AIR LIFT PERFORMANCE®

INSTALLATION GUIDE

BMW E30 (EXCLUDES AWD AND M3)

FRONT APPLICATION

Kit 76030

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.

MN-2028 • (012604) • ERN 10491

Scan the QR Code to learn more about your warranty.

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Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the BMW E30 (excludes AWD and M3). 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

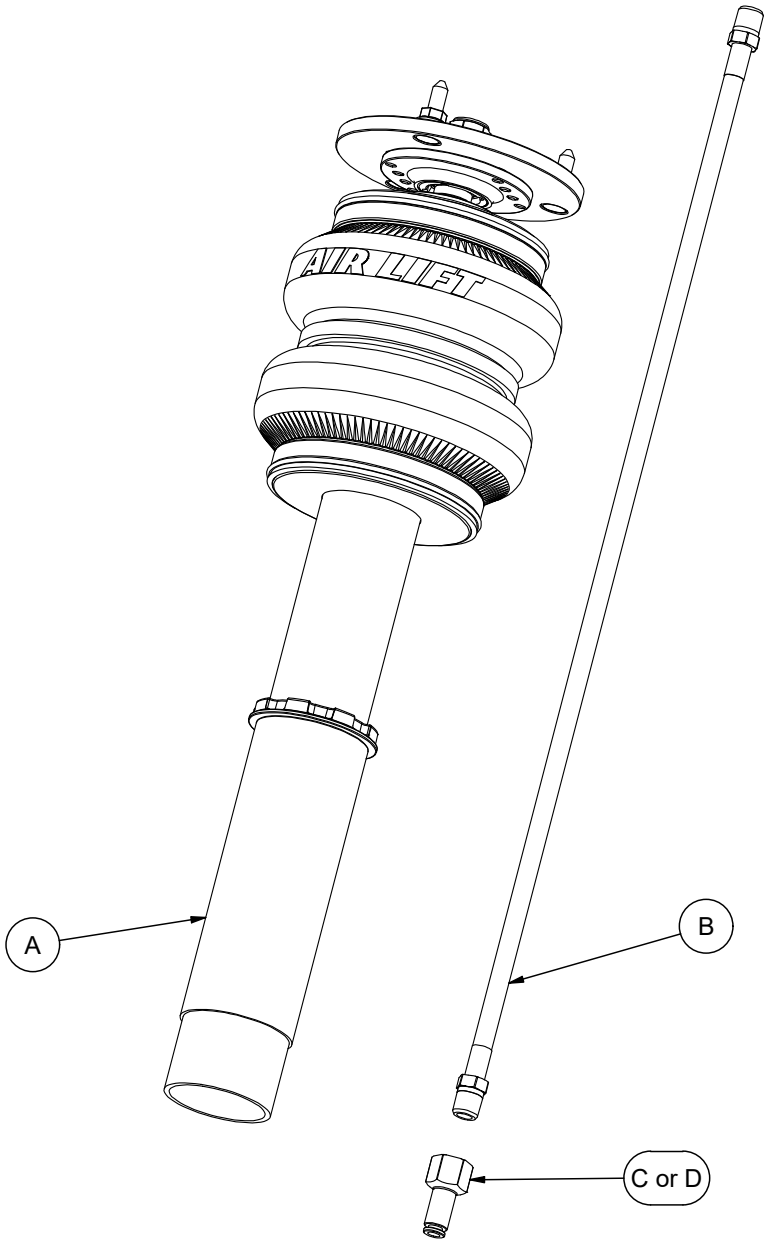


Fig. 1

HARDWARE CONTENT

Item	Part #	Description	Qty
A	35763	STRUT ASSEMBLY, BMW E30, FRONT	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

STOP! 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 with a hoist or jack stands.

