SUPER DUTY
ADJUSTABLE AIR SPRING SUSPENSION

by AIR LIFT

MN-573
(01308)
ECN 4306

P/N 57205

Please read these instructions completely before proceeding with the installation.

Kit Parts List

Item	Description	Quantity
A	Air Spring	2
B1	Upper Bracket (Right)	1
B2	Upper Bracket (Left)	1
C	Lower Bracket	2
D	Elbow Fitting	2
E	Axle Strap	4
F	3/8"-24 x 7/8" Bolt	8
G	3/8" Flat Washer	16
H	3/8" Lock Washer	8
I	3/8"-16 x 2.5" Carriage Bolt	8
J	3/8" Nylock Nut	8
K	3/8" x 1" Self Tapper	4
L	Heat Shield	1
M	Thermal Sleeve	1
N	Heat Shield Clamp	2
AA	Air Line Assembly	16'
BB	Tie Strap	6
CC	Valve Cap	2
DD	5/16" Flat Washer	2
EE	Rubber Washer	2
FF	Small Star Washer	2
GG	5/16" Hex Nut	4
HH	Hose Clip	4
II	Self Tapping Screw	4
JJ	Spacer	1
KK	M8-1.25x35 Screw	1

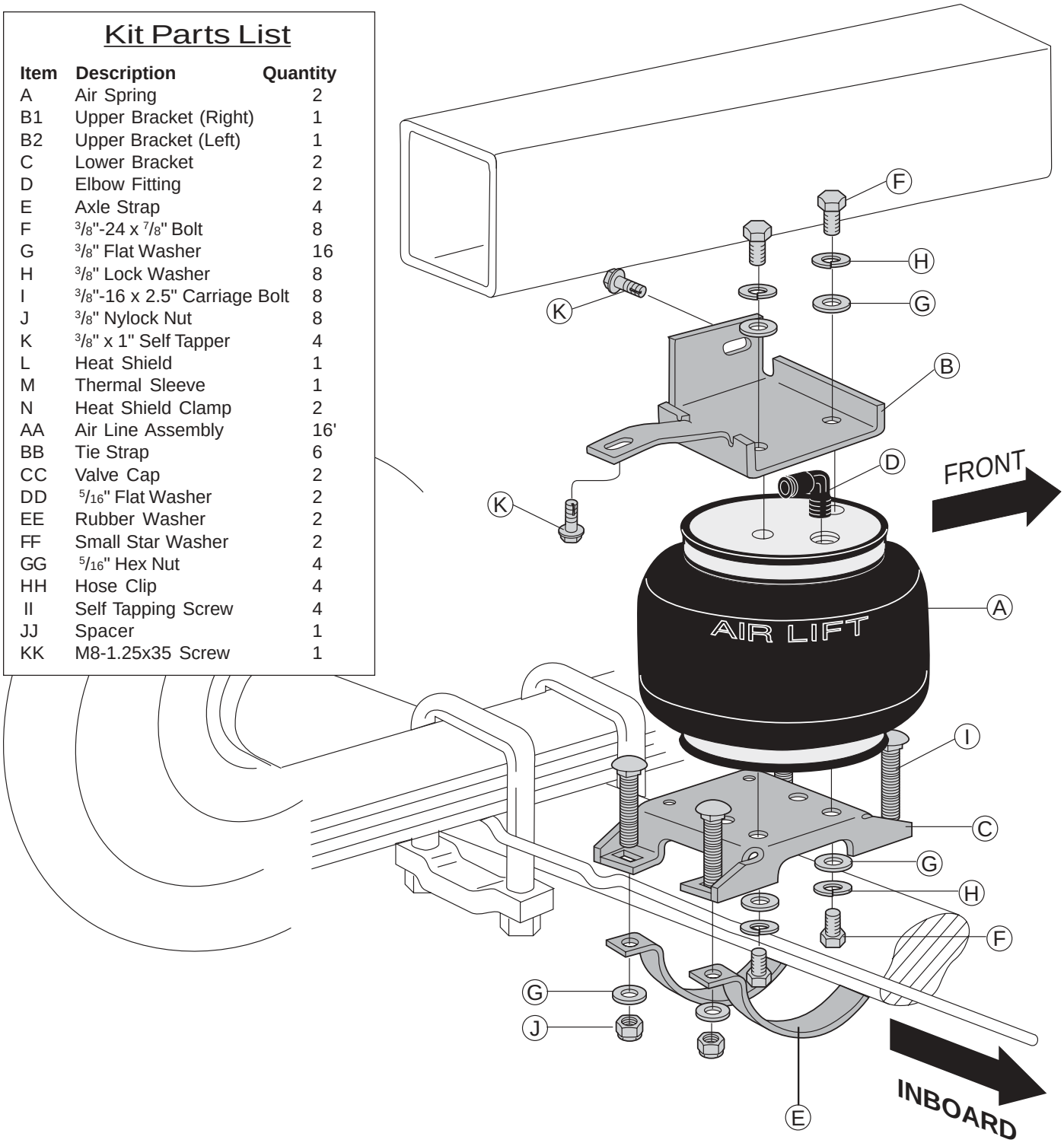
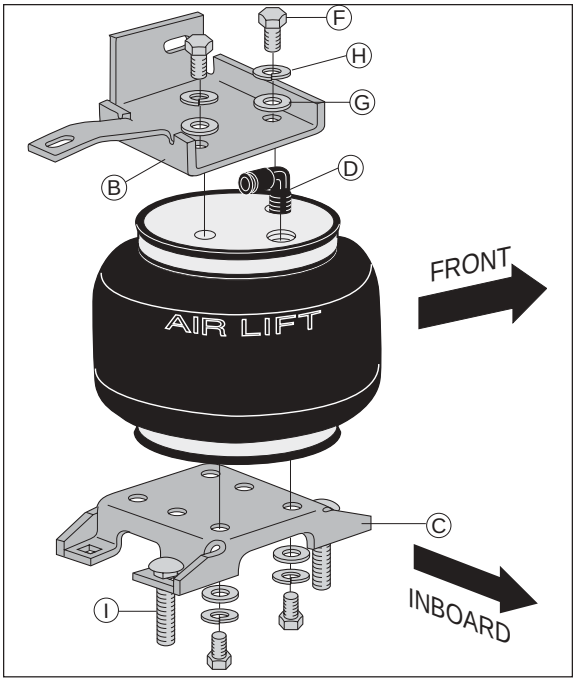


