Kit 75558

Audi A4 (B8 platform)

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.

MN-872 • (021512) • ECR 8036

TABLE OF CONTENTS

Introduction 2
Notation Explanation 2

Important Safety Notices 2

Installation Diagram 3
Hardware List 3

Installing the Air Suspension 4
Preparing the Vehicle 4
Removal of Stock Suspension 4
Installing the Kit Components 7
Routing Air Lines 10

Tips for Installing the Air Lines 11
Cutting Air Lines 11
Push-to-Connect (PTC) Fittings 11
Checking for Leaks 11
Fixing Leaks 11

Before Operating 12
Setting the Ride Height 12
Torque Specifications 12
Suggested Driving Air Pressure and Maximum Air Pressure 12
Check for Binding 13
Damping Adjustment 13
Aligning the Vehicle 13
Adjusting Extended or Drop Height Using Lower Mount 14
Installation Checklist 15
Post-installation Checklist 15

Use, Maintenance and Servicing 16
Tuning the Air Pressure 16
Troubleshooting Guide 16

Limited Warranty and Return Policy 17

Replacement Part Information 17

Contact Information 17

Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Audi A4 B8. 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 the 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 MACHINE OR MINOR PERSONAL INJURY.

NOTE *Indicates a procedure, practice or hint which is important to highlight.*

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.

Installation Diagram

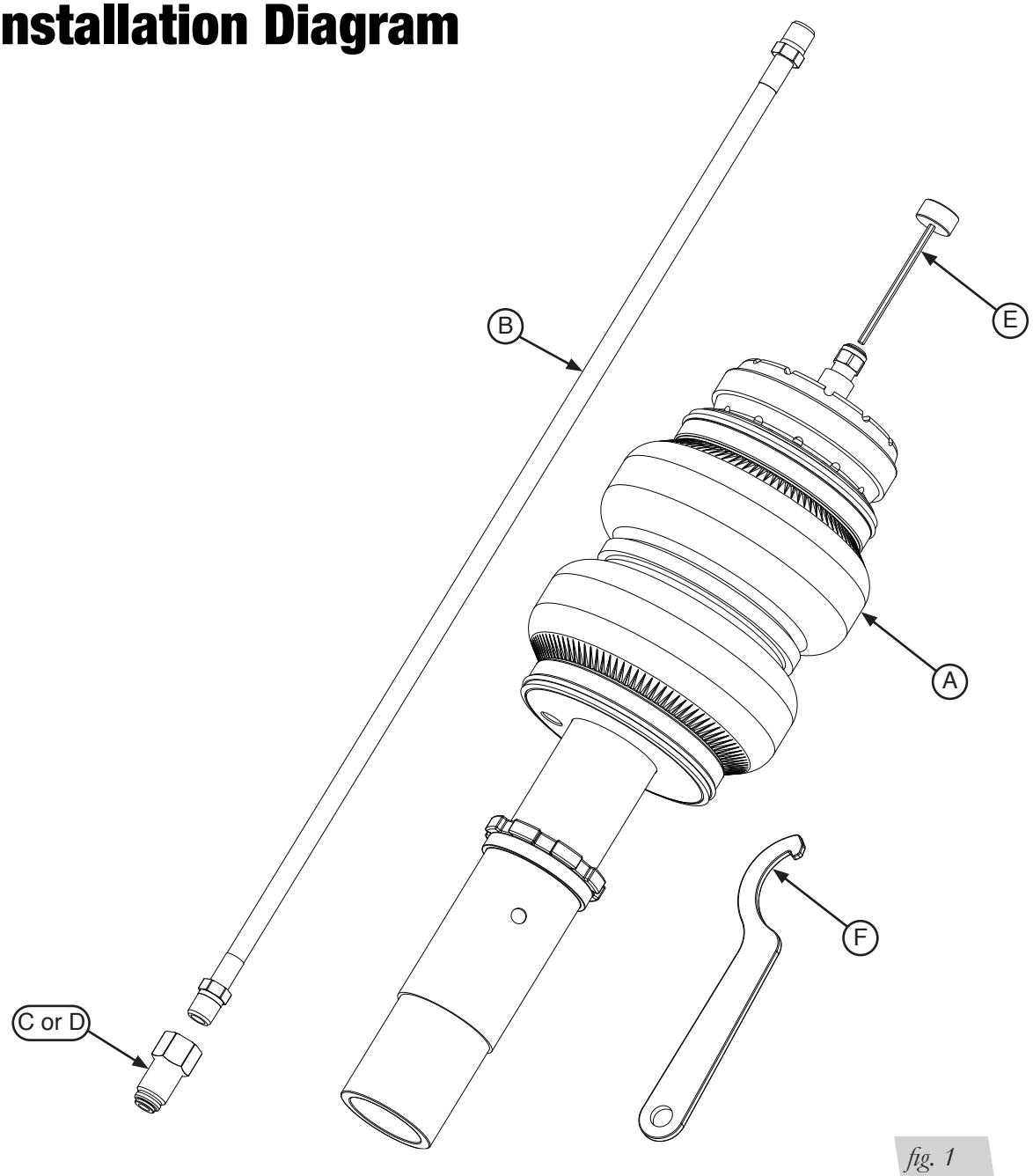


fig. 1

HARDWARE LIST

Item	Part #	Description	Qty
A	35232	Shock, Audi B8 Front	2
B	20997	Leader Hose, 1/4" ID	2
C	21810	Union, 1/4"FNPT x 1/4" PTC, DOT	2
D	21987	Union, 1/4"FNPT x 3/8" PTC, DOT	2
E		Shock Adjuster	2
F		Spanner Wrench	1

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

Installing the Air Suspension

PREPARING THE VEHICLE

1. Support vehicle with jack stands or a hoist at approved lifting points.
2. Remove the front wheels. (Fig. 2)

fig. 2

REMOVAL OF STOCK SUSPENSION

NOTE *If equipped with a headlight alignment system, disconnect range control linkage first.*

1. Support the hub assembly to prevent over extension of suspension components.
2. Disconnect the stabilizer bar. (Fig. 3)

