

# Load**LIFTER** 5000™ **ULTIMATE**

ADJUSTABLE AIR HELPER SPRINGS

TOW AND HAUL WITH SAFETY AND COMFORT™

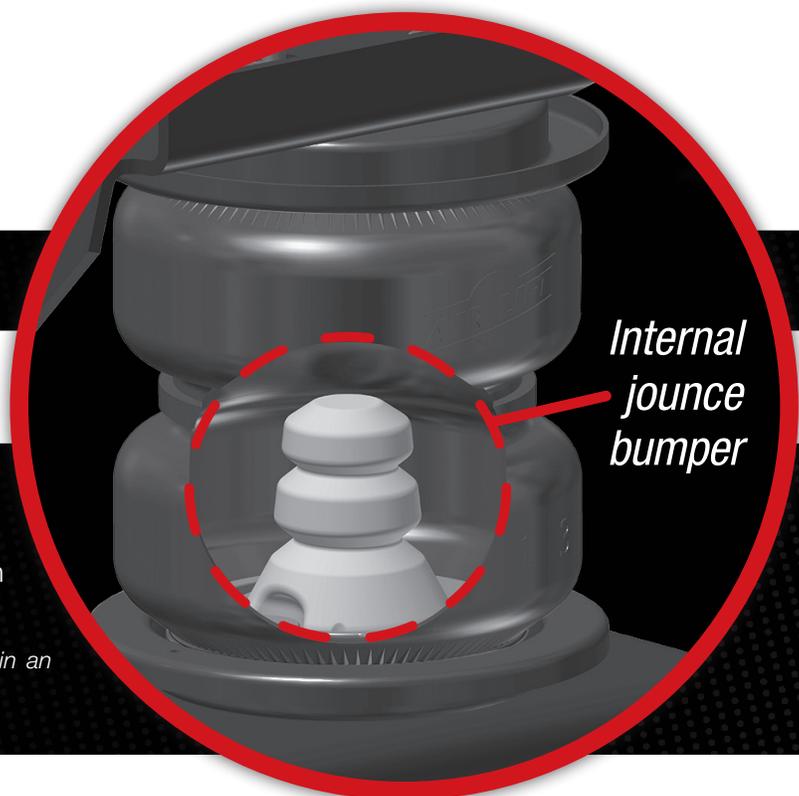


Kit Number  
**88212**

## 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

<b>Introduction</b> . . . . .	<b>2</b>
Notation Explanation . . . . .	2
<b>Installation Diagram</b> . . . . .	<b>3</b>
Hardware List . . . . .	3
<b>Installing the LoadLifter 5000 Ultimate System</b> . . . . .	<b>4</b>
Getting Started . . . . .	4
Assembling the Air Spring Unit . . . . .	4
Positioning the Brackets . . . . .	5
Attaching the Upper Brackets . . . . .	6
Attaching the Lower Brackets . . . . .	6
Securing the Air Spring to Brackets . . . . .	7
Securing the Emergency Brake Cable . . . . .	7
Attaching the Jounce Bumper . . . . .	8
<b>Installing the Air Lines</b> . . . . .	<b>8</b>
Installation Checklist . . . . .	9
<b>Maintenance and Use Guidelines</b> . . . . .	<b>9</b>
Minimum and Maximum Pressure . . . . .	9
<b>Template</b> . . . . .	<b>11</b>
Drilling Template Verification . . . . .	11
Upper Bracket Positioning for 2008 and Later Ford Vehicles . . . . .	11
<b>Limited Warranty and Return Policy</b> . . . . .	<b>13</b>

# Introduction

The purpose of this publication is to assist with the installation and maintenance of the LoadLifter 5000 Ultimate air spring kits. All LoadLifter 5000 Ultimate kits utilize sturdy, reinforced, commercial-grade single or double, depending on the kit, convolute bellows. They also incorporate an internal jounce bumper.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 Ultimate kits provide up to 5,000 pounds (2,268kg) of load-leveling support with air adjustability from 5-100 PSI (.34-7BAR).

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair.

