

P/N 59508, Dakota 2WD Models Only

Please read these instructions completely before proceeding with the installation.

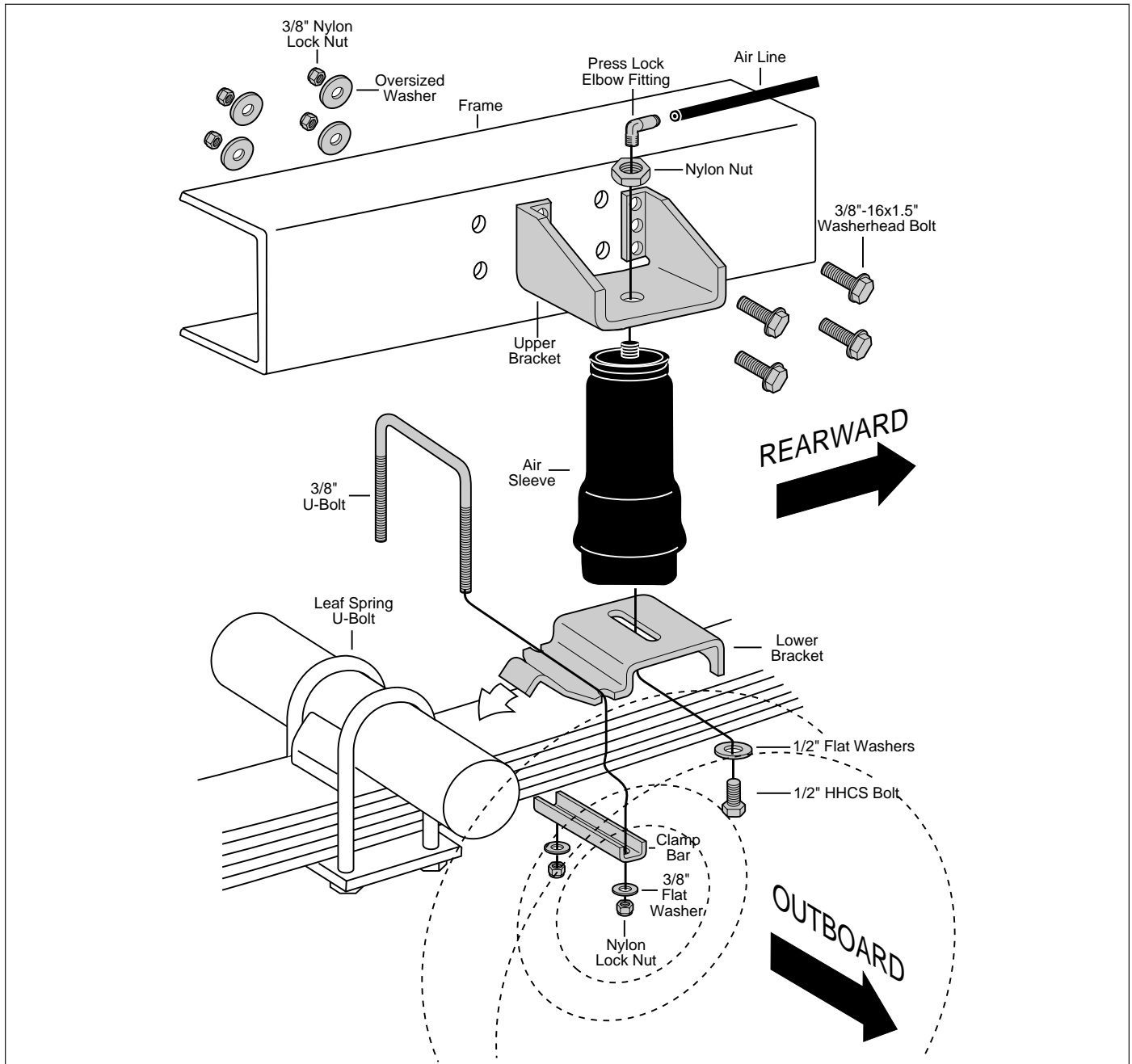


Figure 1

WARNING: Do not inflate the assembly when it is unrestricted. The assembly must be restricted by suspension or other adequate structure. Do not inflate beyond 100 p.s.i. Improper use or over inflation may cause the assembly to burst, causing property damage or severe personal injury.

