

Load CONTROLLER™

by AIR LIFT®

Kit 25802



MN-202 • (101506) • ECR 8243



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.

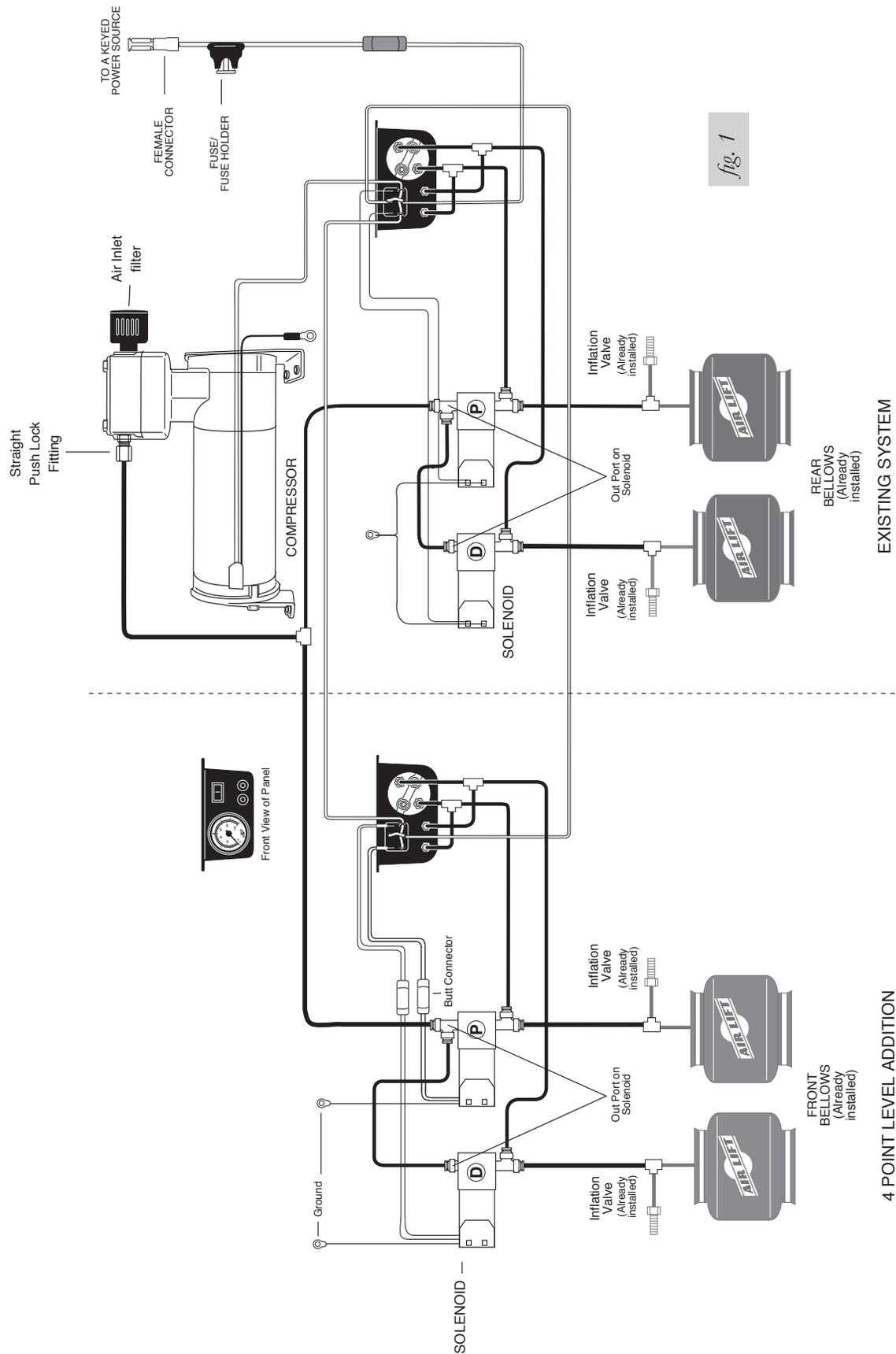


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Installation Diagram



Installing the LoadController System

MOUNTING THE GAUGE PANEL

NOTE

All preassembled gauge panels have been 100% leak and function tested. Do not attempt to tighten, loosen or adjust any fittings or connections. This will likely cause a leak or malfunction and void the warranty.

1. Select a convenient, sturdy mounting location for the gauge panel, usually next to the existing gauge panel (fig. 1).
2. Using the gauge panel mounting bracket as a template, mark the mounting screw hole locations. Center punch and drill two 1/8" diameter holes.
3. Position the gauge panel to the mounting surface and secure with 2 self-tapping screws.

