

Air Lift 1000™

Kits 60824 & 60825

2011- Dodge Durango (AWD)*
2011- Jeep Grand Cherokee
(2WD/4WD)**



*representative
image shown*



INSTALLATION GUIDE

- * DOES NOT FIT DURANGO HEAT AND R/T APPLICATIONS
- ** DOES NOT FIT JEEP QUADRA-LIFT EQUIPPED AND SRT-8 VEHICLES

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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Introduction

The purpose of this publication is to assist with the installation and maintenance of the Air Lift 1000 air spring kit.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information here includes a hardware list, tool list, step-by-step installation information, maintenance guidelines and operating tips.

Air Lift Company reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Company at **(800) 248-0892** or visit our website at **www.airliftcompany.com**.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

 **DANGER**

INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

 **CAUTION**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

 **WARNING**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

MAINTENANCE AND USE GUIDELINES

Minimum Recommended Pressure	Maximum Air Pressure
5 PSI (.34BAR)	30 PSI (2BAR)

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 30 PSI (7BAR).
3. If the system develops an air leak, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.

 **CAUTION**

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR) OR PAYLOAD RATING, AS INDICATED BY THE VEHICLE MANUFACTURER.

 **CAUTION**

ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 30 PSI (2BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND

LIMITED WARRANTY AND RETURN POLICY

Air Lift Company provides a limited lifetime warranty to the original purchaser of its load support products, that the products will be free from defects in workmanship and materials when used on cars and trucks as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available at **www.airliftcompany.com/warranty**.

For additional warranty information contact Air Lift Company customer service.

Hardware and Tool List

HARDWARE LIST

Item	Part #	Description	Qty
A1	46161	Air Spring (Kit #60824)	2
A2	46129	Air Spring (Kit #60825)	2
B	09447	Protector (spacer)	2
C	20937	Air Line	15'
D	10466	Zip Tie	6
E	10638	Uni Clamp	6
F	18501	M8 Stainless Steel Flat Washer	2
G	18411	Stainless Steel Star Washer	2
H	21230	Valve Cap	2
I	21233	5/16" Hex Nut	4
J	21234	Rubber Washer	2
K	21236	Tee	1
L	21455	Valve	2

TOOLS LIST

Description	Qty
Hoist or Floor Jack	1
Safety Stands	2
Tire Spoon	1
Safety Glasses	1
Air Compressor or Compressed Air Source	1
Spray Bottle with Dish Soap/Water Solution	1
Box Cutter or Knife	1
Hack Saw Blade or Equivalent	1
Rat Tail File	1



Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

Installing the Air Lift 1000 System

1. Jack up the rear of the vehicle or raise on a hoist. Support the frame with safety stands (Fig. 1).

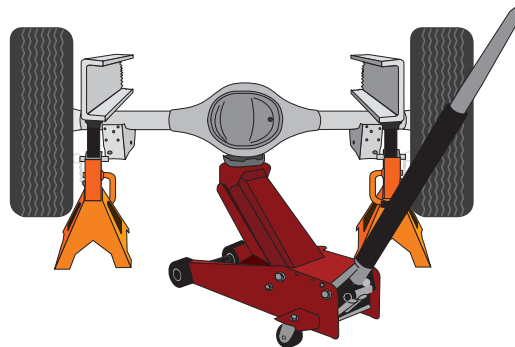


fig. 1

2. Lower the axle or raise the body until the springs are completely extended (wheels hanging).



OBSERVE TENSION ON BRAKE LINE. DO NOT STRAIN.

3. Since there is no access to route a hose through the top spring seat, the hose will need to be routed down through the bottom spring seat. In order to do this, the rubber diaphragm (cover) on the lower spring seat will have to be trimmed using a box cutter or knife (Fig. 2). Cut just enough to create a 1" (25mm) hole in the center of the rubber diaphragm.

Rubber diaphragm covering lower spring seat hole. Cut a 1" (25mm) hole in the center.



fig. 2

- Once the hole is created, remove the cross ribs from the lower spring retainer in order to make access to the barb on the cylinder (Fig. 3).