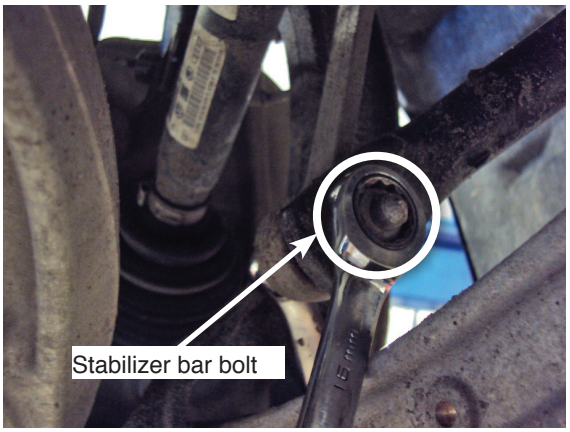


fig. 3

3. Remove the lower shock bolt and track control link bolt from the subframe. (Figs. 4-7)

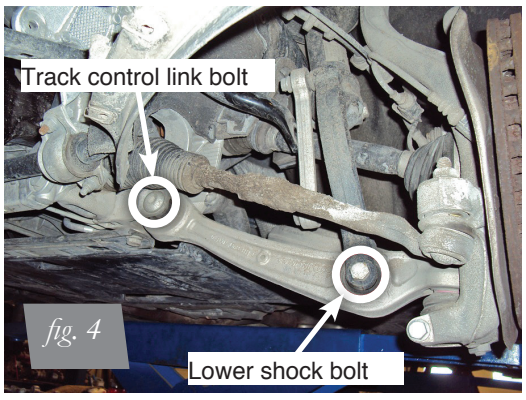


fig. 4

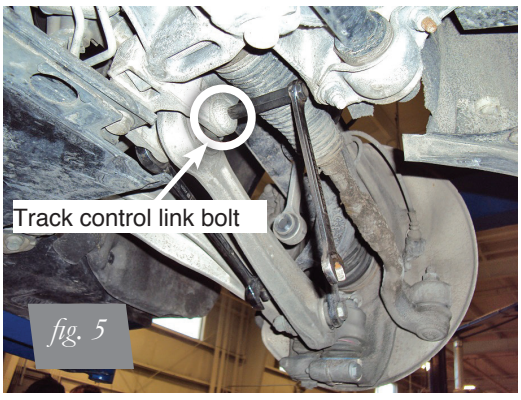
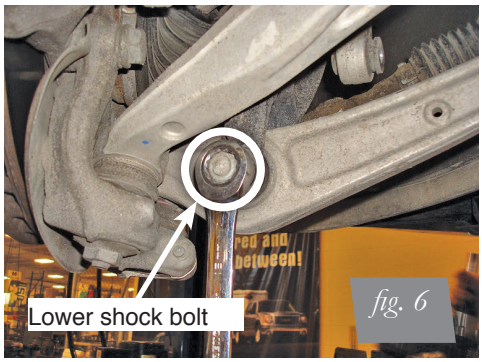
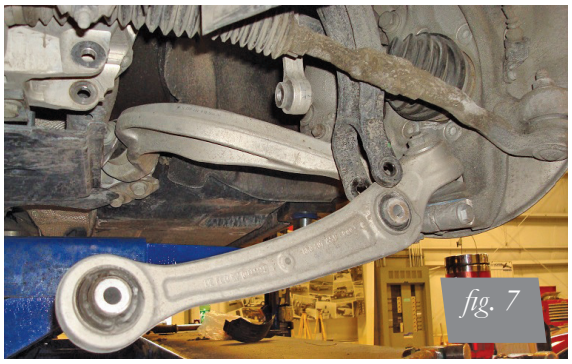
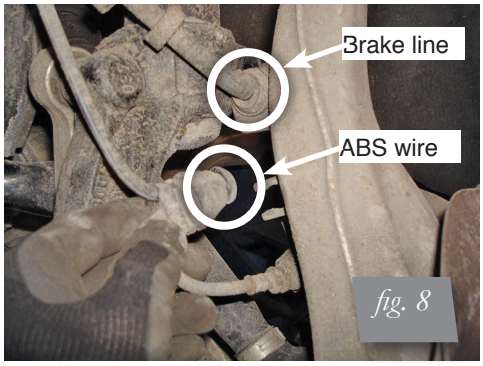


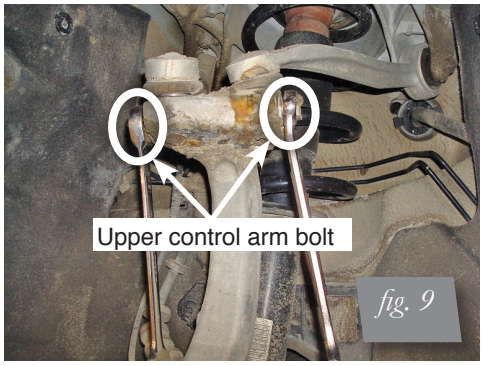
fig. 5

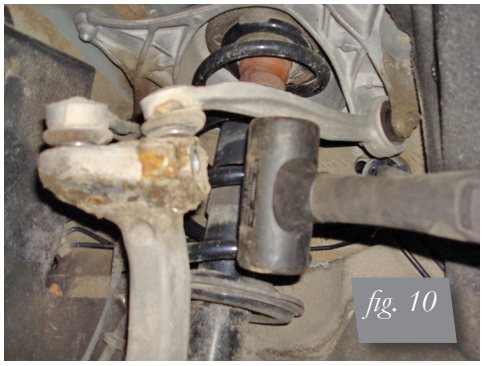




4. Disconnect the brake line and ABS wire from the steering knuckle (Fig. 8). Remove the bolt from the upper control arms to the adjoining steering knuckle (Fig. 9). Carefully pull the upper control arms free from the steering knuckle. (Fig. 10)







5. Remove the plenum chamber cover from below the windshield. (Figs. 11-14)

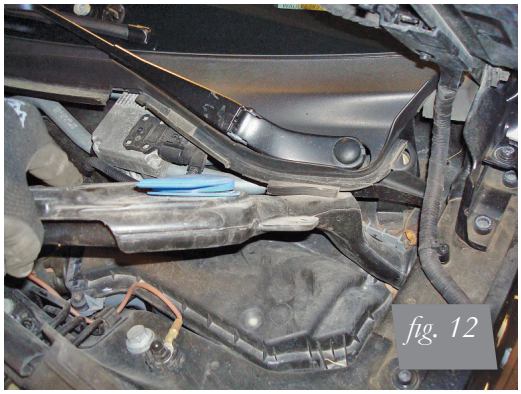



fig. 13


fig. 14

6. Unbolt and remove the washer fluid filler neck with tube. (Fig. 15)

NOTE

The washer fluid will spill out during this procedure if the fluid level is more than approximately 75% full.

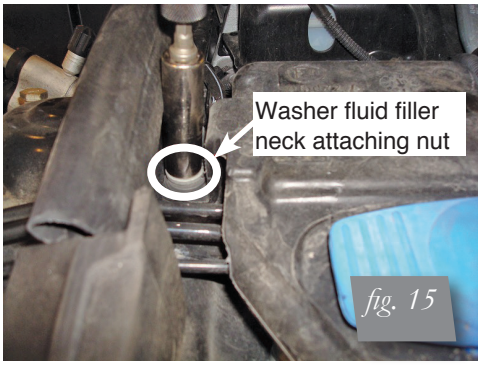


fig. 15

7. Unclip the coolant hose and remove it from the coolant reservoir (Fig. 16). Remove all four shock upper bracket bolts (Figs. 17-19) and remove the shock assembly from the vehicle. (Fig. 20)