Figure 1



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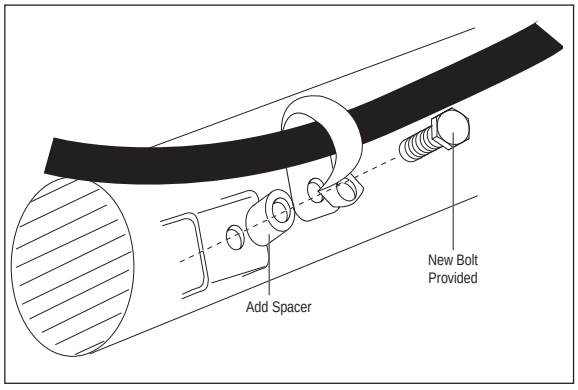

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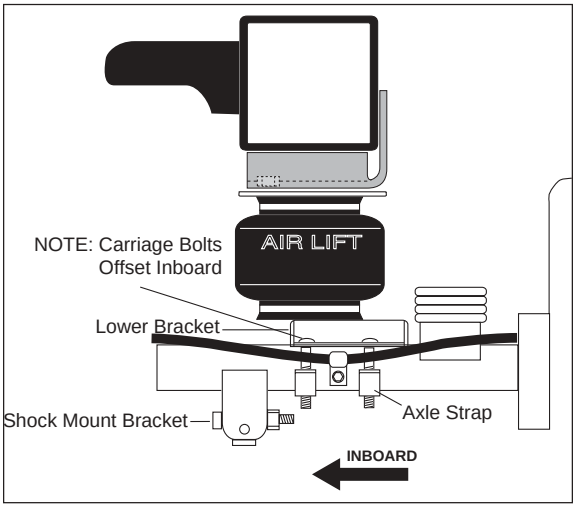


Figure 4

I. Assembling the Air Spring

1. Install 90 degree air swivel fitting (D) to the top of the bellow. This fitting is precoated with sealant. Using an open-end wrench, tighten 1 and 1/2 turns (Figures 1 and 2).

   IMPORTANT: Tighten on the metal hex nut only. Do not over tighten.

2. Attach the upper bracket to the top plate (label end) of the bellows with two bolts (F), lock washers (H), and flat washers (G). Torque to 20 ft-lbs. Assemble both units (Figures 1 and 2) in this manner. There are left and right hand units (indicated by "LH" or "RH" stamped in the bracket).