Lower spring retainer showing cross ribs

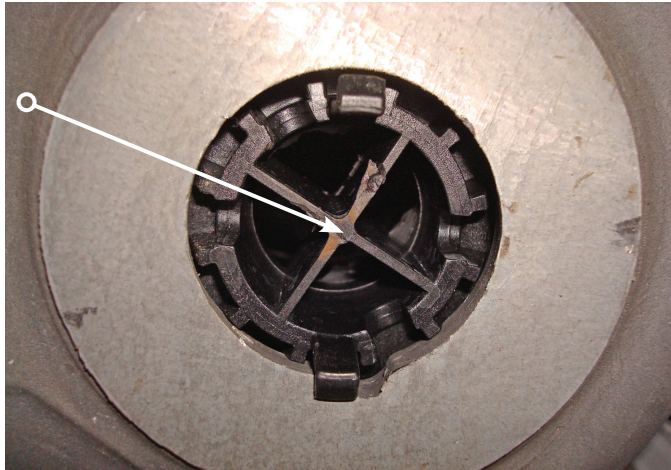


fig. 3

- To do this you can use a hack saw blade (or anything comparable) and cut each rib out creating access in the center of the lower spring seat, to the cylinder that will be installed (Fig. 4). Try to smooth any sharp edges with a rat tail file or rotary tool.

Lower spring retainer showing the ribs cut out. Smooth any sharp edges with a file or rotary tool.

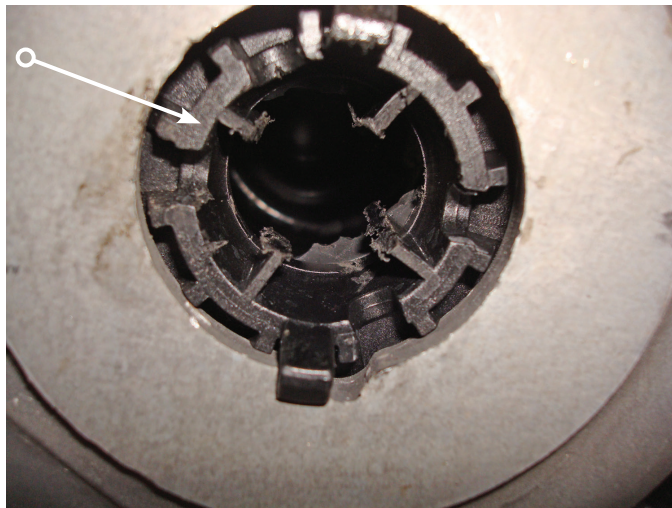


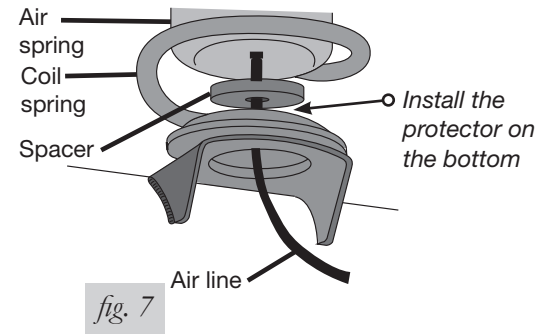
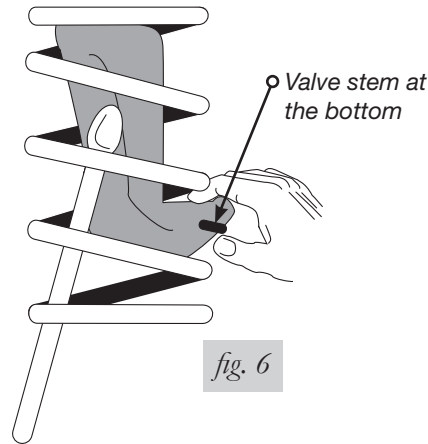
fig. 4

- Remove the plastic cap from the barbed stem on the end of the air spring. Exhaust the air from the air spring by rolling it up toward the barbed stem. Replace the cap on the stem to hold the flat shape (Fig. 5). Fold the air spring into a “hot dog bun shape.”

