



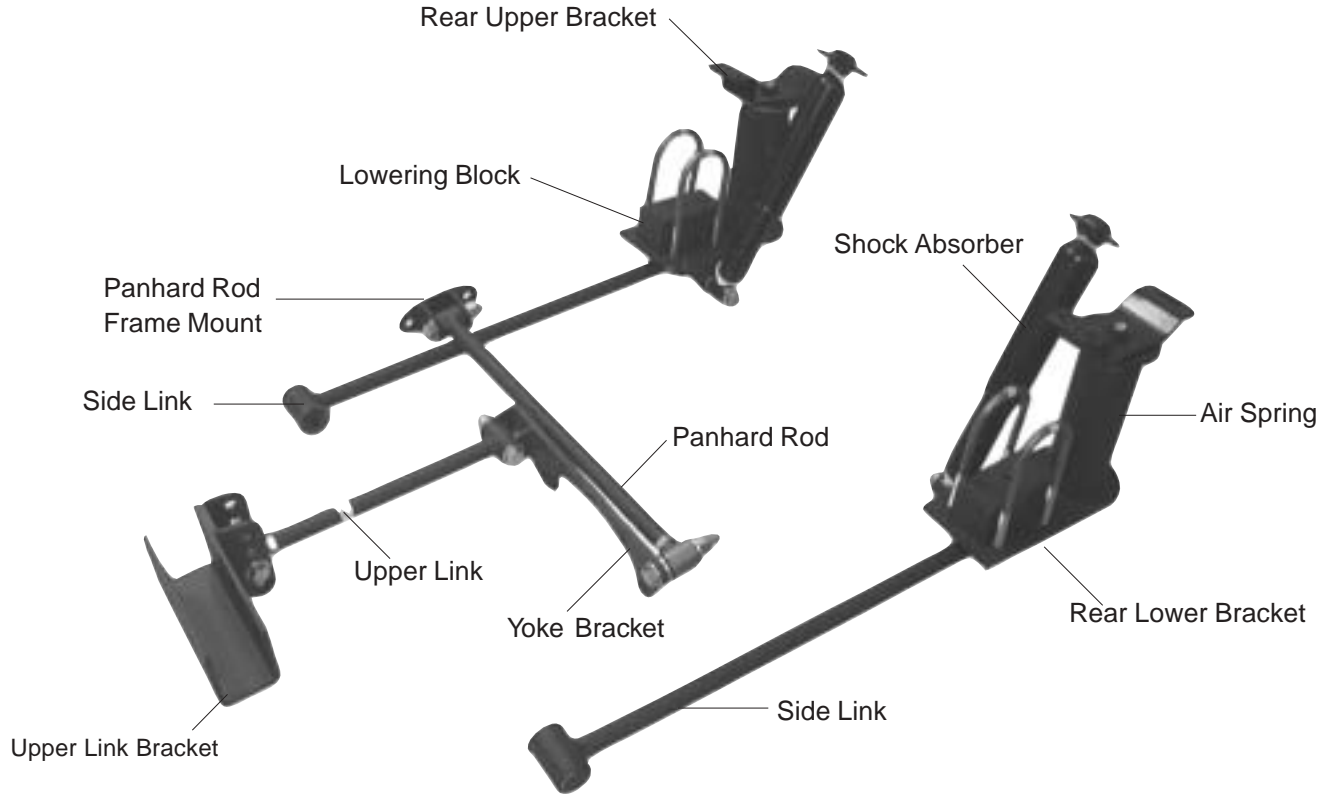
www.airliftcompany.com

Chevy S-10 or
GMC Sonoma

MN-482
(03304)
ECN4200

Rear Kit Part No. 75612B

Please read these instructions completely before proceeding with installation



Parts Included for Installation:

Item	Description	Qty	Item	Description	Qty	Item	Description	Qty
A	Lower Bracket (Right)	1	Q	1/2" Flat Washer SAE	6	GG	5/16"-18 x 1.5 Hex Flange	5
B	Lower Bracket (Left)	1	R	3/4"-16 Nylon Nut	2	HH	5/16"-18 Lock Washer	5
C	Upper Bracket	2	S	1/2" Nylock Nut	2	II	Tie Strap	6
D	Shock Absorbers	2	T	1/2"-13 x 1.5 Bolt	2	JJ	Valve Cap	1
E	Air Spring	2	U	9/16"-12 x 3" Bolt	2	KK	5/16" Flat Washer	1
F	Lowering Block	2	V	9/16"-12 Nylock Nut	2	LL	Rubber Washer	1
G	9/16" Locating Pin	2	W	5/8" Flat Washer	8	MM	Star Washer	1
H	U-bolt Assembly	4	X	5/8"-11 x 3.5 Bolt	5	NN	5/16" Hex Nut	2
I	Upper Link Bracket	1	Y	5/8" Oversized Flat Washer	13	OO	Male Branch Tee	1
J	Frame Bracket	1	Z	5/8"-11 Nylock Nut	6	PP	3/8" NPTF x 1/4" Connector	3
K	Yoke Bracket	1	AA	5/8"-11 x 4" Bolt	1	QQ	90° Low Profile Elbow Fitting	2
L	Side Link	2	BB	3/8"-16 x 1.50 Bolt	12	RR	3/8" NPTM x 1/2" Straight	2
M	Upper Link	1	CC	3/8"-16 Nylock Nut	15	SS	1/4" Nylon Tube	5'
N	Panhard Rod	1	DD	3/8" Flat Washer SAE	36	TT	1/2" Nylon Tube	15'
O	Backer Plate	1	EE	3/8" Lock Washer	4	UU	Inflation Valve	1
P	1/2"-13 x 1.25 Bolt	2	FF	3/8"-16 x 4.0 Bolt	7			

Technical Support
1-800-248-0892
Ext. 2



Figure 1

NOTE: Disregard the air spring assembly. They should not yet be installed.

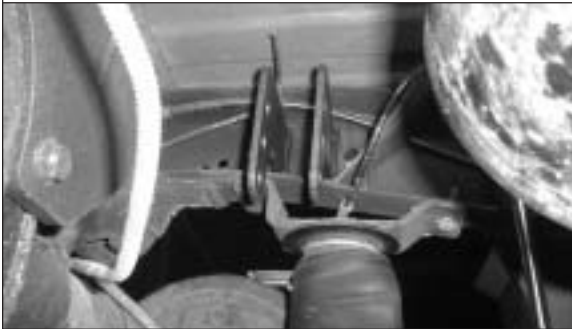


Figure 2



Figure 3

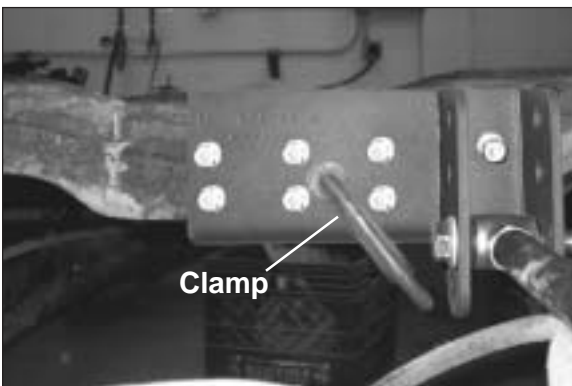


Figure 4

I. Elevating the Vehicle

1. Begin the installation by elevating the truck and placing it securely on jack stands. Remove the wheels.
2. Place a floor jack under the rear axle assembly. Elevate the rear axle assembly and place it on jack stands. Remove the shock absorbers.

II. Installing the Panhard Rod

1. Remove five (5) upper differential cover bolts, and push the brake lines up and away from the housing. Be sure to save the bolt that is used to hold the brake line bracket. Mount the yoke bracket (K) against the differential housing, using the five replacement mounting bolts (GG) (Figure 1).

NOTE: Use Loctite on these bolts.

2. Install the frame bracket (J) onto the fixed end of the Panhard rod (N) with one bolt (X), two washers (Y), and nylock nut (Z). Position the frame-mounted end of the panhard rod assembly inside the passenger side frame face (Figure 2).

3. Attach the adjustable end of the panhard rod to the yoke bracket using mounting bolt (AA), flat washers (Y), and nylon nut (Z). Make sure that one washer (Y) is used as a spacer between the yoke bracket and rod end (Figure 3).