## 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.

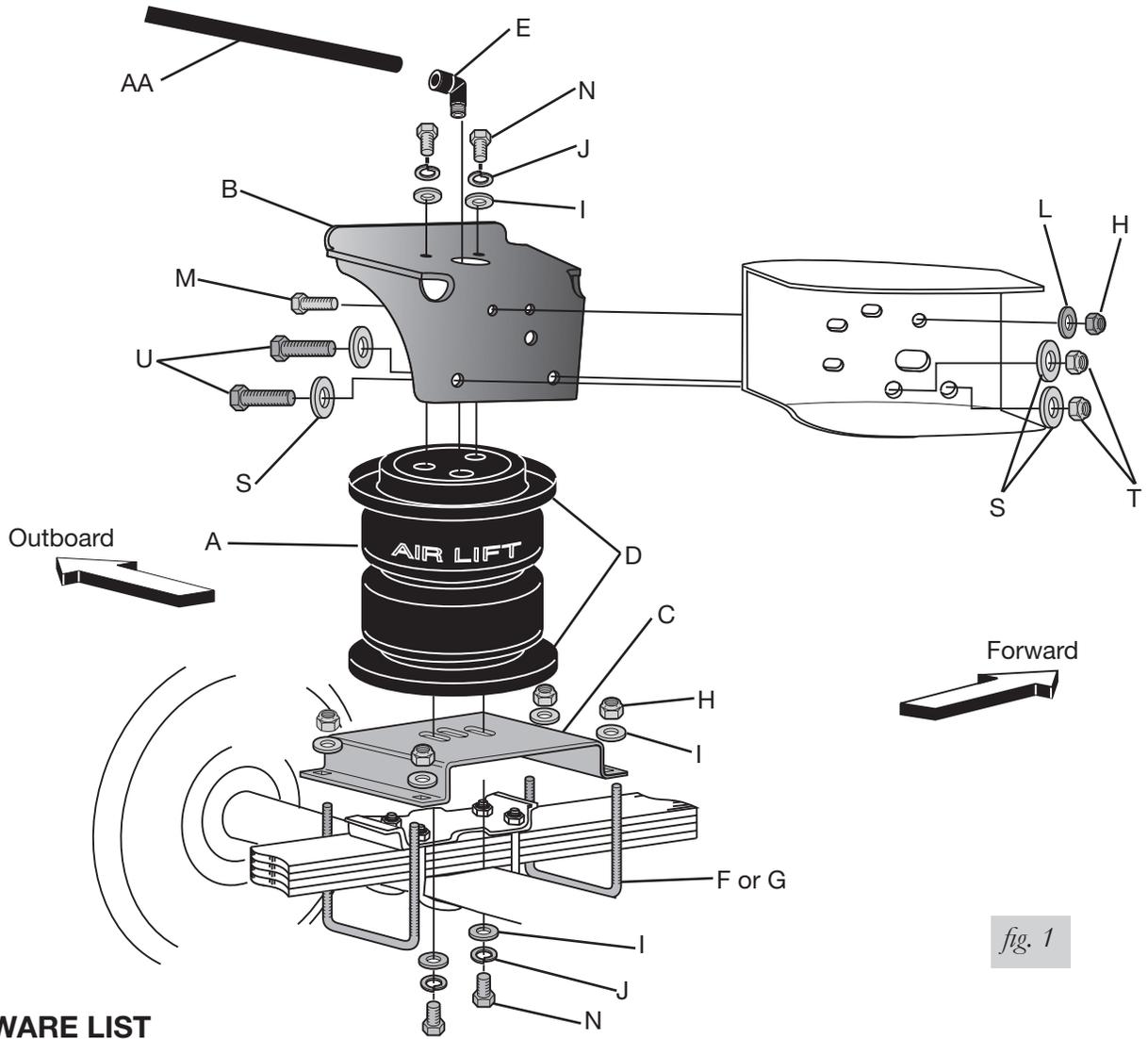
 **CAUTION**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