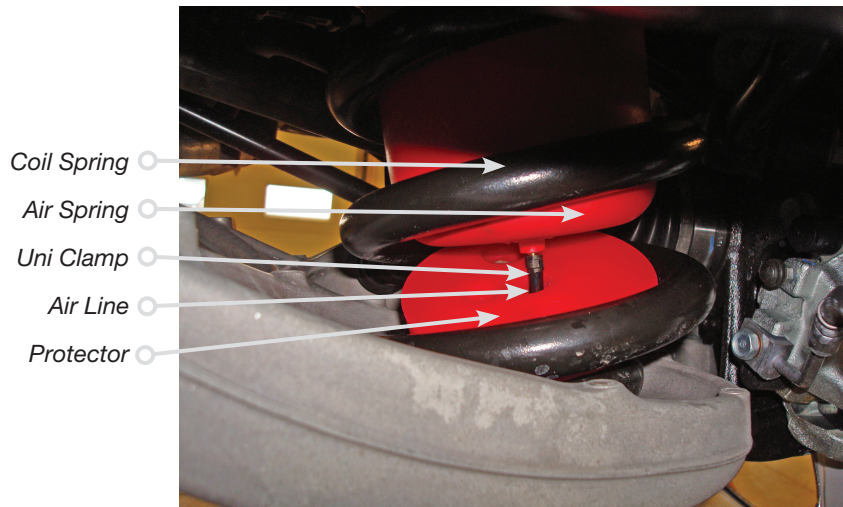


fig. 5

7. Insert the flattened end of the air spring into the coil spring through the lowest opening in the coil spring with the stem at the bottom (Fig. 6). Push the spring up into the cylinder by hand or with a blunt instrument such as a spoon-type tire iron.



8. When the air spring is completely within the coil, remove the cap and allow the air spring to assume its “as molded” shape.
9. Push the air spring to the top of the coil spring and insert the protector on the bottom between the lower spring seat and air spring (Figs. 7 & 8).



Push air spring to the top and insert protector between the air spring and lower spring seat. Attach hose and uni clamp over barbed stem of air spring.

fig. 8

INSTALLING THE AIR LINE

A tee air line installation is recommended unless the weight in the vehicle varies from one side to the other and unequal pressures are needed to level the load or compensate for axle torque transfer in racing applications. Dual air lines are used in this case.

CAUTION

WHEN CUTTING OR TRIMMING THE AIR LINE, USE A SHARP UTILITY 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 (FIG. 9).

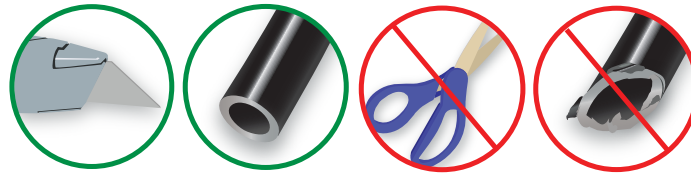


fig. 9

TEE AIR LINE ROUTING

CAUTION

TO PREVENT THE AIR LINE FROM MELTING, MAINTAIN AT LEAST 8" (203MM) FROM THE EXHAUST SYSTEM TO THE AIR LINE.

1. Locate the desired tee location on the frame rail or cross member. Determine and cut adequate length of air line to reach from tee to the left and right side air springs.

CAUTION

LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON THE FITTING DURING AXLE MOTIONS.

2. Slide an air line clamp onto the air line.
3. Push the air line over one side of the tee until all the barbs are covered. With a pair of pliers, slide the air line clamp forward until it fully covers the barbed section. Repeat entire procedure for other leg of the tee (Fig. 10).
4. Route the air line along the cross member and either the lower control arm or the upper spring seat to the air spring.
5. Insert the air line through the spring seat and spacers.

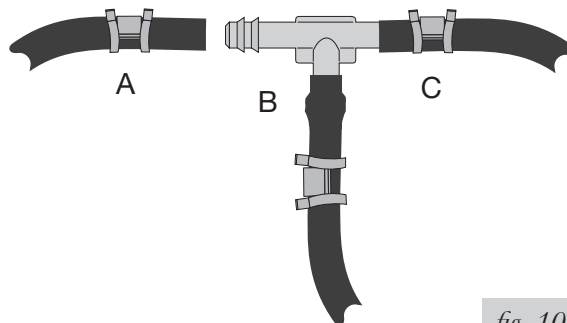


fig. 10

Use this procedure for all air line connections:

- a. Slide the air line clamp onto the air line.
- b. Push the air line over the barbed stem.
- c. Compress the ears on the air line clamp with pliers and slide it forward to fully cover the barbed section.

