

Universal Air Spring Cradle



Installation Guide



NOTE

FOR USE ON AIR LIFT SUSPENSION KITS USED ON LIFTED VEHICLES

Looking for an Air Lift Air Spring Kit or Compressor System?
Go to <http://www.airliftcompany.com/products/>

Kit 52500

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.

Protect your Air Lift Purchase by Completing your Warranty Registration



Thank you for purchasing an Air Lift load support product!

Take a photo of your sales receipt and then scan the QR code to complete your online warranty registration.

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System Overview



THE ORIENTATION OF THE HARDWARE MIGHT NEED TO BE CHANGED DEPENDING ON THE APPLICATION

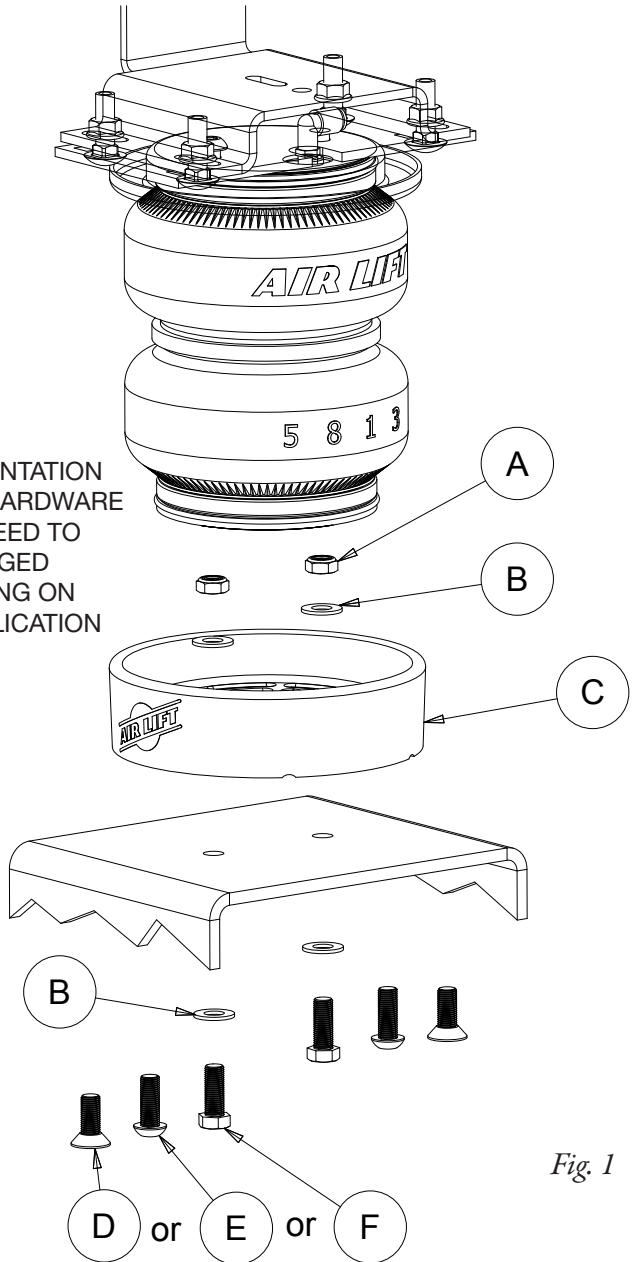


Fig. 1

Hardware and Tools

HARDWARE LIST

Item	Description	Qty
A	3/8"-24 Thin nylon lock nut.....	4
B	Flat washer.....	8
C	Air spring cradle.....	2
D	3/8"-24 x 1" Hex drive flat head screw.....	4
E	3/8"-24 x 1" Button head hex drive screw.....	4
F	3/8"-24 x 1" Hex head cap bolt.....	4

TOOLS NEEDED

Description.....	Qty
9/16" Socket.....	1
9/16" Wrench.....	1
Ratchet.....	1
Torque wrench.....	1
7/32" Hex-key wrench.....	1
Safety glasses.....	1



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 of the Universal Air Spring Cradles.

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

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 online at **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.



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

Important Installation Notice

NOTE

This product is designed and confirmed to work with all Air Lift air spring kits using 1B6 single and 2B6 double-bellow air springs, including the LoadLifter 5000 Series and PROSeries. Although this kit is universal and may work with other air springs brands, it may not work with every manufacturer or application. Please refer to your air spring kit manufacturer to confirm bolt configuration compatibility with the Air Lift cradle before attempting the installation.