2. Remove the front wheel and support the hub assembly.

SECTION 2. STOCK SUSPENSION REMOVAL

1. Disconnect the sensor wires from the strut (Fig. 2).

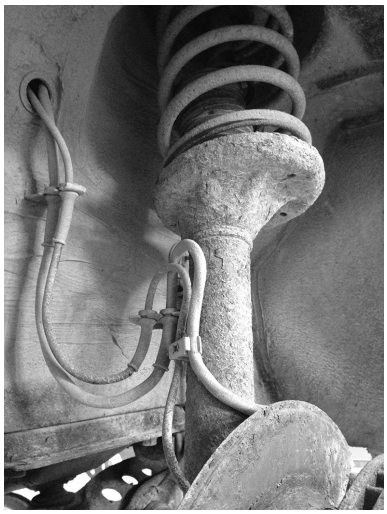


Fig. 2

2. Unbolt the wheel speed sensor from hub assembly (Fig. 3).

Fig. 3

3. Unbolt and remove caliper bracket from the hub assembly (Fig. 4). Do not hang the caliper from the brake hose (Fig. 5).

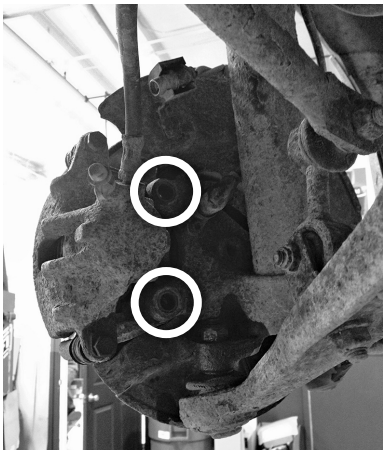


Fig. 4

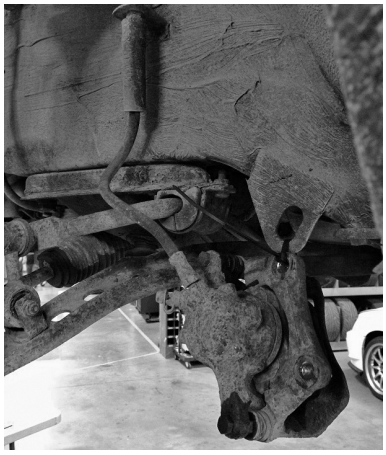


Fig. 5

4. Disconnect the stabilizer bar end link from the lower control arm (Fig. 6).

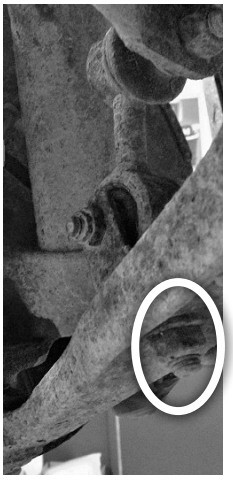


Fig. 6

5. Unbolt the tie rod from the hub (Fig. 7).

Fig. 7

6. Unbolt and remove the lower control arm ball joint from the hub (Fig. 8).

Fig. 8

7. Within the engine compartment, unthread the three upper mount nuts (Fig. 9) and remove the strut assembly from the vehicle (Fig. 10).