IMPORTANT: Your vehicle may be equipped with a rear brake proportioning valve. Any type of load assist suspension product could affect brake performance. We recommend that you check with your dealer before installing this type of product. If your vehicle does not have a proportioning valve or is equipped with an anti-lock brake system, no adjustment or modification is required.

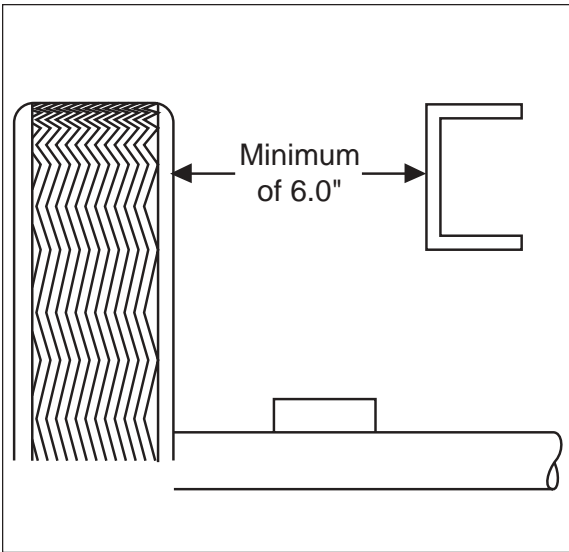


Figure 2

IMPORTANT: This kit requires a minimum clearance of 6.0" between the tire and frame (Figure 2).

I. Getting Started

1. Determine the Normal Ride Height. The Normal Ride Height (no load) is the distance between the bottom edge of the wheel-well and the center of the hub with the vehicle in the "as delivered" condition. In some cases, Normal Ride Height is not perfectly level.
 - a. Remove unusual loads and examine your vehicle from the side to ensure it is on a level surface.
 - b. If necessary (in cases where your leaf springs are sagging badly), use a jack to raise the rear end so that the vehicle achieves the original "as delivered" ride height.
2. Measure the distance between the center of the hub and the bottom edge of the wheel well. This is the Normal Ride Height. Enter the measurement below:

NORMAL
RIDE HEIGHT: _____ inches

3. Jack up rear of vehicle or raise on hoist and remove rear wheels. Raise axle or lower frame until the leaf spring is at normal ride height (no load).

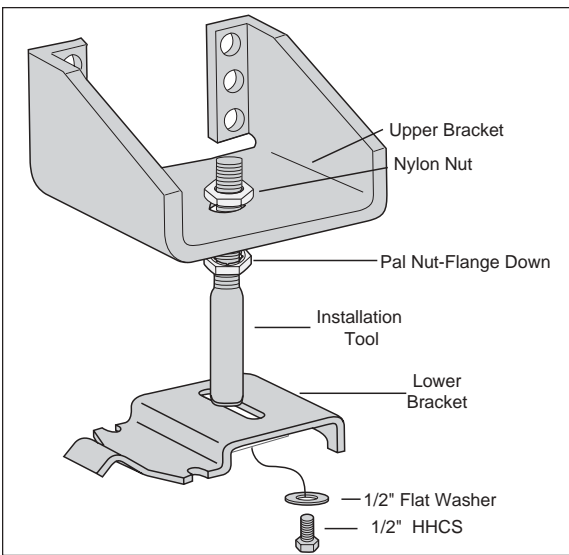


Figure 3

II. Assembling the Installation Tool

1. The installation tool is designed to assist in properly installing the kit for correct height and alignment. The range of adjustment to attain the correct mounted height is determined by the upper threaded section of the tool. The kit may be mounted anywhere in that range.
2. Place the upper bracket "legs up" onto the threaded end of the tool resting on the bottom Pal nut. Then thread a nylon nut onto the tool to hold the bracket in place (Figure 3).
3. Use the 1/2" x 7/8" hex head bolt and flat washer to attach the lower bracket to the bottom of the installation tool. Leave loose enough to adjust in and out (Figure 3).

III. Installing the Assembly

IMPORTANT: Sleeve diameter grows to 5.1" maximum at high pressure. Take this diameter into consideration when checking for possible interference in the mounting area. It is necessary to have sufficient clearance around the sleeve when it is inflated.