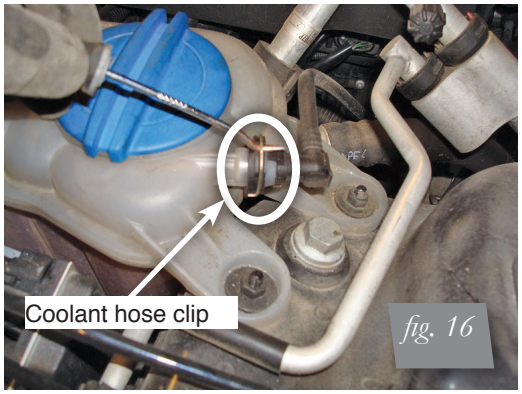


fig. 16

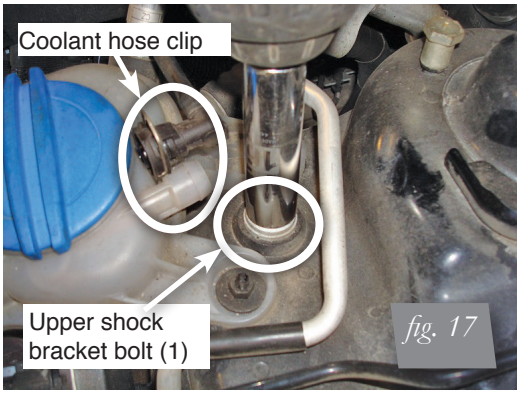


fig. 17

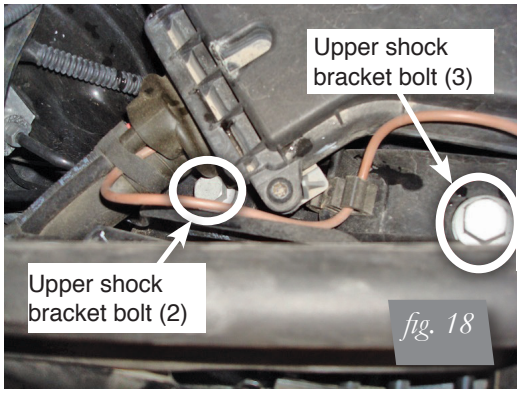


fig. 18

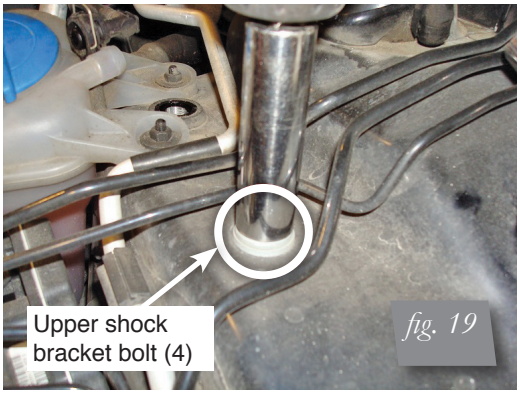
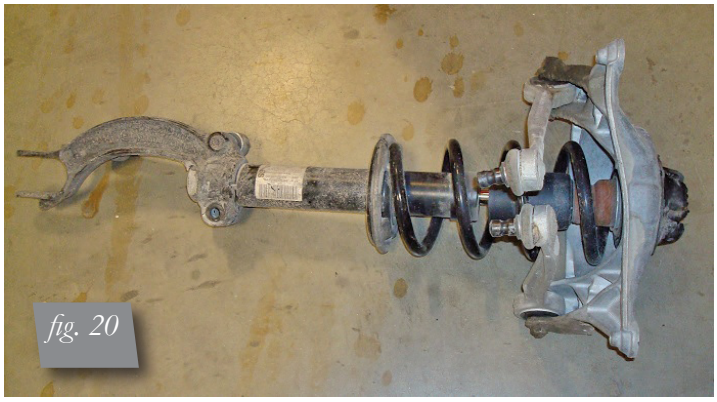
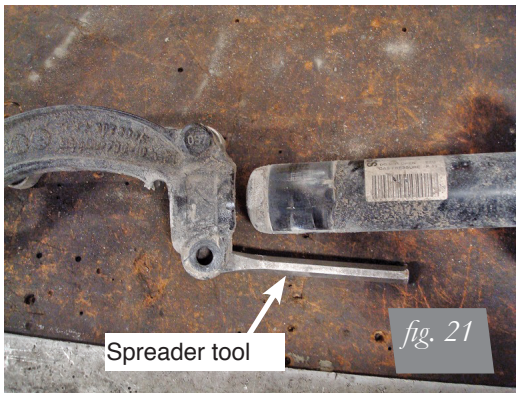


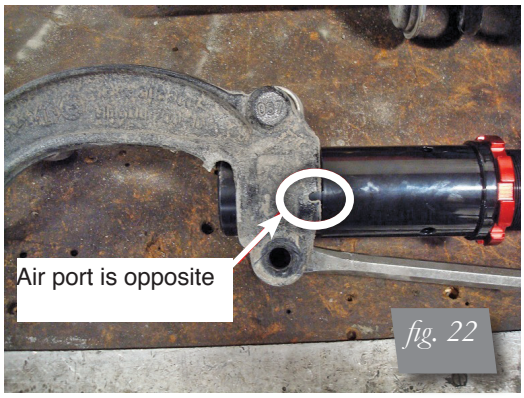
fig. 19



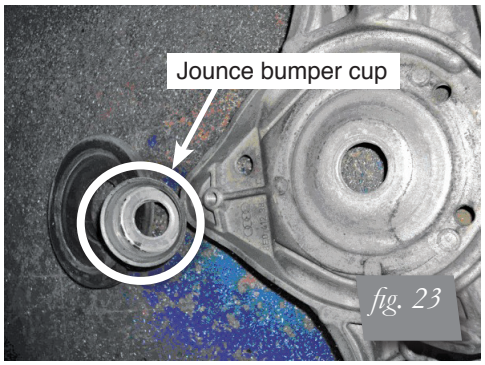
INSTALLING THE KIT COMPONENTS

1. Remove the lower attaching bolt from the lower fork/shock mount. Use a spreader tool to separate the lower fork from the original/OE shock and insert the supplied shock with the air port opposite the notch in the fork. (Figs. 21 & 22)





2. Remove the jounce bumper cup from the upper bracket (Fig. 23). To remove the cup, either grind the innermost lip away from the bracket or use a punch and hammer to bend the lip away from the upper bracket. Do not increase the diameter of the center hole.



3. Insert the shock rod through the upper bracket. Apply the stock isolator over the rod and thread the lock nut on top. (Figs. 24-27)

⚠ CAUTION

TIGHTEN THE NUT ONTO THE ROD USING HAND TOOLS ONLY. AN IMPACT WRENCH MAY NOT FULLY SEAT THE NUT BEFORE THE ROD STARTS TO SPIN. IF THE NUT IS NOT TIGHT, YOU WILL HEAR A RATTLING NOISE.


fig. 24

fig. 25


fig. 26

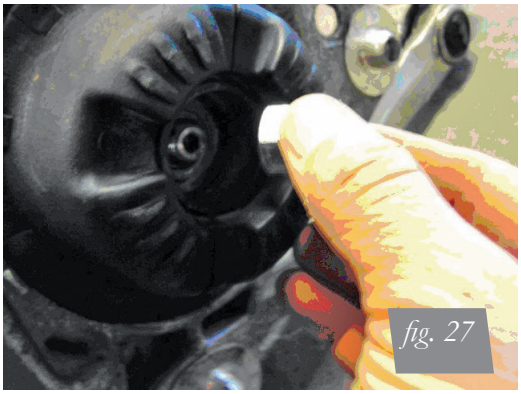


fig. 27

4. Tighten the nylon lock nut on the shock rod to 27 Nm (20 lb.-ft.). (Fig. 28)

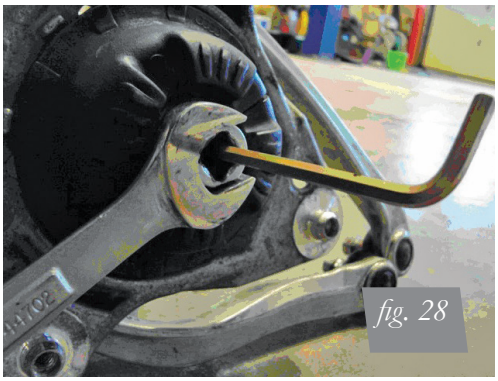


fig. 28

5. Center punch and drill a 3/8” (9.5 mm) hole through the center of the suspension shock dome (Fig. 29). This hole will be used as an access port for damping adjustments.


fig. 29

6. Install the leader line into the air spring (Fig. 30). Coat the threads of the leader hose with thread sealant. 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.

