AIR LIFT™ Since 1949

LoadLIFTER 5000™ SERIES

Installation Guide

2004-14 Ford F-150

Kits 57200 | 88200 | 89200

4WD

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

MN-1044 • (011704) • ERN 8631

Failure to read these instructions can result in an incorrect installation.

IDENTIFYING THE DIFFERENCES BETWEEN KITS

Should you need to contact Air Lift customer service, you will need to know which kit you are inquiring about: standard LoadLifter 5000, LoadLifter 5000 Ultimate or LoadLifter 5000 Ultimate Plus. The kits are easily identifiable by looking at the roll plates and air lines.

☐ Standard **LoadLifter 5000** — Zinc-plated steel roll plates and black nylon air lines.

☐ **LoadLifter 5000 Ultimate** — Black powder-coated roll plates and black nylon air lines.

☐ **LoadLifter 5000 Ultimate Plus** — Stainless steel roll plates, braided stainless steel air lines, stainless steel air spring mounting hardware.

Air Lift offers two Ultimate Plus upgrade kits:

52300 - Braided stainless steel air line and fittings.

52301 - Stainless steel roll plates, air spring mounting hardware, braided stainless steel air lines and fittings.

LoadLifter 5000
silver zinc-plated steel
roll plate

LoadLifter 5000 Ultimate
black powder-coated
roll plate

LoadLifter 5000 Ultimate Plus
stainless steel
roll plate

LoadLifter 5000
nylon air line

LoadLifter 5000 Ultimate
nylon air line

LoadLifter 5000 Ultimate PLUS
braided stainless steel air line

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Installation Diagram

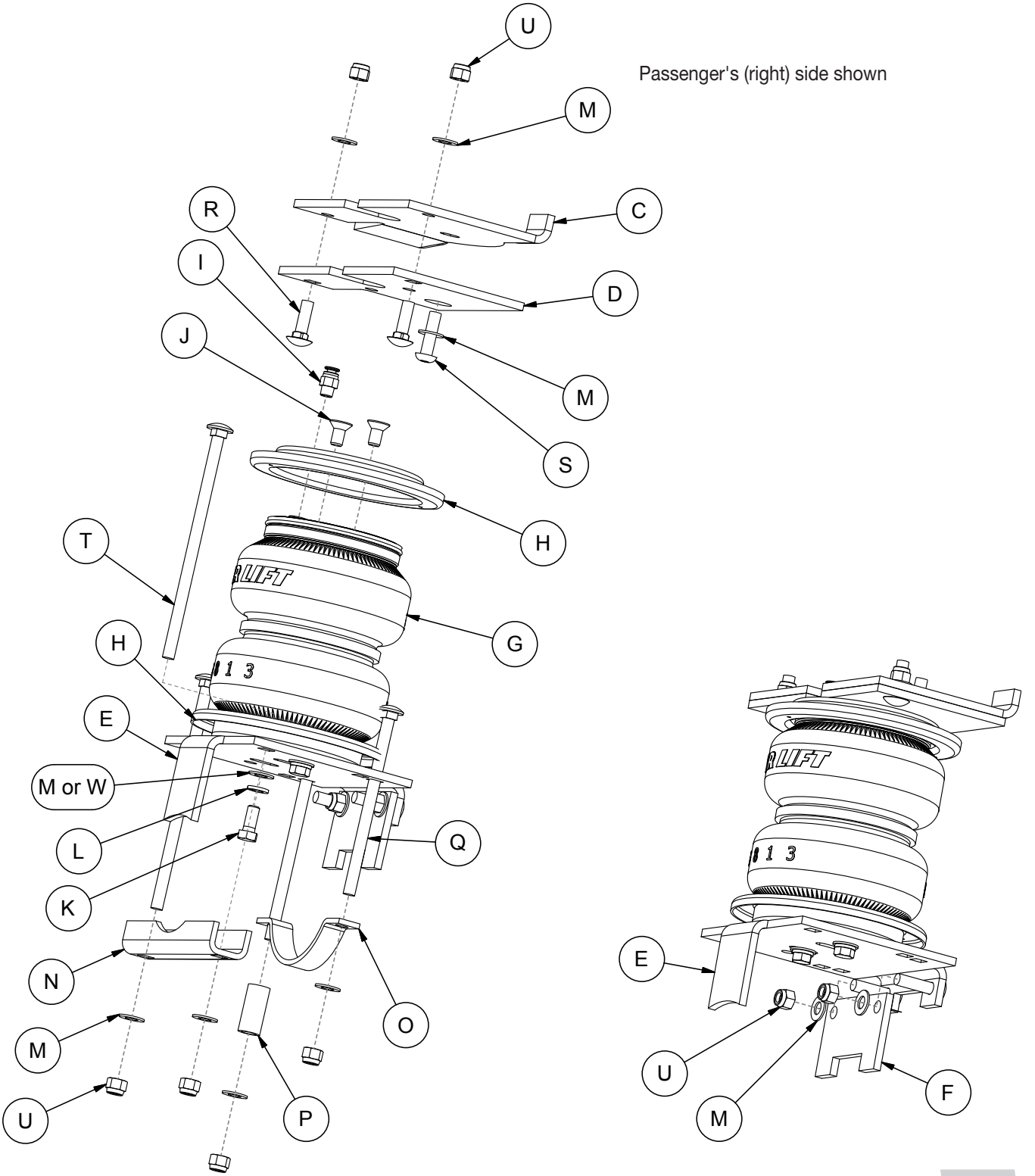


fig. 1

Hardware and Tools Lists

Common Parts Included in All 3 Kits

Item	Part#	Description	Qty
A	07079	LH Upper frame bracket	1
B	07089	LH Upper spring bracket	1
C	07078	RH Upper frame bracket	1
D	07088	RH Upper spring bracket	1
E	03022	Lower bracket	2
F	11401	Adapter bracket	2
N	01531	Clamp bar	3
O	10451	Axle strap	1
P	10673	Sleeve spacer	1
Q	17133	3/8"-16 x 6" Carriage bolt	1
R	17361	3/8"-16 x 1.25" Carriage bolt	4
S	17366	M10-1.5 x 35 Button-head screw	2
T	17467	3/8"-16 x 7.5" Carriage bolt	7
U	18435	3/8"-16 Nylon lock nut	16
V	18605	M10-1.5 Universal nut	2
EE*	21234	Rubber washer	2

* not pictured in the Installation Diagram

TOOLS LIST

Description	Qty
Standard and metric open-end or box wrenches	2
Adjustable wrench	1
Ratchet with 3/8", 9/16", & 1/2" deep-well sockets	1
3/8" and 5/16" drill bits (very sharp)	1
3/8" Nut driver	1
Heavy-duty drill	1
Torque wrench	1
Standard and metric hex-key wrenches	1
Hose cutter, razor blade, or sharp knife	1
Hoist or floor jacks	1
Safety stands	1
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1

The photos in this manual show the LoadLifter 5000 Ultimate kit.

Unique Parts in Each Kit

LoadLIFTER 5000™ KIT 57200

Item	Part#	Description	Qty
