



### **Kit 78670**

## **Audi B9**

### **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.

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# 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 *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.

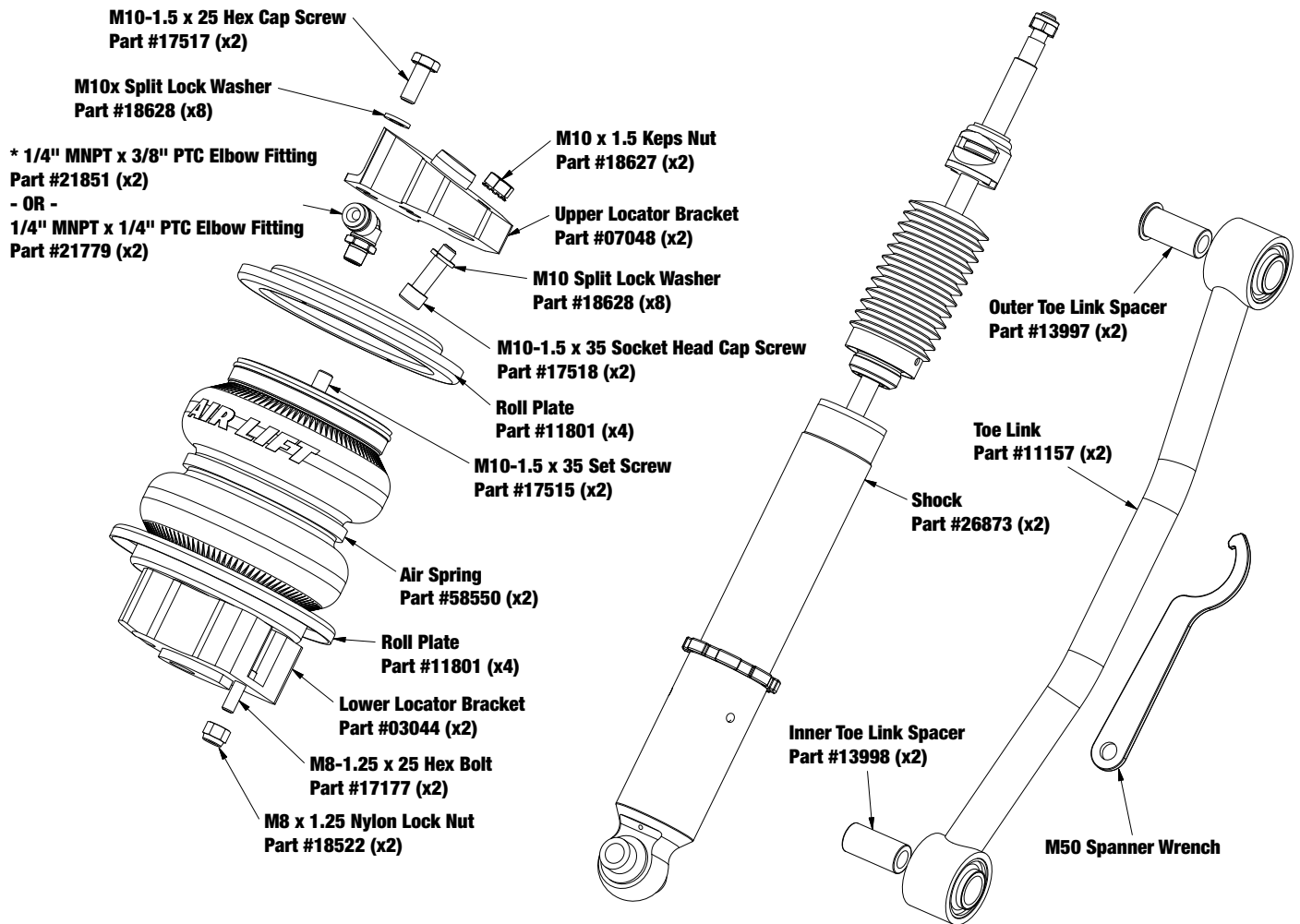


### **NOTE**

*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.

**NOTE** For cars equipped with auto-leveling headlights, installers should purchase the Air Lift Performance kit 14003, which replaces the headlight alignment linkage. Air Lift linkages prevent exceeding the sensor travel limits when at maximum drop height.

## 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.

## TORQUE-TO-YIELD BOLTS\*\*

### Description

Upper shock mount bolts  
Lower shock nut  
Outer toe link bolt  
Inner control arm cam bolt  
Outer lower control arm nut

\*\* 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.