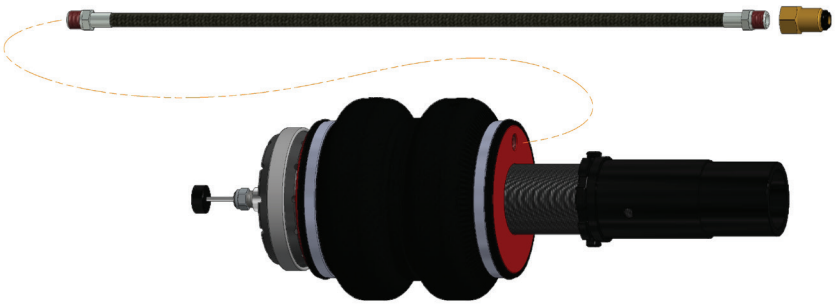


fig. 30

7. Install the upper bracket and tighten the four upper bracket bolts to 40 Nm + 90 degree turn (29.5 lb.-ft. + 90-degree turn). Torque in the following order: 1-2-3-4 (Fig. 31 & 32)

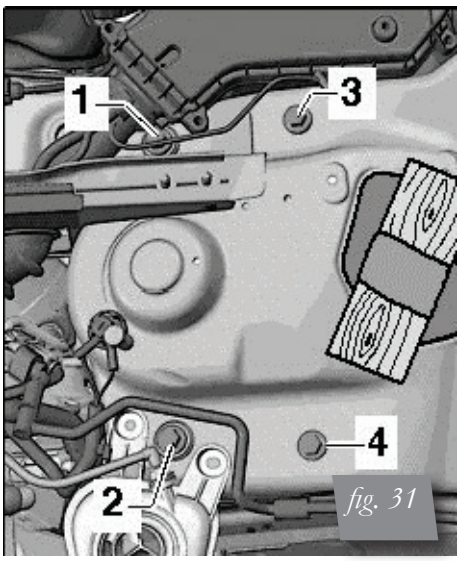


fig. 31

fig. 32

8. Reattach the upper control arm ball joints to the steering knuckle (Fig. 33). Make sure the joints are fully seated as the bolt is slid through. Torque to 40 Nm (29.5 lb.-ft).

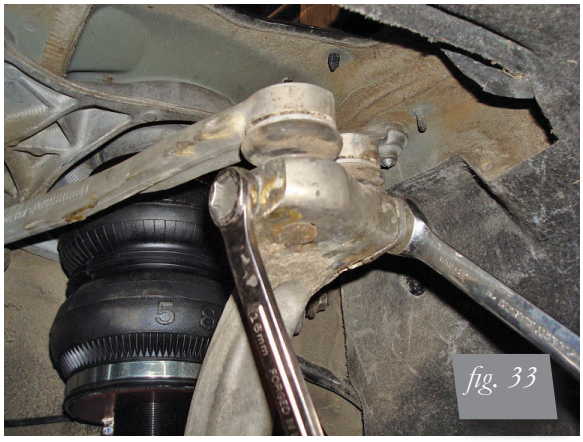


fig. 33

9. Loosely install the lower fork/shock mount bolt into the lower control arm bushing. Also, loosely reinstall the track link to chassis bolt as well as the sway bar end link (Figs. 34 & 35)

NOTE

Do not tighten at this time. These bolts should be tightened when the vehicle is at ride height.

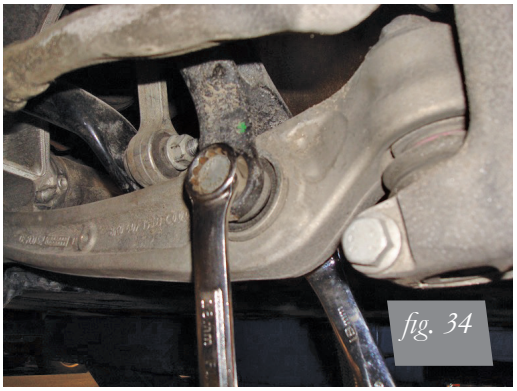


fig. 34

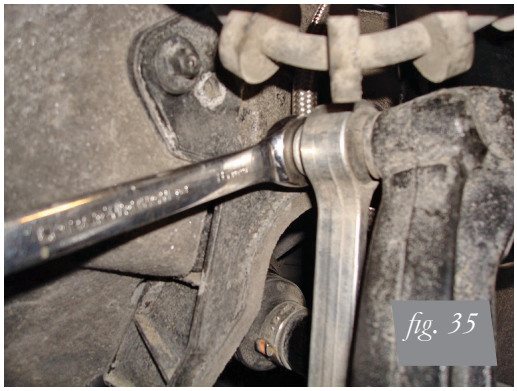


fig. 35

10. Make sure the lower fork/shock mount is fully seated against the shock adapter, install the nut and bolt and torque to 40 Nm + 180 degree turn (29.5 lb.-ft. + 180 degree turn) (Fig. 36).


fig. 36

ROUTING THE AIR LINES

1. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose 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.

Tips for Installing the Air Lines

CUTTING AIR LINES

When cutting air lines, use a sharp knife or a hose cutter and make clean, square cuts (Fig. 37). Do not use scissors or wire cutters because these tools will deform the air line, causing it to leak around fittings. Do not cut the lines at an angle.

The minimum bend radius for 1/4" air line is 1". The minimum bend radius for 3/8" air line is 1.5". Do not bend the air line less than the minimum bend radius or side load the fitting connections. Air lines are to be installed straight into fittings.

Inspect the air line for scratches that run lengthwise prior to installation. Contact Air Lift customer service at **(800) 248-0892** if the air line is damaged.

To watch a video demonstrating proper air line cutting, go to air-lift.co/cuttingairline

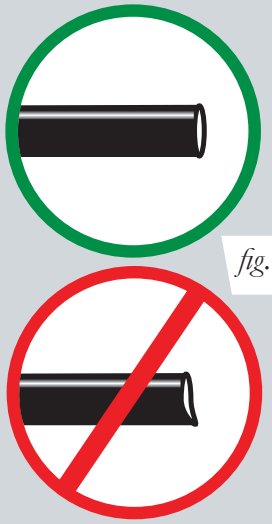


fig. 37

PUSH-TO-CONNECT (PTC) FITTINGS

Air lines should be pushed into the push-to-connect fittings firmly, with a slight side-to-side rotational twist. Check the connection by pulling on each line to verify a robust connection.

NOTE

To release the air line from the connection (Fig. 38), first release all air from the system. Push in on the air line (step 1), push the collar in (step 2), and with the collar depressed, pull the air line out of the fitting (step 3).

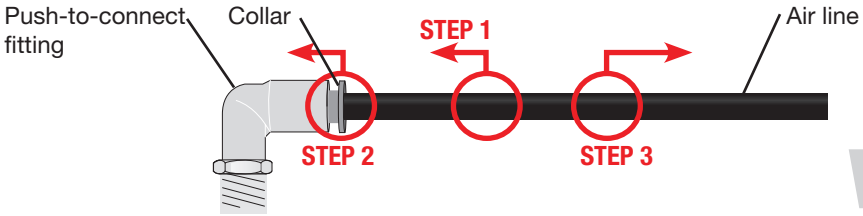


fig. 38

CHECKING FOR LEAKS

1. Inflate the air spring to 75-90 PSI.
2. Spray all connections with a solution of 1/5 liquid dish soap and 4/5 water. Spot leaks easily by looking for bubbles in the soapy water.
3. After the test, deflate the springs to the minimum pressure required to restore the system to normal ride height.
4. Check the air pressure again after 24 hours. A 2-4 PSI loss after initial installation is normal. Retest for leaks if the loss is more than 5 PSI.