 **WARNING**

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

# Installation Diagram



## HARDWARE LIST

Item	Part #	Description.....	Qty	Item	Part #	Description.....	Qty
A	58496	Air spring.....	2	P	17202	3/8"-16 x 1 1/4" Hex-head cap screw ...	2
B	07178	Upper bracket.....	2	Q	18468	3/8" Flat washer.....	4
C	03102	Lower bracket.....	2	S	18207	1/2" Large flat washer.....	8
D	11967	Roll plate.....	4	T	18460	1/2" Nylon lock nut .....	4
E	21837	Elbow fitting.....	2	U	17247	1/2"-13 x 1 3/4" Hex-head cap screw ...	4
F	10594	2" U-bolt .....	4	V	10465	P-clamp .....	1
G	10561	4 1/2" U-bolt .....	4	<b>Air Line Assembly Parts</b>			
H	18435	3/8" Nylon lock nut .....	12	AA	20086	Air line assembly .....	1
I	18444	3/8" Flat washer.....	16	BB	10466	Zip tie.....	6
J	18427	3/8" Lock washer.....	8	CC	21230	Valve caps.....	2
K	10014	Jounce bumper spacer.....	2	DD	18501	M8 stainless steel flat washer.....	2
L	18447	3/8" Large flat washer.....	2	EE	21234	Rubber washer.....	2
M	17159	3/8" x 1 1/2" Washer-head flange bolt...2	2	FF	18411	Small stainless steel star washer.....	2
N	17203	3/8" x 7/8" Hex-head cap screw .....	8	GG	21233	5/16" Hex nut.....	4
O	01525	Spacer bar .....	4				



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

# Installing the LoadLifter 5000 Ultimate System



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

**IMPORTANT:** There must be at LEAST 8" (203mm) between the tire and the frame to install this LoadLifter 5000 Ultimate kit (Fig. 2).

1. Raise the vehicle, remove the wheels, and obtain normal ride height (Fig. 3).
2. Remove the emergency brake cable bracket from the driver side spring retainer. Save the bolt for later use.
3. Remove both jounce bumpers from under the frame above the axle. Save for later use.

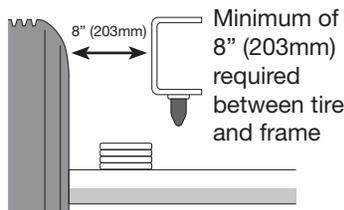


fig. 2

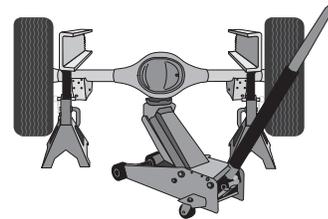


fig. 3

## ASSEMBLING THE AIR SPRING UNIT

1. Set roll plates (D) 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. Install a 90-degree swivel air fitting (E) finger tight plus 1 1/2 turns (Fig. 4). Do not overtighten.
3. Place the upper bracket (B) onto the top of the bellow and roll plate with the legs facing down.