MOUNTING THE SOLENOID

1. Install the fittings to the solenoid as shown in fig. 2. One port requires the use of 1/8" N.P.T. straight fitting, while all the other ports take male run tees (fig. 2).

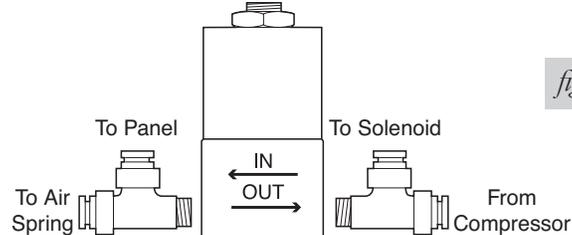
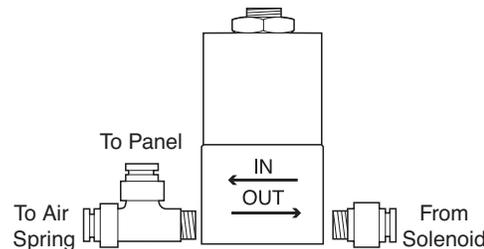


fig. 2

2. Select a convenient mounting location for the solenoid, which provides protection from the elements. Using the template provided on page 12, center punch the holes, remove the template, and drill two 3/16" holes. Use the supplied hardware for solenoid mounting (fig. 3).

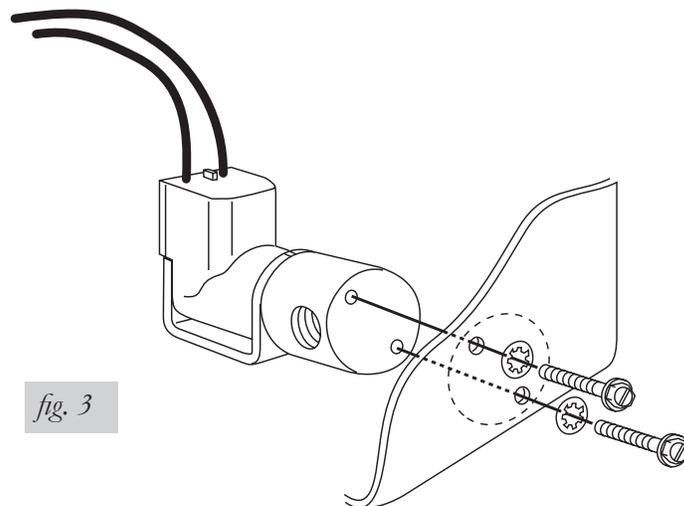
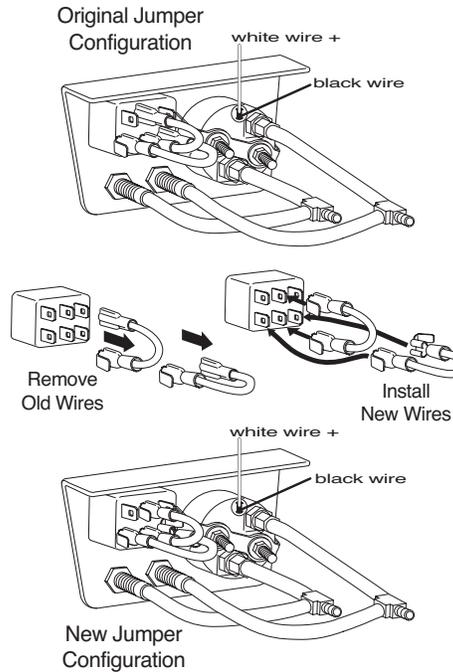


fig. 3

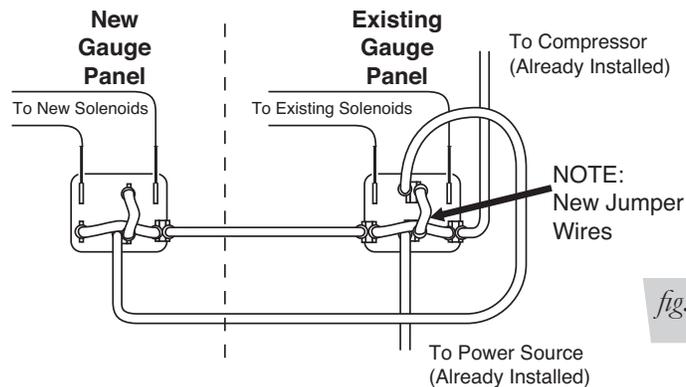
WIRING THE ELECTRICAL CONNECTIONS

- Two new jumper wires are provided with this kit to replace the ones on the existing gauge panel. Remove the leads from the compressor and from the power source, noting which terminal on the gauge panel each lead is connected to. Remove the old jumper wires and install the new ones (fig. 4). Connect the leads from the power source and the compressor.


fig. 4

- Determine the amount of wire needed to connect the two gauge panels. Cut and strip the wire, attaching female blade connectors on both ends. Install one end on the male blade connector attached to the top center terminal on the original gauge panel, and install the other end on the male blade connector attached to the bottom center terminal on the new gauge panel (fig. 5).