FIXING LEAKS

1. If there is a problem with the push-to-connect fitting, remove the air line as described above. Trim 1” off the end of the air line. Be sure the cut is clean and square (see Fig. 37).
2. Reinsert the air line into the push-to-connect fitting as described above.

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. 39).

Formula for Calculating Ride Height
(ME+MC)÷2=MID STROKE

fig. 39

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	Nm	lb.-ft.
Shock Rod Nut	27	20
Upper bracket to chassis	40 + 90° turn	29.5 lb.-ft. + 90° turn
Upper control arms to bracket	50 + 90° turn	37 lb.-ft. + 90° turn
Upper control arms to steering knuckle	40	29.5
Shock to lower fork/shock mount	40 + 180° turn	29.5 lb.-ft. + 90° turn
Track control link to lower fork/shock mount	90	66
Track control link to subframe	70 + 180° turn	52 lb.-ft. + 180° turn
Guide link to subframe	70 + 180° turn	52 lb.-ft. + 180° turn
End link to sway bar	40 + 90° turn	29.5 lb.-ft. + 90° turn
Wheels (except RS2 and RS4 type 8D)	120	89

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
75 PSI	**125 PSI**
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) 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 and check all connections for leaks.

⚠ CAUTION MAKE SURE THE FRONT WHEELS ARE STRAIGHT WHEN DEFLATING AND REINFLATING AIR BAGS.

DAMPING ADJUSTMENT

Suspension damping is a matter of compromise. Setting it too stiff will make the ride feel jarring. In addition, if the suspension is too stiff, the tires will lose contact with the road, reducing control and power delivery. On the other hand, if the suspension is too soft, the car can experience brake dive and excessive bouncing. The sweet spot lies somewhere in the middle. Air Lift dampers have a range of adjustment, which allows the driver to tune the ride and handling to his or her preferences.

Air Lift recommends damper and air pressure settings for every vehicle kit, but it is impossible to consider every situation. For example, even though Air Lift kits replace the dampers and springs, vehicles with sport-tuned suspensions might have stiffer bushings, larger anti-roll bars, bigger wheels, wider tires, etc. These settings may need to be adjusted to different vehicles and driving characteristics.

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. 40 & 41) or an 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 “-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 2009 A4 2.0T Quattro.

fig. 40

fig. 41

ALIGNING THE VEHICLE

1. Set the vehicle to the height at which it will most often be driven.
2. If the ride height is lower than stock, Air Lift Performance recommends loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications (Table 1).

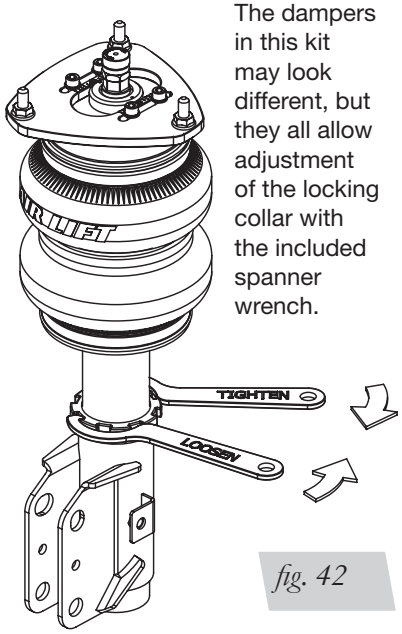
NOTE *It may be necessary to cycle the suspension to loosen the bushing from its mount. This will help re-orient the bushing at its new position based on the chosen ride height.*

3. Get a shop alignment of the vehicle at the new chosen ride height.

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

These dampers have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height, or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the locking collar (Fig. 42.
4. Deflate the air spring to 0 PSI on the corner you are adjusting.
5. Disconnect lower mount from suspension.
6. Spin the lower mount to the desired location.



The dampers in this kit may look different, but they all allow adjustment of the locking collar with the included spanner wrench.

fig. 42

NOTE

Not all vehicles will have further drop height available.

7. Re-install lower mount to suspension and torque fasteners.
8. Tighten the lower locking collar to the lower mount using significant force.

⚠ CAUTION

WHEN ADJUSTING HEIGHT UPWARD, MAKE SURE THAT THE DAMPER BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 43). WHEN ADJUSTING DOWNWARD, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

⚠ CAUTION

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON DAMPER! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

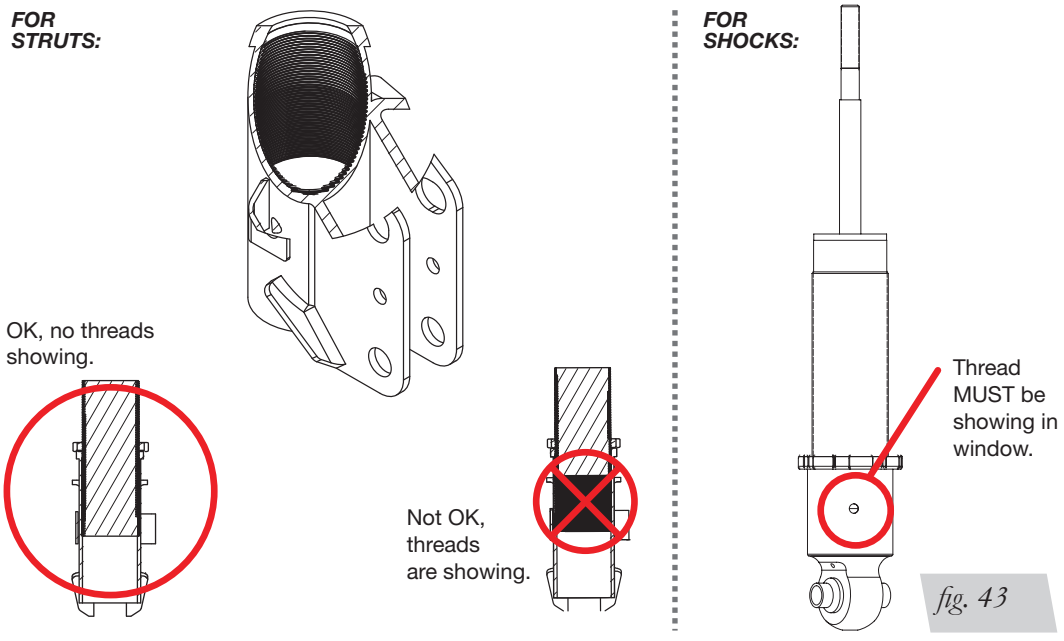


fig. 43

INSTALLATION CHECKLIST

☐ **Clearance** — Inflate the air springs to 75-90 PSI and make sure there is at least 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 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 6" for 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. Drive the vehicle 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.

POST-INSTALLATION CHECKLIST

☐ **Overnight leak down test** — Recheck air pressure 24 hours after installation and driving of the vehicle. If the pressure has dropped more than 5 PSI, there is a leak that must be fixed.

☐ **Air pressure requirements** — It is important to understand the air pressure requirements of the air spring system. Regardless of load, the air pressure should always be adjusted to maintain adequate ride height at all times while driving.