Prepare to Install the Universal Air Spring Cradles

POSSIBLE MODIFICATIONS

1. Brake line bracket modifications may be needed based on the lift kit manufacturer's design.
2. Most of the time, modifications to the emergency brake line or electrical wires/cables are addressed in the air spring kit's installation guide, however, the lift kit manufacturer may have different modifications that may affect this installation.
3. Depending on your application and how you are securing the cradle in your applicable kit, it may be required to slightly modify the cradle. It is permissible to modify the exterior flange of the cradle to ensure it sits flat against the bracket and to avoid contact with other components. (i.e. protruded bolts, carriage bolt heads, etc.)

MAINTAIN AIR SPRING CLEARANCE

1. There should be nothing within 1/2" (13mm) of the inflated air spring and its mounting brackets throughout the full travel of the suspension once the installation is complete.
2. This product can be used with other air spring manufacturers' kits, however, be aware that air spring mounting hardware may be different from what is supplied.

Install the Universal Air Spring Cradles

This installation guide assumes air springs have previously been installed on the vehicle. If air springs are not currently installed on the vehicle, follow the kit installation guide up to the point of attaching the air spring to the lower bracket.

1. Release all air from the air springs.
2. Determine if adequate clearance is available for the air spring cradle. The universal air spring cradle can be mounted in between air spring kit brackets shown in Figure 2 or can be installed in a lifted application using a lift spacer shown in Figure 3. Depending on the air spring kit purchased, you will need to review the installation guide and determine the part number of the air spring included in the kit. In Figure 4 you will find part numbers of the air springs that would be included in your Air Lift kit, along with the required design height for each of the air springs. Now measure the distance between brackets and subtract the thickness of the universal air spring cradle (.83") if your application is like Figure 2. In the case of the air spring lift spacer, you will need to measure the distance between brackets and then subtract the universal air spring cradle thickness and the air spring lift spacer to be used (Fig. 3). This dimension should ideally be close to the design height of the air spring ± 1.0 ". Targeting the upper portion of the range is ideal. You may need to select a lift spacer height that will get you to an acceptable design height range. Ride and air spring performance may be affected if adequate travel is not provided for the air spring. It is highly recommended that during normal suspension actuation, the air spring is in contact with the universal air spring cradle and only separates during large events.
3. Now that you have an acceptable design height determined, or in the case of an application with the lift spacer being used, you have determined the height of a lift spacer that will work for your application. Remove the lower bracket from the vehicle following the steps from your air spring installation guide in reverse order.
4. Remove the fasteners that attach the air spring to the lower bracket or lift spacer if one is being used. The universal air spring cradle is only to be used on the air spring side (or end) opposite the air fitting.

NOTE

Discard the lower roll plate if applicable to your application. Roll plate function is replaced by the air spring cradle.

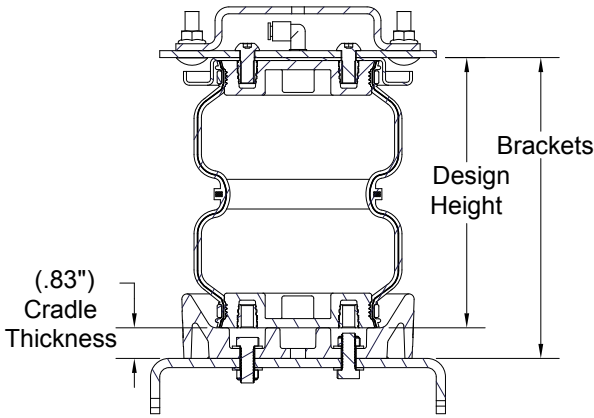


Fig. 2

BRACKETS - CRADLE THICKNESS (.83") = ____ (DESIGN HEIGHT)

