



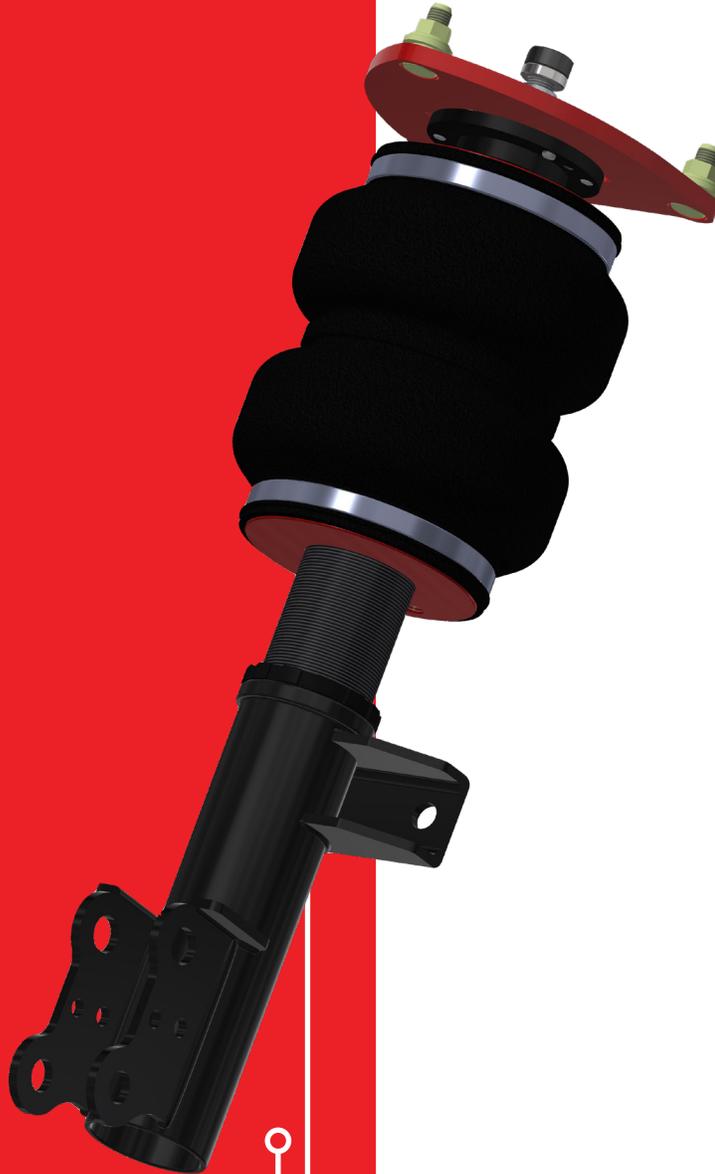
Kit 78574

Mercedes C117

CLA/GLA

Infiniti QX30

Front Application



INSTALLATION GUIDE

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.



TABLE OF CONTENTS

A. Introduction	2
Notation Explanation	2
B. Important Safety Notices	2
C. Installation Diagram	3
Hardware List	3
D. Installing the Air Suspension	4
Preparing the Vehicle	4
Removing the Front Strut	4
Installing the Air Suspension	6
Routing the Air Lines	8
E. Finished Installation Photo	9
F. Before Operating	10
Setting the Ride Height	10
Torque Specifications	10
Suggested Driving Pressure	10
Maximum Air Pressure	10
Check for Binding	10
Installation Checklist	11
Damping Adjustment	11
Limited Warranty and Return Policy	13



A. Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Mercedes C117, CLA/GLA, and Infiniti QX30. 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 Installation Diagram 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 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

Indicates a procedure, practice or hint which is important to highlight.

B. Important Safety Notices

**WARNING**

DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.

**CAUTION**

DO NOT WELD TO OR MODIFY PERFORMANCE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

**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.

C. Installation Diagram

CAUTION

THIS KIT REQUIRES THE REMOVAL OF FACTORY TORQUE-TO-YIELD BOLTS. THESE BOLTS ARE DESIGNED TO BE REPLACED AFTER THEY HAVE BEEN LOOSENED. TORQUE-TO-YIELD BOLTS ARE INDICATED IN THE INSTRUCTIONS AND IN THE TORQUE SPECIFICATION CHART.