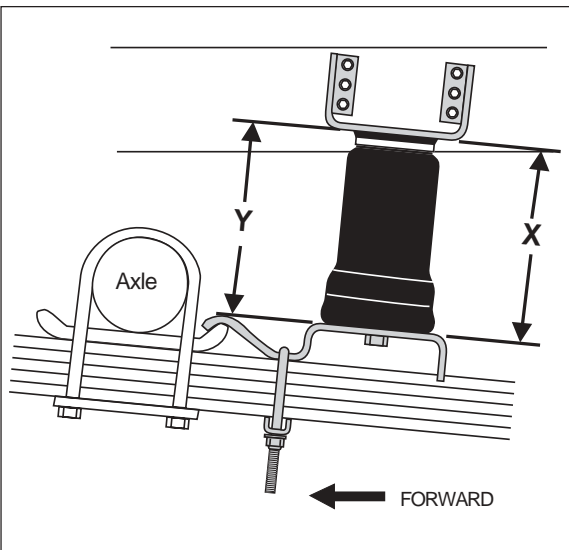


Figure 4

1. Set the preassembled bracket/tool assembly on the leaf spring behind the axle. With the hook end of the lower bracket placed over the edge of the upper spring retaining plate, secure the lower bracket to the leaf spring with the provided U-bolt, flat washers, and lock nuts. Torque to 16 ft-lbs.
2. Using the slot in the lower bracket, push the upper bracket against the frame rail. Use the nuts on the threaded portion of the installation tool to adjust the upper bracket so that the flanges of the upper bracket are flat against the frame rail and four mounting holes are on the flat middle section of the frame rail. The mounting holes must be at least 3/4" from the rounded edges of the frame rail. The brackets can be mounted anywhere within the threaded range of the installation tool (Figure 1).

- Using the bracket as a template, mark four holes on each side of the bracket to be drilled. The X and Y dimensions (Figure 4) should be equal. The sleeve should be mounted so that it follows the natural arc of the suspension through its full travel (Figure 1 & 4). Remove the upper bracket and installation tool and drill the four $\frac{3}{8}$ " holes.

CAUTION: Do not drill holes into the frame until all hydraulic lines, gas lines, and electrical wires have been moved aside on both sides of the frame rail.

- Assemble upper bracket onto the sleeve and tighten the nylon nut to 4 ft-lbs. Install the air fitting (this fitting is pre-coated with thread sealant) finger tight plus $1\frac{1}{2}$ turns. Use an open end wrench being careful to tighten on the metal hex nut only. Do not overtighten.
- Orient the fitting so that it faces in the direction of the intended air line route. Install the upper bracket onto the frame rail using the short $\frac{3}{8}$ " washer head frame bolts, large flat washers, and nylon locknuts provided in the kit. Tighten 20 ft-lbs. (Figure 1).
- Attach the sleeve onto the lower bracket using the $\frac{1}{2}$ " bolt previously used on the tool. Leave loose for adjustment.

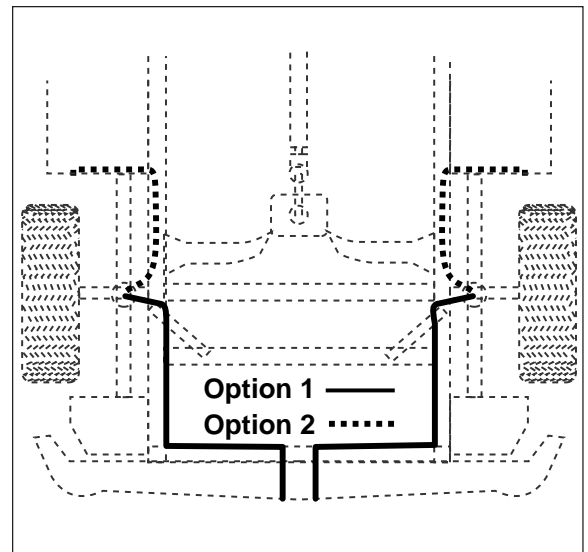


Figure 5

IV. Installing the Air Lines

- Select a location for the inflation valves in the rear bumper area or rocker panel flange insuring that each valve will be protected and accessible with an air hose (Figure 5).
- Use a standard tube cutter, a razor blade, or very sharp knife to cut the air line in two equal lengths. A clean square cut will ensure against leaks. Drill $\frac{5}{16}$ " hole for inflation valve and mount as illustrated. The rubber washer on outside is for weather seal (Figure 6).