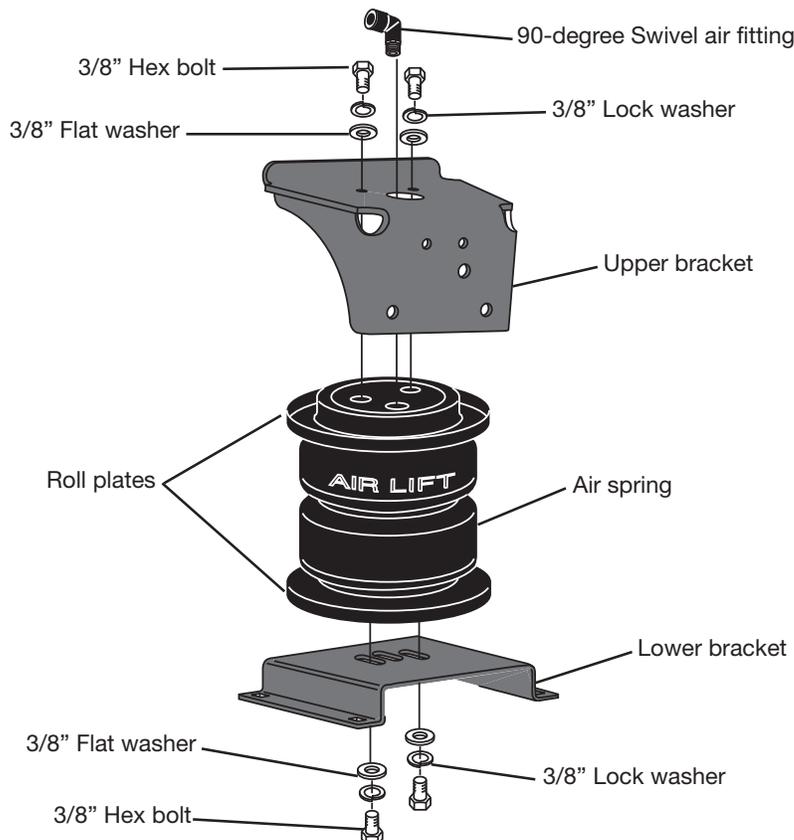


fig. 4

4. Set the air spring on the lower bracket (C) aligning the two holes in the base of the air spring with the two outer slots in the top of the lower bracket (Fig. 4).
5. Attach the upper bracket to the assembly using flat washers (I), lock washers (J), and hex head bolts (N). Tighten securely.
6. Loosely attach the lower bracket to the assembly using flat washers (I), lock washers (J), and hex head bolts (N) (Fig. 4).

**NOTE**

*The flange on the bracket must face the outside (tire-side) of the vehicle.*

## POSITIONING THE BRACKETS

1. There must be 6 1/2" to 8" (165mm to 203mm) between the upper bracket and the lower bracket (distances X and Y) to install the air spring (Fig. 5). It is best to use the highest envelope available between the upper and lower bracket.

**NOTE**

*Failure to mount the air spring at or higher than 6 1/2" (165mm) can result in the air spring bottoming out.*

2. If the kit is being installed on a 2008 or later model it will be necessary to drill the 3/8" locating hole for locating the upper bracket to the frame rail. Use the template provided at the end of this manual to properly locate the 3/8" hole, center punch and drill a 3/8" hole through the frame.



**CAUTION**

BEFORE DRILLING, CHECK THE BACK SIDE OF THE FRAME FOR CLEARANCE ISSUES WITH THE BRAKE LINES, GAS LINES AND ELECTRICAL LINES. ANY OBSTACLES WILL NEED TO BE TEMPORARILY RELOCATED TO CLEAR THE AREA.

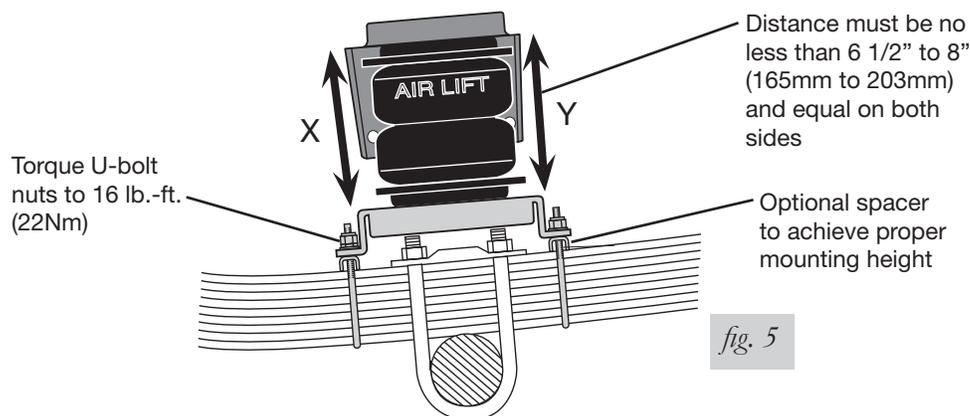


fig. 5

3. Set the air spring assembly on the leaf spring over the axle (Fig. 6).

**NOTE**

*On some models it may be necessary to relocate a line bracket on the inside of the frame on the driver's side. Move the bracket back far enough to clear the upper bracket and remount.*

