



## INSTALLATION GUIDE



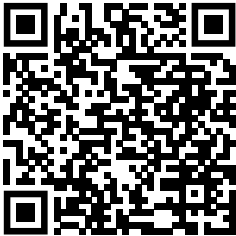
### Kit 75636/75646

## BMW E36, E46 Chassis *REAR APPLICATION*

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.*

# **Protect your Air Lift Performance Purchase by Completing your Warranty Registration**



Thank you for purchasing an Air Lift Performance product!

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

# ***TABLE OF CONTENTS***

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## **P.02**

### **Introduction**

Notation Explanation

---

## **P.03**

### **System Overview**

---

## **P.04**

### **Installing the System**

Important Safety Notices

Section 1. Prepare the Vehicle

Section 2. Stock Suspension Removal

Section 3. Install the Air Suspension

Section 4. Route the Air Lines

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## **P.08**

### **Before Operating**

Set the Ride Height

Torque Specifications

Suggested Driving Air Pressure

Maximum Air Pressure

Check for Binding

Installation Checklist

Damping Adjustment

---

## **P.12**

### **Limited Warranty and Return Policy**

# Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the BMW E36/E46. 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](http://www.airliftperformance.com)**.

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

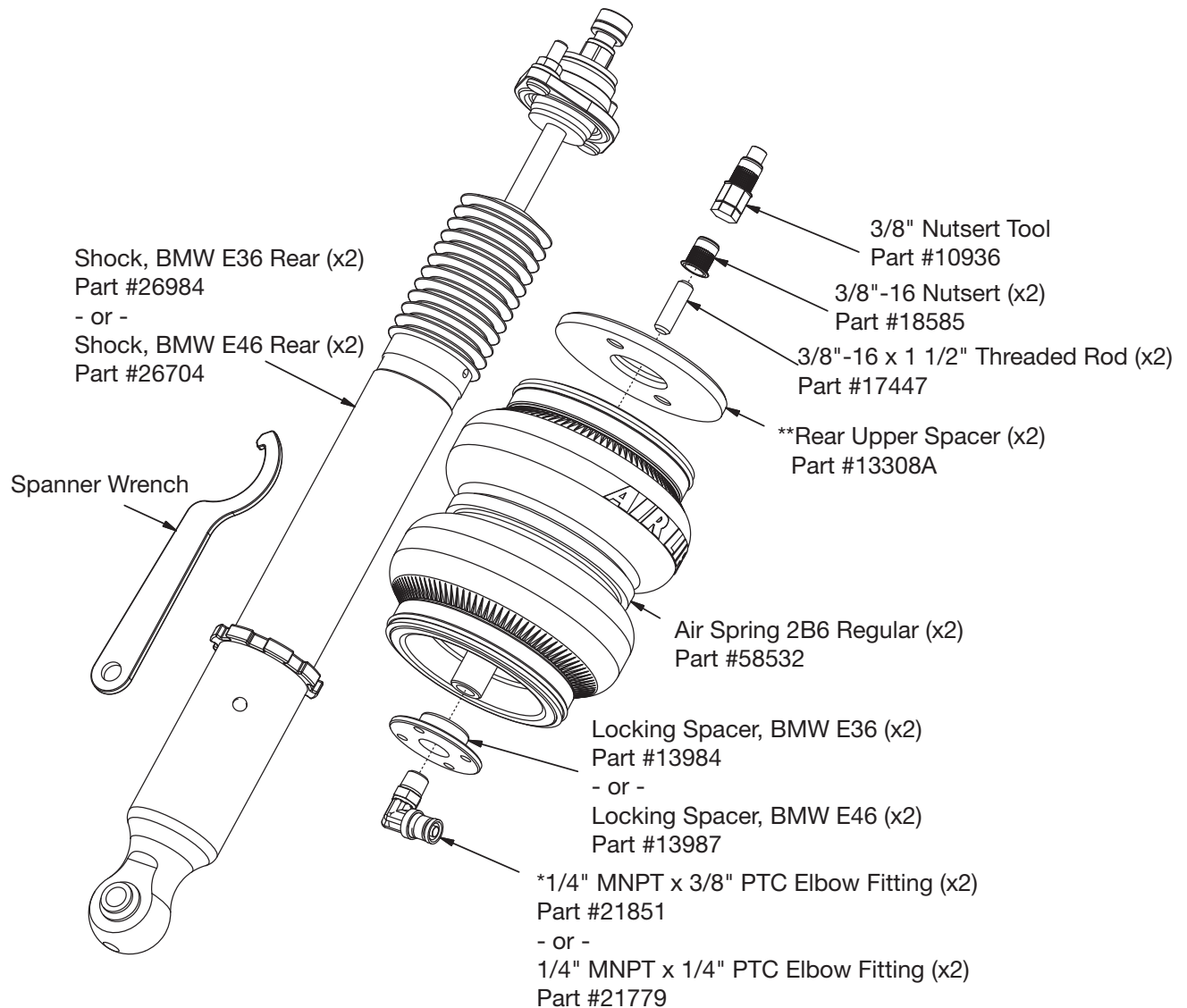
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE VEHICLE OR MINOR PERSONAL INJURY.