III. Installing the Upper (third) Link

1. Assemble the upper link bar (M) to the upper link bracket (I). Position the bar in the third hole from the top of the bracket (Additional holes are provided for later adjustment of the link, if necessary).

NOTE: It will be necessary to unbolt and move the exhaust mounting bracket. Removal of the tail pipe behind muffler will be necessary as well. In addition, it may be necessary to remove the emissions.

2. Fit and position the upper link bracket onto the rear face of the gas tank/exhaust crossmember. Temporarily clamp in place (Figure 4).

NOTE: It may be necessary to lightly tap on the bracket with a hammer until it is fully seated.

3. Insert opposite end of upper link bar into tabs located on the face of the yoke bracket. Install the retaining bolt (X), two washers (Y), and nylon nut (Z). Loosely bolt in place (Figure 5). Reposition upper link bracket as necessary to align the upper link bar.
4. Center punch the upper link bracket mounting hole locations on the gas tank crossmember.
5. Leave the bracket in place to use as a template for drilling, and drill $\frac{3}{8}$ " holes through the crossmember. Do this at all the locations (refer back to Figure 4).

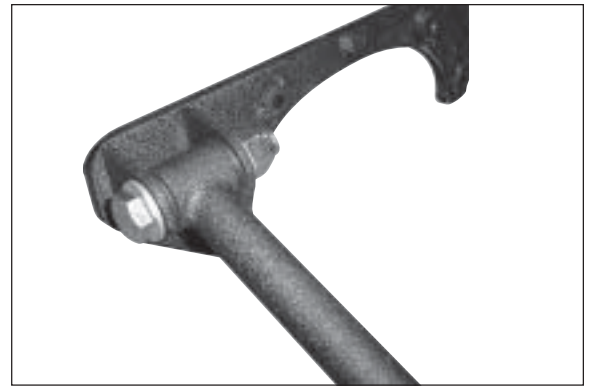


Figure 5

NOTE: In some applications, there are existing components attached to the crossmember. Install these components using the upper link bracket bolts (FF).

6. Loosely bolt the upper link bracket and upper link bar into place using the $\frac{3}{8}$ " bolts (FF), flat washers (DD), and nylon nuts (CC). Refer to Figure 6.
7. If removed, loosely reinstall the panhard rod assembly.

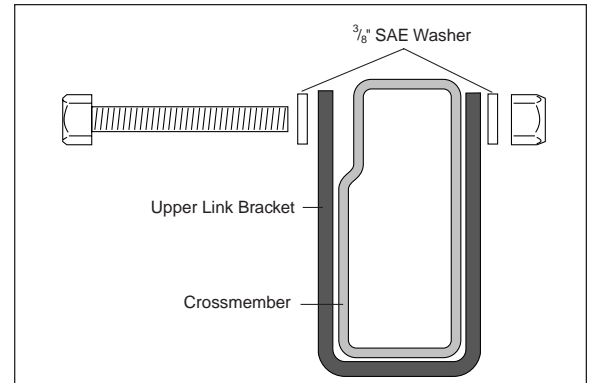


Figure 6

IV. Attaching Driver-Side Side Link

1. To remove the leaf spring on the driver side, loosen and remove the front leaf spring retaining bolt. Remove the leaf spring. *Use extreme caution during this step. It may be necessary to temporarily remove the jack stands under the axle assembly to properly unload the leaf spring.* After removal of the leaf spring, place the axle assembly back onto a jack stand.

NOTE: On the driver side, the front spring eye bolt has to be cut out due to interference with the gas tank. Use the rear spring eye bolt to replace it.

2. Assemble one rear bracket set.
 - a. Bolt the lowering block (F) (wedge oriented towards the front of the vehicle) to the shock mount and lower bracket (A/B) using bolts (BB), lock washers (EE), flat washers (DD). To bolt, use the center mounting holes in the shock mount and lower bracket (Figure 7).
 - b. Install the $\frac{9}{16}$ " bolt (U), $\frac{5}{8}$ " flat washer (W), shock absorber (D), two $\frac{5}{8}$ " flat washers (W) through the shock mount on the lower bracket and secure with a $\frac{5}{8}$ " flat washer (W) and $\frac{9}{16}$ " nylock nut (U). Refer to Figure 8.
 - c. Attach a lower link (L) to the bracket using the link bolt (X), two washers (Y), and nylon nut (Z). See Figure 8.
 - d. Install a short $\frac{9}{16}$ " diameter locating pin (G) in the top of the lowering block (Figure 7).