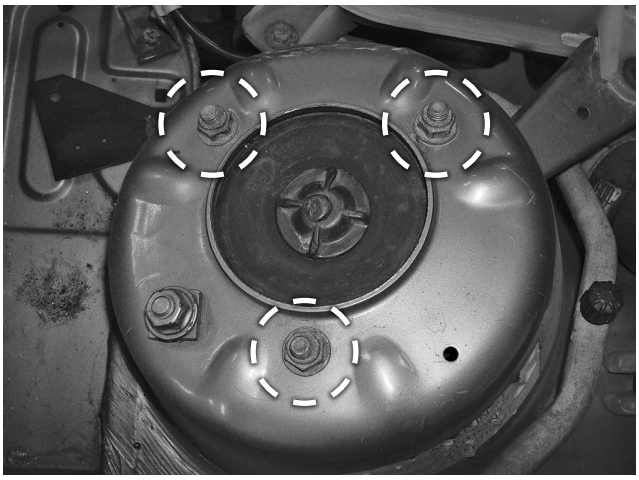


Fig. 9

Fig. 10

SECTION 3. PREPARING THE HUB

1. Clean the rust and debris from the hub to strut tube.

2. Scribe a line at 50mm from the hub to strut tube joint (Fig. 11).

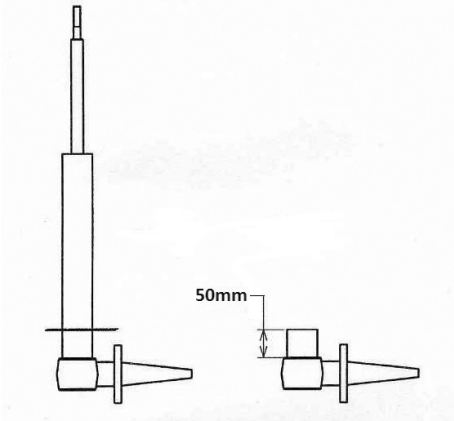


Fig. 11

3. Cut squarely around the tube at this 50mm mark. You need only to cut through the outer tube material.

CAUTION CUTTING DEEPER WILL RESULT IN DAMAGE TO THE DAMPER CARTRIDGE WITHIN.

4. Remove the strut housing with damper from the hub (Fig. 12). Remove the burrs, sharp edges, debris and rust (Fig. 13).

Fig. 12

Fig. 13

SECTION 4. ASSEMBLING THE STRUT TO THE HUB

1. Loosen the lower locking collar and remove the lower mount from the new strut assembly (Fig. 14). Do not lose the wave spring between the locking collar and adapter tube.

Fig. 14

2. Remove the finish from the lower half inch of the mount.

3. Slide the lower mount over the stub of the strut tube making sure it bottoms on the knuckle (Fig. 15).

Fig. 15

WARNING A QUALIFIED WELDER IS RECOMMENDED TO PERFORM THE FOLLOWING WELDS. PROPER WELD PENETRATION IS ESSENTIAL TO CREATING A STRONG ASSEMBLY. THIS IS NOT A GOOD OPPORTUNITY TO LEARN TO WELD!

4. Weld the outside perimeter of the lower mount to the hub (Fig. 16).

Fig. 16

5. Thread the damper into the lower mount. Measure from the bottom side of the locking collar to the underside of the air spring. Set to 125mm +/-2 mm (each full rotation of the cartridge is 1.5mm) (Fig. 17). This is a good, initial setting that allows maximum drop and proper tire clearance but may need to be adjusted for different vehicles or wheels. Orient the air spring air port furthest away from the hub. Torque the locking collar against the lower mount 45 degrees beyond hand-tight.

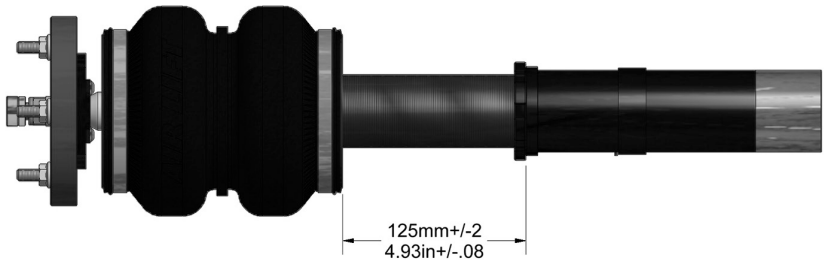


Fig. 17

SECTION 5. 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 hose into the air spring. Tighten the appropriate fitting to the air line (1 3/4 turns beyond hand tight). Tighten the leader hose into the air spring 1 3/4 turns beyond hand-tight (Fig. 18)