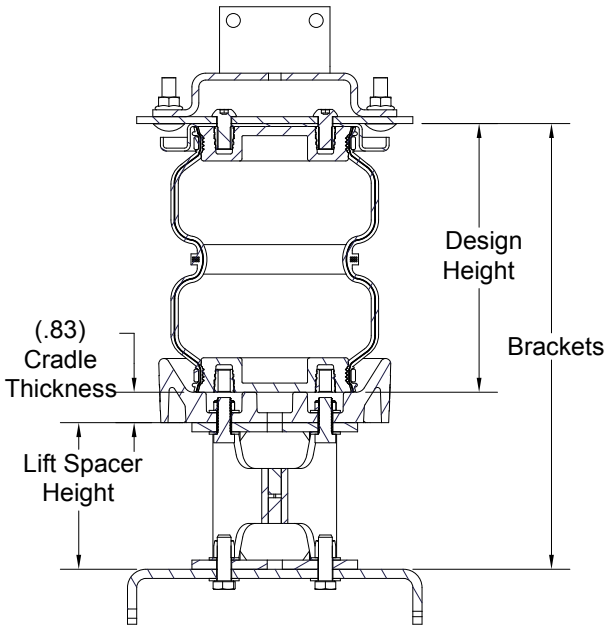


Fig. 3

BRACKETS - CRADLE THICKNESS (.83") - LIFT SPACER HEIGHT = ____ (DESIGN HEIGHT)

Air Spring Part Number	Recommended Design Height
58439/58494/58939/58994	5 1/2"
58437/58946/58937/58996	6"
58740/58940	5"

Fig. 4

- Use the supplied hardware that mimics the hardware used in your air spring kit for attaching the lower bracket to the air spring (Fig. 5). The air spring and universal air spring cradle should be aligned so that the air spring is contacting the universal air spring cradle in the center. Torque the air spring cradle hardware to 15 lb.-ft. (20Nm).

NOTE

If using an Air Lift Company lift spacer kit (see Fig. 3 on previous page) you will not need all the hardware provided with that kit. The hardware in this kit is to be used between the cradle and the lift spacer.

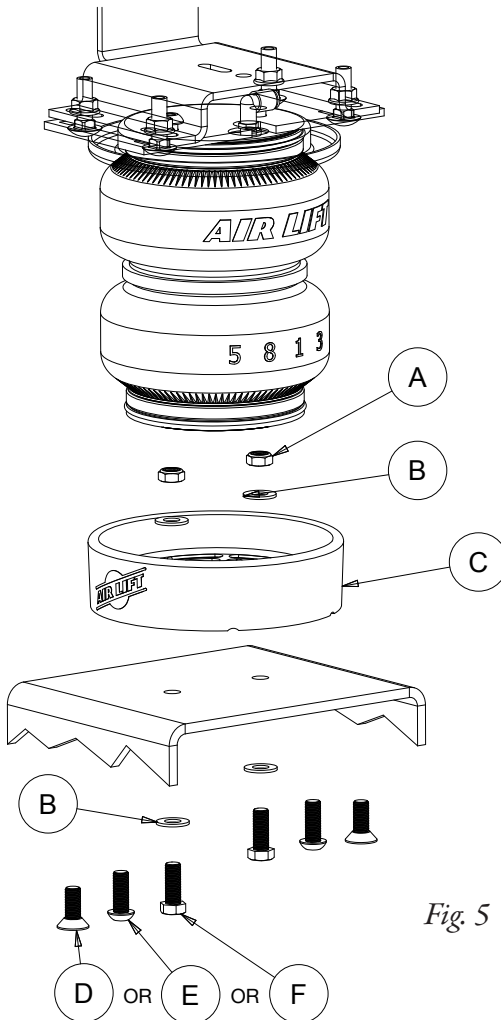


Fig. 5

6. The universal air spring cradle has been designed to install the hardware either facing up or down (Fig. 6) but is not to extend beyond the spring contact surface (Fig. 7).