☐ **Thirty-day or 500-mile test** —Recheck the air spring system after 30 days or 500 miles, whichever comes first. If any part shows signs of rubbing or abrasion, the source should be identified and moved, if possible. If it is not possible to relocate the cause of the abrasion, the air spring may need to be remounted. If professionally installed, the installer should be consulted. Check all fasteners for tightness.

Use, Maintenance and Servicing

1. An Air Lift air management system is strongly recommended for this product, but it is possible to operate without one. The air lines can be routed to Schrader valves for use with a separate air compressor. Air lines and Schrader valves are not included with Air Lift Performance kits and would need to be purchased separately. To learn more about Air Lift air management systems visit **air-lift.co/productlines**.
2. Check the air pressure before driving.

⚠ WARNING

BEFORE SERVICING THE VEHICLE, MAKE SURE TO TURN OFF "RISE ON START" AND "PRESET MAINTAIN." THIS WILL ELIMINATE ANY UNINTENDED SUSPENSION CYCLING IF YOU NEED TO TURN THE KEY ON IN THE VEHICLE FOR ANY REASON.

TUNING THE AIR PRESSURE

Pressure determination comes down to three things — level vehicle, ride comfort and stability.

1. **Level vehicle**
   Depending on load, it is possible one side will need more pressure than the other to level the vehicle.
2. **Ride comfort**
   If the vehicle has a harsh ride, it may be due to either too much pressure or not enough causing frequent bottoming out. Also, riding the vehicle at the top, or close to the top of the available stroke will cause an uncomfortable ride due to a lack of rebound travel. This situation should be avoided for driving any significant distance. Try different pressures to determine the best ride comfort. See the Air Lift suggested driving air pressure for this vehicle (Table 2).
3. **Stability**
   Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess. Tuning out these problems usually requires additional air pressure, damping or both.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Air spring won't maintain pressure.	Leak at fitting, air line not cut properly or damage to air line during installation.	Find location of leak by spraying listed components with soapy water solution and look for bubbles. Tighten air fitting, re-cut air line or replace damaged components.
	Leak at lower O-ring on damper if air spring is over the damper.	Spray bottom of air spring with soapy water solution and look for bubbles. Contact Air Lift customer service at **(800) 248-0892** to determine if component should be replaced.
Knocking noise when hitting bumps.	Loose suspension component such as locking collar on damper.	Tighten lower locking collar with significant force, check and tighten suspension components to factory specs at desired ride height.
	Driving vehicle too close to maximum extension.	Check current ride height and compare to maximum height. If there is less than 1" (25mm) difference, reduce air pressure to lower ride height.
		Lengthen strut or shock to increase available up travel.
Suspension bottoms out.	Air pressure is too low, causing air springs to bottom out.	Raise air pressure.
The ride is too bouncy.	Air pressure is too high, causing air springs to be too stiff.	Lower air pressure and adjust damper length if necessary to achieve proper ride height.
	Damping is inadequate.	Increase damping with adjusters.
The ride is too soft or floaty.	Damping is inadequate.	
The ride is too harsh.	Excessive damping.	Reduce damping with adjusters.

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.

Replacement Part Information

If replacement parts are needed, call Air Lift customer service. Most parts are immediately available and can be shipped the same day.

Contact Air Lift Company customer service at (800) 248-0892 first if:

- Parts are missing from the kit.
- Need technical assistance on installation or operation.
- Broken or defective parts in the kit.
- Wrong parts in the kit.
- Have a warranty claim or question.

Contact the retailer where the kit was purchased:

- If it is necessary to return or exchange the kit for any reason.
- If there is a problem with shipping if shipped from the retailer.
- If there is a problem with the price.

Contact Information

Mailing address	P.O. Box 80167 Lansing, MI 48908-0167
Shipping address for returns	2727 Snow Road Lansing, MI 48917
Phone	Toll free: (800) 248-0892 International: (517) 322-2144
Email	service@airliftcompany.com
Web address	www.airliftcompany.com

Air Lift Company 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 Company at **(800) 248-0892** or visit **www.airliftperformance.com**.

Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial (517) 322-2144.

Connect by searching for **Air Lift Performance** *#LifeonAir*

Thank you for purchasing Air Lift Performance products!

Air Lift Performance • 2727 Snow Road • Lansing, MI 48917 or P.O. Box 80167 • Lansing, MI 48908-0167
Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240 • www.airliftperformance.com

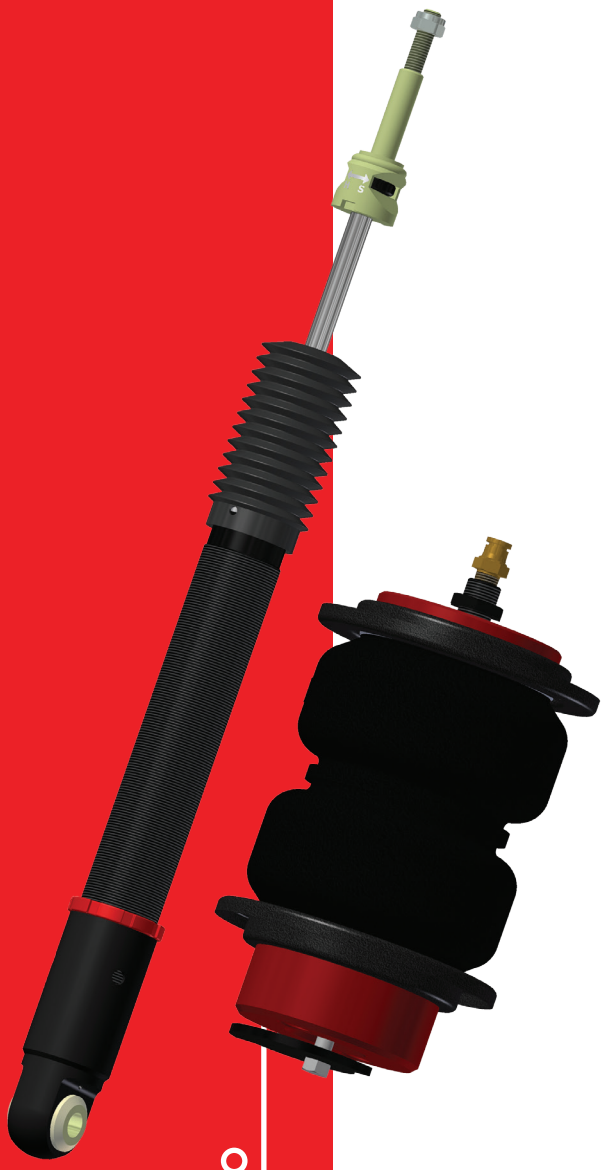
Printed in the USA
JJC-1016

Kits 75658/78634

Audi A4 (B8 platform)

Rear Application

(With and Without Shocks)



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-873 • (041710) • ECR 8915

TABLE OF CONTENTS

Introduction 2
Notation Explanation 2

Important Safety Notices 2

Installation Diagram 3
Hardware List 3

Installing the Air Suspension 4
Preparing the Vehicle 4
Removal of Stock Suspension 4
Air Suspension Installation 6
Routing Air Lines 9

Before Operating. 9
Setting the Ride Height 9
Torque Specifications 9
Suggested Driving Air Pressure and Maximum Air Pressure 9
Check for Binding. 10
Damping Adjustment 10
Aligning the Vehicle 10
Adjusting Extended or Drop Height Using Lower Mount 11
Installation Checklist 13
Post-installation Checklist 13

Use, Maintenance and Servicing 14
Tuning the Air Pressure 14

Troubleshooting Guide 15
Tips for Installing Air Lines 16
Checking for Leaks 16
Fixing Leaks 16

Limited Warranty and Return Policy 17

Replacement Part Information 17

Contact Information 17

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Audi A4 B8 Performance kit.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information includes a hardware list, tool list, step-by-step installation information, maintenance tips, safety information and a troubleshooting guide.