6. Select a location for the inflation valve in the gas cap well, the trunk, rear bumper, fender flange or behind license plate, ensuring that the valve will be protected and accessible with an air hose (Fig. 11).

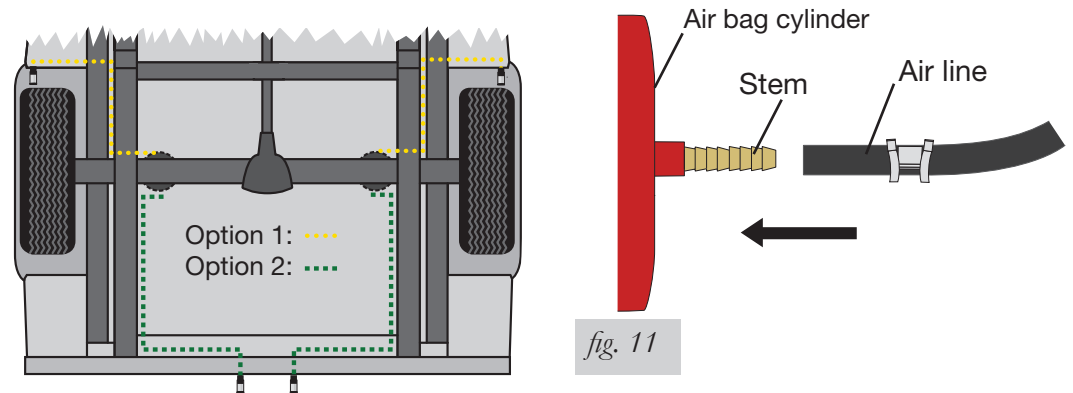


fig. 11

9. Drill a 5/16" hole for the inflation valve and mount as shown (Fig. 12). The rubber washer serves as an outside weather seal.
10. Slide the air line clamp over the air line. Push the air line onto the fitting covering all barbs. Using pliers, slide the air line clamp forward until it fully covers the barbed section (Fig. 12).