3. Insert two carriage bolts in the lower, inboard holes of the lower bracket before attaching the bellows (Figure 2).

4. Use the lower bracket template provided on page 7 to determine the proper mounting location for the bellow. Use the holes marked "A" for mounting. Attach the lower bracket to the air spring assembly using two bolts (F), two lock washers (H), and two flat washers (G). Torque to 20 ft-lbs.

   NOTE: On some models, it may be necessary to use holes "C" for mounting.

II. Installing the Air Spring Assembly

1. Jack up rear of vehicle or raise on hoist. Place safety jack stands under axle.

2. Remove the rubber jounce bumper by pulling it out of the slotted track or by prying it out with a screwdriver. This will not be reused.

3. Models with disc brakes: Remove the bolt holding the cable onto the back-side of the passenger's side axle. Install the supplied spacer (JJ) between the bracket and the emergency brake cable clip. Insert the supplied bolt (KK) and tighten the cable down securely (Figure 3).

   NOTE for Models with Disc Brakes: The inside strap on the passenger-side goes between the emergency brake cable bracket and the shock bracket on the axle.

4. Set the assembly on the axle housing between the shock absorber bracket and the leaf spring (Figure 4). Loosely attach lower bracket and straps around the axle using carriage bolts (I), flat washers (G) and lock nuts (J) (Figure 4).

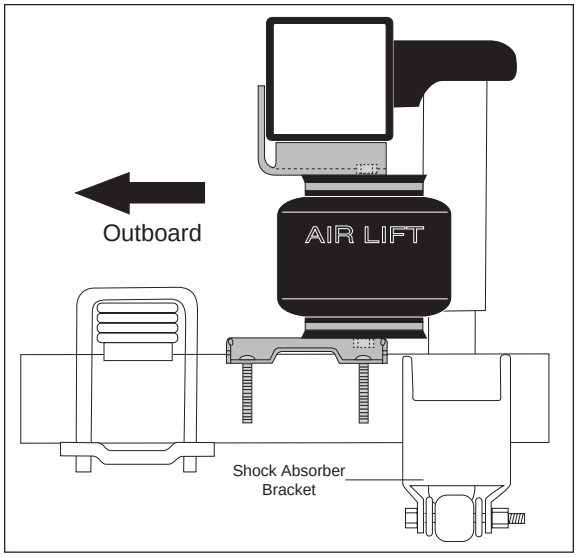
   NOTE for Non-Disc Brake Models Only: The brake line should be between the carriage bolt and the axle housing (Figure 6).

5. On the Driver Side Only: Secure the breather tube away from the bellows using provided tie straps (BB). Refer to Figure 6.

6. With the unit aligned vertically and horizontally, tighten the lower assembly to the axle housing. It is important to tighten the forward straps to the lower bracket first, and then the back. Tighten the lock nuts (J) to 16 ft-lbs.

   CAUTION: Do not pinch the brake line under the strap or carriage bolt.

7. Using the holes in the upper bracket as a template, drill two $^{5}/_{16}$" holes into the frame. Insert and tighten the self tapping bolts (K) and torque to 15 ft-lbs. (Figures1 and 7).



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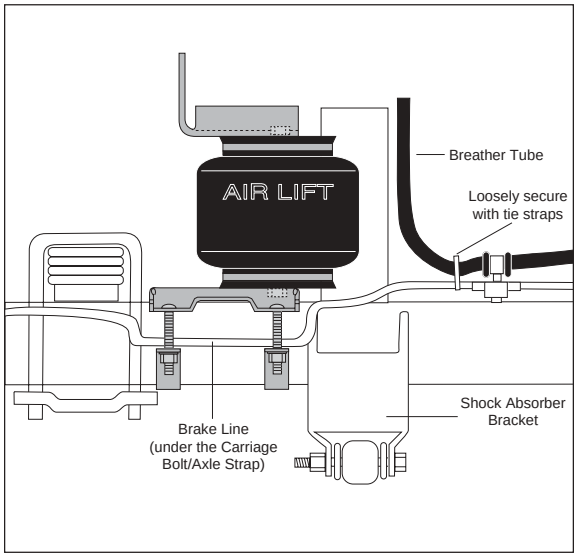