Air Lift Company 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 Company at **(800) 248-0892** or visit our website at **www.airliftcompany.com**.

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 MACHINE OR MINOR PERSONAL INJURY.

NOTE — *Indicates a procedure, practice or hint which is important to highlight.*

IMPORTANT SAFETY NOTICES

The installation of this kit does not alter the Gross Vehicle Weight Rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual and do not exceed the maximum load listed for your vehicle.

Gross Vehicle Weight Rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined, maximum allowable weight of cargo and passengers that the vehicle is designed to carry. Payload is GVWR minus the Base Curb Weight.

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

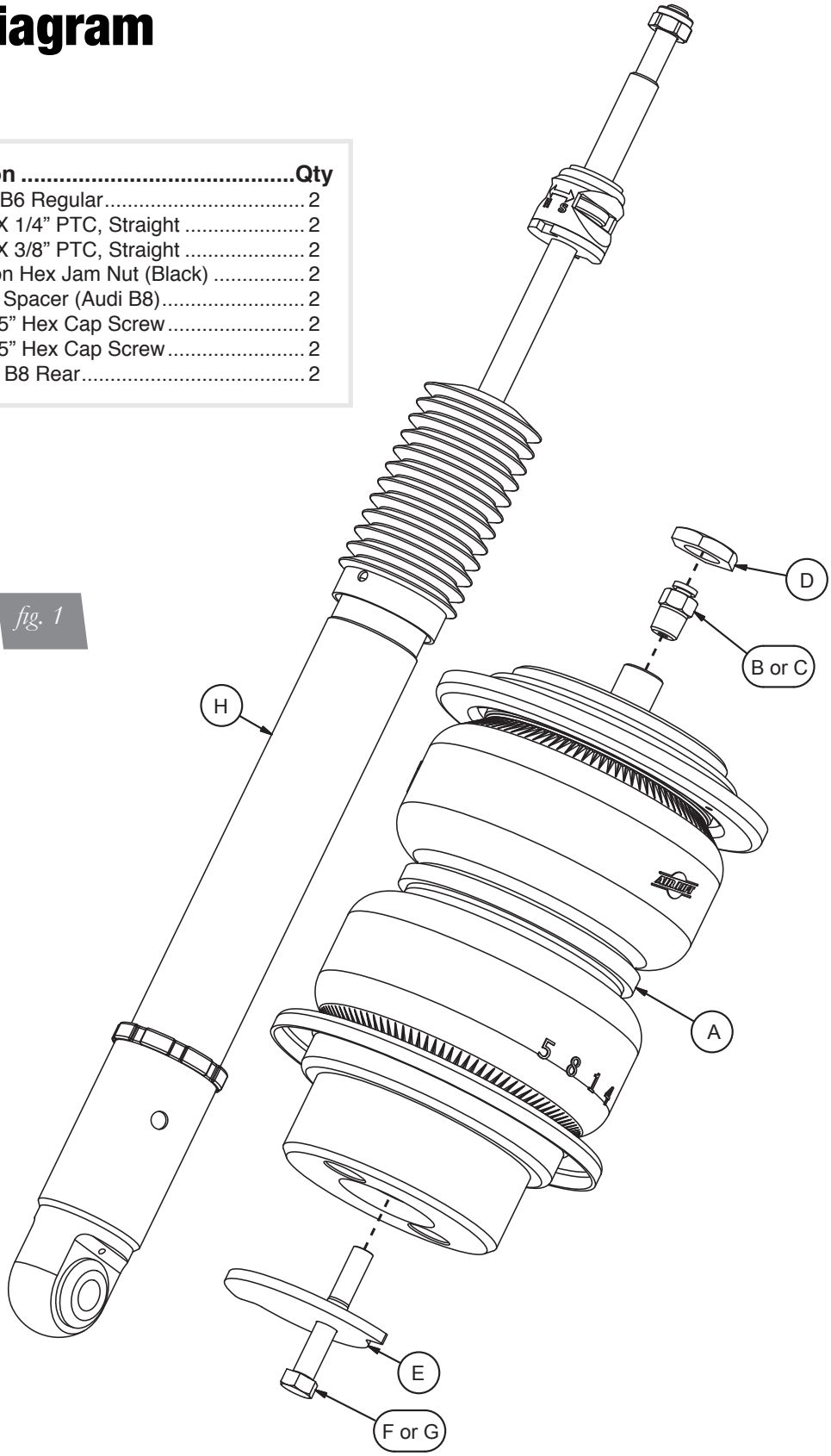
⚠ CAUTION — DO NOT WELD TO, OR MODIFY PERFORMANCE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

HARDWARE LIST

Item	Part #	Description	Qty
A	58526	Air spring, 2B6 Regular	2
B	21745	1/4” MNPT X 1/4” PTC, Straight	2
C	21853	1/4” MNPT X 3/8” PTC, Straight	2
D	18454	3/4”-16 Nylon Hex Jam Nut (Black)	2
E	13986	Spring Seat Spacer (Audi B8)	2
F	17454	3/8”-24 X 2.5” Hex Cap Screw	2
G	17461	3/8”-24 X 3.5” Hex Cap Screw	2
H	26990	Shock, Audi B8 Rear	2

fig. 1



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

Installing the Air Suspension

PREPARING THE VEHICLE

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove rear wheels (Fig. 2).