Gauge Panel Relay Switch Diagram


fig. 5

- Determine the length of the second wire need to connect the 2 panels. Strip both ends and attach female blade connectors, in this case installing them on the male blade connectors on the lower left terminal of the original gauge panel and the lower right terminal of the new gauge panel (fig. 5).
- Route the small red power wire for the illuminated gauge to an accessory power source. Attach the small black wire to an adequate ground.

WIRING THE SOLENOIDS

1. Determine the left and the right solenoids. One wire from each needs to be grounded and one routed to the toggle switch on the gauge panel.
2. Determine a good ground and cut one wire from each solenoid to reach the ground area. Use one of the self tapping screws to ground the ring terminal.
3. Measure the length of wire necessary to route from solenoid to gauge panel. If it exceeds 24", use a butt connector and additional wire. Attach a female blade connector to each wire and connect the left one to terminal 4 on the toggle switch and the right one to terminal 6 (fig. 6).

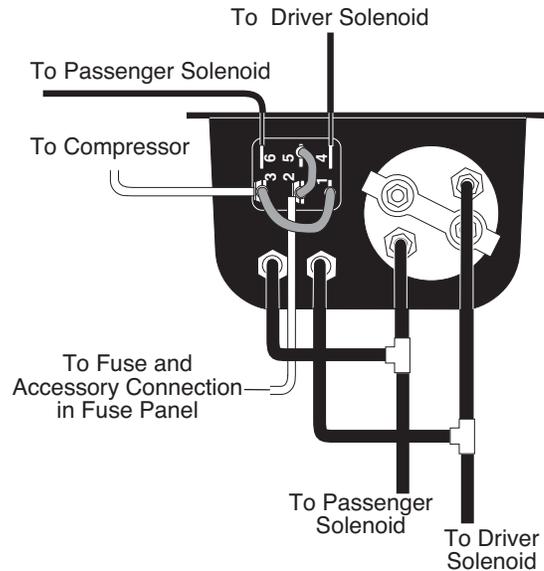


fig. 6

NOTE: Shaded wires are factory-installed jumper wires, and should not be altered in any way

CONNECTING THE AIR LINES

1. Remove the air pressure from all air cylinders. Take the core out or use a tire gauge to bleed off the air pressure.

NOTE

Keep air line away from heat (exhaust system, etc.) and moving chassis components. Secure air line to frame with nylon tie straps provided.

2. Use a standard tube cutter, a razor blade, or very sharp knife to cut the air line already installed between each air cylinder and inflation valve. A clean square cut will ensure against leaks. Install a tee (fig. 8). Follow this procedure for air line leading to the other air spring and inflation valve.
3. Measure the distance from the left hand tee to the driver's left side solenoid. Cut the air line to the proper length and install on last leg of tee previously installed between the air spring and the inflation valve.
4. Route the left hand air spring air line along the frame and secure with nylon tie straps. Push the air line into one leg of the tee on the left solenoid (figs. 2 and 8).

NOTE

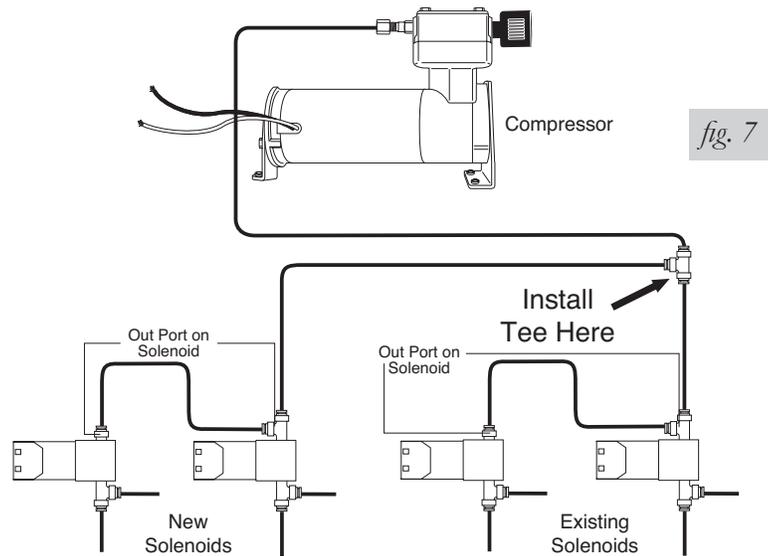
Attach the air line to the in port on the solenoid.