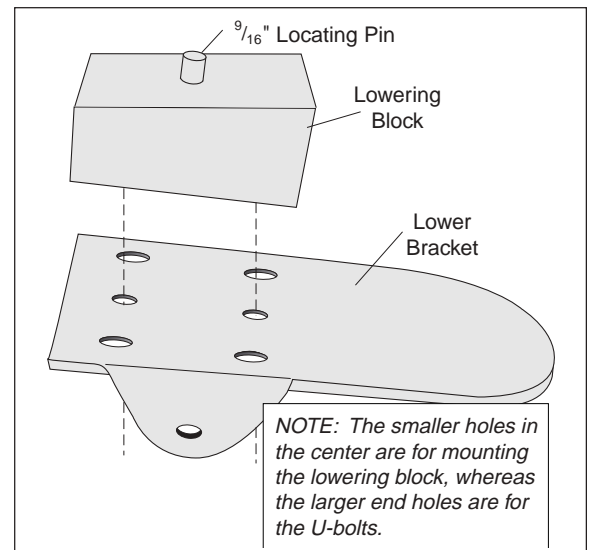


Figure 7

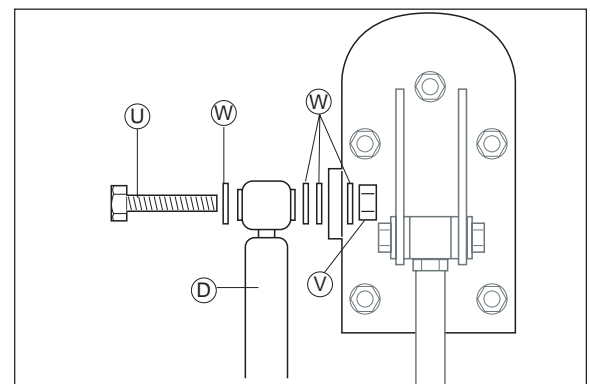


Figure 8



Figure 9



Figure 10



Figure 11

3. Install the front (rubber bushed) end of lower link into the front OEM leaf spring bracket. Insert the OEM leaf spring bolt (Figure 9).
4. Lift the axle bracket/spring mount into place. Have someone assist you. Push the U-bolts (H) through the holes in the lower axle bracket/spring mount. Verify that the mount is correctly registered (the underside pin is in the spring pad hole) and that the axle is seated on the lower axle bracket/spring mount (Figure 10).
5. Push the U-bolts (H) all the way in. Secure them with the supplied washers and nuts.
6. Repeat side link installation on the opposite side.
7. Measure from the center of the front wheel to the center of the rear wheel, on both side of the vehicle. Adjust the lower rod lengths, as necessary, to equalize these measurements.
8. Position the upper link so that it is parallel with the lower links. Measure the pinion angle and verify that the angle is equal to, but opposite from, the angle of the rear face of the tailshaft of the transmission (Figure 12).

NOTE: These angles should be approximately 3 degrees. This adjustment, called "driveline phasing", is somewhat subjective. For detailed instructions, call Air Lift at 1-800-248-0892.

9. Set sleeve on the lower axle bracket/spring plate. Secure, on the underside, with a bolt (N) and a flat washer (Q).
10. Insert the air fitting post of the upper air spring mount into the upper air spring mount (Figure 11). Locate the upper air spring mount onto the bottom of the frame, near the rear of the OEM jounce bumper bracket (Figure 13). Align the air spring so that it is perpendicular to the lower mounting plate, both front-to-rear and side-to-side. Clamp in place. Remove top of air spring from upper air spring mount.

