

Kits 78570 (53mm), **78571** (48.5mm)

Audi B9

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.

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A. Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Audi B9. 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.

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.



INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.



INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.



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



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

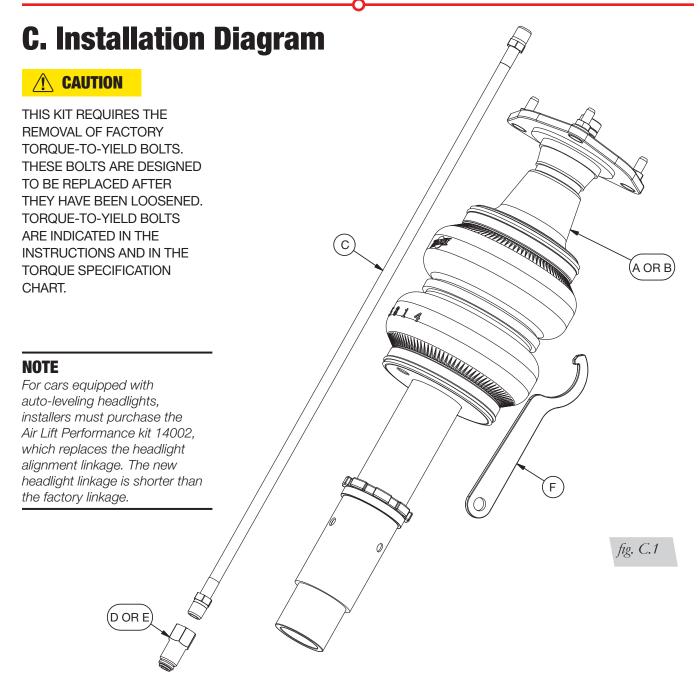


DO NOT WELD TO OR MODIFY PERFORMANCE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.



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.





HARDWARE LIST

Item	Part #	Description	Qty
Α	35429	Audi B9 shock (53mm)	
В	35430	Audi B9 shock (48.5mm)	2
С	20997	Leader line, 1/4" ID	2
D	21810	Union, 1/4" FNPT x 1/4" PTC	2
E	21987	Union, 1/4" FNPT x 3/8" PTC	2
F		Spanner wrench	1

TORQUE-TO-YIELD BOLTS*

Description

Fork to control arm bolt End link bolts

^{*} These bolts are not included with this kit

D. Installing the Air Suspension

NOTE

See "Important Safety Notices" on page 2.



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

REMOVAL OF SUSPENSION

1. Disconnect the adaptive damping suspension connector on top of the shock (if equipped) (Fig. D.1).



fig. D.1

- 2. Remove the upper shock mount bolts (Fig. D.1).
- 3. Remove the headlight level linkage (if equipped) (Fig. D.2).

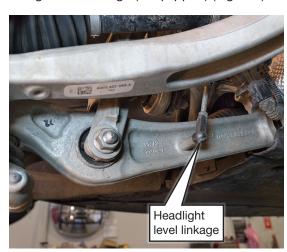
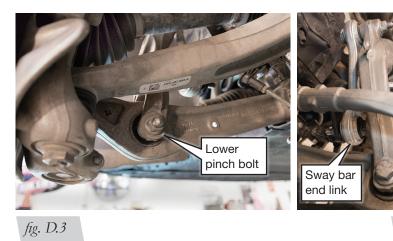


fig. D.2

4. For cars equipped with auto-leveling headlights, installers must purchase the Air Lift Performance kit 33127. The new headlight linkage is shorter than the factory linkage.



5. Remove the lower pinch bolt on the fork mount (Fig. D.3).



6. Remove the sway bar end link from the fork mount (Fig. D.4).

NOTE

Use the jack to support the hub to relieve pressure on the end link bushing.

7. Remove the steering knuckle pinch bolt that connects to the upper control arms. Lower the hub assembly (Fig. D.5).

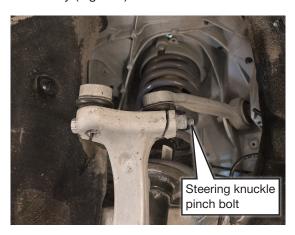


fig. D.5

fig. D.4

8. Slide the damper out of the fork mount and upper mount and remove it from the car. Make sure the shock cap comes with it (Fig. D.6).

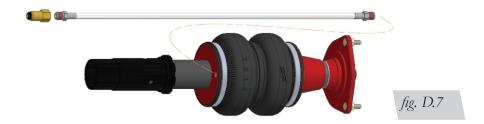


fig. D.6



INSTALLING THE AIR SUSPENSION

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. D.7).



2. Install the shock with the air line on the inboard side (Fig. D.8).



fig. D.8

3. Attach the upper mount nuts. Torque to 27Nm (20 lb.-ft.) (Fig. D.9).



fig. D.9



4. Reconnect the end link to the fork mount while inserting the lower end of the shock into the fork mount. Torque the fork mount pinch bolt to 40Nm (30 lb.-ft.) (Fig. D.10).

NOTE

Use the jack to assist in lining up the shock with the fork mount.



fig. D.10

- 5. Reconnect the end link to the sway bar but do not tighten the nuts.
- 6. Reattach the upper control arms to the steering knuckle. Torque to 40Nm (30 lb.-ft.).
- 7. Snug the end link nuts. Torque at ride height.
- 8. Align and attach the fork mount with the lower control arm bushing. Torque the bolt at ride height.

ROUTING THE AIR LINES

- Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader line that is clear of all suspension and steering components.
- 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.



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. Before Operating

Read the User Guide that came with this kit to set up the suspension.

Torque Specifications					
Location	TTY*	Nm	Lbft.		
Upper mount nuts		27	20		
Fork to control arm bolt	✓	90 + 90 degrees	66 + 90 degrees		
Fork to shock mount pinch bolt		40	30		
End link nuts	✓	40 + 90 degrees	30 + 90 degrees		
Upper control arms to steering knuckle bolt		40	30		
Wheel bolts		120	90		
Leader lines		1 3/4 turns beyond	hand-tight		

^{*} Torque-to-yield bolts

Table 1



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.

Suggested Driving Air Pressure	Maximum Air Pressure	
60-70 PSI (4.1-4.8BAR)	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.
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$\label{eq:heat-beam} \textbf{Heat} - \texttt{Be} \ \texttt{sure} \ \texttt{there} \ \texttt{is} \ \texttt{sufficient} \ \texttt{clearance} \ \texttt{from} \ \texttt{heat} \ \texttt{sources}, \ \texttt{at} \ \texttt{least} \ \texttt{6"} \ \texttt{(152mm)} \ \texttt{from} \ \texttt{air} \ \texttt{springs} \ \texttt{and} \ \texttt{air} \ \texttt{lines}. \ \texttt{If} \ \texttt{a} \ \texttt{heat} \ \texttt{shield} \ \texttt{was} \ \texttt{included} \ \texttt{in} \ \texttt{the} \ \texttt{kit}, \ \texttt{install} \ \texttt{it}.$
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. E.1 & E.2) or a 3mm hex key (not included).
- 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 "-12 clicks." This means that the damper is adjusted 12 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 2017 Audi A4 Allroad with adaptive damping suspension.

For more information, refer to the User Guide.

