



INSTALLATION GUIDE



INFINITI Q50 AWD

FRONT APPLICATION

Kit 76046

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 which could result in damage to the vehicle, minor to severe personal injury or death.



**Scan the QR Code
to learn more about
your warranty.**

TABLE OF CONTENTS

P.02

Introduction

Notation Explanation

P.03

System Overview

Hardware Content

P.04

Install the System

Important Safety Notices

Section 1. Prepare the Vehicle

Section 2. Stock Suspension Removal

Section 3. Install the Kit Components

Section 4. Route the Air Lines

After Initial Installation of Sleeve-Style Dampers

P.08

Before Operating

Set the Ride Height

Torque Specifications

Suggested Driving Air Pressure

Maximum Air Pressure

Check for Binding

Installation Checklist

Damping Adjustment

Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Infiniti Q50 AWD. Read these installation instructions to correctly and safely set up the vehicle for a #lifeonair.

Air Lift assumes that the installer has the mechanical knowledge and ability to work on vehicle suspension systems and has basic tools necessary to complete a suspension replacement project. Special tools needed to complete the installation are noted on the System Overview page.

Air Lift 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 Performance at **(800) 248-0892** or visit **www.airliftperformance.com**.

An Air Lift Performance air management system is highly recommended for this product. Learn more at **air-lift.co/productlines**.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information 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.



TECH TIP

Used to provide helpful tips to ease the installation process.

System Overview

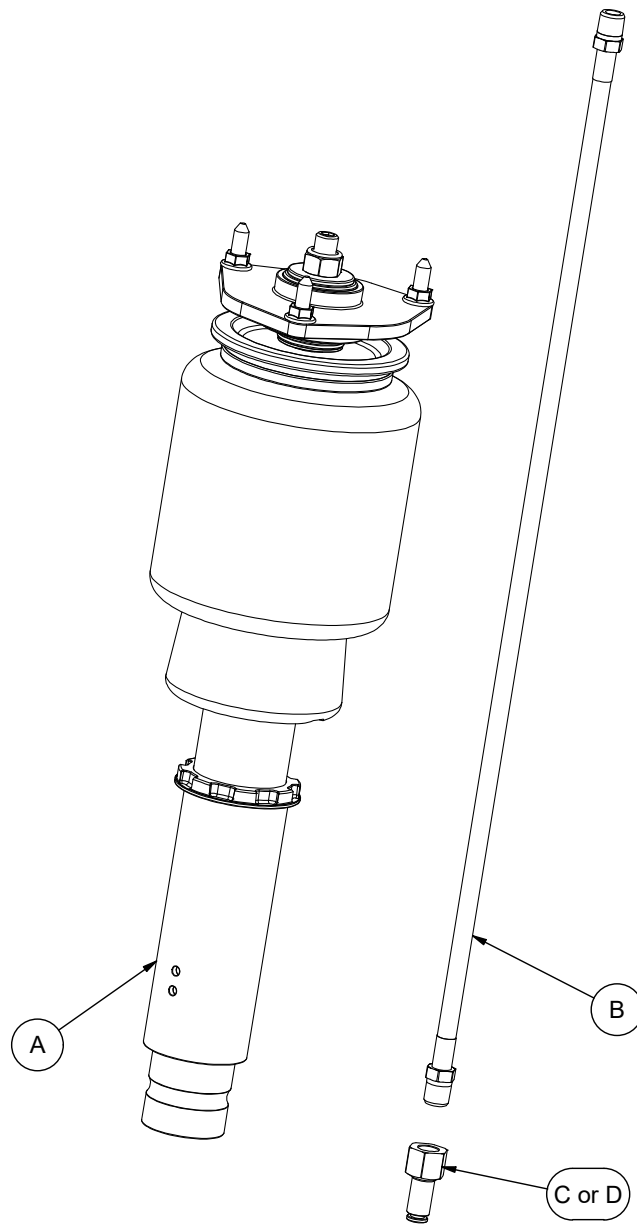


Fig. 1

HARDWARE CONTENT

Item	Part #	Description	Qty
A	35774	SHOCK ASSEMBLY, Q50 AWD, F	2
B	20997 C	LEADER LINE, 1/4" ID	2
C	21810	1/4" FNPT X 1/4" PTC AIR FITTING, DOT	2
D	21987	1/4" FNPT X 3/8" PTC AIR FITTING, DOT	2



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

Install the System

**NOTES**

See important safety notices on page 2.

SECTION 1. PREPARE THE VEHICLE

1. Elevate and support the vehicle using its approved lifting points. Remove the front wheel and support the hub assembly.

**CAUTION**

USE JACK STANDS TO SUPPORT THE VEHICLE.