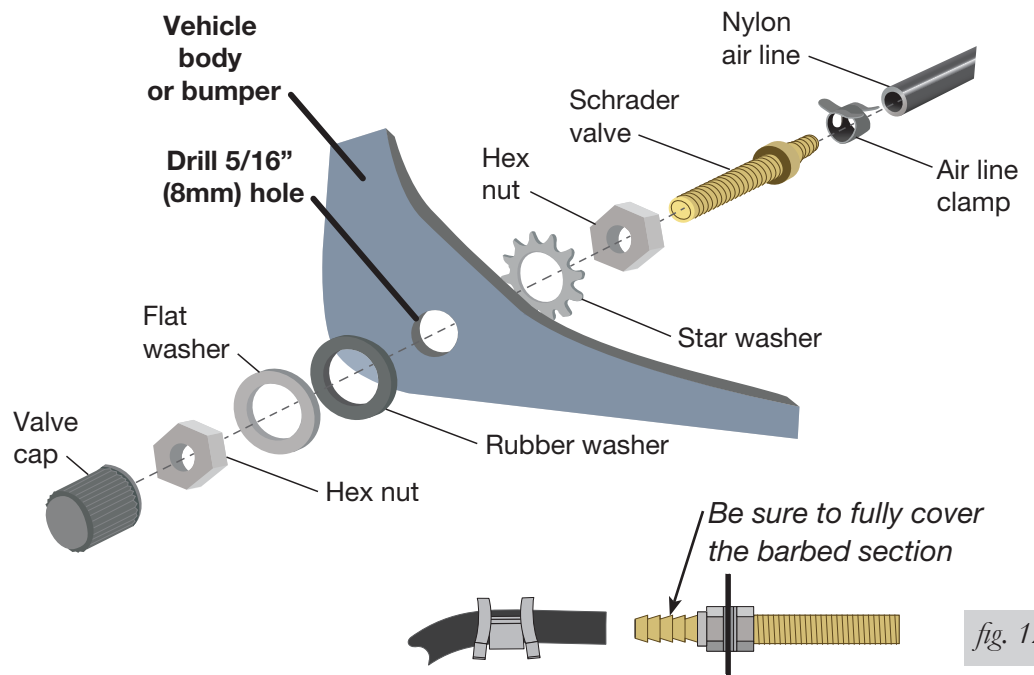


fig. 12

11. Raise the axle or lower the vehicle body until the air springs lightly touch the upper spring seat and lower spacers.
12. Check tail pipe clearance and ensure that it is at least 2"-3" (51-76mm) from air spring. If necessary, loosen clamps and rotate or move to obtain additional clearance. If heat shield is provided, install. Attach shock absorbers if removed earlier in the installation.

NOTE

Do not inflate air springs before reading the "Maintenance and Use Guidelines" in the included User Guide.

DUAL AIR LINE ROUTING

CAUTION

TO PREVENT AIR LINE FROM MELTING, KEEP IT AT LEAST 8" (203MM) FROM EXHAUST SYSTEM.

1. Select a location for the inflation valves in the rocker panel flange, or rear bumper, assuring that each valve will be protected and accessible with an air hose.
2. Determine and cut adequate length of air line to reach from valve location to left side air spring.

CAUTION

LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON FITTING DURING AXLE MOTIONS.

3. Insert the air line through the spring seat and spacer.
4. Slide air clamp onto the cut air line.
5. Push the air line onto the stem, covering all the barbed section (see Fig. 12). With pliers slide the air line clamp forward until it fully covers barbed section.
6. Repeat process for right side.
7. Drill 5/16" hole for inflation valves and mount as illustrated. The rubber washer is for outside weather seal (Fig. 9).
8. Route air line along control arm and frame to inflation valve location and cut off excess.
9. Slide a clamp onto the air line and push the air line over the fitting, covering all the barbs. With pliers slide the air line clamp forward until it fully covers the barbed section (Fig. 10).
10. Raise axle or lower body until air springs lightly touch upper spring seat and lower spacers.
11. Check tail pipe clearance and ensure that it is at least 2"-3" (51-76mm) from air springs. If necessary, loosen clamps and rotate or move to obtain additional clearance. If heat shields are supplied, install them. Attach shock absorbers if removed earlier in the installation.

CAUTION

DO NOT INFLATE AIR SPRINGS BEFORE READING THE "MAINTENANCE AND USE GUIDELINES" IN THE INCLUDED USER GUIDE.

COMPLETING THE INSTALLATION

1. Raise the axle or lower the body until the air springs just touch the top and bottom spring seats, inflate the air springs to 20 PSI (1.4BAR). Test for air leaks by spraying a solution of liquid dish soap and water to all valve cores, fittings and connections.
2. Lower vehicle to the ground. Read "Maintenance and Use Guidelines" in the included User Guide for proper care of the air springs.
3. Recheck air pressure after 24 hours. A 2-4 PSI (0.14- 0.28BAR) loss after initial installation is normal. If pressure has dropped more than 5 PSI (0.34BAR), retest for leaks.

Finished Installation

*fig. 13**fig. 14*

INSTALLATION CHECKLIST

- Clearance test** — Inflate the air springs to 30 PSI (2BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against each sleeve. Be sure to check the tire, brakes, frame, shock absorbers and brake cables.
- Leak test before road test** — Inflate the air springs to 30 PSI (2BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- Heat test** — Be sure there is sufficient clearance from heat sources, at least 6" (152mm) 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 Air Lift customer service at **(800) 248-0892**.
- Fastener test** — Recheck all bolts for proper torque.
- Road test** — The vehicle should be road tested after the preceding tests. Inflate the springs to recommended driving pressures. Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all of the paperwork that came with the kit.

Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892.

For calls from outside the USA or Canada, dial (517) 322-2144.



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



Air Lift Company • 2727 Snow Road • Lansing, MI 48917 or P.O. Box 80167 • Lansing, MI 48908-0167
Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240 • www.airliftcompany.com

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