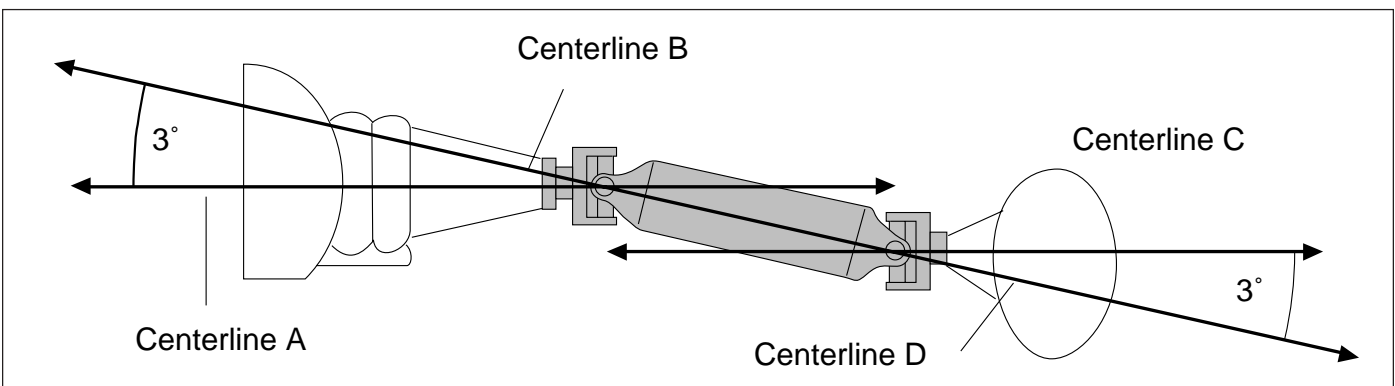


Figure 12

11. Drill three (or four) $\frac{3}{8}$ " holes, using the bracket as a drill jig. *Note that the frame has sufficient width to allow for the two front holes to be drilled. In the rear, locate one or two holes, depending on the width of your frame, and drill accordingly.*
12. Assemble the rear air spring by installing an air fitting (PP). Attach the air spring assembly to the upper mount by inserting the air port post through the mount and securing with the nylon nut (R). Loosely bolt the upper mount and spring assembly to the frame (Figure 13).
13. Adjust the length of the panhard rod so that the frame mount is snug against the frame. When satisfied with the fit of the panhard rod, locate, center punch, and drill two $\frac{1}{2}$ " holes in the frame face. Bolt the panhard rod mount in place (refer back to Figure 2) using backer plate (O) on the back side of the frame and two bolts (T), four flat washers (Q), and two nylock nuts (S). Refer to Figure 14.

NOTE: It will be necessary to remove the rod end bolt to attach mount to frame.

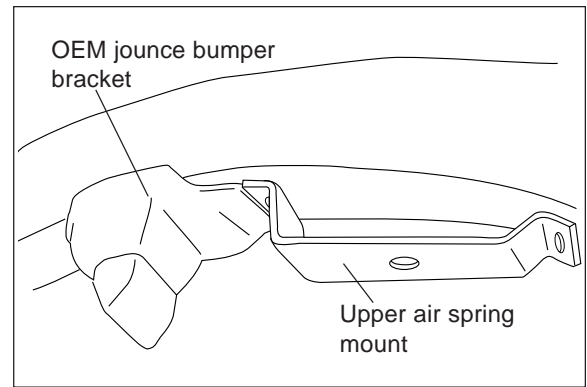


Figure 13



Figure 14

V. Completing the Installation

1. Adjust the Panhard rod length, as necessary, to center the rear axle between the frame rails.
2. Reinspect the entire assembly and tighten all bolts.
3. Install the shock absorbers (Figure 15).

VI. Installing the Air Lines

1. Choose a convenient location for mounting the inflation valve. Popular locations for the inflation valve are wheel well flanges, license plate recess in bumper, or through license plate itself.
2. Drill a $\frac{5}{16}$ " hole to install the inflation valve.
3. Cut two pieces 6" in length each of the $\frac{1}{4}$ " nylon tube (SS) and cut the $\frac{1}{2}$ " nylon tube (TT) into two equal lengths. *CAUTION: When cutting or trimming the air line, use a hose cutter (Air Lift P/N 10530), 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, causing it to leak around the O-ring seal inside the elbow fitting.*
4. Insert the short lengths of $\frac{1}{4}$ " nylon tube into each air fitting on top of the air spring assembly. This is a push to connect fitting. Simply push the air line into the 90° swivel fitting until it bottoms out ($\frac{9}{16}$ " of air line should be in the fitting).
5. Assemble the $\frac{3}{8}$ " NPTM x $\frac{1}{2}$ " straight fitting (RR) to the $\frac{3}{8}$ " NPTF x $\frac{1}{4}$ " connector (PP) and connect to the $\frac{1}{4}$ " tube off the air springs. Use the other ends of the fitting assembly to attach the $\frac{1}{2}$ " lengths of tube.



