

Air Lift 1000™



Installation Guide



Nissan Pathfinder



Watch the video

Info on Table of Contents page

Kit 60838

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.

Protect your Air Lift Purchase by Completing your Warranty Registration



Thank you for purchasing an Air Lift load support product!

Take a photo of your sales receipt and then scan the QR code to complete your online warranty registration.

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Video-enhanced installation guides

Visit airliftcompany.com/workshop/category/install-videos to access our installation video archive*.

Hardware and Tools

HARDWARE LIST

Item	Part#	Description	Qty
A	46137	Air spring	2
B	09333	Protector	2
C	20937	Air line	15'
D	10466	Zip ties	6
E	21230	Valve cap	2
F	21233	5/16" Hex nut	4
G	21234	Rubber washer	2
H	18411	Star washer	2
I	18501	M8 Flat washer	2
J	21236	Tee fitting	1
K	21455	Schrader valve	2
L	10638	Air line clamp	6
M	10613	Air line heat shield	1

TOOLS NEEDED

Description	Qty
Needle nose and regular pliers	1
5/16" Drill bit	1
Drill	1
Hose cutter, razor blade or sharp knife	1
Hoist or floor jack	1
Safety stands	2
Safety glasses	1
Air compressor or compressed air source	1
Spray bottle with dish soap/water solution	1
Tire spoon or blunt instrument	1



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

Introduction

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

Air Lift 1000 kits utilize a cylinder-style air bag that provides up to 1,000 pounds (454kg) of load-leveling support when installed into the vehicles coil springs. Each cylinder is rated at a maximum of 35 PSI (2.4BAR).

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair.

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.



WARNING

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



CAUTION

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



NOTE

Used to help emphasize areas of procedural importance and provide helpful suggestions.

Installing the System

PREPARE THE VEHICLE

1. Jack up the rear of the vehicle or raise on hoist. Support the frame with safety stands (Fig. 1).
2. Lower the axle or raise the body until the coil springs are completely extended (wheels hanging).

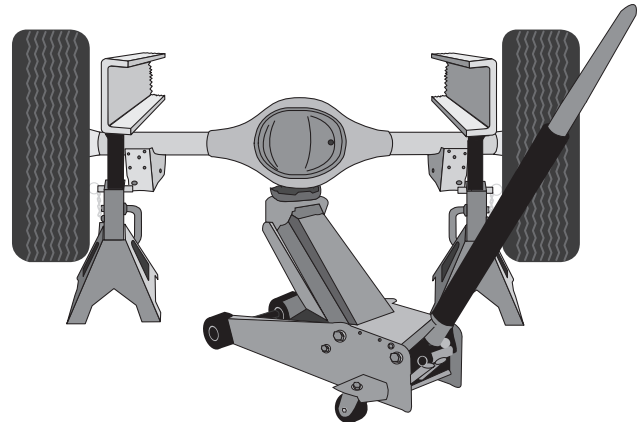


Fig. 1

INSTALL THE AIR SUSPENSION

1. Remove the black plastic cap from the barbed stem on the end of the air spring (A). Exhaust the air from the air spring by rolling it up toward the barbed stem. Replace the cap on the stem to hold its flat shape. Fold the air spring into a “hot dog bun shape” (Fig. 2).



Fig. 2

2. Insert the flattened end of the air spring (A) into the top opening of the coil spring (with the stem at the bottom) (Fig. 3). Push the air spring down into the coil spring by hand or with a blunt instrument such as a spoon-type tire iron.
3. When the air spring is completely in the coil, remove the black plastic cap and allow the air spring to assume its “as molded” shape.



Insert cylinder with stem pointing down. *Fig. 3*

- Push the air spring up to the top of the coil spring and insert the protector (B) through the side of the coil spring and under the air spring. Adjust the protector so the stem is in the middle of the center hole and push the cylinder down to the bottom of the coil spring (Fig. 4). Repeat installation for the other side.



Before starting on the driver's (left) side air line installation, please review "Installing the Air Lines" section on how to assemble the air line.

- Install an air line clamp (L) onto one end of the air line (C) and install the air line onto the barbed stem of the cylinder completely covering the barb. Using needle nose pliers, position the air line clamp over the barbs (Fig. 5).

