Kits
78674 (with shocks)
78676 (no shocks)

Mercedes C117
CLA/GLA
Infiniti QX30

Rear 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.

MN-1088 • (011901) • ERN 9093

TABLE OF CONTENTS

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, 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.

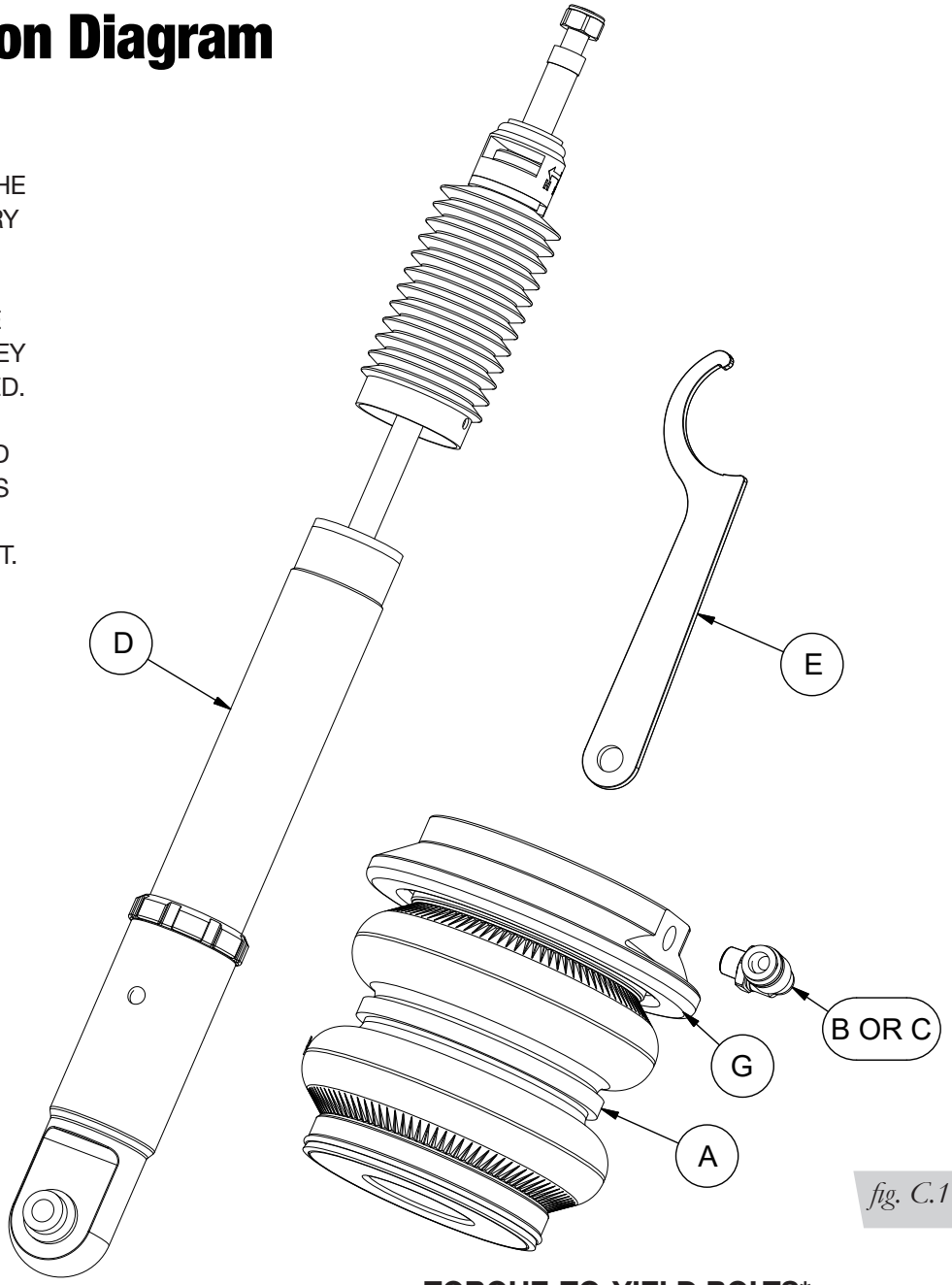

fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	58554	Air spring 2B6	2
B	21851	1/4 MNPT x 3/8 PTC Elbow	2
C	21779	1/4 MNPT x 1/4 PTC Elbow	2
D	26882	Shock, Rear	2
E	11291	M44 Spanner	1
F*	21714	O Ring	2
G	11312	Roll Plate, 2B6 Upper	2
H*	18628	M10, Split Lock Washer	6
I*	17516	M10-1.5x25 SHCS, CZ	6

* Not shown on Figure C.1

TORQUE-TO-YIELD BOLTS*

Description
Lower control arm to wheel bearing housing
Lower control arm to axle carrier (cam bolt)

* These bolts are not included with this kit

STOP! 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.

⚠ CAUTION

RAISE THE REAR OF THE VEHICLE WITH A JACK AT THE APPROVED LIFTING POINTS AND USE SAFETY STANDS TO SUPPORT THE VEHICLE.

PREPARING THE VEHICLE

1. Gain access to the rear upper shock mounts by removing the storage compartment trim and side panels (Figs. D.1, D.2 & D.3).