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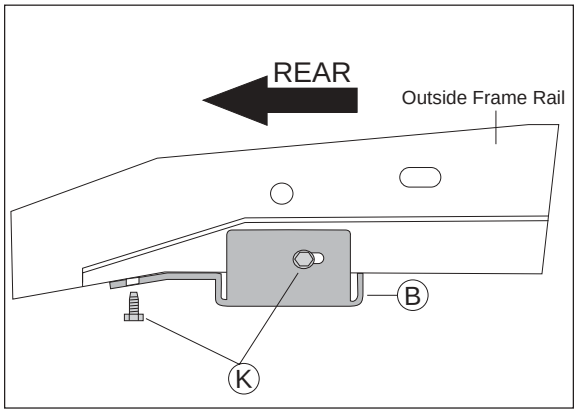
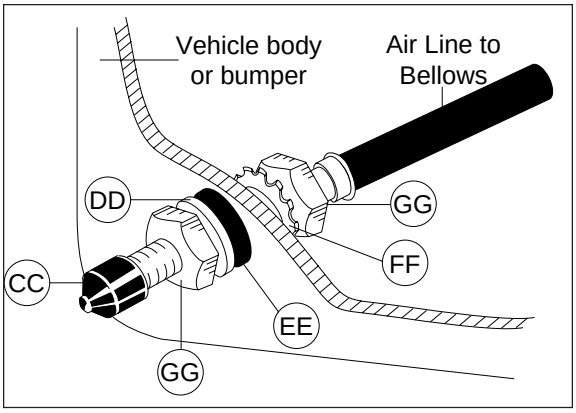


Figure 7



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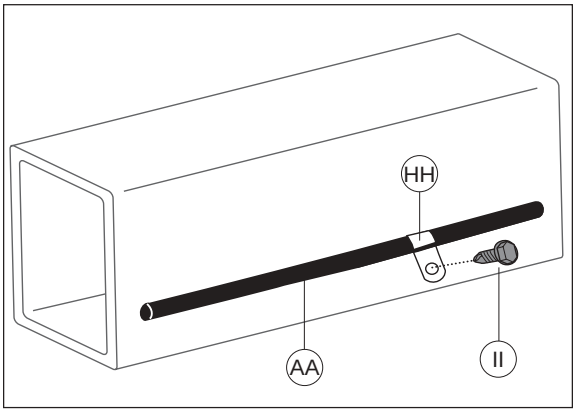


Figure 9

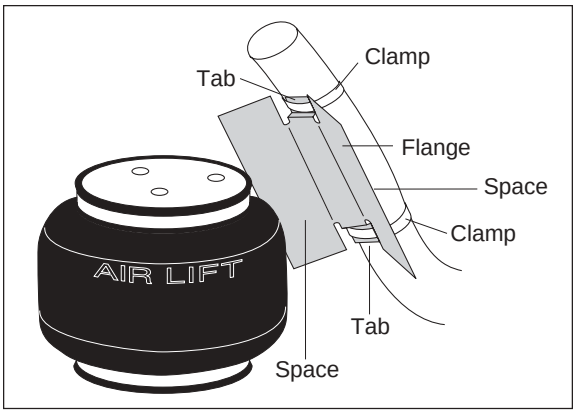


Figure 10

III. Installing the Air Line

1. Choose a convenient location for mounting the inflation valves. Popular locations for the inflation valve are in the wheel well flanges, in the stowage area, under the body flange.

   NOTE: What ever the chosen location is, make sure there is enough clearance around the inflation valves for an air chuck.

2. Drill a $^{5}/_{16}$" hole to install the inflation valves.

3. Cut the air line assembly (AA) in two equal lengths.

   CAUTION: When cutting or trimming the air line, use a hose cutter, a razor blade, or a sharp knife. A clean, square cut will ensure against leaks. Do not use wire cutters or scissors to cut the air line. These tools may flatten or crimp the air line, which causes leakage around the O-ring seal inside the elbow fitting.

4. Place a $^{5}/_{16}$" nut (GG) and a star washer (FF) on the air valve. Leave enough of the valve in front of the nut to extend through the hole and have room for the rubber washer (EE), flat washer (DD), and $^{5}/_{16}$" nut (GG) and cap (CC). There should be approximately $^{1}/_{2}$" of the valve exposed after installation to easily apply a pressure gauge or an air chuck (Figure 8).

5. Push the inflation valve through the hole and use the rubber washer (EE), flat washer (DD), and another $^{5}/_{16}$" nut (GG) to secure it in place. Tighten the nuts to secure the assembly in place (Figure 8).