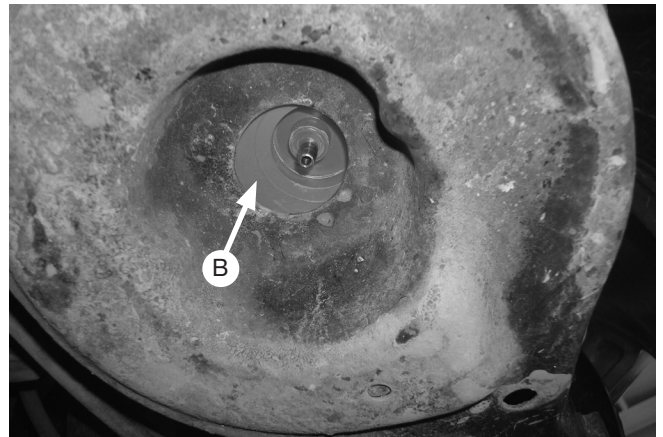


Fig. 4



Make sure air line and clamp completely cover the barb on the end of the cylinder.

Fig. 5

- Use a zip tie (D) and the two holes in the lower control arm (Fig. 6) to secure the air line. Leave a little slack in the line.

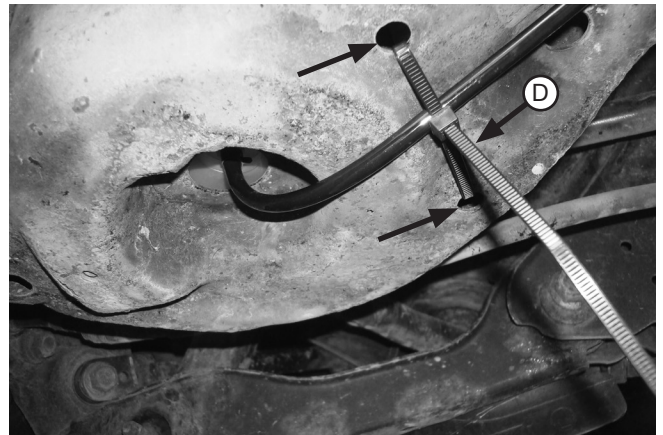


Fig. 6

7. Route the air line behind and over to the lower control arm pivot point and secure air line using a zip tie (D) (Fig. 7).

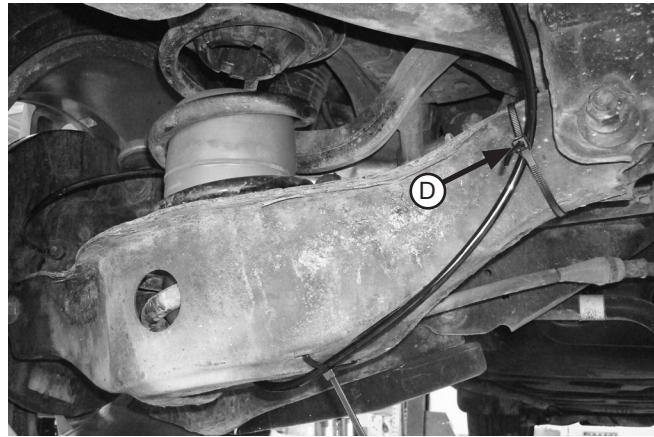


Fig. 7

8. Repeat for the passenger's (right) side by routing the air line forward of the lower control arm. Install an air line heat shield (M) onto the air line and position it on lower control arm as shown (Fig. 8). Zip tie like the driver's (left) side.



Fig. 8

9. Route the air line to the top, back side of the rear crossmember, then all the way over to the driver's (left) side above where the other air line is, above the lower control arm pivot point (Fig. 9). Secure the air line to the crossmember or wiring using the zip ties.

NOTE Tee installation shown.

10. Per the *Installing the Air Lines* section, install a tee (J) at the upper portion of the crossmember (Fig. 9) using three air line clamps (L).