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

## SECTION 2.

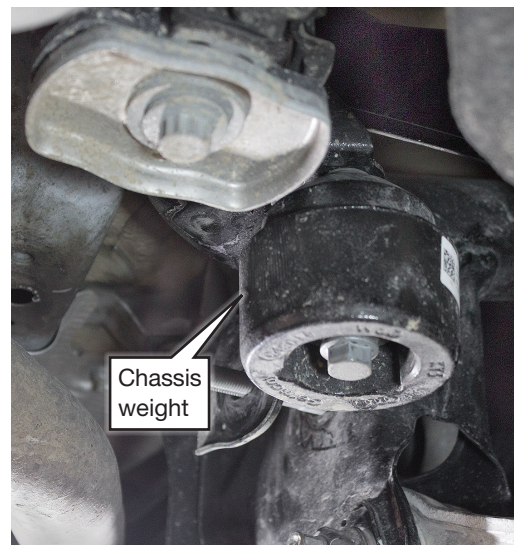
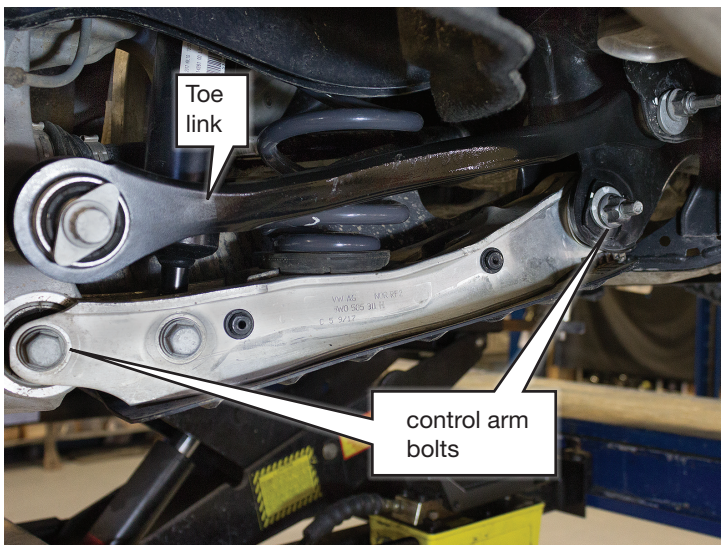
### REMOVE THE STOCK SUSPENSION

1. Remove the splash guard from the lower control arm.
2. Remove the toe link and chassis weight closest to the toe link, if equipped.
3. Loosen the bolt connecting the lower control arm to the knuckle.

#### NOTE

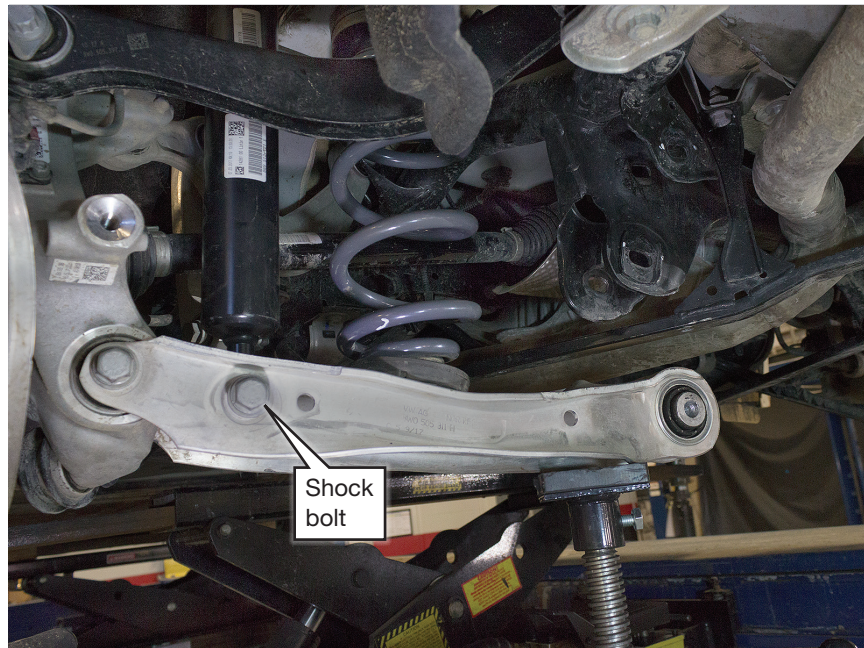
Use 12-point wrenches or sockets on the control arm and toe link bolts.