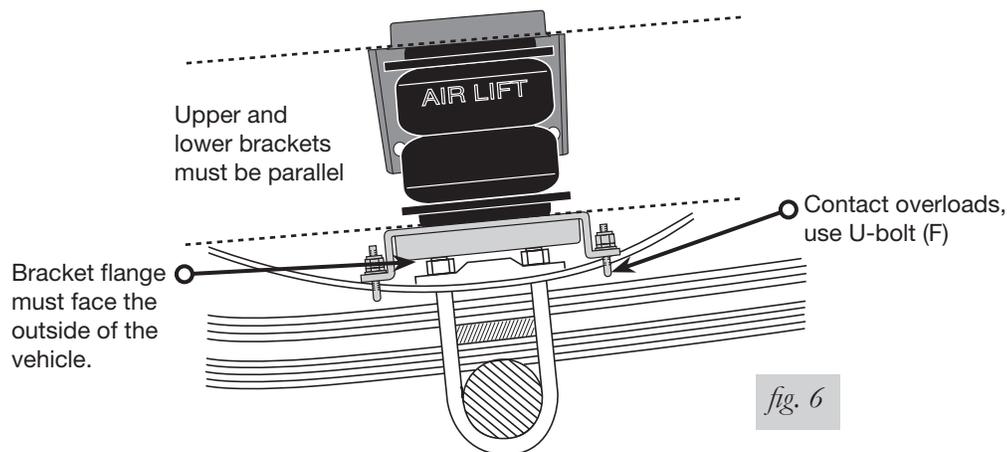
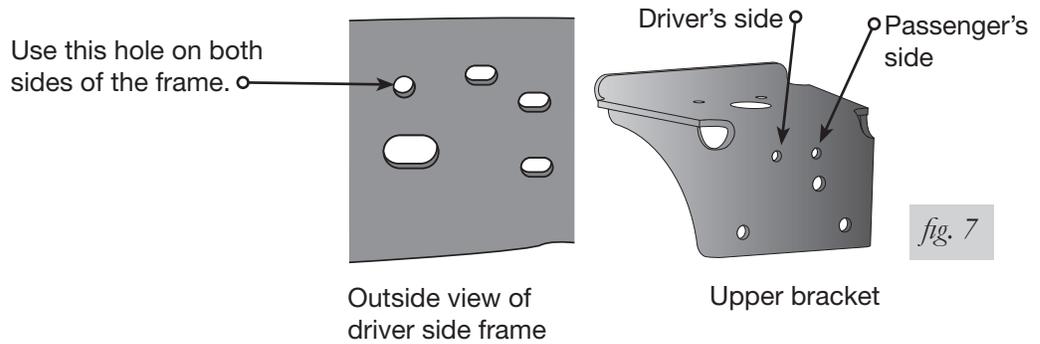


fig. 6

- Loosely attach the upper bracket to the frame using the bracket holes and existing frame holes as specified in Fig. 7. Use a 3/8" bolt (M), flat washer (L), and nylon lock nut (H) to attach the upper bracket. Leave loose.



- If the lower bracket hits the tops of the stock U-bolts and does not fit flush to the leaf spring, or, the mounting distance is over 8" (203mm), use a spacer (O) to space the lower bracket so it will clear the stock U-bolts (Fig. 6).
- Measure the X and Y distance (mounting envelope) (Fig. 6). If this distance is less than 6 1/2" (165mm), you will have to cut the tops of the U-bolts off and remove the spacers previously installed. The lower bracket must sit flush on the leaf spring.
- Adjust the brackets so they are parallel to each other and the X and Y distances are equal. Do this by rotating the upper bracket and/or pushing the lower bracket forward and backward.
- Mark the frame using the two 1/2" holes in the lower bracket as a template.

## CAUTION

BEFORE DRILLING, CHECK THE BACK SIDE OF THE FRAME FOR CLEARANCE ISSUES WITH THE BRAKE LINES, GAS LINES AND ELECTRICAL LINES. ANY OBSTACLES WILL NEED TO BE TEMPORARILY RELOCATED TO CLEAR THE AREA.

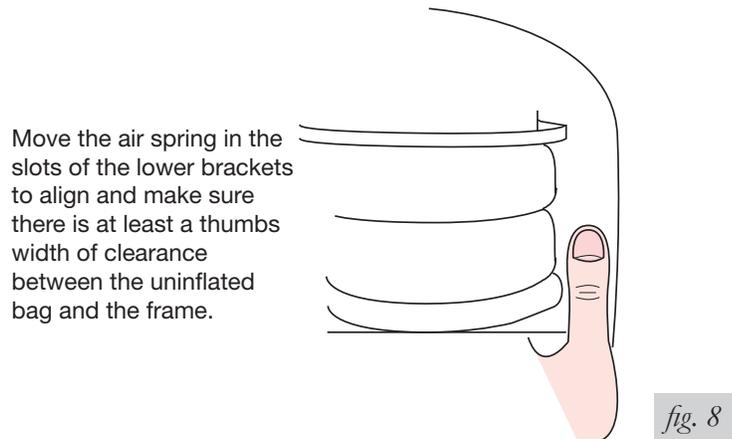
- Remove the assembly and drill two 1/2" holes in the frame where marked.