fig. D.1

fig. D.2

fig. D.3

2. Unthread the shock upper mount nuts (Fig. D.4).

fig. D.4

3. Elevate and support the vehicle with a hoist or safety stands.
4. Remove the rear wheel (Fig. D.5).

fig. D.5

REMOVING THE SHOCKS AND SPRINGS

1. Remove the fender liner (Fig. D.6).

fig. D.6

2. Unthread the lower shock bolt and remove the shock (Figs. D.7 & D.8).

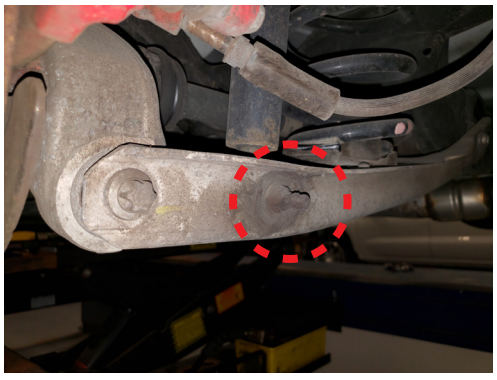

fig. D.7

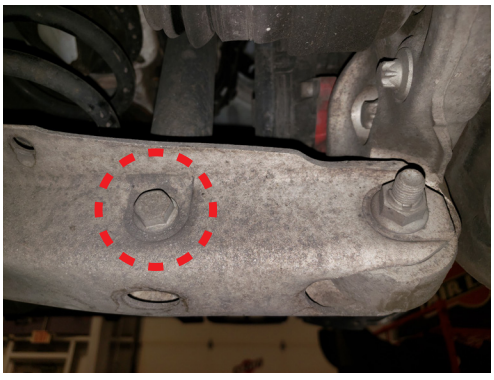

fig. D.8

3. Support the lower control arm and remove the outer bolt from the wheel bearing housing. Lower the control arm and remove the spring and rubber isolators (Figs. D.9, D.10 & D.11).

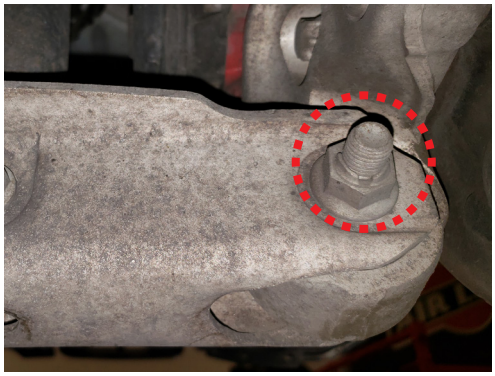

fig. D.9

fig. D.10

fig. D.11

4. Unfasten the upper mount from the shock rod (Fig. D.12). Retain the mount.

fig. D.12

INSTALLING THE AIR SUSPENSION

1. Remove the rod nut from the new shock assembly while retaining the rod spacer (Fig. D.13). Apply the upper mount to the rod, over the spacer. Reapply the rod nut and torque to 25Nm (18 lb.-ft) (Fig. D.14).
    a. When assembling the rod to the mount, orient the adjuster so the letters face outboard when installed on the vehicle (Fig. D.15).