G	58437	Air spring	2
H	11951	Roll plate (silver zinc finish)	4
I	21839	Push-to-connect (PTC) fitting	2
J	17215	3/8"-24 x 3/4" Flat-head screw	4
K	17203	3/8"-24 x 7/8" Hex-head bolt	4
L	18427	3/8" Lock washer	4
M	18444	3/8" Flat washer	22
AA*	20086	Air line	1
BB*	10466	Zip tie	6
CC*	21230	Valve cap	2
DD*	18501	M8 Flat washer	2
GG*	21233	5/16" Hex nut	4
FF*	18411	Star washer	2

LoadLIFTER 5000™ ULTIMATE KIT 88200

Item	Part#	Description	Qty
G	58496	Air spring with jounce bumper	2
H	11967	Roll plate (black powder-coated)	4
I	21839	Push-to-connect (PTC) fitting	2
J	17215	3/8"-24 x 3/4" Flat-head screw	4
K	17203	3/8"-24 x 7/8" Hex-head bolt	4
L	18427	3/8" Lock washer	4
M	18444	3/8" Flat washer	22
AA*	20086	Air line	1
BB*	10466	Zip tie	6
CC*	21230	Valve cap	2
DD*	18501	M8 Flat washer	2
GG*	21233	5/16" Hex nut	4
FF*	18411	Star washer	2

LoadLIFTER 5000™ ULTIMATE PLUS KIT 89200

Item	Part#	Description	Qty
G	58496	Air Spring with jounce bumper	2
H	11880	Roll plate (stainless steel)	4
I	21815	AN type fitting	2
J	17363	3/8"-24 x 3/4" Stainless steel flat-head screw	4
K	17284	3/8"-24 x 7/8" Stainless steel Hex-head bolt	4
L	18504	3/8" Stainless steel lock washer	4
M	18444	3/8" Flat washer	18
W	18507	3/8" Stainless steel flat washer	4
AA*	20987	Stainless steel braided air line	2
BB*	10466	Zip tie	12
HH*	21709	Schrader valve with cap & nut	2
DD*	18572	M8 stainless steel flat washer	2
FF*	18623	Stainless steel star washer	2
II*	21813	AN to PTC fitting	2
JJ*	20084	Air line assembly	1

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of the standard LoadLifter 5000, LoadLifter 5000 Ultimate or LoadLifter 5000 Ultimate Plus air spring kits. All LoadLifter 5000 Series kits utilize sturdy, reinforced, commercial-grade single or double, depending on the kit, convolute bellows. LoadLifter 5000 Ultimate kits add an internal jounce bumper and black powder-coated roll plates. LoadLifter 5000 Ultimate Plus kits also have an internal jounce bumper, but add stainless steel roll plates, air lines and air spring mounting hardware.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 series 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.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time.

IMPORTANT SAFETY NOTICE

The installation of this kit does not alter the gross vehicle weight rating (GVWR) or payload of the vehicle. Check the vehicle's owner's manual and do not exceed the maximum load listed for this 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.

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

Installing the LoadLifter 5000 Series System

GETTING STARTED

DANGER

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.

1. Raise the vehicle and support the axle with jack stands, setting the jack stands as wide as possible on the axle (Fig. 2).