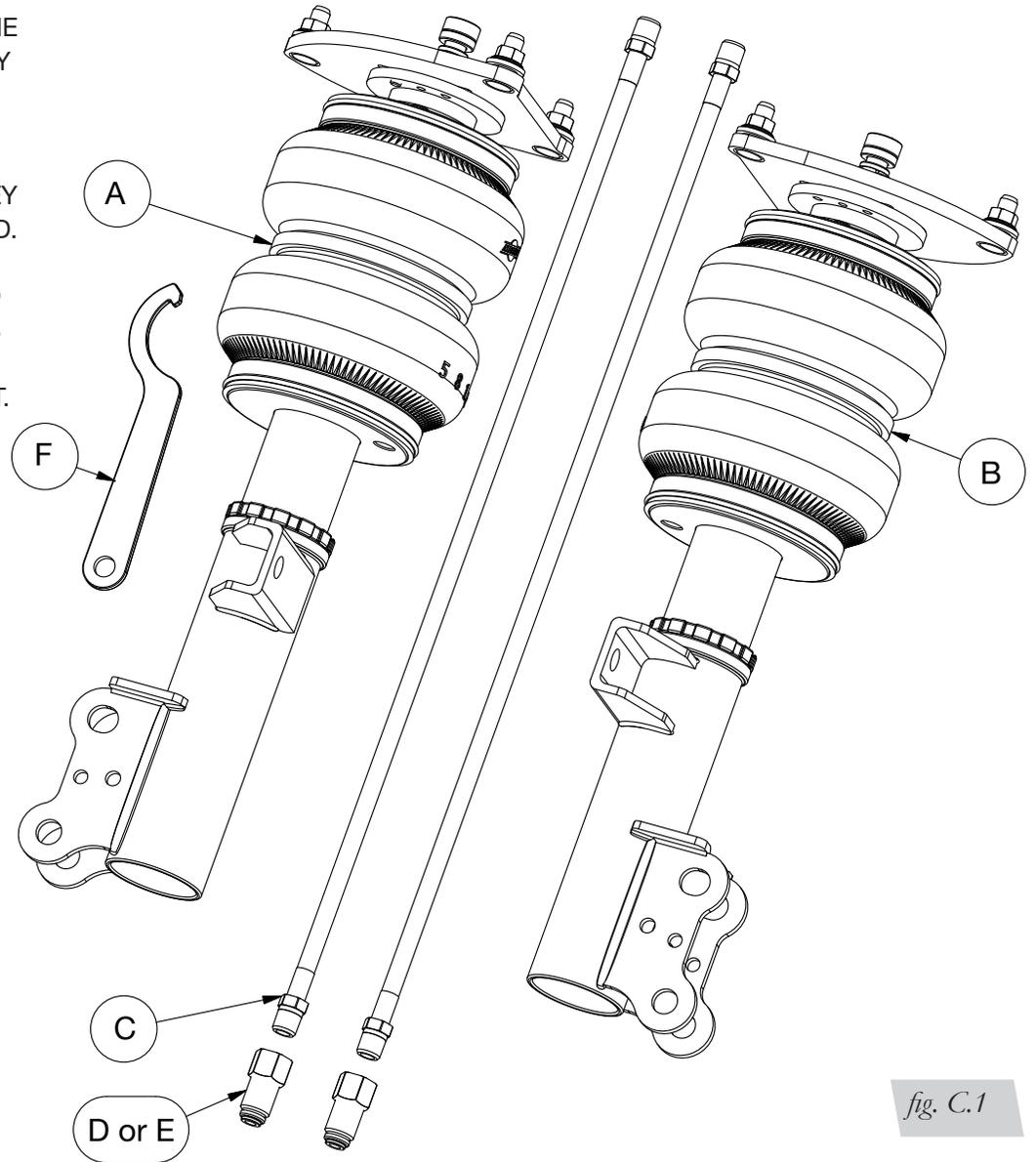


fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	35434	Strut, RF	1
B	35435	Strut, LF	1
C	20997	Leader hose	2
D	21810	Fitting 1/4" PTC-1/4" FNPT	2
E	21987	Fitting 3/8" PTC-1/4" FNPT	2
F	11289	M50 spanner	1

TORQUE-TO-YIELD BOLTS*

Description
Lower damper mount bolts
* These bolts are not included with this kit



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

D. Installing the Air Suspension

NOTE

See "Important Safety Notices" on page 2.