fig. D.13

fig. D.14

fig. D.15

2. Attach the shock upper mount to the chassis. Torque nuts to 50Nm (37 lb.-ft.) (Fig. D.16).

fig. D.16

3. Tighten the appropriate fitting to the air spring 1 3/4 turns beyond hand-tight. Make certain the fitting flats are parallel to the top side of the air spring (Fig. D.17).

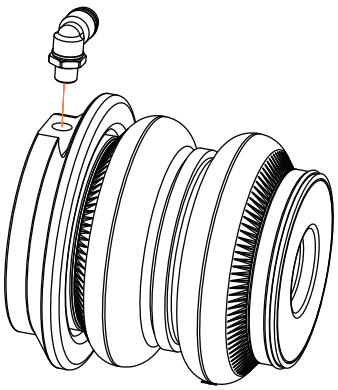

fig. D.17

4. With the fitting on the top side, apply the air spring over the lower spring land and position the fitting in a desired location, free from air line routing obstructions (Figs. D.18 & D.19).

fig. D.18

fig. D.19

5. Attach the lower control arm to the wheel bearing housing. Torque at ride height 50Nm + 90 degrees (37 lb.-ft. + 90 degrees) (Fig. D.20).

fig. D.20

6. Attach the shock to the lower control arm. Torque at ride height 50Nm + 90 degrees (37 lb.-ft. + 90 degrees) (Fig. D.21).

fig. D.21

7. Reinstall the fender liner (Figs. D.22 & D.23).
    a. Adjusting the damping involves removing the fender liner or cutting access through the fender liner. Take note of where the adjuster is in relation to the liner and cut and “X” in the liner (Fig. D.24). This will allow access without removing the liner while preventing debris from collecting behind it.

fig. D.22

fig. D.23

fig. D.24

8. Reinstall wheel and torque to 130Nm (96 lb.-ft.).
9. Reattach interior storage compartment trim (Figs. D.25 & D.26).

fig. D.25

fig. D.26

ROUTING THE AIR LINES

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 components and axle.
2. Routing should also allow for the suspension to extend without kinking or 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.

⚠ 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.

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)÷2=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.
Shock rod nut		25	18
Upper shock mount nuts		50	37
Lower shock mount bolt		50	37
Lower control arm to wheel bearing housing	✓	50 + 90 degrees	37 + 90 degrees
Lower control arm to axle carrier (cam bolt)	✓	50 + 90 degrees	37 + 90 degrees
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
35-60 PSI (2.4-4.1BAR)	**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.

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 (Fig. 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.

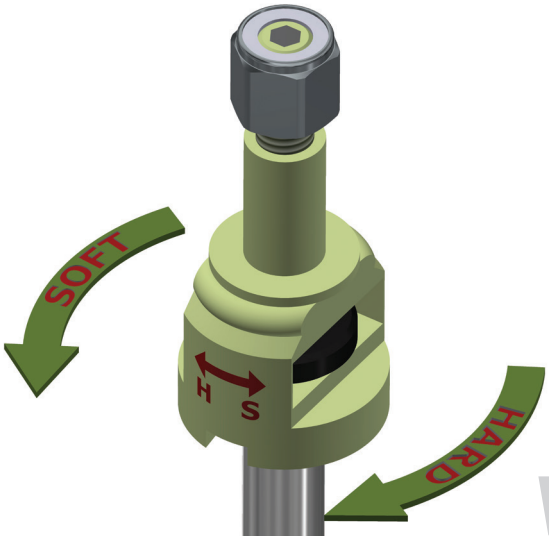

fig. F.2

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.

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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