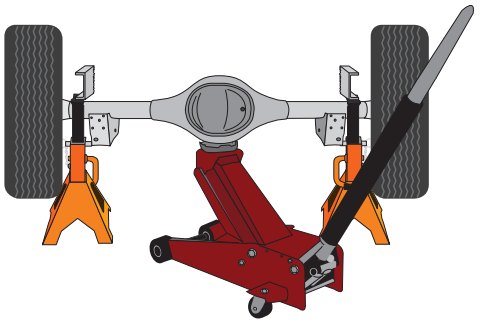
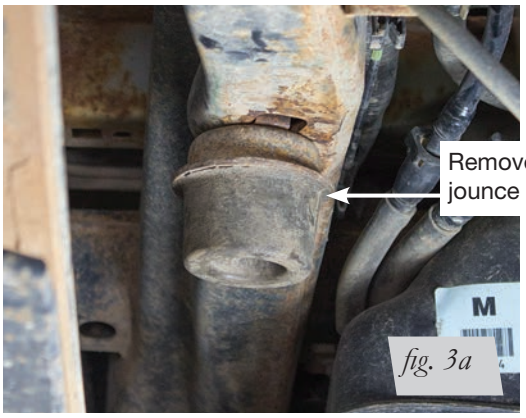
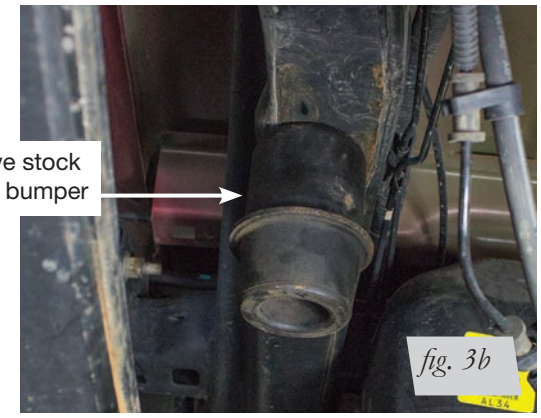


fig. 2

2. Drop the axle or raise the frame up to make room for the assemblies to be put into position between the frame and axle.
3. Remove both jounce bumpers between the frame and axle (Figs. 3a or 3b) and for 2004-08 models remove the stock universal nut that held the jounce bumpers in place (Fig. 4).



2004-'08 jounce bumper



2009-14 jounce bumper

Remove and discard the stock universal nut in 2004-08 vehicles.

4. For the early 2004-08 models, install a new universal nut (V) into the large hole so that the threaded portion is up inside the frame (Fig. 5).

NOTE

No modifications are needed for the 2009-14 models. The universal nut is not required for 2009-14.

For 2004-08 vehicles, insert the new universal nut (V) with the threaded portion inside the frame.

fig. 5

5. **All years**: On the passenger's (right) side, there is an emergency brake cable holder that is bolted on to a bracket welded to the axle with a self-tapping bolt. In order to make clearance for the axle strap, it will be necessary to cut this off or grind this bolt flush to the bracket (Fig. 6).

Emergency brake cable holder

Early model shown: The bolt must be cut off flush to the bracket.

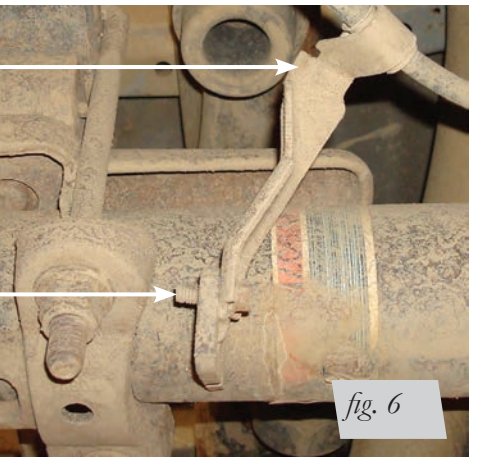


fig. 6

AIR SPRING AND BRACKET ASSEMBLY

1. Set a roll plate (H) over the top of the air spring (G) (Fig. 1).

NOTE

The radiused (rounded) edge of the roll plate (H) will be toward the air spring so that the air spring is seated inside both roll plates.

2. Install the straight fitting (I) into the top of the air spring finger tight. Tighten the fitting an additional 1 1/2 turns.
3. Install the upper spring bracket (B & D) onto the air spring (G) using four flat-head screws (J) (Fig. 1). Torque the upper spring bracket to no more than 20 lb.-ft. (27Nm).
4. The air spring assemblies are specific to the driver's (left) side and passenger's (right) side (Fig. 7). Set aside for later use.

Driver's (left) side

Passenger's (right) side

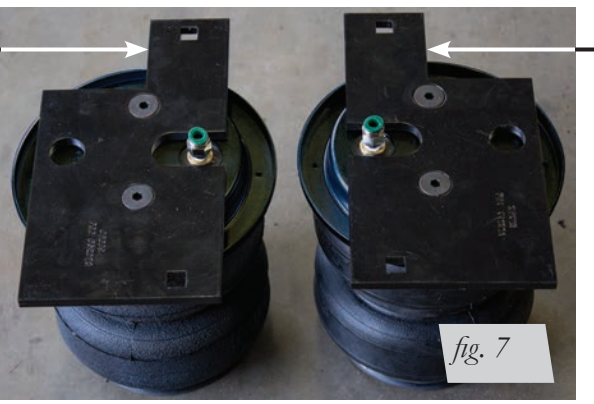
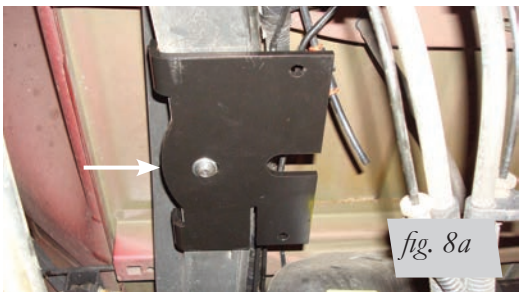