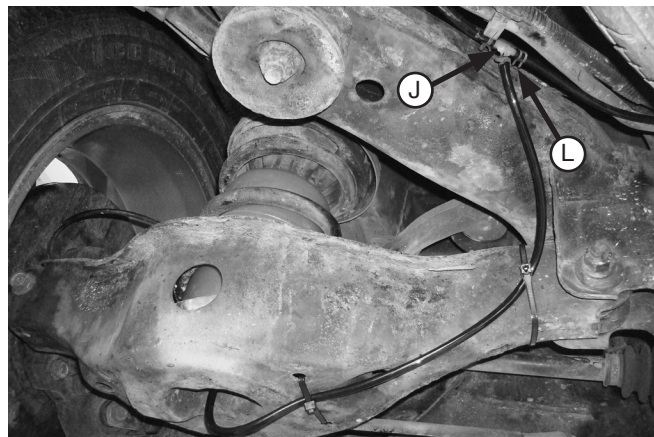


Fig. 9

11. The following is one example of where you can install the Schrader valve (K). Route the remaining leg of the air line from the tee, back to the back bumper close to the push pin holding the rear bumper cover on (Fig. 10). Remove the push pin holding the rear bumper cover onto the bracket.



Fig. 10

12. Install the Schrader valve (K) per *Installing the Air Lines* section (Fig. 11).



Fig. 11

Installing the Air Lines

1. A single-path air line installation is recommended for vehicles that typically have even weight distribution (Fig. 12). If weight in the vehicle varies from side to side and unequal pressures are needed to level the load, use a dual-path installation. For dual-path air line installations, eliminate the tee fitting (J) and route separate air lines for both air springs (Fig. 13).

Single-Path Air Line Routing

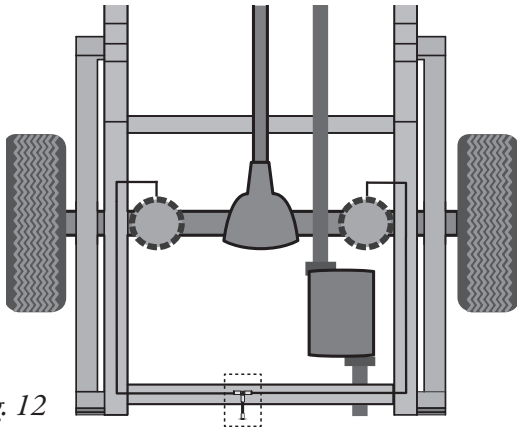


Fig. 12

Dual-Path Air Line Routing

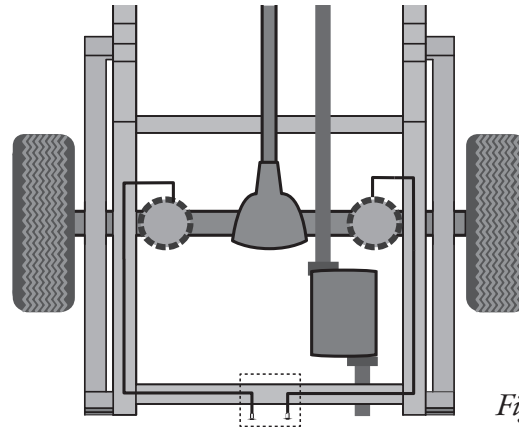


Fig. 13



TO PREVENT THE AIR LINE FROM MELTING, MAINTAIN AT LEAST 6" (152MM) FROM THE EXHAUST SYSTEM TO THE AIR LINE.

2. If installing a single-path air line, choose a location for the tee fitting (J) on the cross member as noted in step 6. Determine and cut adequate length of air line (C) to reach the tee from left and right side air springs. Make clean, square cuts with a razor blade or hose cutter (Fig. 14). Do not use scissors or wire cutters.



Fig. 14

3. Leave sufficient air line slack to prevent any strain on the fitting during axle motions.
4. Use this procedure (Fig. 15) for all air line connections:
 - a. Slide the air line clamp onto the air line.
 - b. Push the air line and air line clamp (L) over the barbed stem so that the air line covers all the barbs.
 - c. Compress the ears on the air line clamp with pliers and slide it forward to fully cover the barbs.