SECTION 2. STOCK SUSPENSION REMOVAL

1. Disconnect the end link from the sway bar (Fig. 2).

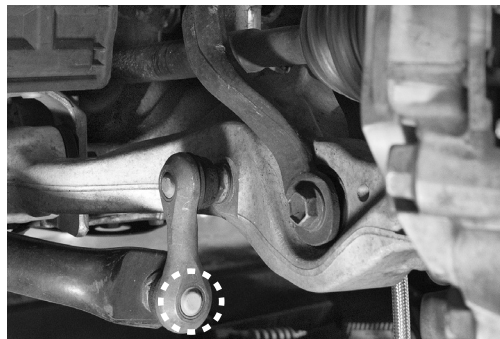


Fig. 2

2. Remove the shock's lower pinch bolt and nut. Slide the lower mount off the shock (Fig. 3).

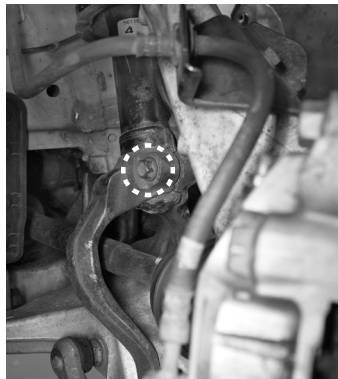


Fig. 3

3. Remove the upper mount nuts (Fig. 4).



Fig. 4

4. Remove the shock.

SECTION 3. INSTALL THE KIT COMPONENTS



PLEASE READ - IMPORTANT INSTALLATION INFORMATION



FOR COIL TO AIR UPGRADE KIT INSTALLATIONS ONLY: Please refer to the included Coil to Air Upgrade Kit installation guide (MN-2000) for details on how to disassemble the coilovers and assemble the air springs.

Also refer to your control system installation guide to ensure the installation of your air suspension system is complete.



NOTES

All dampers come pre-set to even lengths, and locking collars are pre-tightened. It is always recommended to double-check that the dampers are the same length side to side, and the locking collars are tight.

Please refer to the User Guide included with the kit for any suspension setup adjustments.

1. Begin by installing the leader line into the air spring. Tighten the appropriate fitting to the air line (1 3/4 turns beyond hand-tight). Tighten the leader line into the air spring 1 3/4 turns beyond hand-tight (Fig. 5).

*Representative
Strut Shown

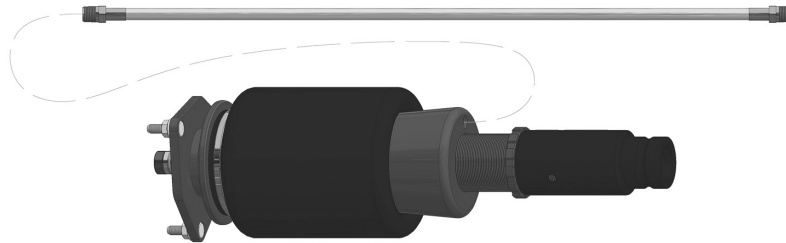


Fig. 5

2. Place the studs on the Air Lift Performance shock into the upper mount holes.
3. Use the jack to raise the suspension. Slide the shock into the lower mount (Figs. 6, 7 & 8).

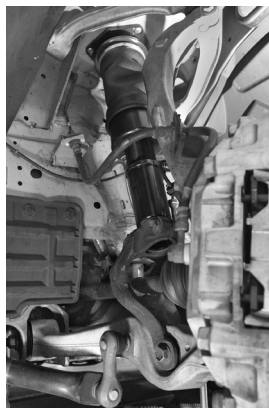


Fig. 6



Fig. 7



Fig. 8

4. Torque the upper mount nuts to 38Nm (28 lb.-ft.).
5. Reinstall the lower mount pinch bolt and nut. Torque to 63Nm (46 lb.-ft.).
6. Reattach the end link to the sway bar. Torque to 84Nm (62 lb.-ft.).

SECTION 4. ROUTE THE AIR LINES



WARNING

AFTER INSTALLATION, ENSURE ALL ORIGINAL EQUIPMENT VEHICLE SAFETY FEATURES ARE PROPERLY CALIBRATED BY A QUALIFIED TECHNICIAN. CHANGING VEHICLE HEIGHT MAY AFFECT FUNCTIONING OF SAFETY SENSORS AND CAMERAS.

1. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the air line that is clear of all suspension and steering components.
2. Routing should allow for the suspension to extend and steer without kinking, pulling the line tight, or rubbing on other components. Following the brake line routing is often a good place to start. Check clearances to all other components.



PLEASE READ - IMPORTANT INSTALLATION INFORMATION

Please refer to your control system installation guide for more details on air line routing and to ensure the installation of your air suspension system is complete.

AFTER INITIAL INSTALLATION OF SLEEVE-STYLE DAMPERS



CAUTION

DO NOT CYCLE THE SUSPENSION WITH THE AIR LINE CONNECTED TO THE LEADER LINE WITHOUT FIRST ADDING AIR SPRING PRESSURE. DOING SO MAY CAUSE THE AIR SPRING TO IMPROPERLY INFLATE (FIG. A). IT IS SAFE TO CYCLE THE SUSPENSION TO CHECK FOR CLEARANCES ETC. WITH THE LEADER LINE OPEN TO ATMOSPHERE (DISCONNECTED FROM AIR LINE).