4. Support the lower control arm nearest the subframe and remove the inner cam bolt that connects the lower control arm to the subframe.





- Drop the lower control arm and remove the lower shock bolt. Remove the coil spring as well as the upper and lower spring seats.



- Remove the upper shock mount bolts. For vehicles with adaptive damping suspension, unclip the wiring connector located under the fender liner.

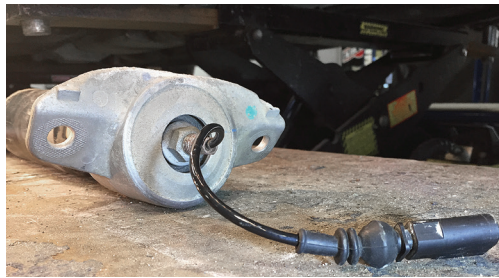


- For vehicles without adaptive damping suspension, remove the shock nut and the upper shock mount for reuse on the Air Lift Performance shock.



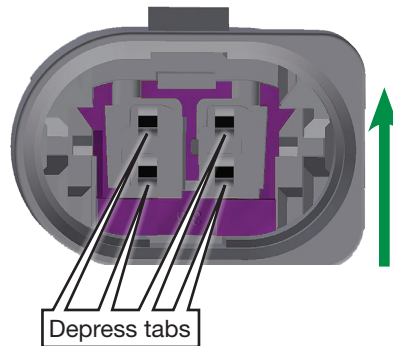
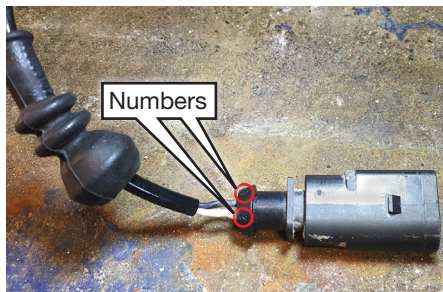
## SECTION 3. VEHICLES WITH ADAPTIVE DAMPING SUSPENSION

1. To remove the upper shock mount, the wiring plug must be removed from the shock.
  - a. Pull back the boot covering the end of the connector.
  - b. Use a small screwdriver to push into the opening and depress the terminal tabs.
  - c. After depressing the tabs on the terminals through the openings, take the purple piece and move it in the direction of the arrow.
  - d. Remove the terminals from the connector. (If you cannot easily pull them out, it is because you didn't depress the tabs on the terminal far enough. Repeat step b.)
  - e. Remove the shock nut and slide it over the wire/terminals along with the upper shock mount for reuse on the Air Lift Performance shock.



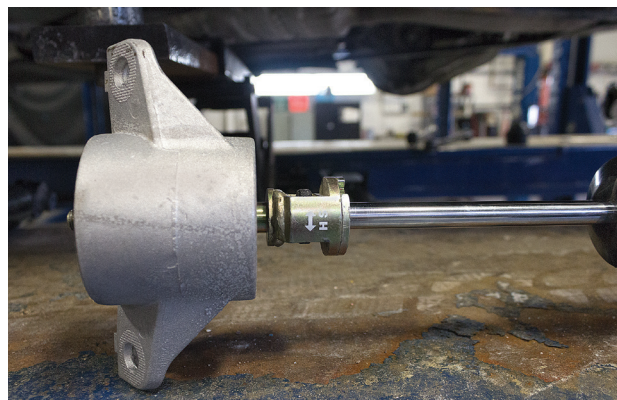
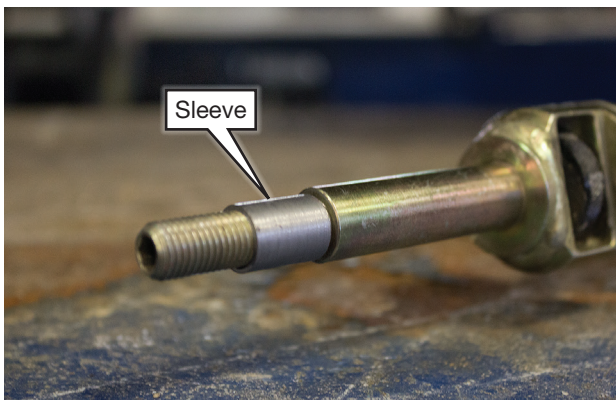
The purple part of the connector will move in the direction of the arrow when removing it. NOTE: It is only necessary to disassemble the connector if it is to be sold because it will not be reused with the Air Lift Performance system.

