLATION DECAL

1. Install the minimum/maximum air pressure decal in a highly visible location. We suggest placing it on the driver side window, just above the door handle.

## CHECKING FOR LEAKS

1. Inflate the air spring to 60 p.s.i.
2. Spray all connections and the inflation valves with a solution of  $\frac{1}{5}$  dish soap and  $\frac{4}{5}$  water. Spot leaks easily by looking for bubbles in the soapy water.
3. Adjust the air pressure for optimal comfort and performance - see page # for minimum and maximum pressures.
4. Check the air pressure again after 24 hours. A 2 - 4 p.s.i. loss after initial installation is normal. Retest for leaks if the loss is more than 5 p.s.i.

## FIXING LEAKS

1. Valve core: Tighten the valve core with a valve core tool.
2. Air line connection: Tighten the elbow fitting on the valve stem of the air spring.
3. If the preceding steps have not resolved the problem, call Air Lift customer service at (800) 248-0892 for assistance.



# Before Operating

## POST INSTALLATION CHECKLIST (To be completed by owner)

- Overnight leakdown test — Recheck the air pressure after 24 hours. If the pressure has dropped more than 5 p.s.i., there is a leak that must be fixed. Either fix the leak yourself (see page 6) or return to the installer for service.
- Air pressure requirements — Be sure to adhere to the minimum and maximum recommended air pressure requirements below. Exceeding the maximum recommended air pressure will result in the air spring "bulging out" between the coils spring which may cause the air spring to be pinched or may rub a hole into the air spring.

**Technician's Signature** \_\_\_\_\_

**Date** \_\_\_\_\_

# Troubleshooting Guide

Problems maintaining air pressure, without on-board compressor.

1. Leak test all air line connections. Repair or replace as needed.
2. Inspect the air line for holes and cracks. Replace as needed.
3. Inspect the air line to be sure it is not pinched. Tie straps may be too tight. Replace strap as needed.
4. Check for a kink or fold in the air line. Reroute as needed.
5. Leak test the inflation valve for leaks at the air line connection and look for dirt or debris in the valve core. See page 6 for repair.
6. At this point the problem is most likely a failed air spring - either a factory defect or an operating problem. Please call Air Lift at (800) 248-0892 for assistance or a replacement air spring.

# Maintenance and Servicing

Minimum Air Pressure	Maximum Air Pressure
<b>Motorhomes and Commercial Chassis</b>	
40 p.s.i.	90 p.s.i.
<b>Trucks and Passenger Vans</b>	
10 p.s.i.	50 p.s.i.
FAILURE TO MAINTAIN CORRECT MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD), BOTTOMING OUT, OVER-EXTENSION OR RUBBING AGAINST ANOTHER COMPONENT WILL VOID THE WARRANTY.	

## MAINTENANCE GUIDELINES

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

1. Check the air pressure weekly.
2. Always maintain at least the recommended minimum air pressure to prevent the air spring from being pinched. Never inflate beyond the maximum air pressure.
4. If you develop an air leak in the system, use a soapy water solution of 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.
5. Always add air to springs in small quantities, checking the pressure frequently. Sleeves require less air volume than a tire and inflate quickly.

## Warranty and Returns Policy

Air Lift Company warrants its products for the time periods listed below to the original retail purchaser against manufacturing defects used on catalog listed applications on cars, vans, light trucks and motorhomes under normal operating conditions for as long as Air Lift manufactures the product. The warranty does not apply to products that have been improperly applied, installed, used in racing applications or not maintained in accordance with installation instructions furnished with all Air Lift products. The consumer will be responsible for removing (labor charges) the defective product from the vehicle and returning it, transportation costs prepaid to the dealer from which it was purchased or to Air Lift Company for verification.

Air Lift will repair or replace, at its option, defective products or components. A \$10.00 minimum shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift (800) 248-0892 U.S. and Canada for a Returned Materials Authorization (RMA) number. Returns to Air Lift can be sent to: Air Lift Company • 2727 Snow Road • Lansing, MI • 48917.

Product failures resulting from abnormal use or misuse are excluded from this warranty. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages is not covered. The consumer is responsible for installation/reinstallation (labor charges) of the product. Air Lift Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights and you may also have other rights that may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages. The above limitation or exclusion may not apply to you. There are no warranties, expressed or implied including any implied warranties of merchantability and fitness, which extend beyond this warranty period. There are no warranties that extend beyond the description on the face hereof. Seller disclaims the implied warranty of merchantability. *(Dated proof of purchase required.)*

<b>Air Lift 1000*</b> .....	<b>2 Year Limited</b>	<b>RideControl Plus*</b> .....	<b>2 Year Limited</b>
<b>SureSet*</b> .....	<b>2 Year Limited</b>	<b>Load Controller (I)*</b> .....	<b>2 Year Limited</b>
<b>SuperDuty*</b> .....	<b>2 Year Limited</b>	<b>SmartAir*</b> .....	<b>2 Year Limited</b>
<b>Other Accessories</b> .....	<b>2 Year Limited</b>	<b>Load Controller (II)*</b> .....	<b>2 Year Limited</b>
<b>RideControl*</b> .....	<b>2 Year Limited</b>	<b>EasyStreet Systems</b> .....	<b>1 Year Limited</b>
<b>SlamAir</b> .....	<b>2 Year Limited</b>	<b>RoadTamer Systems</b> .....	<b>2 Year Limited</b>

*\*The purchase of an Air Lift Load Controller II, SmartAir Automatic Leveling System or SureSet Load Controller System with a SuperDuty, RideControl, or Air Lift 1000 extends the air springs' warranty from two years to a Limited Lifetime Warranty to the original purchaser of the covered systems. All other above listed warranty requirements will apply. (RoadTamer and EasyStreet air spring systems are excluded from this offer.)*

## Replacement Information

If you need replacement parts, 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

If you have any questions, comments or need technical assistance contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 5 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.

For inquiries by mail, our address is PO Box 80167, Lansing, MI 48908-0167. Our shipping address for returns is 2727 Snow Road, Lansing, MI 48917.

You may also contact us anytime by e-mail at [sales@airliftcompany.com](mailto:sales@airliftcompany.com) or on the web at [www.airliftcompany.com](http://www.airliftcompany.com).

## Need Help?

Contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 5 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.

**Register your warranty online at  
[www.airliftcompany.com/warrantyreg.htm](http://www.airliftcompany.com/warrantyreg.htm)**



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

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