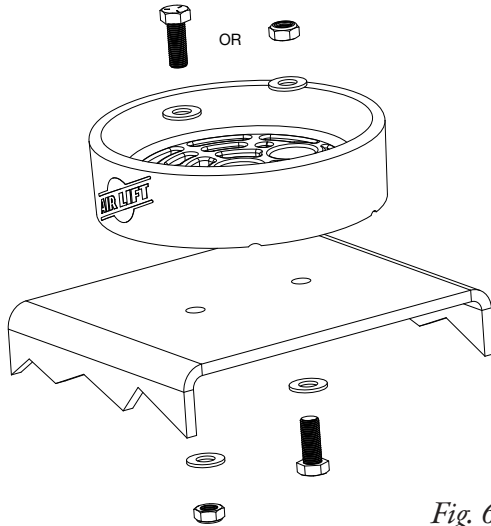


Fig. 6

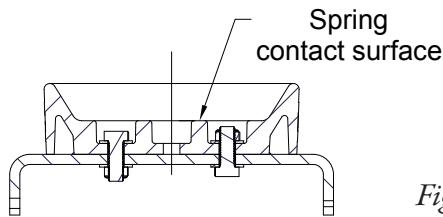


Fig. 7

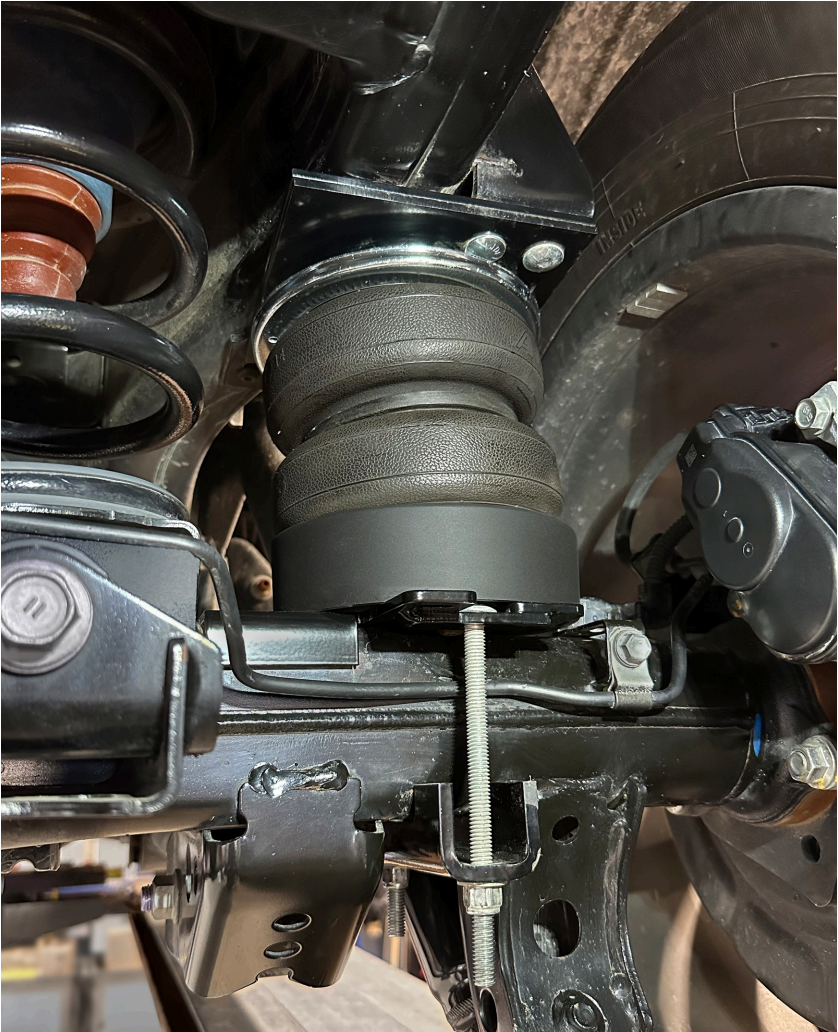
7. Reattach the lower bracket to the vehicle following the air spring kit's installation guide as specified. Cycle the suspension to make sure the air spring has 1/2" (13mm) of clearance all the way around.



WITH THE AIR SPRINGS INFLATED TO 40-60 PSI (2.8-4.1BAR), MAKE SURE THERE IS AT LEAST 1/2" (13MM) CLEARANCE FROM ANYTHING THAT MIGHT RUB AGAINST EACH AIR SPRING. BE SURE TO CHECK THE CLEARANCE OF TIRES, FRAME, WIRES, HOSES, SHOCK ABSORBERS AND BRAKE LINES, BRACKETS AND CABLES.

Finished Installation

The image shows a representation of a finished installation.



Congratulations!

You are now the proud owner of an Air Lift air suspension system. Enjoy!

Limited Warranty and Return Policy

Air Lift Company provides a Limited Lifetime Warranty* to the original purchaser of its load support products, from the date of original purchase, 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.

*Full Limited Warranty and Return Policy are available at www.airliftcompany.com/warranty and are subject to change.

Warranty Registration & Claims

- To register your warranty, please visit <https://www.airliftcompany.com/support/warranty/register/>
- To submit a warranty claim, please visit <https://www.airliftcompany.com/support/warranty/submit-claim/>

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: +1 (517) 322-2144
Email	service@airliftcompany.com
Web address	www.airliftcompany.com



Thank you for purchasing Air Lift Products!

Need Help?

Contact Air Lift Company Customer Service
at (800) 248-0892
or email service@airliftcompany.com.

For calls outside the U.S. or Canada,
dial (517) 322-2144.



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