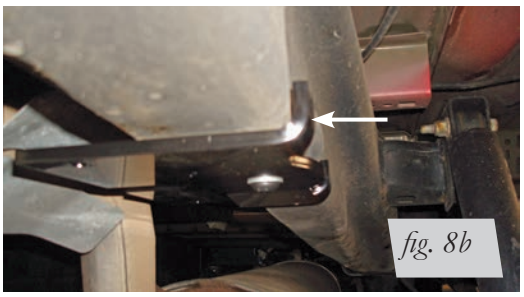
fig. 7

ATTACHING THE ASSEMBLIES TO THE FRAME

1. With the new universal nut in the frame on the early model and no modification needed for the late model truck, attach the left frame mount bracket (A) onto the frame using a flat washer (M) and button-head screw (S). Mount on the frame with the flange pointing up and as tight to the frame as possible while tightening the hardware (Figs. 8a & 8b). Torque to 38 lb.-ft. (52Nm). Repeat for the right side frame mount bracket (C).

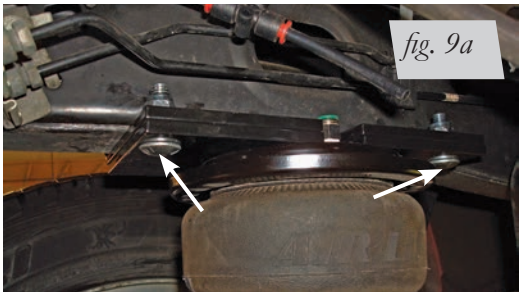


Driver's side: Push bracket against frame and torque to 38 lb.-ft. (52Nm).

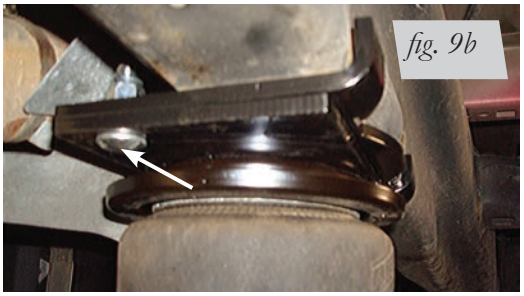


Passenger's side: Push bracket against frame and torque to 38 lb.-ft. (52Nm).

2. Attach the left- and right-hand assemblies to the frame brackets using carriage bolts (R), flat washers (M) and nylon lock nuts (U) (Figs. 9a & 9b). Torque to 31 lb.-ft. (42Nm).



Driver's side attached with carriage bolts (R), flat washers (M) and nylon lock nuts (U).



Passenger's side attached with carriage bolts (R), flat washers (M) and nylon lock nuts (U).

LOWER BRACKET INSTALLATION (2004-08 MODELS)

1. Set one of the lower brackets on the axle and axle spacer/jounce bumper strike plate.

NOTE

The bracket must nest in between the stock U-bolts that hold the leaf spring to the axle (Fig. 10). Repeat for the other side.

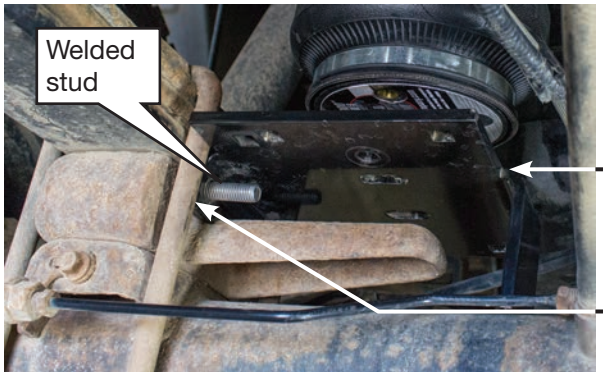


fig. 10

2. Driver's (left) installation: Insert the long carriage bolts (T) into the bottom bracket.

NOTE *The inside square holes must be used for the carriage bolts (Fig. 11).*

3. Install the lower clamp bars (N) over the carriage bolts installed previously and cap with flat washers (M) and nylon lock nuts (U) (Fig. 11). Torque the lower nuts evenly to 10 lb.-ft. (14Nm).

fig. 11

NOTE *Make sure the lower bracket stays against the leaf spring and in between the stock U-bolts (Fig. 10).*

4. Passenger's (right) installation: insert two long carriage bolts (T) into the square holes on the furthest inside set of holes (Fig. 12). Set the axle strap (O) under the axle in between the emergency brake cable bracket and leaf spring retainer.

NOTE *The flange must be above the stock spring retainer, forward of the axle.*

5. Insert the last long carriage bolt (T) on the outside square holes, into the axle strap previously set into position. Cap with sleeve spacer (P), flat washer (M) and nylon lock nut (U).
6. On the backside of the axle, cap the axle strap previously installed with a flat washer (M) and nylon lock nut (U) (Fig. 13). Install the last lower clamp bar (N) over the two remaining carriage bolts and cap with flat washers (M) and nylon lock nuts (U). Torque the lower nuts evenly to 10 lb.-ft. (14Nm).