CAUTION

BEFORE SETTING VEHICLE ON THE GROUND FOR THE FIRST TIME, IT IS VERY IMPORTANT TO INFLATE THE AIR SPRINGS TO AT LEAST 3.5BAR (50 PSI). THIS WILL PREVENT ANY POSSIBILITY OF THE AIR SPRING KICKING OUT AND CAUSING A LEAK (FIGS. A, B & C).



Fig. A

Caused by cycling with air line attached without pressure. Remove air-line from spring to release vacuum and re-attach. Inflate to more than 3.5BAR (50 PSI) before lowering car to ground.

Do NOT drive!



Fig. B

Shows what spring looks like after lowering car to ground with less than 3.5BAR (50 PSI) and raising it with air pressure.

Do NOT drive!



Fig. C

Shows what spring looks like when installed correctly.

1. Set the vehicle ride height and torque the lower damper fork bolt to 54Nm (40 lb.-ft.)

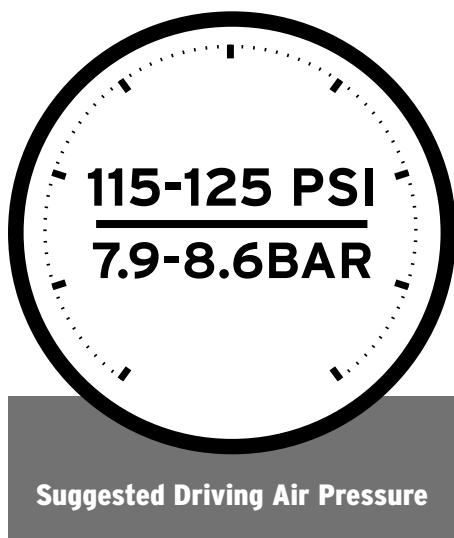
Before Operating

SET THE RIDE HEIGHT

1. Refer to the User Guide supplied with this kit to set up the suspension.

Torque Specifications		
Location	Nm	Lb.-ft.
Upper mount nuts	38	28
Lower mount pinch bolt and nut	63	46
Camber plate adjustment bolts	10	7
Sway bar end link	84	62
Wheel studs	108	80
Braided air lines	1 3/4 turns beyond hand-tight	

2. Upon successful completion of the installation, follow these pressure requirements for the air springs.



CAUTION

FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND **WILL VOID THE WARRANTY.**

CHECK FOR BINDING



CAUTION

MAKE SURE THE FRONT WHEELS ARE STRAIGHT WHEN DEFLATING AND REINFLATING AIR SPRINGS.

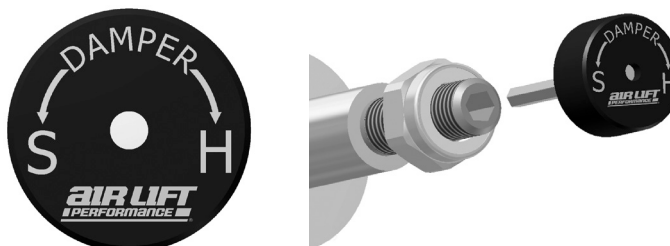
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks.

INSTALLATION CHECKLIST

- ☐ **Clearance** – Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and make sure there is at least 13mm (1/2") clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
- ☐ **Leak** – Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks. All leaks must be eliminated before the vehicle is road-tested.
- ☐ **Heat** – Be sure there is sufficient clearance from heat sources, at least 152mm (6") from 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** – Recheck all bolts for proper torque.
- ☐ **Road** – Inflate the air springs to recommended driving pressures (see previous page). Drive the vehicle 16km (10 miles) 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 paperwork that came with the kit.

DAMPING ADJUSTMENT

1. The dampers in this kit have 32 settings, or "clicks," of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (example shown here) or a 3mm hex key (not included).



2. Turn the adjuster clockwise (H), and the damping settings are hardened, reducing oscillations and body motion. Turn the adjuster counterclockwise (S), and the damping is softened.
3. Each damper will need to be set after installation and your initial drive, as they are not pre-set. It may take multiple adjustments to dial in your ideal ride. A good starting point is in the middle at 16 clicks from full soft, then drive the vehicle and make adjustments either softer or stiffer.

For more information, refer to the user guide.

Thank you for purchasing Air Lift Performance products!

Need Help?

Contact Air Lift Company Customer Service at
(800) 248-0892 or +1 (517) 322-2144 for calls
from outside the U.S. and Canada.



Connect by searching for **Air Lift Performance** #LifeonAir

AIR LIFT
PERFORMANCE

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.airliftperformance.com



**MADE IN USA
WITH GLOBAL
COMPONENTS**

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 airliftperformance.com.