### **NOTE**

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

# System Overview



\*1/4" MNPT x 3/8" PTC Elbow Fittings (21851) are NOT included in this kit, but are available as a special order.

\*\*BMW E46 does not use rear upper spacer.



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

# Installing the System

## IMPORTANT SAFETY NOTICES



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



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



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.

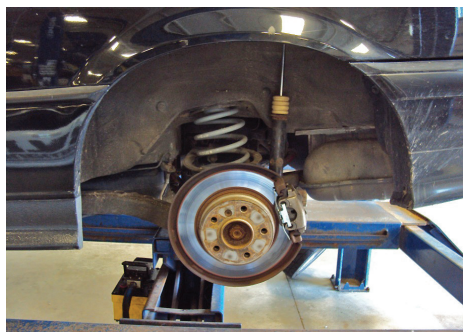
## SECTION 1.

### PREPARE THE VEHICLE



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

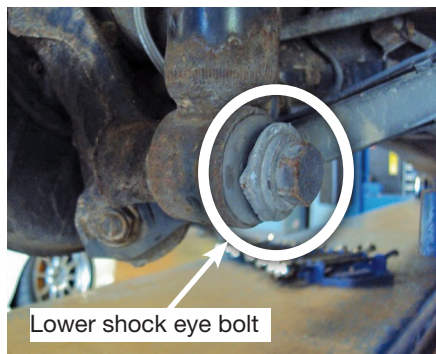
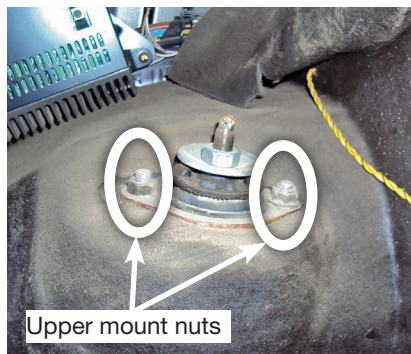
1. Raise the vehicle with a hoist or jack at approved lifting points. Support with safety stands.
2. Remove rear wheels.



## SECTION 2.

### STOCK SUSPENSION REMOVAL

1. Support the trailing arm assembly. Remove the trim panels from within the trunk and unthread the upper mount nuts.
  - a. Convertible models: Shock nuts are located within the convertible top area.
  - b. Some models may require the rear speakers to be removed to gain access to the upper mount nuts before the trim panels can be removed.



2. Unbolt the lower shock bolt and remove the shock from the vehicle.

**NOTE**

*There is a thin gasket on the top of the factory upper mount. Retain this gasket for later use.*



3. Remove the coil spring and isolators from the spring seats.



## SECTION 3.

## INSTALL THE AIR SUSPENSION

1. Use a 17/32" drill bit to enlarge the hole in the upper coil spring perch.

**NOTE**

*The hole MUST be 17/32" for the nutsert to be effective.*

2. Assemble the nutsert and nutsert tool together and insert into the 17/32" hole. Review figures below on how to attach the nutsert to the vehicle.



3. Remove the locking spacer from the air spring air port on the bottom side of the air spring. Place the rear upper spacer around the spring seat. Thread the air spring assembly into the spring seat. Tighten the air spring assembly forcefully by hand.