The black wire corresponds with cavity 1 and white corresponds with cavity 2 on the connector.



## SECTION 4. INSTALL THE KIT COMPONENTS

1. For vehicles with adaptive damping control, slide the sleeve onto the shock rod and attach the stock upper shock mount to the Air Lift Performance shock. Vehicles that do not have adaptive damping control do not use this sleeve. With the printing on the damping adjuster turned so that it will point toward the wheel when installed, torque the shock rod nut to 35Nm (26 lb.-ft.).



2. Insert the shock and attach the upper mount bolts to the chassis. Torque 50Nm + 90 degrees (37 lb.-ft. + 90 degrees).



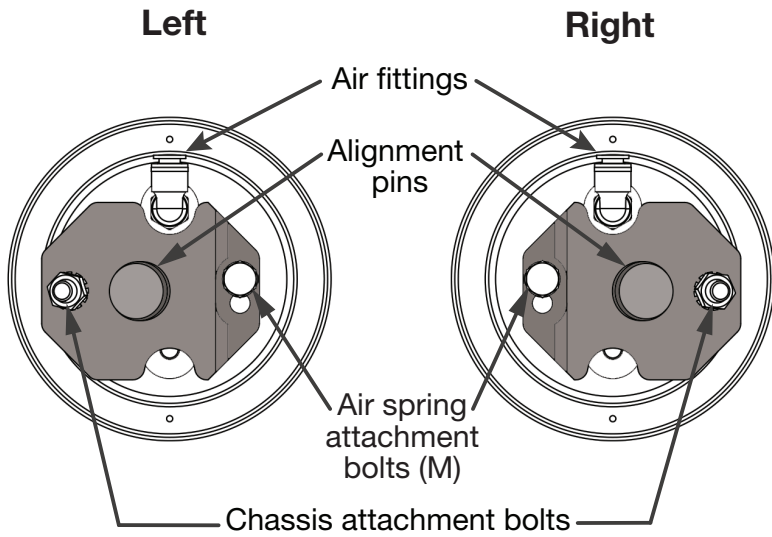
3. Insert a K-lock nut through the large hole in the chassis. Install the upper spring mount with a socket-head cap screw bolt and an M10 split lock washer, inserting the bolt through the upper mount and the smaller hole. Align the upper mount alignment pin with the large hole. Torque the bolt to 27Nm (20 lb.-ft.).



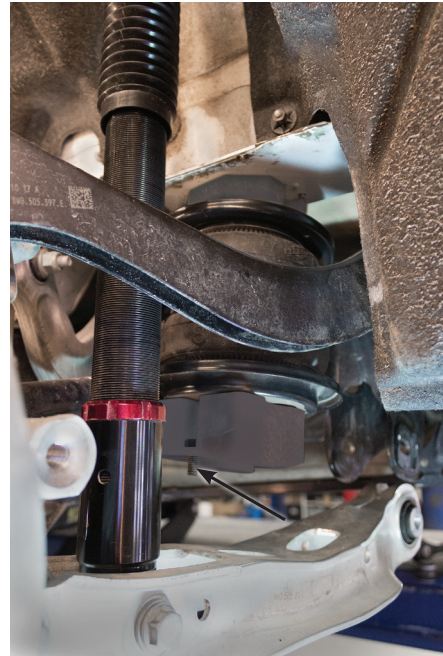
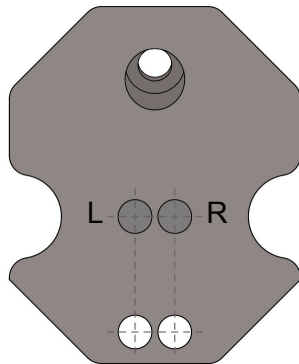
4. Raise the lower control arm, reinsert the control arm cam bolt and attach the nut. Torque this nut at ride height.



- Attach the air spring assembly to the upper mount with the M10-1.5 x 25 hex cap screw. Torque to 27Nm (20 lb.-ft.). The pre-installed M10-1.5 x 35 stainless steel set screw fits into the forward of the two alignment holes on the underside of the upper bracket. Insert the M8-1.25 x 25 hex bolt into the lower mount. This bolt will attach to the lower control arm.