*Representative strut shown

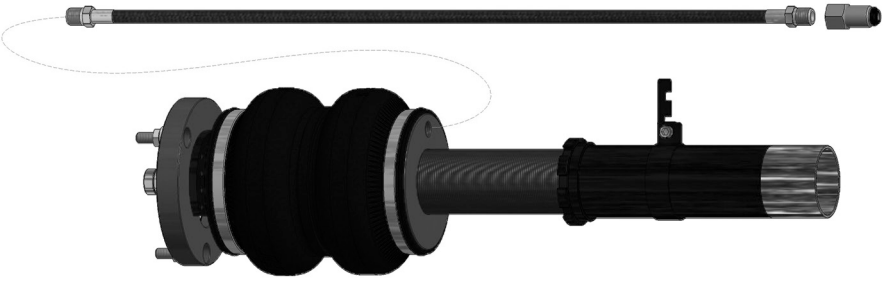


Fig. 18

2. Attach the camber plate to the chassis with the supplied nuts (Fig. 19). Torque to 22Nm (16 lb.-ft.).

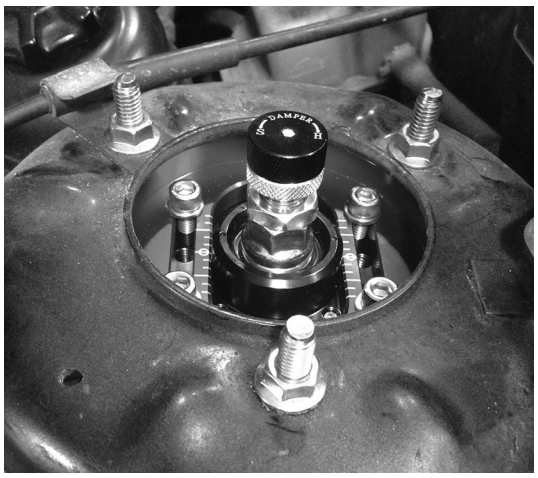


Fig. 19

3. Reattach the lower control arm ball joint to the hub assembly (Fig. 20). Torque to 65Nm (47 lb.-ft.).

Fig. 20

4. Insert and seat the tie rod ball joint to the hub (Fig. 21). Torque 65Nm (47 lb.-ft.).

Fig. 21

5. Reinstall the caliper bracket to the hub (Fig. 22). Torque to 65Nm (47 lb.-ft.).

Fig. 22

6. Reattach the wheel speed sensor to the hub (Fig. 23). Torque to 5Nm (44 lb.-in.).

Fig. 23

7. Clip the sensor wires to the lower mount tab (Fig. 24).

NOTE *Tab can be moved up, down or rotated to better accommodate sensor wires.*

Fig. 24

8. Reattach the stabilizer bar end link to the lower control arm (Fig. 25). Torque to 22Nm (16 lb.-ft.).

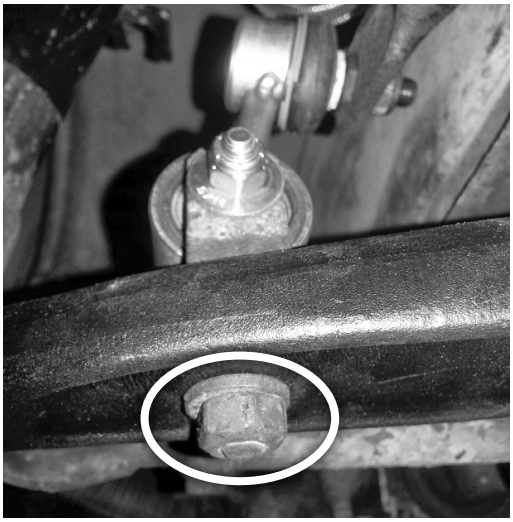


Fig. 25

SECTION 6. 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.

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.	lb-in
Brake caliper bracket bolts	86-110	63-81	
Stabilizer bar end link	22	16	
Tie rod to spindle	65	47	
Control arm to spindle	65	47	
Camber plate to chassis	22	16	
Wheel speed sensor bolt	5	-	44
Wheel bolts	120+/-10	89+/-1	
Strut rod nut (w/ thread locking compound)	34	25	

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

Suggested Driving Air Pressure

Maximum Air Pressure

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.

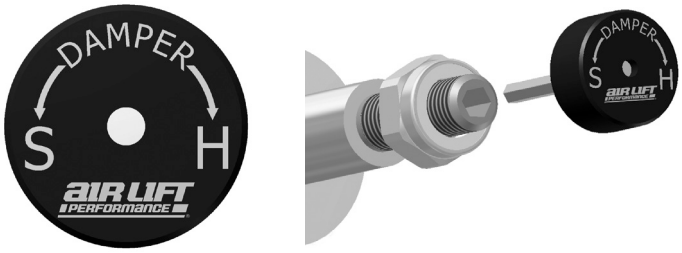
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks.

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

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