Figure 15

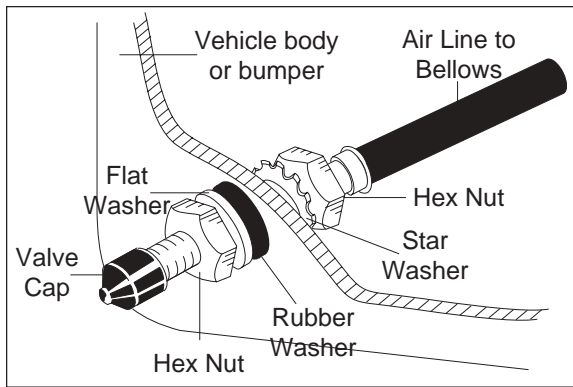


Figure 16

6. Install the inflation valve (UU) to the end of the $\frac{1}{4}$ " nylon tube (SS). Soak the end of the nylon hose in hot tap water to ease installation of inflation valve.
7. Place a $\frac{5}{16}$ " nut (NN) and a star washer (MM) on the inflation valve (Figure 16). Leave enough of the inflation valve in front of the nut to extend through the hole and have room for the rubber washer (LL), flat washer (KK), $\frac{5}{16}$ " nut (NN), and cap (JJ).

NOTE: There should be enough valve exposed after installation, approximately $\frac{1}{2}$ " , to apply a pressure gauge or an air chuck.
8. Push the inflation valve through the hole and use the rubber washer (LL), flat washer (KK), and another $\frac{5}{16}$ " nut (NN) to secure it in place (Figure 16). Tighten the nuts to secure the assembly in place.

9. Connect the male branch tee (OO) to the $\frac{3}{8}$ " NPTF x $\frac{1}{4}$ " connector (PP).

10. Route the air line along the frame to the male branch tee assembly. Install the $\frac{1}{2}$ " lines to the $\frac{1}{2}$ " ports and the long $\frac{1}{4}$ " line to the $\frac{1}{4}$ " port.

CAUTION: 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.

11. Use the plastic tie straps (II) 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. Leave at least 2" of slack to allow for any movement that might pull on the air line.

12. Inflate to 30 p.s.i. and spray all connections and the inflation valves with a solution of $\frac{1}{5}$ liquid dish soap and $\frac{4}{5}$ water to check for leaks. Leaks should be spotted easily by looking for bubbles in the soapy water.

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.

VII. Before Operating

1. Inflate the installed system to 80 p.s.i. and move suspension through full range of motion to check for interference or rub.
2. Inflate and deflate system (do not exceed 100 p.s.i) to check for clearance or binding issues. With air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
3. If custom wheels and tires are used, then be sure to note tire to fender well clearance. Space jounce bumper for additional clearance.
4. Tighten and visually inspect all hardware after 100 miles.
5. Our air management control kits are highly recommended for this product.
6. Please continue by reading the remaining information in this manual, including the Maintenance and Operation section.

VIII. 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 $\frac{1}{2}$ 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 not resolved the problem, call Air Lift Technical Service at 1-800-248-0892 for assistance.

IX. Troubleshooting Guide

Problems maintaining air pressure, without on-board compressor.

1. Leak test the air line connections and threaded connection of the elbow into the air spring. See Section VIII 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 VIII for repair.
3. Inspect air lines to be sure it is not pinched. Tie straps may be too tight. Loosen or replace strap. 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.