6. Route the air line along the frame to the air fitting on the air spring. Keep at least 6" of clearance between the air line and heat sources, such as the exhaust pipes, muffler, or catalytic converter. Avoid sharp bends and edges. Use the plastic tie straps (BB) to secure the air line to fixed, non-moving points along the chassis. Be sure that the tie straps are tight, but do not pinch the air line. Where there are no holes to secure straps to, use the hose clips (HH) and the self tapping screw (II) to secure air line to frame (Figure 9). Leave at least 2" of slack to allow for any movement that might pull on the air line.

7. On the exhaust side only, place the provided thermal sleeve (M) on the air line near the exhaust.

8. Cut off air line, leaving approximately 12" of extra air line. A clean square cut will ensure against leaks. Insert the air line into the push-to-connect air fitting. Simply push the air line into the 90° swivel fitting until it bottoms out ($^{9}/_{16}$" of air line should be in the fitting).

IV. Installing the Heat Shield

1. Bend tabs to provide a $^{1}/_{2}$" dead air space between exhaust pipe and heat shield (Figure 10).

2. Attach the heat shield (L) to the exhaust pipe using the provided clamps (N). Bend the heat shield for maximum clearance to the air spring (Figure 10).

V. Checking for Leaks

1. Inflate the air spring to 60 p.s.i. and spray all connections and the inflation valves with a solution of 1/5 liquid dish soap and 4/5 water to check for leaks. Leaks will be spotted easily by looking for bubbles in the soapy water.

2. After the test, deflate the springs to the minimum pressure required, but not less than 20 p.s.i.

3. *IMPORTANT:* Check the air pressure again after 24 hours. A 2 to 4 p.s.i. loss after initial installation is normal. Retest for leaks if the loss is more than 5 lbs.

VI. Fixing Leaks

1. If there is a problem with the swivel fitting, then:

   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. Reinsert the air line into the push-to-connect fitting.

   b. Check the threaded connection by tightening the swivel fitting another 1/2 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, then use a wrench for an additional two turns.

2. If there is a problem with the inflation valve, then:

   a. Check the valve core by tightening it with a valve core tool.

   b. Check the air line connection by removing the air line from the barbed type fitting. *CAUTION: Do not cut it off. As this will usually nick the barb and render the fitting useless.* Cut air line off a few inches in front of the fitting and use a pair of pliers or vise-grips to pull/twist the air line off the fitting.

3. If the preceding steps have did not resolve the problem, call Air Lift Technical Support at 1-800-248-0892 for assistance.

VII. Troubleshooting Guide

Problems maintaining air pressure, without on-board compressor.

1. Leak test air line connections and threaded connection of the elbow into the air spring. See Section VI to repair.

2. Leak test the inflation valve for leaks at the air line connection or dirt or debris in the valve core. See Section VI for repair.

3. Inspect air lines to be sure it is not pinched at the tie straps. Loosen or replace strap and replace leaking components.

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

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

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. Please call Air Lift at 1-800-248-0892 for assistance or a replacement air spring.

VIII. Checklist

You can protect your warranty on this product and prevent unnecessary wear by ensuring the following checks have been made:

Section I – Installation (To be completed by the installer):

☐ 1. Clearance Test - Inflate the air springs to 60 p.s.i. and ensure there is at least 1/2" clearance around each sleeve from anything that might rub against them. Be sure to check the tire, brake drum, frame, shock absorbers and brake cables.

☐ 2. Leak Test Before Road Test – Inflate the air springs to 60 p.s.i., check all connections for leaks with a soapy water solution. Eliminate all leaks before the vehicle is road tested.

☐ 3. 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. If there is no heat shield, but one is required, call 1-800-248-0892.

☐ 4. Fastener Test – Recheck all bolts for proper torque.

☐ 5. Road Test – The vehicle should be road tested after the preceding tests. Inflate the springs to 25 p.s.i. (50 p.s.i. if vehicle is loaded). Drive the vehicle 10 miles and recheck for clearance, loose fasteners and/or air leaks.

☐ 6. Operating Instructions – If professionally installed, the installer should review the operating instructions on page 7 with the owner. Be sure to provide the owner with all of the paperwork that came with the kit.

Section II - Post Installation Checklist (To be completed by the owner):

☐ 1. Overnight Leakdown Test – Recheck air pressure after vehicle has been used for 24 hours. If pressure has dropped more than 5 p.s.i. then, you have a leak that must be fixed. Either fix the leak yourself (see page 5) 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 _____

Regardless of load, the air pressure should always be adjusted so that the Ride Height is maintained at all times.