NOTE *It may be necessary to pry the carriage bolt over slightly with a screwdriver to gain access to the nylon lock nuts on the axle strap carriage bolts. Make sure the lower bracket stays against the leaf spring and in between the stock U-bolts during the tightening sequence.*

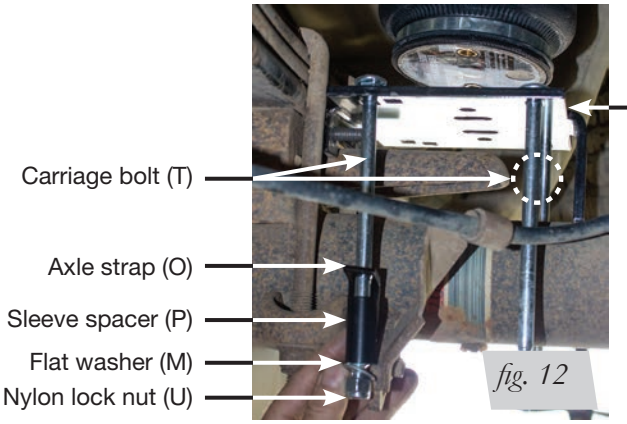


fig. 12

(*) Push the bracket against the leaf spring in between the stock U-bolts.

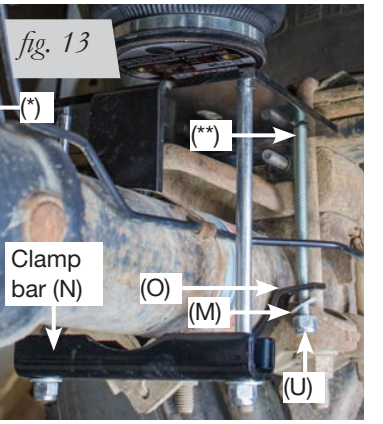


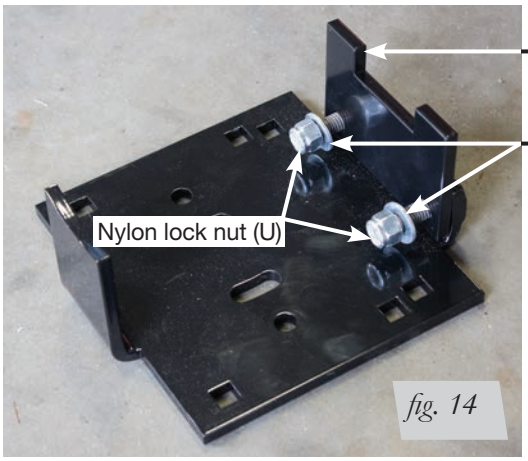
fig. 13

(**) Passenger's (right) view towards the rear: Use outside set of square holes for carriage bolt (Q).

LOWER BRACKET INSTALLATION (2009-14 MODELS)

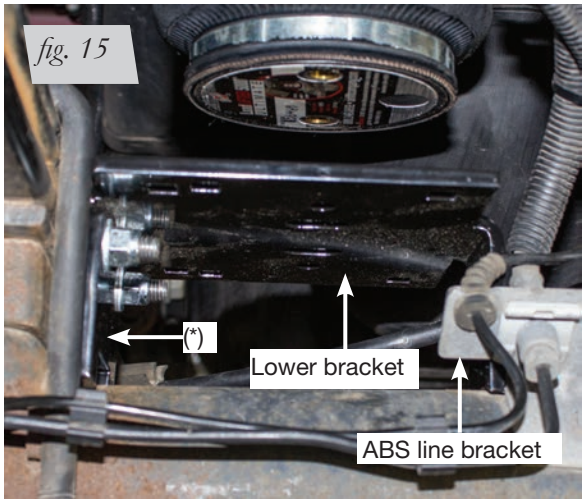
1. For the late-model vehicles, there is no jounce bumper strike plate for the lower bracket to sit on. Therefore an adapter bracket has to be used to extend the lower bracket so it sits on the axle. Set the adapter bracket (F) over the existing studs in the lower bracket and cap with flat washers (M) and nylon lock nuts (U) (Fig. 14). Torque to 20 lb.-ft. (27Nm).

Attach adapter bracket (F) to the lower bracket using flat washers (M) and nylon lock nuts (U). Torque to 20 lb.-ft. (27Nm).

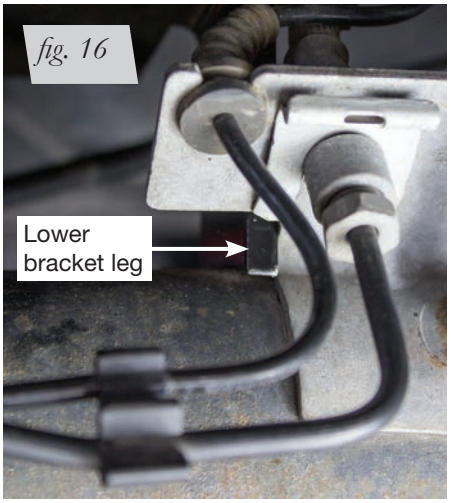


2. Driver's (left) side: Set one of the lower brackets on the axle making sure the inside leg is outboard (leaf spring side) of the ABS line bracket on the axle (Figs. 15 & 16). It may be necessary to angle the lower bracket into position. Make sure the lower bracket is pushed against the leaf spring and in between the stock U-bolts.

(*) Push the bracket against the leaf spring in between the stock U-bolts.



Driver's (left) side, rear view: Set the lower bracket into position on the axle making sure the inside leg is outboard of the ABS line bracket.



The lower bracket leg must be outboard (leaf spring side) of the ABS line bracket.

3. Insert the long carriage bolts (T) into the bottom bracket.

NOTE

The inside square holes must be used for the carriage bolts (Fig. 17). Install the lower clamp bars (N) over the carriage bolts installed previously and cap with flat washers (M) and nylon lock nuts (U). Torque the lower nuts evenly to 10 lb.-ft. (14Nm).