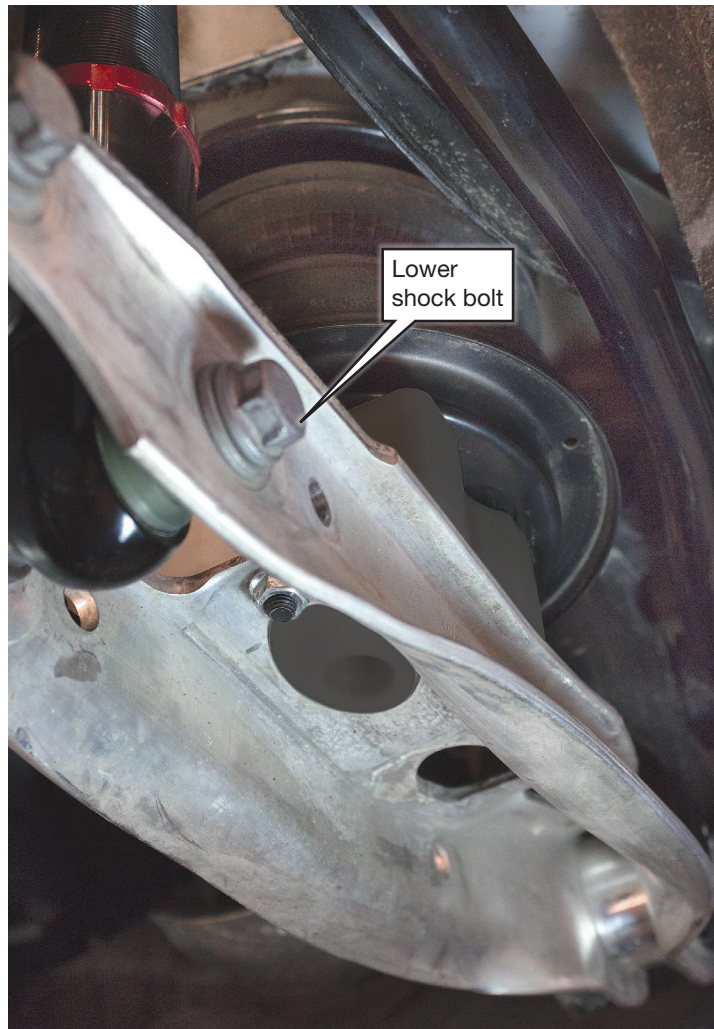
**Underside view of the upper bracket**



- Install the new toe link using the stock hardware and spacers. Position the toe link for insertion of the rear toe link cam bolt. Torque the toe link and lower control arm at ride height.



7. Reinstall the lower shock bolt. Torque it at ride height.



8. Raise the hub so the lower control arm contacts the air spring lower bracket. Seat the protrusion on the lower mount in the oval hole on the control arm. The previously installed bolt goes in the small hole next to the oval. Fasten it with a M8 nylon lock nut. Torque the nut to 26Nm (19 lb.-ft.).
9. Reinstall the lower control arm splash guard.

## **SECTION 5.** ROUTE 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	TTY*	Nm	Lb.-ft.
Upper shock mount bolts	✓	50+90 degrees	37+90 degrees
Shock rod nut		35	26
Lower shock nut	✓	70+180 degrees	52+180 degrees
Inner toe link nut		90	66
Outer toe link bolt	✓	70+180 degrees	52+180 degrees
Inner control arm cam bolt	✓	70+180 degrees	52+180 degrees
Outer lower control arm nut	✓	70+180 degrees	52+180 degrees
Air spring upper mount bolts		27	20
Air spring lower mount to control arm bolt		26	19
Wheel studs		120	90
Leader lines		1 3/4 turns beyond hand-tight	

\* Torque-to-yield bolts

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.

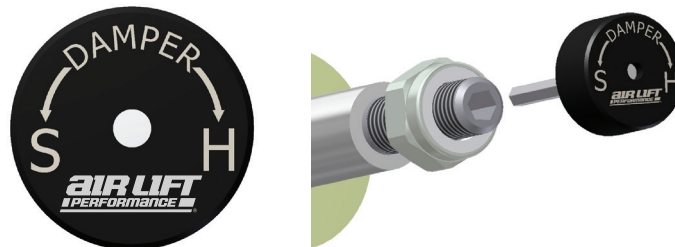
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and 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 “-14 clicks.” This means that the damper is adjusted 14 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.

# 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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