CAUTION: Leave sufficient air line slack to prevent any strain on the valve stem during normal axle motions.

- Route air line along frame to desired inflation valve location (Figure 5). Attach air line to chassis with the provided plastic straps.

CAUTION: Keep the air line at least 12" from the exhaust system to prevent it from melting.

- Cut off excess air line squarely and install the air line into the fitting. This is a self locking fitting. Push and slightly turn the cut end of the air line into the fitting as far as it will go. A definite click can be heard/felt when the air line is seated. The air line is now installed. Air line should go in approximately $\frac{9}{16}$ ".

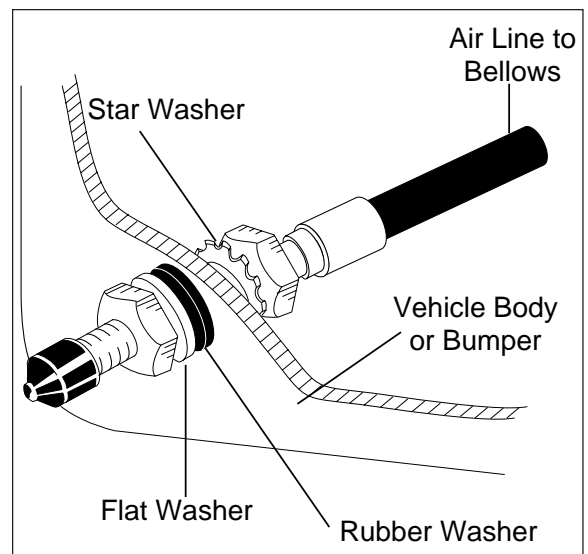


Figure 6

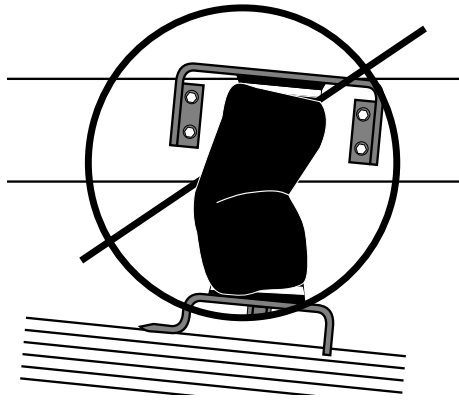
V. Finishing the Installation

- Repeat entire installation process for the remaining side and return to section V, step 2.
- VERY IMPORTANT:** With the bottom still loose, inflate the sleeve to approximately 10 p.s.i. By using the slotted adjustments, align the sleeve so that there is a symmetrical cushion of air around the lower base of the sleeve to prevent side load wear. Tighten the lower sleeve mounting bolt to 10 ft-lbs. Do not overtighten.

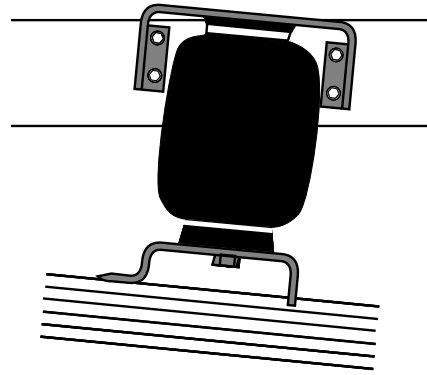
VI. Checking the Air Springs

- Inflate to 30 p.s.i. Check all fittings and valve core with a soapy water solution for leaks. Check again to be sure that there is proper clearance around the sleeve. When the sleeve is inflated there must be sufficient clearance all around the sleeve.
- Recheck air pressure after 24 hours. A 2-4 p.s.i. loss after initial installation is normal. If pressure has dropped more than 5 lbs. re-test for leaks with soapy water solution. Please read and follow the Maintenance and Operating tips. (Check to see that the sleeve rolls back down over the bottom piston after the vehicle is lowered.)