PREPARING THE VEHICLE

1. Elevate and support the vehicle with a hoist or safety stands.
2. Remove the front wheel.

REMOVING THE FRONT STRUT

1. Disconnect the anti-roll bar linkage from the damper (Figs. D.1 & D.2).



fig. D.1



fig. D.2

2. Pull the pins from the plastic brake line bracket and remove from the damper (Figs. D.3, D.4 & D.5).

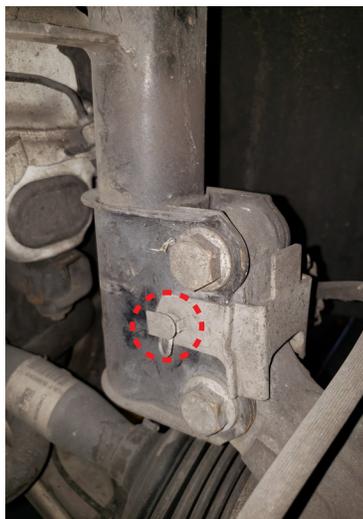


fig. D.3



fig. D.4



fig. D.5

3. Unbolt the knuckle from the damper assembly (Figs. D.6 & D.7).

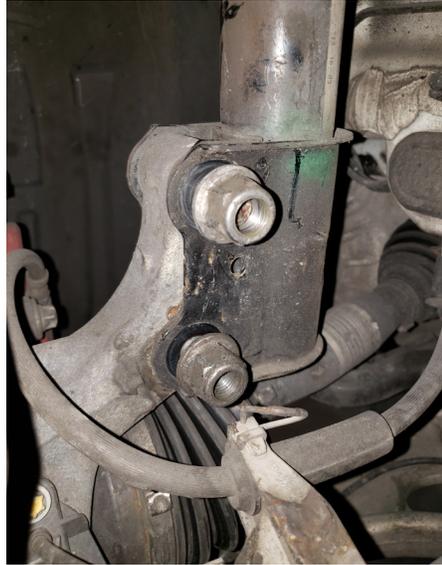


fig. D.6

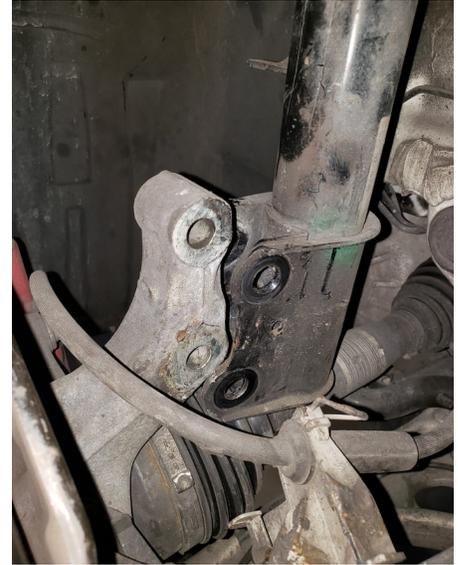


fig. D.7

4. Within the engine compartment, remove the three upper mount bolts (Figs. D.8 & D.9). Remove damper assembly from the vehicle (Fig. D.10).



fig. D.8

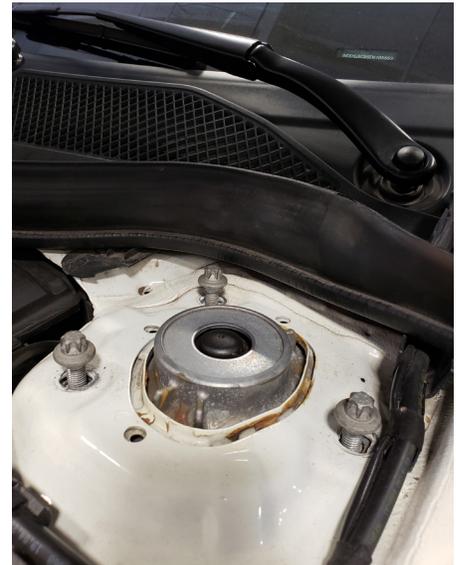


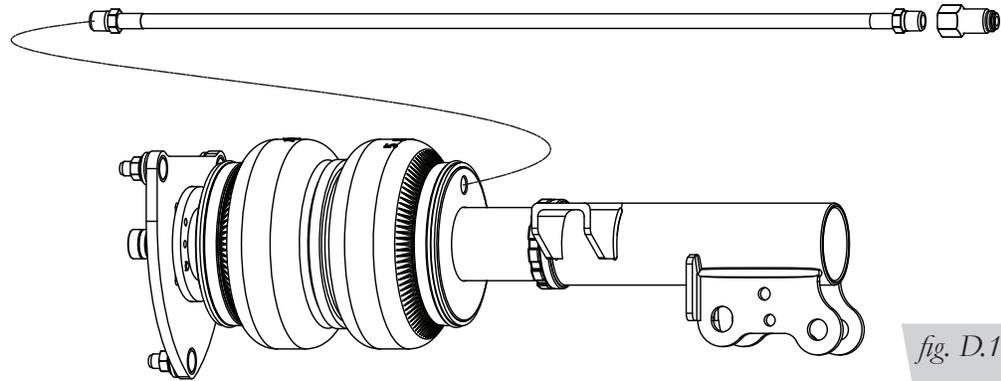
fig. D.9



fig. D.10

INSTALLING THE AIR SUSPENSION

1. Apply thread sealant to the threads of the leader hose. 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. D.11).



2. Attach the camber plate to chassis (Fig. D.12). Place washers with stepped edge downward (Fig. D.13). Torque nuts to 35Nm (26 lb.-ft.) (Fig. D.14).