Make sure the lower bracket stays against the leaf spring and in between the stock U-bolts.

Insert the long carriage bolts into the lower bracket using the inside set of holes. Cap with flat washers and nylon lock nuts. Make sure the bracket is against the leaf spring and in between the stock U-bolts.

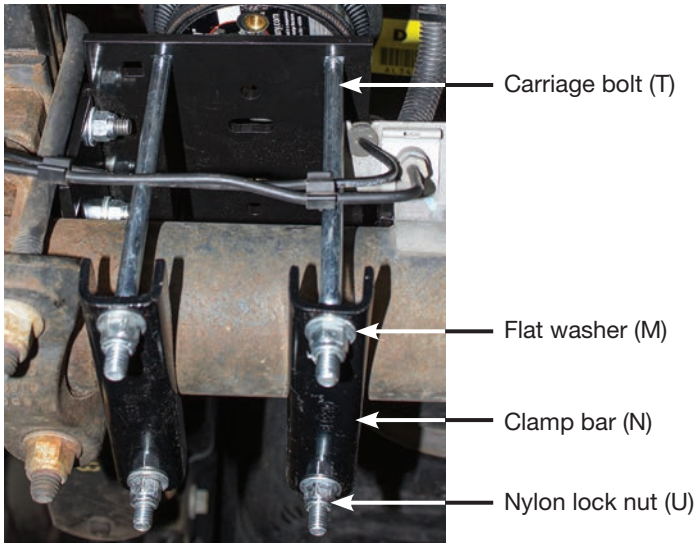


fig. 17

4. Passenger's (right) side: set the other lower bracket onto the axle making sure the bracket is pushed against the leaf spring and is in between the stock U-bolts. Attach the lower bracket as shown in the Figs. 12 & 13 instructions noted previously. Torque hardware evenly to 10 lb.-ft. (14Nm) (Figs. 18 & 19).

Passenger's (right) side forward axle view of finished installation torqued to 10 lb.-ft. (14Nm).

Passenger's (right) side rearward axle view of finished installation torqued to 10 lb.-ft. (14Nm).

LOWER BRACKET TO AIR SPRING INSTALLATION

All model years will attach in the same way. The late model is being used for the illustrations.

1. Set a roll plate on top of the lower bracket making sure it is positioned correctly to nest over the bottom of the air spring. Try to align the holes in the roll plate with the holes of the lower bracket as closely as possible, then raise the axle up so that the roll plate just touches the air spring.

2. Looking below, line up the hole in the roll plate with the air spring and attach using the 3/8" hex-head bolt (K), lock washer (L) and flat washer (M or W) (Fig. 20). Repeat for the other mounting hole in the bracket. Since it will be hard to torque this bolt, unless using a crows foot wrench adapter, just tighten the hardware securely (no more than 20 lb.-ft. [27Nm]). Repeat for the other side.

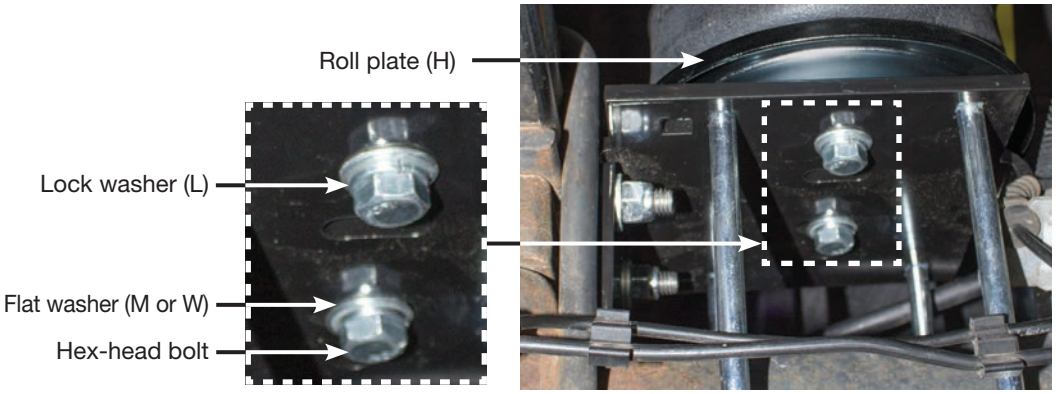


fig. 20

FINISHING THE INSTALLATION

1. For the late-model installations, the ABS line has to be tied together using a zip tie above the bracket so that is does not rub against the air spring (Fig. 21).

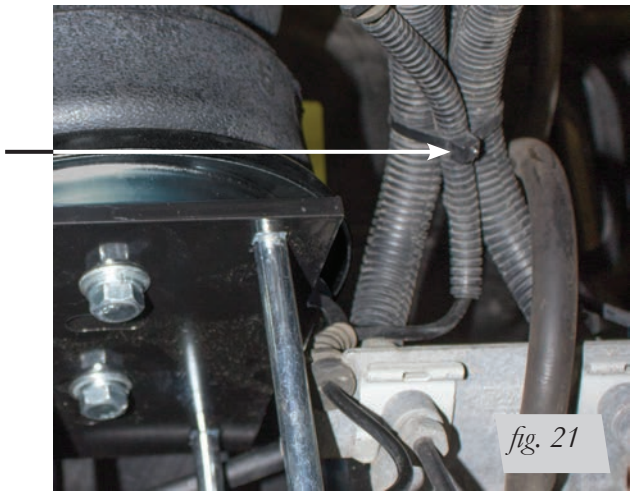
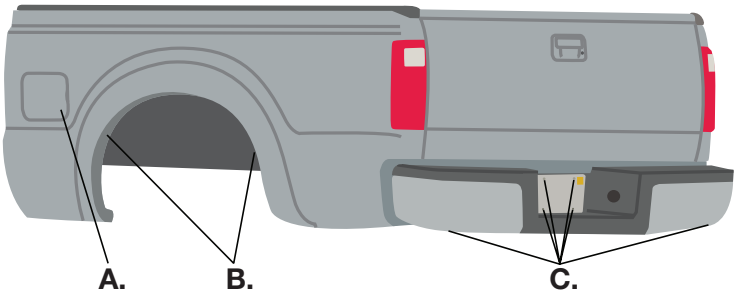