Finished Installation



Incorrect: Misaligned or under inflated. Only OK during installation.



Correct: Sleeve is fully inflated and also properly aligned.

VII. Maintenance and Operations

Minimum Air Pressure	Maximum Air Pressure
5 p.s.i.	100 p.s.i.
<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.</i>	

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 Normal Ride Height. Never inflate beyond 100 p.s.i.
3. If you develop an air leak in the system, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.
4. When increasing load, always adjust the air pressure to maintain the 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.
5. **IMPORTANT:** For your safety and to prevent possible damage to your vehicle, *do not exceed maximum Gross Vehicle Weight Rating (GVWR), as indicated by the vehicle manufacturer.* Although your air springs are rated at a maximum inflation pressure of 100 p.s.i. The air pressure actually needed is dependant on your load and GVWR, which may be less than 100 p.s.i. Check your vehicle owners manual and do not exceed the maximum load listed for your vehicle.
6. Always add air to springs in small quantities, checking the pressure frequently. Sleeves require less air volume than a tire and inflate quickly.
7. *Should it become necessary to raise the vehicle by the frame, make sure the system is at minimum pressure (5 p.s.i.) to reduce the tension on the suspension/brake components. Use of on-board leveling systems do not require deflation or disconnection.*



Thank you for purchasing Air Lift Products

Mailing Address:
 AIR LIFT COMPANY
 P.O. Box 80167
 Lansing, MI 48908-0167

Street Address:
 AIR LIFT COMPANY
 2727 Snow Rd.
 Lansing, MI 48917

Local Phone: (517) 322-2144
 Fax: (517) 322-0240

For Technical Assistance call 1-800-248-0892

“The Choice of the Professional Installer”



Product Use Information

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 time and how much pressure will they need?

The minimum air pressure should be maintained at all times. The minimum air pressure keeps the air spring in shape, ensuring that it will move throughout its travel without rubbing or wearing on itself.

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

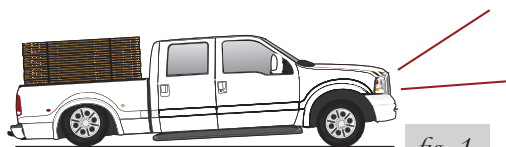
If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (fig. 1). Raise the air pressure to correct either of these problems and level the vehicle.

2. Ride comfort

If the vehicle has a rough and harsh ride it may be due to either too much pressure or not enough (fig. 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. 3). Tuning out these problems usually requires an increase in pressure.



Bad headlight aim



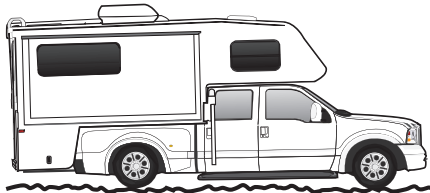
Sway and body roll



Rough ride

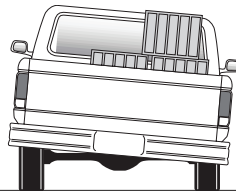
Guidelines for adding air:

1. Start with the vehicle level or slightly above.
2. When in doubt, always add air.
3. For motorhomes, start with 50-100 PSI in the rear because it can be safely assumed that it is heavily loaded.
4. If the front of the vehicle dives while braking, increase the pressure in the front air bags, if equipped.
5. If it is ever suspected that the air bags have bottomed out, increase the pressure (fig. 4).
6. Adjust the pressure up and down to find the best ride.
7. If the vehicle rocks and rolls, adjust the air pressure to reduce movement.
8. 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. 5). As much as a 50 PSI difference is not uncommon.

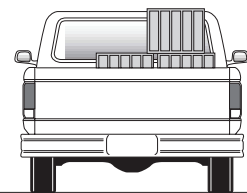


Bottoming out

fig. 4



Unlevel



Level

fig. 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
RideControl	Lifetime Limited
SlamAir	Lifetime Limited
LoadLifter 5000*	Lifetime Limited
EasyStreet Systems	1 Year Limited

Load Controller (I)	2 Year Limited
Load Controller (II)	2 Year Limited
SmartAir	2 Year Limited
Wireless AIR	2 Year Limited
Other Accessories	2 Year Limited

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