☐ 3. Thirty Day or 500 Mile Test. I understand that I must 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.

IX. Maintenance and Operations

Motorhome and Commercial Chassis	
Minimum Air Pressure	**Maximum Air Pressure**
20 p.s.i.	100 p.s.i.
Passenger Vans	
Minimum Air Pressure	**Maximum Air Pressure**
5 p.s.i.	100 p.s.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.

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 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.

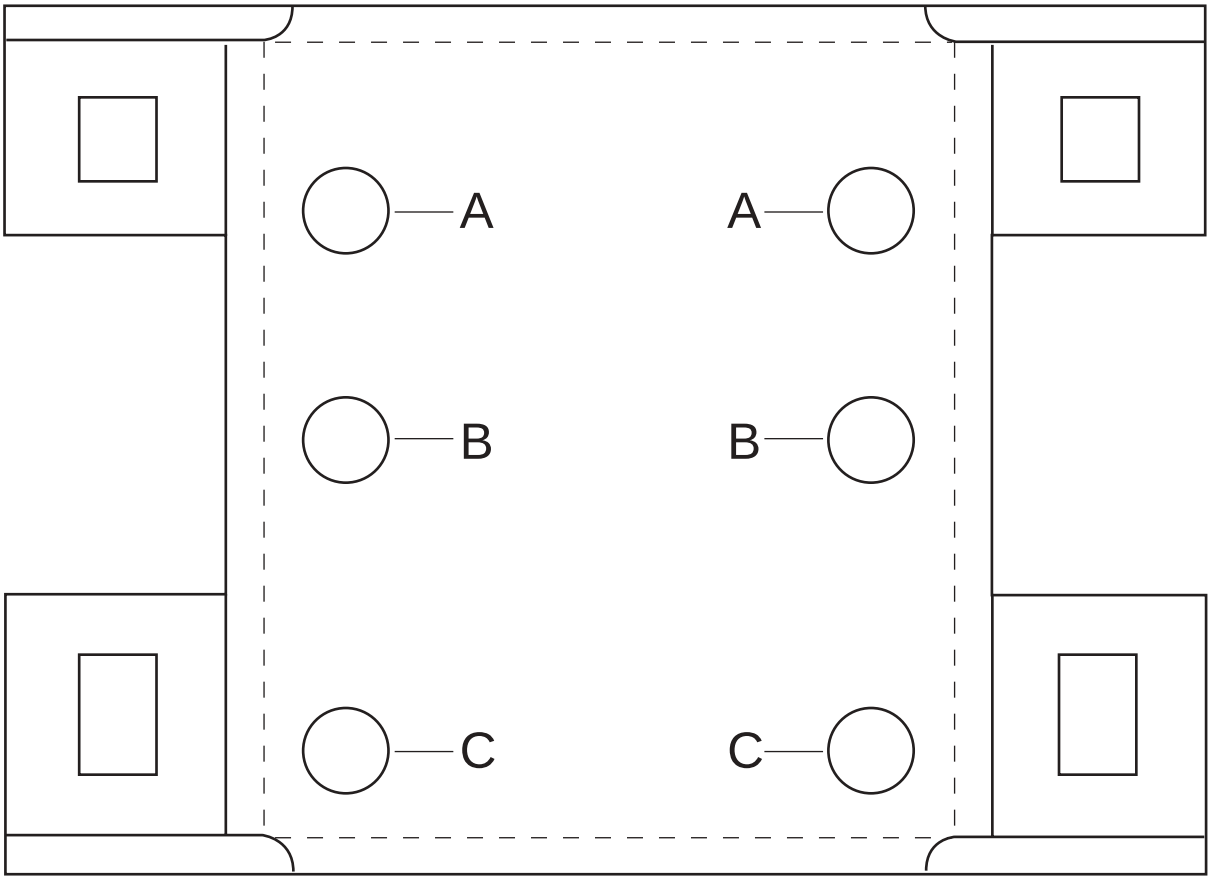
4. When increasing load, always adjust the air pressure to maintain the Ride Height. Increase or decrease pressure from the system as necessary to attain Ride Height for optimal ride and handling. Remember that loads carried behind the axle (including tongue loads) require more leveling force (pressure) 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., this pressure may represent too great a load on some vehicles. 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 to reduce the tension on the suspension/brake components. Use of on–board leveling systems do not require deflation or disconnection.*

Lower Bracket Template



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