fig. 21

2. Drop the axle or raise the frame and remove the jack stands.

Installing the Air Lines

Air lines are routed from the air springs to Schrader valves. LoadLifter 5000 Series air lines come in two styles: nylon and braided stainless steel. Begin by choosing locations for the Schrader valves and drill a 5/16” hole, if necessary (Fig. 22).



A. Inside fuel tank filler door

C. License plate or

B. Inside rear wheel wells rear bumper area*

* For LoadLifter Ultimate Plus kits, the recommended location for the Schrader valves is the rear bumper area or license plate.

fig. 22

⚠ CAUTION

KEEP AT LEAST 6” OF CLEARANCE BETWEEN ALL AIR LINES AND THE EXHAUST SYSTEM. AVOID SHARP BENDS AND EDGES.

INSTALLING NYLON AIR LINES

1. Cut the air line in half. Make clean, square cuts with a razor blade or hose cutter (Fig. 23). Do not use scissors or wire cutters.

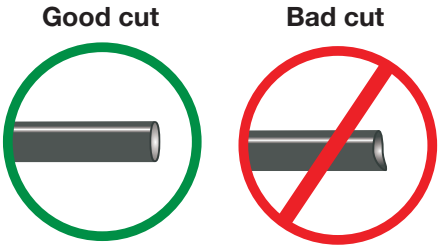


fig. 23

2. Use zip ties to secure the air line to fixed points along the chassis. Do not pinch or kink the air line. The minimum bend radius for the air line is 1”. Leave at least 2” of slack in the air line to allow for any movement that might pull on the air line.
3. Install the Schrader valve in the chosen location (Fig. 24).

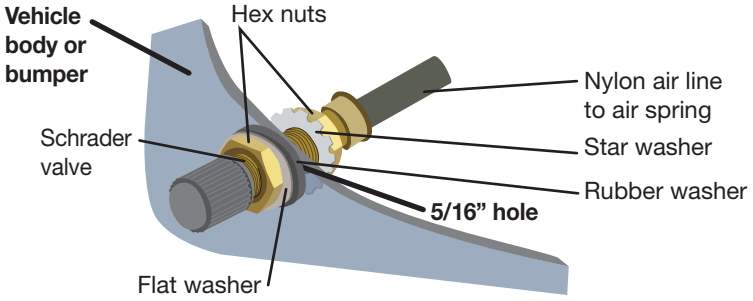


fig. 24

INSTALLING BRAIDED STAINLESS STEEL AIR LINES

⚠ CAUTION

KEEP THE AIR LINE AWAY FROM THE FUEL LINE, BRAKE LINES AND ELECTRICAL WIRES.

1. Use zip ties to secure the air line to fixed points along the chassis every 6” to 8”. Leave at least 2” of slack to allow for any movement that might pull on the air line.
2. Tighten the air line hex nut finger tight, then use 2 wrenches to turn 1 additional flat (1/6 of one full turn). **Do not overtighten** (Figs. 25 or 26). The easiest way to tighten the fitting is off the vehicle. Install the Schrader valve in the chosen location.
3. Coil and secure any excess air line in an area where it will not be susceptible to damage. The braided stainless steel air line cannot be trimmed.

Air Line Setup Without Compressor System

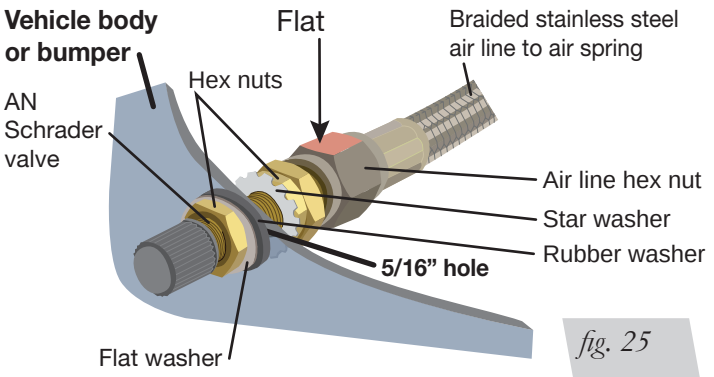


fig. 25

Air Line Setup for Compressor Integration

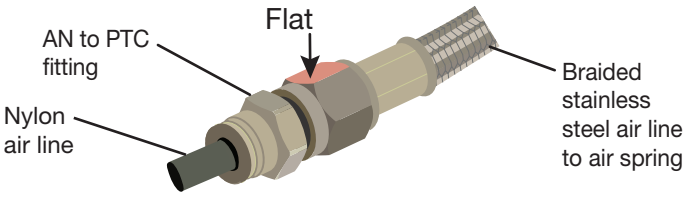


fig. 26

INSTALLING THE HEAT SHIELD

1. Attach the metal heat shield to the exhaust where it is closest to the 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. 27).