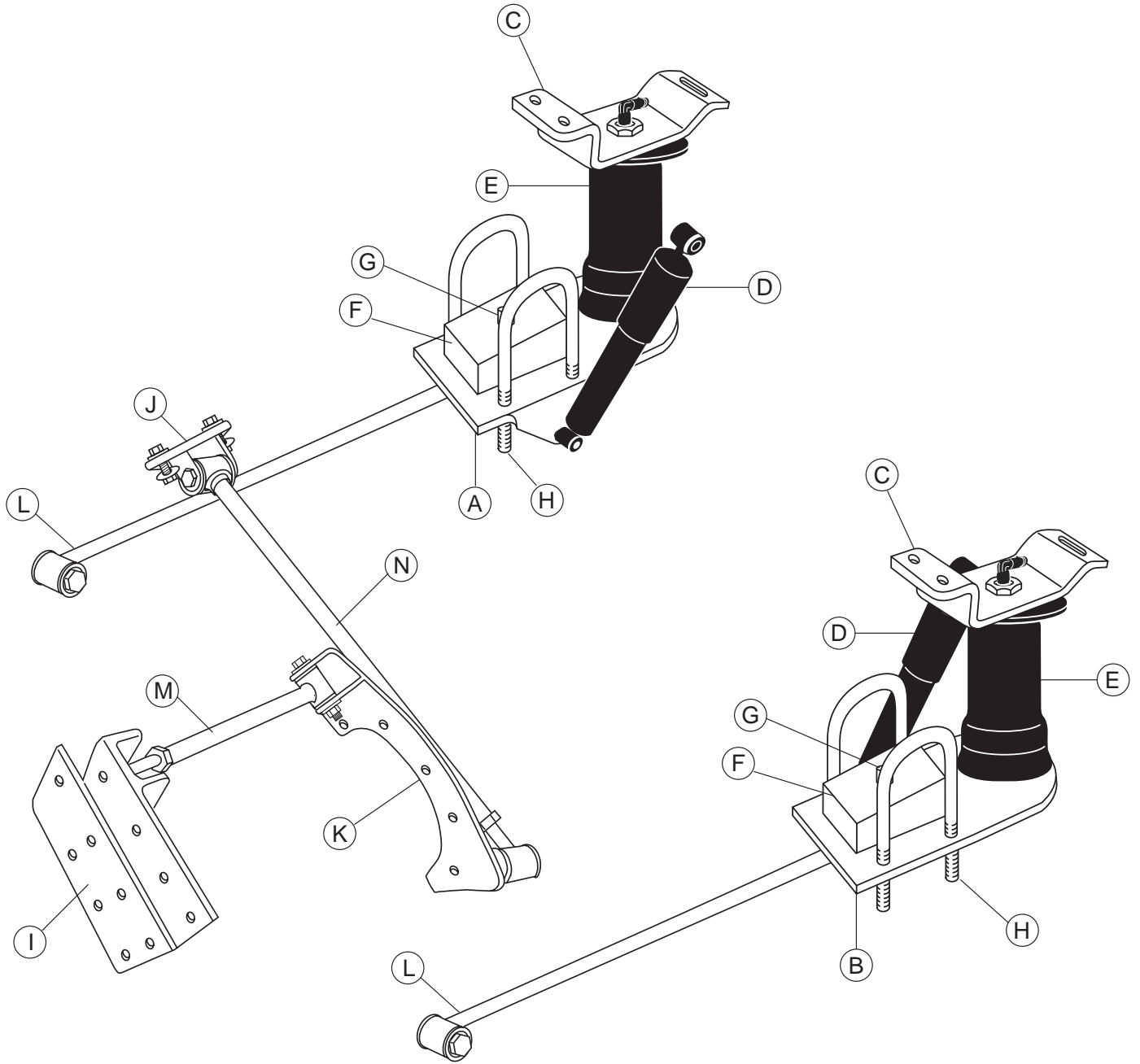
Maintenance and Operation:

<i>Minimum Pressure</i>	<i>Maximum Pressure</i>
<i>10 p.s.i</i>	<i>100 p.s.i.</i>
<i>Failure to maintain correct minimum pressure (or pressure proportional to load), bottoming out, overextension, or rubbing against another component will void the warranty.</i>	

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 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. Always adjust the air pressure to maintain 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. 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. Air springs require less air volume than a tire and inflate quickly.
7. Should it become necessary to raise the vehicle by the frame or do any service work, make sure the system is at minimum pressure (10 p.s.i.) for safety and to reduce the tension on the suspension/brake components.

Schematic Drawing





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
2710 Snow Rd.
Lansing, MI 48917

Local Phone: (517) 322-2144

Fax: (517) 322-0240

<http://www.airliftcompany.com>

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