5. Measure distance between left hand solenoid and control panel. Cut sufficient air line and attach one end into last leg of tee on left solenoid and route air line to left hand gauge and control panel (figs. 1 and 2).
6. Repeat steps for right hand side of the vehicle.

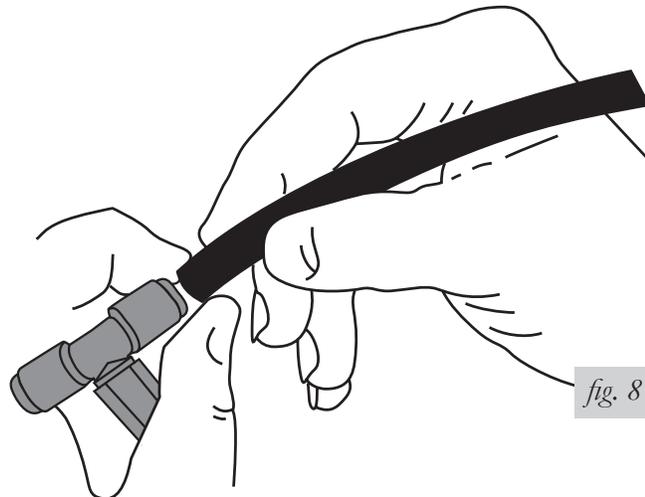
7. Select a point in the air line between the compressor and the original solenoids, at which to install a tee. This will provide air for the new set of solenoids (fig. 7).

NOTE

Attach the air line to the out port on the solenoid.



8. Cut the air line and install a tee (fig. 8).



9. Measure distance between the new solenoids and the tee. Cut a length of air line and install one end on the last leg of the tee.
10. Route air line to tee fitting installed in one of the ports in the solenoids. Attach air line as shown in Figure 8.
11. Use sufficient air line to connect the to both solenoids. Caution should be used not to kink air line. Attach air line as shown in Figure 8.
12. Turn on ignition switch. Push toggle switch to the left and watch pressure increase on the left air gauge. Inflate to 100 PSI Push switch to the right and inflate right side to 100 PSI Inspect each connection with a soap and water solution. If a leak is found in the fittings, reduce air pressure to zero and tighten threaded connections or remove air line, cut off one inch and reinstall.

USING THE LEVEL INFLATION CONTROL

Your motorhome is equipped with front and rear air springs. The following procedure is a guide to assist in leveling the motorhome to provide the best possible ride and handling.

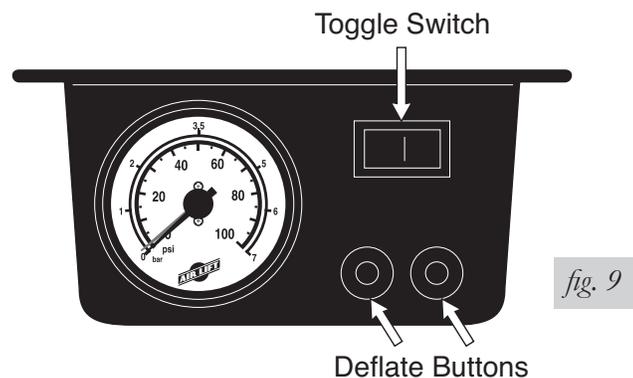
1. Fill the air springs to 100 PSI maximum. The pressure can be increased from the dash control or the inflation valves located just ahead of the rear wheels.
2. Position the motor home in a level spot and reduce the pressure on the high side until the vehicle is square side to side. This will compensate for the extra load created by holding tanks, generators and other weight placement.
3. Both units can now be reduced equally to level the motor home from front to rear. Generally, the vehicle will ride best when the rear springs are slightly arched.
4. Start with a higher pressure and decrease in five pound increments to determine the best ride and handling for your particular vehicle.
5. Increases in pressure can be made to compensate for additional load and trailers, etc. Higher pressures can be used when the vehicle is in storage to relieve the leaf springs.

OPERATING FROM THE CAB

The air springs should be inflated to the specified air pressure as discussed in the air spring inflation procedure.