## ATTACHING THE UPPER BRACKETS

- Set the assembly back on the spring and attach the upper bracket using one 3/8" bolt (M), flat washer (L) and nylon lock nut (H). Also, attach using two 1/2" bolts (U), four flat washers (S) and two nylon lock nuts (T). Torque the 3/8" bolt to 44 lb.-ft. (60Nm). Torque the 1/2" bolts to 95 lb.-ft. (129Nm).

## ATTACHING THE LOWER BRACKETS

- Position the lower bracket so that it is parallel with the upper bracket, and so that the air spring is perpendicular to both. Do this by using the same method as before, but also move the air spring in and out using the slots in the lower bracket (Fig. 8).

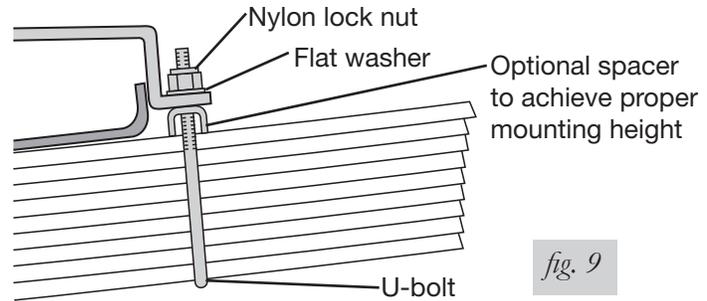


2. If the spacer is not used, attach the lower bracket securely using the provided U-bolts (F or G), flat washers (I), and nylon lock nuts (H) (Fig. 9). Torque to 16 lb.-ft (22Nm).

**NOTE**

*You can use the shorter U-bolts (F) when attaching to frame contact overloads.*

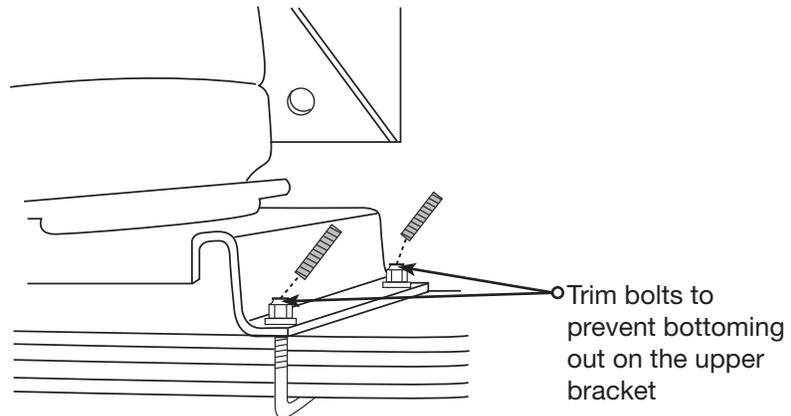
3. If the spacer is used, place the spacer (O) on the leaf spring and attach the lower bracket securely using the provided lock nuts (H) (Fig. 9). Torque to 16 lb.-ft (22Nm).



*fig. 9*

**SECURING THE AIR SPRING TO BRACKETS**

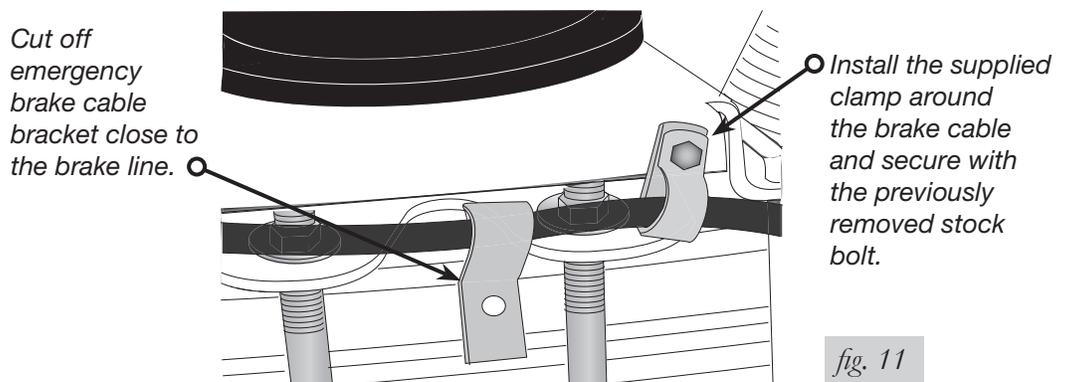
1. Secure the air spring to the lower bracket using a 9/16" open ended wrench.
2. Depending on the thickness of the leaf spring stack, it will be necessary to trim the U-bolts (Fig. 10).
3. Check to ensure that all hardware is secure and repeat the process for the remaining side of the vehicle.