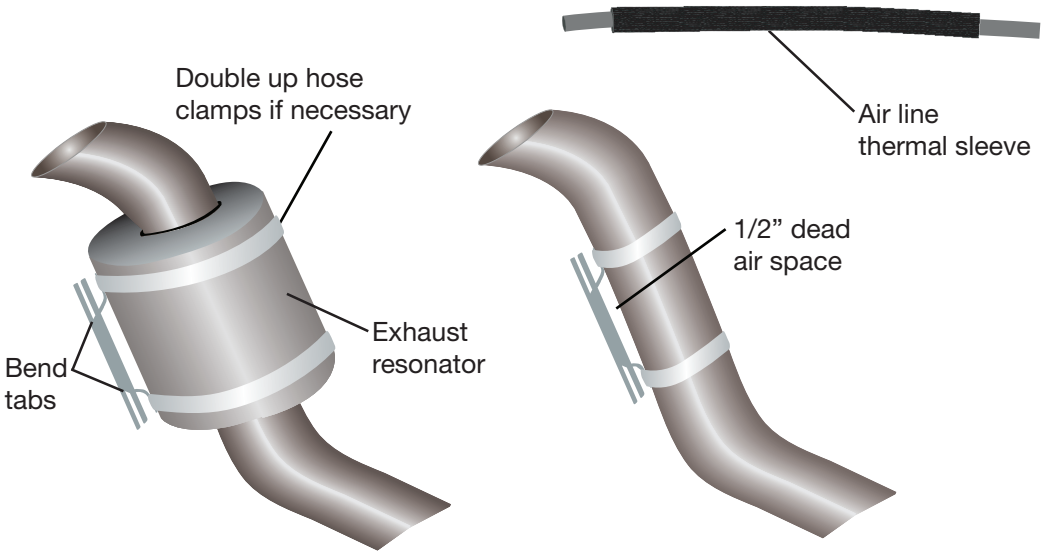


fig. 27

Finished Installation

2004-08 models

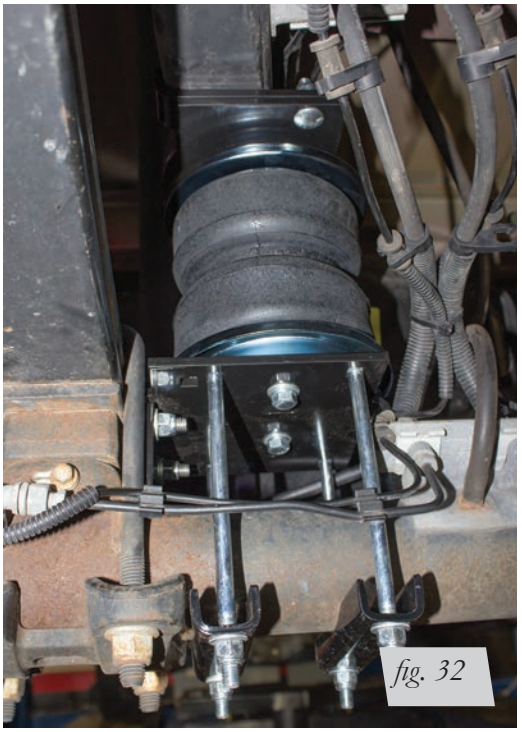
Left (driver's) side: rear view of installation.

Left (driver's) side: front view of installation.

Right (passenger's) side: front view of installation.

Right (passenger's) side: rear view of installation.

2009-14 models



Left (driver's) side: rear view of installation.

Left (driver's) side: front view of installation.

Right (passenger's) side: front view of installation.

Right (passenger's) side: rear view of installation.

Before Operating

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 PSI.

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. 23). 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 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.

INSTALLATION CHECKLIST

☐ **Clearance test** — Inflate the air springs to 75-90 PSI and make sure there is at least 1/2” 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 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” for air springs and air lines. If a heat shield was included in the kit, install it.

☐ **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 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.

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, then there is a leak that must be fixed. Either fix the leak yourself or return to the installer for service.

☐ **Air pressure requirements** — It is important to understand the air pressure requirements of the air spring system. Regardless of load, the air pressure should always be adjusted to maintain adequate ride height at all times while driving.

☐ **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	Maximum Air Pressure
5 PSI	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 air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI.
3. If the system develops an air leak, 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.

⚠ CAUTION

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, THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GVWR.

4. Loaded vehicles require at least 25 PSI. 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 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 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 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 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. 36). 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. 37). Try different pressures to determine the best ride comfort.

3. **Stability**

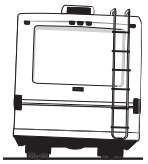
   Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess (Fig. 38). Tuning out these problems usually requires an increase in pressure.

Bad headlight aim

fig. 36

Rough ride

fig. 37



Sway and body roll

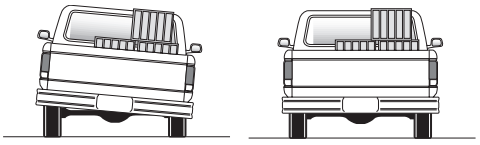
fig. 38

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. 39).
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. 40). As much as a 50 PSI difference is not uncommon.

Bottoming out

fig. 39



Unlevel

Level

fig. 40

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 standard, Ultimate and Ultimate Plus, the recommended minimum air pressure is 5 PSI, but it 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.