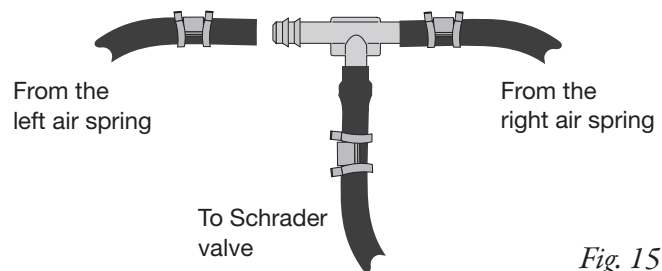


Fig. 15

5. Select a location for the Schrader valve (K), ensuring that the valve will be protected and accessible with an air line (Fig. 16). Drill a 5/16" (8mm) hole, if necessary. Determine and cut adequate length of air line to reach from the tee to the Schrader valve or from the air springs to the valve if using a dual-path installation.

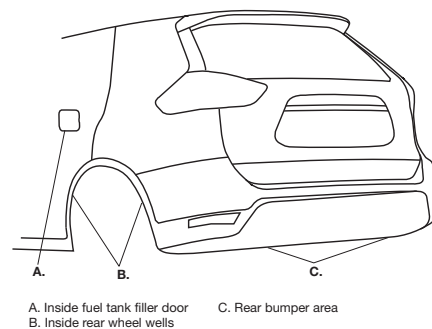


Fig. 16

6. Drill a 5/16" (8mm) hole for the Schrader valve (K) and mount as shown (Fig. 17). Install the air line on the Schrader valve first. The rubber washer (G) serves as an outside weather seal.



DO NOT INFLATE THE AIR SPRINGS BEFORE READING THE MAINTENANCE AND USE GUIDELINES IN THIS INSTALLATION GUIDE AS WELL AS THE USER GUIDE INCLUDED WITH THIS KIT.

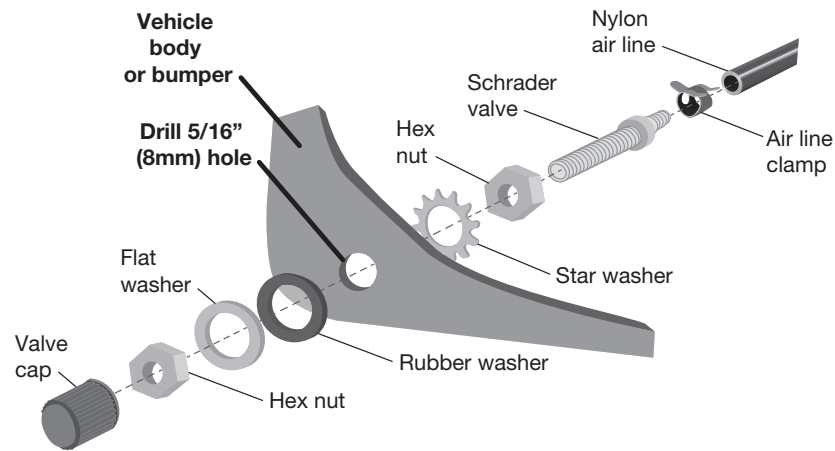


Fig. 17

7. Finish the installation by installing the rear wheels and torquing them to the recommended factory specifications.

COMPLETE THE INSTALLATION

1. Once the air line has been installed, raise the suspension, or lower the body completely and remove the safety stands. Inflate the air springs as stated in the next section and check for leaks.

Before Operating

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 air spring. 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** — After 500 miles (800km), recheck all bolts for proper torque.
- ❑ **Road test** — The vehicle should be road tested after the preceding tests. Inflate the air 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.

MAINTENANCE AND USE GUIDELINES

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 35 PSI (2.4BAR).
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.
4. Upon successful completion of the installation, follow these pressure requirements for the air springs.



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.

ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 35 PSI (2.4BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.

Notes

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.



Thank you for purchasing Air Lift Products — the Authorized Installer's choice!

Need Help?

Contact Air Lift Company Customer Service at (800) 248-0892
or email service@airliftcompany.com.

For calls outside the U.S. or Canada, dial (517) 322-2144.



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