*fig. 10*

**SECURING THE EMERGENCY BRAKE CABLE**

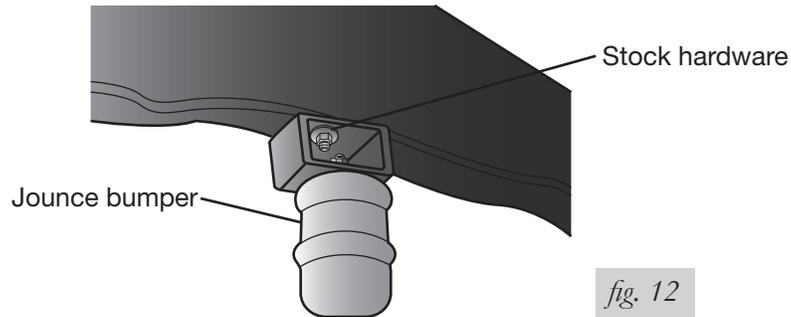
1. Attach the supplied P-clamp (V) around the emergency brake cable and secure it to the lower bracket using the previously removed stock bolt. Tighten securely. (Fig. 11).
2. Cut off the existing emergency brake cable bracket close to the brake line.



*fig. 11*

## ATTACHING THE JOUNCE BUMPER

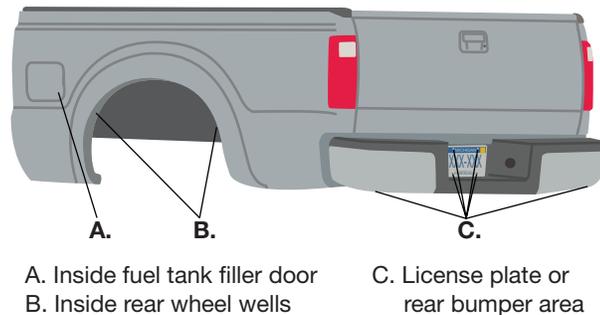
1. One end of the jounce bumper spacer (K) has two holes in it. Attach the previously removed jounce bumper to this end using the previously removed hardware. Tighten securely.
2. Attach the assembly to the vehicle using the supplied 3/8" bolt (P), two 3/8" flat washers (Q), and a 3/8" nylon lock nut (R) (Fig. 12).
3. Repeat steps 1-2 for the other side of the vehicle.


*fig. 12*

## Installing the Air Lines

Choose the locations for the Schrader valves and drill a 5/16" (8mm) hole, if necessary (Fig. 13).

1. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. 14). Do not use scissors or wire cutters.



A. Inside fuel tank filler door  
B. Inside rear wheel wells

C. License plate or rear bumper area

*fig. 13*

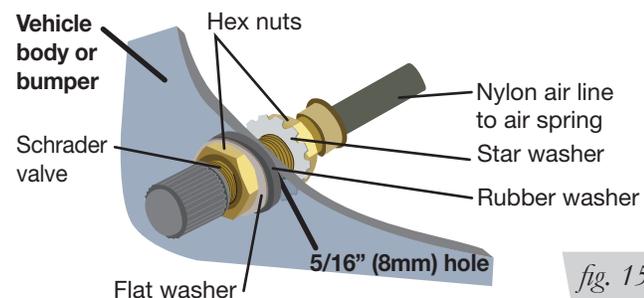
**CAUTION**

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

2. 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).


*fig. 14*

3. Install the Schrader valve in the chosen location (Fig. 15).


*fig. 15*

## INSTALLATION CHECKLIST

- Clearance test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) and make sure there 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 40-60 PSI (2.8-4.1BAR) 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.
- 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.

## Maintenance and Use Guidelines

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI (7BAR).
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.