3. Attach the lower mount to the knuckle. Torque the lower mount bolts to 110Nm + 90 degrees (81 lb.-ft. + 90 degrees) (Fig. D.15).
 - a. Camber can be adjusted at the lower mount and at the camber plate. If adjusting the lower mount camber inboard, maintain clearance between the tire/wheel and locking collar (factory 18" wheels shown) (Fig. D.16).



fig. D.15

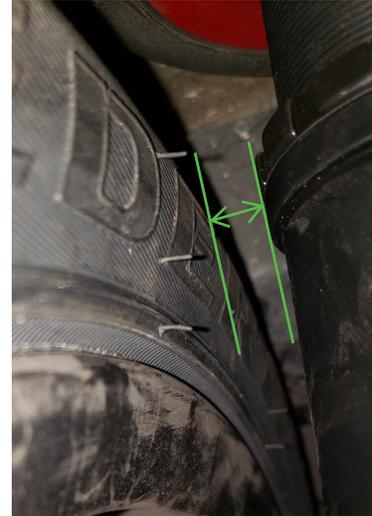


fig. D.16

4. Clip the brake line bracket in place.
5. Attach the anti-roll bar to the damper. Torque to 60Nm (44 lb.-ft.) (Fig. D.17).



fig. D.17

6. Reinstall wheels and torque to 130Nm (96 lb.-ft.).

ROUTING 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.

E. Finished Installation Photo



fig. E.1

F. Before Operating

SETTING THE RIDE HEIGHT

1. With the suspension fully compressed, take a measurement from the fender to a chosen reference point - typically the center of the axle. Record this measurement as max compression (MC),
2. Cycle the suspension to max extension (ME) and record the measurement from the fender to the same reference point.
3. Add ME and MC, then divide the total by 2. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (Fig. F.1).

Formula for Calculating Ride Height
$(ME+MC) \div 2 = \text{MID STROKE}$

fig. F.1

4. With the suspension at this position, loosen, then re-torque all suspension bushing pivot joint fasteners to the manufacturer's specifications (Table 1):

Torque Specifications			
Location	TTY*	Nm	lb.-ft.
Lower damper mount bolts	✓	100 + 90 degrees	81 + 90 degrees
Camber plate to chassis		35	26
Anti-roll bar linkage to damper		60	44
Wheel bolts		130	96
Damper locking collar		45 degrees beyond hand tight	
Air line and fitting		1 3/4 turns beyond hand tight with thread sealant	

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
45-60 PSI (3.1-4.1BAR)	125 PSI (8.6BAR)
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND WILL VOID THE WARRANTY.	

Table 2

CHECK FOR BINDING

1. Inflate and deflate the system (do not exceed 125 PSI [8.6BAR]) 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 75-90 PSI (5.2-6.2BAR) and check all connections for leaks.



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

INSTALLATION CHECKLIST

- Clearance** — Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and make sure there is at least 1/2" (13mm) 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 75-90 PSI (5.2-6.2BAR) 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 6" (152mm) 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 springs to recommended driving pressures (Table 2). 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 paperwork that came with the kit.

DAMPING ADJUSTMENT

1. The dampers in this kit have 30 settings, or "clicks," of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (Figs. F.1 & F.2) 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 in this kit is preset to "-17 clicks." This means that the damper is adjusted 17 clicks away from full stiff, which starts at 0. Counting up from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2015 Mercedes AMG CLA45.

For more information, refer to the User Guide.



fig. F.1



fig. F.2

Notes

Limited Warranty and Return Policy

Air Lift Company provides a 1-year limited warranty to the original purchaser of Air Lift Performance damper kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on vehicles 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 online at www.airliftperformance.com/warranty.

For additional warranty information contact Air Lift Company customer service.

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 www.airliftperformance.com.

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.



CONNECT BY SEARCHING FOR **AIR LIFT PERFORMANCE** #LIFEONAIR



Thank you for purchasing Air Lift Performance products!



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

Printed in the USA
JJC-0119

California: ⚠️WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov