

AIR LIFT 1000

ADJUSTABLE AIR SPRING SUSPENSION

by



MN-410
(08706)
ECR 6162

KIT No. 60754

Please read these instructions completely before proceeding with installation

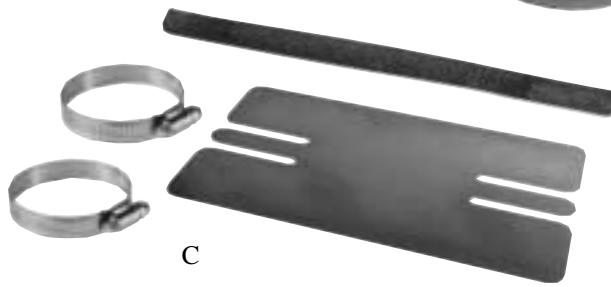
Air Spring Kit Parts List

Item	Description	Quantity
A	Air Spring	2
B	Lower Protectors	2
C	Heat Shield Kit	1

B



A



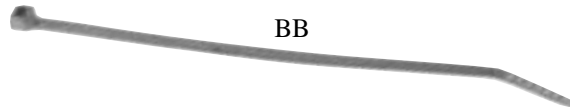
C

Air Line Assembly Parts List

Item	Description	Quantity
AA	Air Line Assembly	1
BB	Tie Strap	6
CC	Valve Caps	2
DD	5/16" Flat Washer	2
EE	Rubber Washer	2
FF	Star Washer	2
GG	5/16" Hex Nut	4
HH	Plastic Tee	1
JJ	Line Clips	6
KK	Inflation Valve	1



AA



BB



CC



DD



EE



FF



GG



HH



JJ

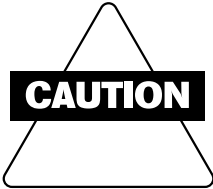


KK

Tools Needed

Open-end or box wrenches
Pliers
Ratchet with deep well sockets
Drill and 5/16" bit

Hoist or Floor Jacks
Safety Stands
Safety Glasses
Air Compressor, or Compressed Air Source
Spray Bottle with Dish Soap/Water Solution



Compressed air can cause injury and damage to the vehicle and components 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.



Disconnect the sway bar links.

Raise the vehicle



If the vehicle is raised with an axle contact hoist, place axle stands under the frame and lower the axle as needed . . .

or . . .



If the vehicle is raised with a frame contact hoist, place axle stands under the axle and lower the frame as needed . . .

or . . .



If the vehicle is raised with a jack on the axle, place axle stands under the frame and lower the axle as needed...

But do not perform the next step without restraining the axle from falling.



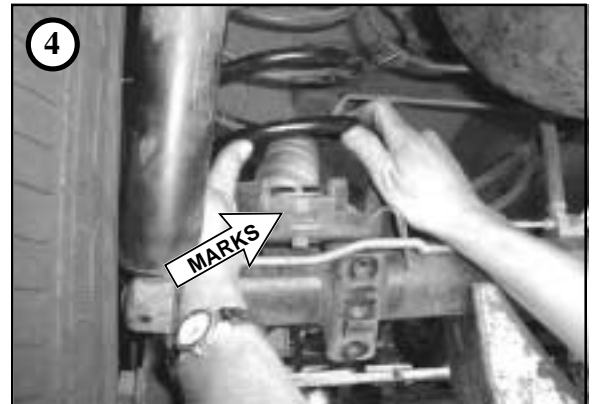
Disconnect both lower shock mountings.

Pry or pull jounce bumper out of pocket in lower spring seat. Jounce bumper must be loose to remove spring in next step.



Drop the axle so the coil springs can be removed.

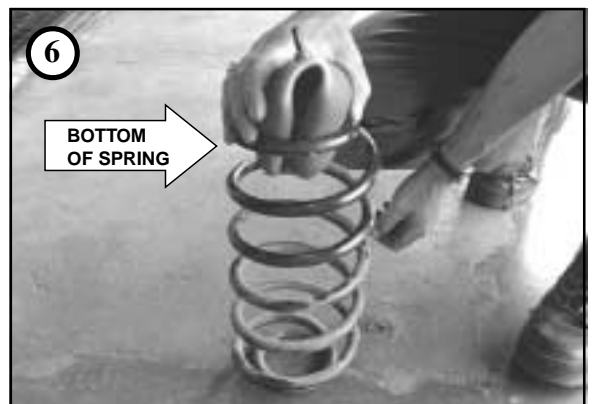
Mark the spring and retainer for orientation and pull coil spring up out of lower spring retainer and remove. Discard jounce bumper.

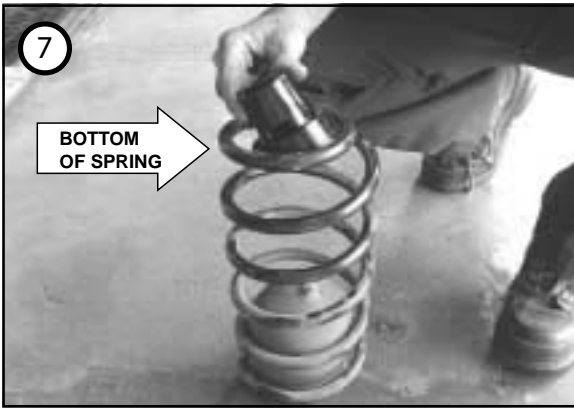


Deflate air cylinder and replace valve cap to keep cylinder deflated.



Insert air cylinder into coil spring with stem towards the bottom of the coil. Spring is shown in picture with bottom up.



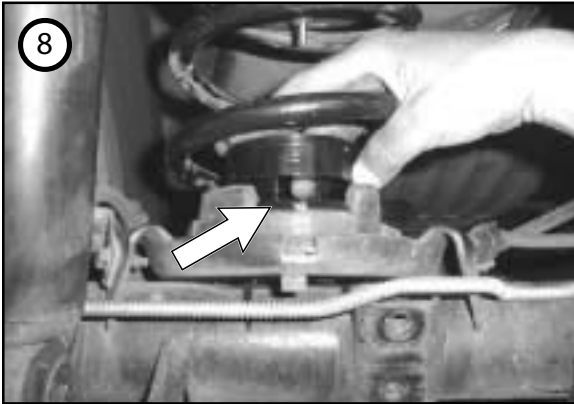


Insert pedestal into the bottom of the coil spring as shown.

Reinstall coil into vehicle. Align the marks made in previous step.

Insert small end of protector into lower spring seat pocket. Make sure side window on protector faces rear of vehicle.

PROCEED WITH OTHER SIDE OF VEHICLE, FOLLOWING ALL PRIOR STEPS.



Find a suitable location for the tee, such as along the back side of the axle near the center. Determine and cut adequate lengths of air line to route to both air springs from the tee.

Slide hose clip onto air line. Thread air line through window in protector and attach to air cylinder. Use pliers to open hose clip and slide over end of air line and air cylinder barbed fitting.

Push the cylinder down flat against the protector (Figure 9).

Repeat for other side.

Slide the thermal sleeve onto air line on right side, placing it along air line where it is nearest the exhaust (Figure 10).

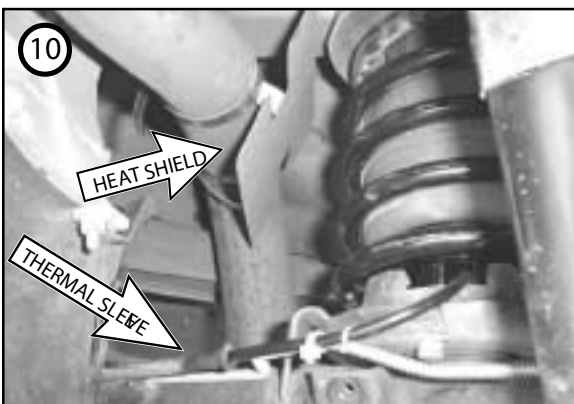
This kit requires the installation of an exhaust heat shield. The shield is attached to the exhaust pipe, with the flanges being bent for component clearance. Bend tabs to provide 1/2" dead air space between exhaust pipes and heat shield and maximum clearance with spring (Figure 10).



CAUTION: Leave sufficient air line slack to prevent any strain on fitting during axle movements.

Route air lines along axle, securing line with tie wraps.

Connect the two air lines from the cylinders to opposite legs of the tee. Attach remaining length of air line to last leg of tee.



Determine a location for your inflation valve, such as under the bumper (Figure 11)...

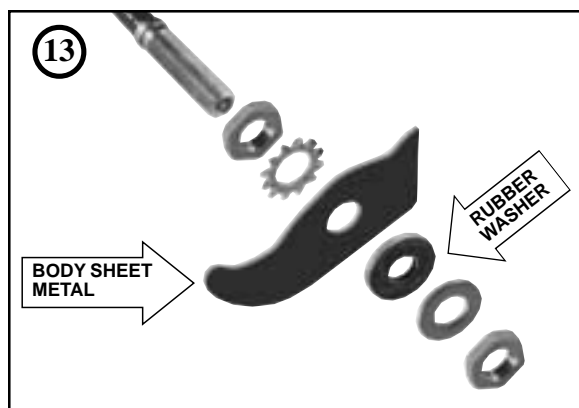


...or on the bumper next to the hitch receiver (Figure 12).

Route free end of remaining air line to this location, securing with tie wraps.



Drill a 5/16" hole for inflation valve and mount as illustrated (rubber washer is for outside weather seal). See Figure 13. Slide hose clip onto free end of remaining line, push line onto inflation valve and put on hose clip to secure line.



Raise the axle back to stock position.
Reattach shocks to lower shock mountings.
Reconnect sway bar links (Figure 14).





Inflate air springs to 10 psi. Spray all connections and the inflation valves with a solution of 1/3 dish soap and 2/3 water to check for leaks. You should be able to spot leaks easily by looking for bubbles in the soapy water. Now adjust air pressure for optimal comfort and performance - minimum 5 psi and maximum 35 psi.



Check the air pressure again after 24 hours. A 2 to 4 psi loss after initial installation is normal. Retest for leaks if the loss is more than 5 psi.

Troubleshooting Guide



Leak test all air line connections. Repair or replace as needed.



Inspect air line for holes and cracks. Replace as needed.



Inspect air lines to be sure it is not pinched. Tie straps may be too tight. Replace strap.



A kink or fold in the air line. Reroute as needed.



Leak test the inflation valve for leaks at the air line connection or dirt or debris in the valve core.

You have now tested for all of the most probable leak conditions that can be easily fixed. At this point the problem is most likely a failed air spring - either a factory defect or an operating problem. We suggest that you return the vehicle to your installer. If self-installed or you are the professional installer, please call Air Lift at 1-800-248-0892 for assistance or a replacement air spring.

Post Installation Checklist (TO BE COMPLETED BY OWNER)

- _____ 1. Overnight Leakdown Test - Recheck air pressure after vehicle has been used for 24 hours. If pressure has dropped more than 5 psi, you have a leak that must be fixed. Either fix the leak yourself or return to the installer for service.
- _____ 2. Air Pressure Requirements - I understand that the air pressure requirements of my air spring system are as follows:

Minimum _____ Maximum _____

Exceeding the maximum recommended air pressure will result in the air spring "bulging out" between the coils of the spring which may cause the air spring to be pinched or may rub a hole into the cylinder.

Maintenance and Operations

MINIMUM AIR PRESSURE	MAXIMUM AIR PRESSURE
5 psi	35 psi

By following these steps, vehicle owners should obtain the longest life and best results from their air springs.

1. Check the air pressure in the air springs weekly.
2. Always maintain at least the recommended minimum air pressure to prevent the air spring from being pinched. Never inflate beyond the recommended maximum air pressure.
3. If you develop a 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. Always add air to springs in small quantities, checking the pressure frequently. Air springs require less air volume than a tire and inflate quickly.



Thank you for purchasing Air Lift Products

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

FOR TECHNICAL ASSISTANCE CALL 1-800-248-0892



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

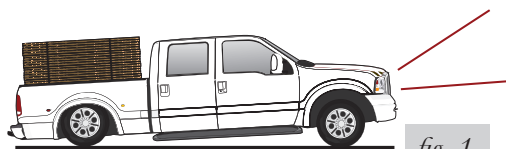
If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level (fig. 1). Raise the air pressure to correct either of these problems and level the vehicle.

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

fig. 1



Sway and body roll

fig. 2

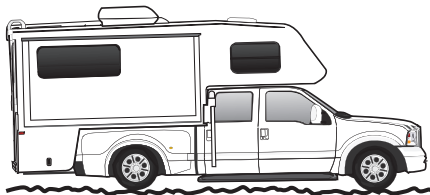


Rough ride

fig. 3

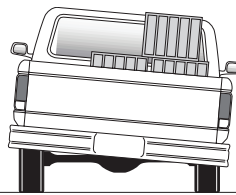
Guidelines for adding air:

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.

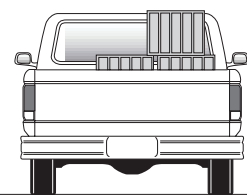


Bottoming out

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

**formerly SuperDuty*