<b>Minimum Recommended Pressure</b>	<b>Maximum Air Pressure</b>
<b>5 PSI (.34BAR)</b>	<b>100 PSI (7BAR)</b>



FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR) OR PAYLOAD RATING, AS INDICATED BY THE VEHICLE MANUFACTURER.



ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 100 PSI (7BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.



# Notes

# Template

## CAUTION

### DRILLING TEMPLATE VERIFICATION

IMPORTANT: PRINT THIS MANUAL AT 100% SCALE. THIS MANUAL CONTAINS A DRILLING TEMPLATE, WHICH WOULD BE RENDERED INCORRECT IN DIMENSION IF PRINTED WITH ANY SCALING. USING AN INCORRECT TEMPLATE TO DRILL HOLES MAY CAUSE DAMAGE TO THE VEHICLE.

PLEASE REFER TO THE ONE-INCH OR ONE-CENTIMETER SCALE (FIG. 16) AND USE A MEASURING TOOL TO CONFIRM THAT THE PRINTED SCALE MEASURES 1" OR 1CM TO VERIFY THAT THE TEMPLATE HAS BEEN PRINTED AT 100% SCALE. IF IT IS PRINTED AT ANY SCALE OTHER THAN 100%, YOU COULD END UP DRILLING IN THE WRONG LOCATIONS ON THE VEHICLE.

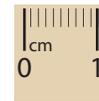


fig. 16

### UPPER BRACKET POSITIONING FOR 2008 AND LATER FORD VEHICLES

1. Cut out slot (Fig. 17).
2. Align slot from template with the slot on the frame that is located above the axle.
3. Center punch and drill a 3/8" hole that will be used to locate the upper bracket to the frame.
4. Repeat for opposite side.

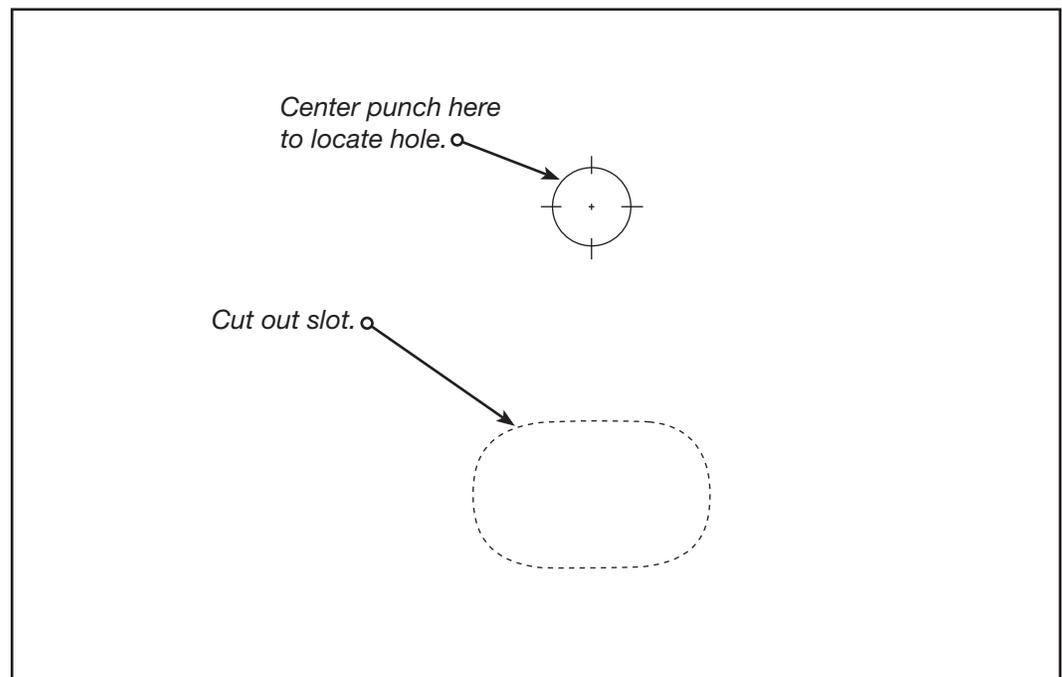


fig. 17



## **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 at [www.airliftcompany.com/warranty](http://www.airliftcompany.com/warranty).

For additional warranty information contact Air Lift Company customer service.

## 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](http://www.airliftcompany.com)

Printed in the USA  
MB-1118



California: ⚠️WARNING: Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)