**NOTE**

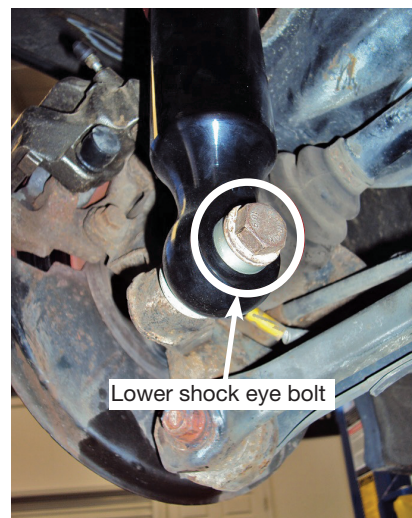
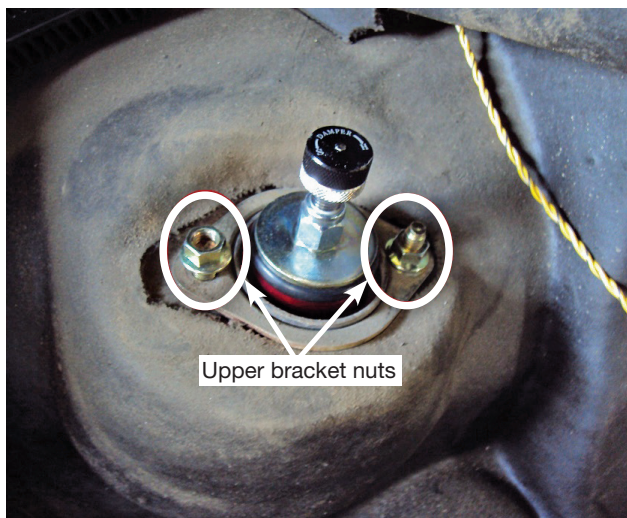
*BMW E46 does not use a rear upper spacer.*



4. Lift the hub assembly and feed the air spring air port through the lower spring seat. Spin the supplied locking spacer onto the lower air port and tighten one turn beyond hand-tight.



5. Apply PTFE (plumber's) tape or thread sealant to the threads of the air fitting and tighten into the lower air spring end cap 1 3/4 turns beyond hand-tight.
6. Place the previously removed gasket on top of the shock upper bracket. Install the shock and torque the upper bracket nuts to 24Nm or 18 lb.-ft. Install the lower shock eye bolt. Do not torque the bolt at this time.



7. Reinstall the wheels. Torque wheels to 107Nm or 79 lb.-ft. (for BMW E36). Torque wheel to 120Nm or 89 lb.-ft. (for BMW E46).
8. Set the vehicle to your desired ride height and torque the lower shock eye bolt. Torque to 100Nm (74 lb.-ft.).

## SECTION 4. ROUTING THE AIR LINES

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 components and axle.
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.

# 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.
Shock upper bracket nuts	24	18
Shock eye bolt	100	74
Trailing arm to rear axle carrier	67	49
Trailing arm to rear axle carrier (grade 10.9)	77	58
Trailing arm to console	110	81
Trailing arm console to body	77	57
Lower control arm to subframe	127	94
Lower control arm to trailing arm	77	57
Upper control arm to subframe	127	94
Upper control arm to trailing arm	77	57
Wheel lugs (BMW E36)	107	79
Wheel lugs (BMW E46)	120	89
Air fitting (use thread sealant)	1 and 3/4 turns beyond hand-tight	

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



**Suggested Driving Air Pressure**



**Maximum Air Pressure**



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



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

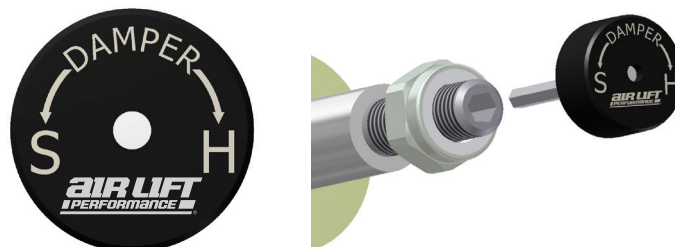
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and 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 30 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 in this kit is preset to “-20 clicks.” This means that the damper is adjusted 20 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.



For more information, refer to the User Guide.

# Notes

# 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](http://www.airliftperformance.com/warranty).

For additional warranty information contact Air Lift Company customer service.



*Thank you for purchasing Air Lift Performance products!*

## Need Help?

The Air Lift Company customer service department is open from 8 a.m. to 8 p.m. ET Monday through Friday. Call (800) 248-0892 or (517) 322-2144 for calls from outside the U.S. and Canada.



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