Whenever load and weight distribution change, simply adjust the pressure in the air springs to maintain a level vehicle. Through use of the level control system the air springs can be used to compensate for an uneven campsite and uneven load distribution. The air pressure is manually controlled individually by the control panel located on the dash.

1. To inflate the air springs and raise that side of the motor home, depress the toggle switch on the control panel. The compressor will turn on automatically to increase the pressure as indicated on the gauge. Once the desired pressure is reached release the button and the compressor will shut-off (fig. 9).



2. To deflate the pressure and lower that side of the motor home, depress the down button to deflate to desire pressure (fig. 9).

Product Use, Maintenance and Servicing

TROUBLESHOOTING GUIDE

Check the inflation pressure weekly, air spring bellows will permeate (loss of pressure through the rubber wall) at the approximate rate of 3-4 PSI per week. Leakage at a higher rate indicates a leak. To find a leak:

1. Inflate the system to 100 PSI
2. Spray all fittings with a solution of 1/5 dish soap to 4/5 water.
 - a. Check inflation valve: valve core and air line connections. If leak is found in the valve core, tighten. It may be replaced with standard tire valve core. Fittings sometime only need tightening.
 - b. Check elbow fitting where threaded into bellows (all threaded connections must have pipe sealant applied) and air line connection. If a leak is found where elbow is threaded into bellows, remove the fitting and clean thoroughly and apply fresh liberal coat of pipe sealant. If a leak is found in the barbed fittings, reduce air pressure to zero and tighten threaded connections or remove air line, cut off one inch, and reinstall.
3. Spray bellows to determine if leak exists. The bellows are not repairable and must be replaced if a leak is found in them.
4. If leak still cannot be found deflate and remove entire unit. Inflate to 15 PSI only and submerge in water.
5. If leakage is suspected in the control panel, inflate the system to 100 PSI and follow steps above. The fittings at the tee and back of the control panel should also be checked with soapy solution. Most leakage can be cured by disassembly, inspection and reassembly of fittings.
6. If compressor fails to function, check 20 amp fuse and ground connection. Repair and replace as necessary.
7. If electric motor runs, but compressor doesn't function check to make sure solenoid valves are opening correctly.

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.



Bad headlight aim

fig. 2.1



Rough ride

fig. 2.2



Sway and
body roll

fig. 2.3

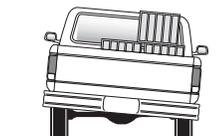
GUIDELINES FOR ADDING AIR

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.

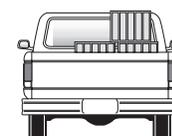


Bottoming out

fig. 2.4



Unlevel



Level

fig. 2.5

Warranty and Returns Policy

Air Lift Company warrants its products, for the time periods listed below, to the original retail purchaser against manufacturing defects when 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, improperly installed, used in racing or off-road applications, used for commercial purposes, or which have not been maintained in accordance with installation instructions furnished with all 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 minimum \$10.00 shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift at (800) 248-0892 in the U.S. and Canada (elsewhere, (517) 322-2144) 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 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.)

Air Lift 1000™	Lifetime Limited	LoadController/Dual™	2 Year Limited
RideControl™	Lifetime Limited	Load Controller™ (I)	2 Year Limited
LoadLifter 5000™*	Lifetime Limited	Load Controller™ (II)	2 Year Limited
LoadLifter 5000™ Ultimate ...	Lifetime Limited	SmartAir™	2 Year Limited
SlamAir™	Lifetime Limited	Wireless AIR™	2 Year Limited
AirCell™	Lifetime Limited	WirelessONE™	2 Year Limited
Air Lift Performance™**	1 Year Limited	Other Accessories	2 Year Limited
LoadController/Single™	2 Year Limited		

**formerly SuperDuty*

***formerly LifeSTYLE & Performance, EasyStreet*

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.

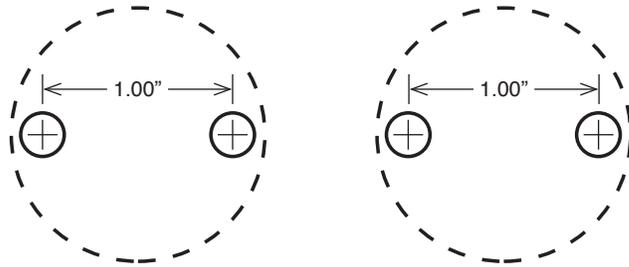
Contact Information

If you have any questions, comments or need technical assistance, contact our customer service department by calling (800) 248-0892, Monday through Friday. 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 or on the web at www.airliftcompany.com.

Template



Need Help?

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

**Register your warranty online at
www.airliftcompany.com/warranty**



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

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