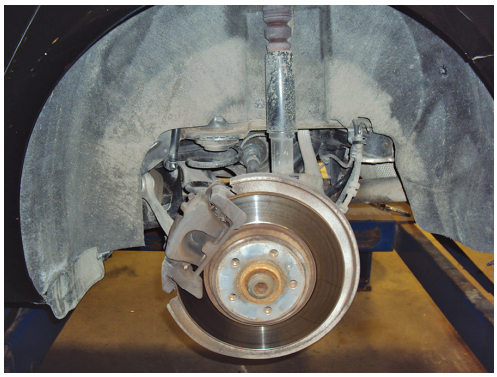


fig. 2

3. Disconnect the headlight alignment sensor linkage from the lower control arm (Fig. 3).

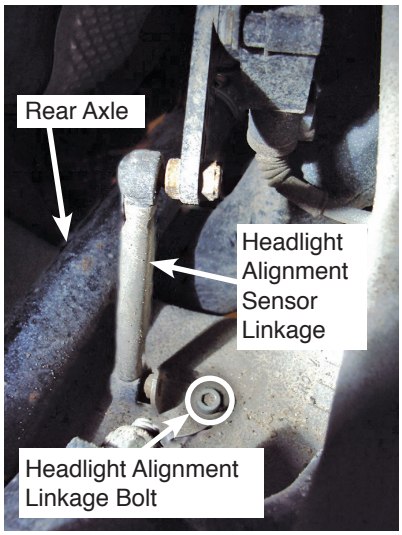


fig. 3

STOCK SUSPENSION REMOVAL

1. Support the hub assembly before beginning work.
2. Remove the inner fender liners from both sides (Fig. 4).

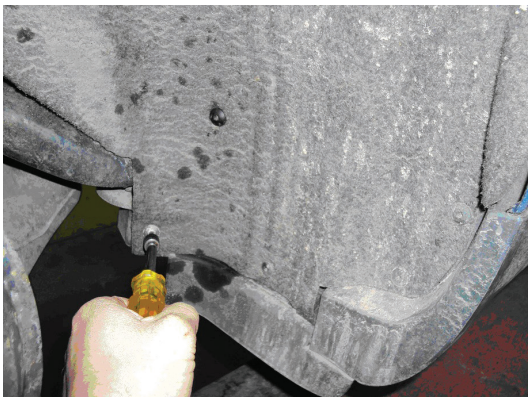


fig. 4

3. Unbolt the upper and lower shock mounts and remove from the vehicle (Figs. 5-7).

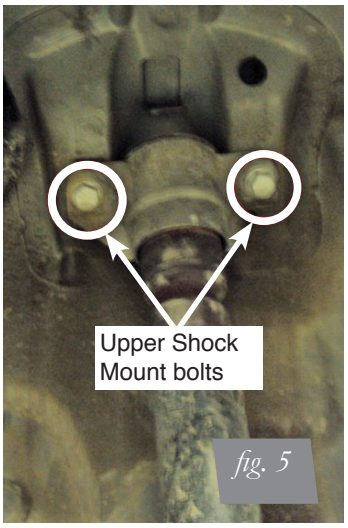


fig. 5


fig. 6

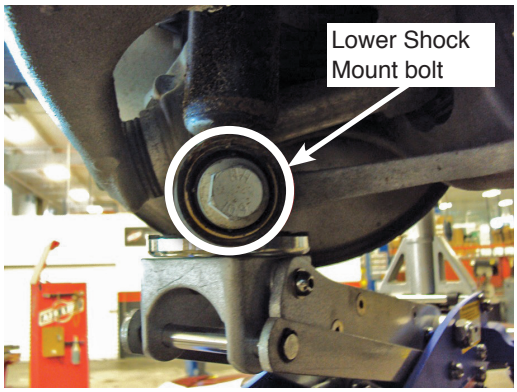


fig. 7

4. Using a coil spring compressor, remove the rear coil springs along with upper and lower isolators (Fig. 8).


fig. 8

5. Directly above the upper coil spring perch, remove the rubber plug (Figs. 9 & 10).

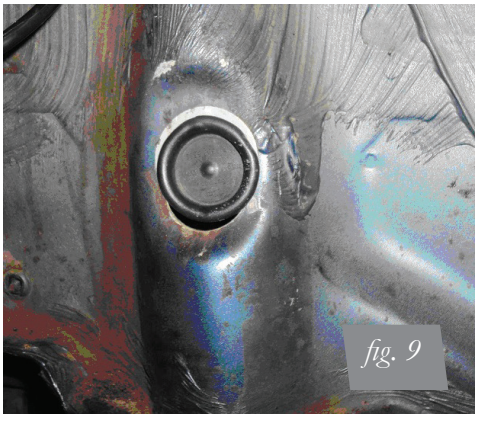


fig. 9

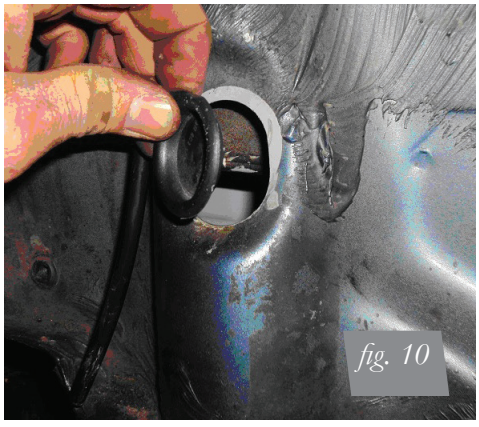


fig. 10

AIR SUSPENSION INSTALLATION

1. If retaining the factory shocks, continue on to step 4. Remove the upper bracket from the OE shock and install on to the new shock (Figs. 11 & 12). DO NOT USE AN IMPACT WRENCH!

⚠ CAUTION

DAMAGE MAY OCCUR TO THE SHOCK IF AN IMPACT WRENCH IS USED.

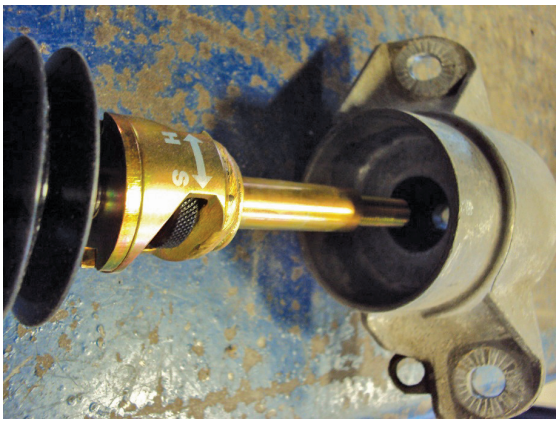


fig. 11

fig. 12

2. Tighten the nylon lock nut on the shock rod to 27Nm (20 lb.-ft.).
3. Attach the shock to the vehicle chassis and torque upper bracket bolts to 50Nm + 45 degree turn (37 lb.-ft. + 45 degree turn). Install but do not tighten the lower shock mount bolt at this time.
4. Cut a vertical line from the hole where the rubber plug was down 37-50mm (1.5”-2”) and across 25mm (1”). Fold this material outward to gain access to the top side of the spring perch (Fig. 13).

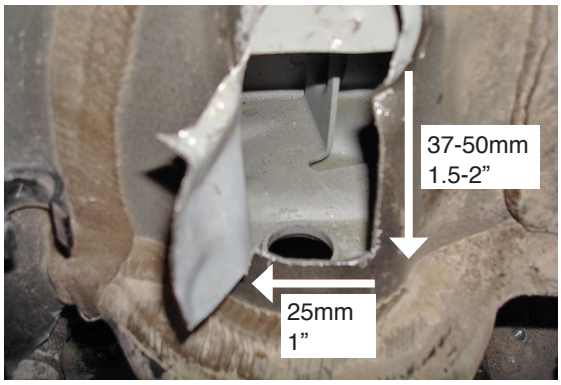


fig. 13

5. If using 1/4” air line, 1/4” PTC fittings can be installed now. Coat with thread sealant. Torque fitting 1 3/4 turns beyond hand tight. If using 3/8” PTC fittings, move to the next step (Fig. 14).


fig. 14

6. Collapse the air spring and install over the lower coil spring perch with the threaded boss going through the vehicles upper coil spring perch (Figs. 15-18). With the air spring assembly fully seated at the upper spring seat, check the clearance around the roll plate. Some vehicles may need a slight clearance modification to the chassis.


fig. 15


fig. 16


fig. 17


fig. 18

7. Thread the plastic nut onto the threaded boss (Fig. 19). If using 3/8” air line, install the fitting after the plastic nut is installed.

fig. 19

8. The supplied washer is shaped to fit with the contour of the underside of the lower control arm. The bolt hole of this washer is not on the center. This hole must be located so that it is closest to the front of the vehicle (Fig. 20). The car may have one of two different size control arms. Air Lift Performance supplies two different length bolts: a 2 1/2” bolt and a 3 1/2” bolt. Try the shorter bolt first, if it isn’t long enough, use the longer one. Thread the supplied bolt through this washer and into the air spring assembly through the lower control arm. Torque to 20Nm (15 lb.-ft.).

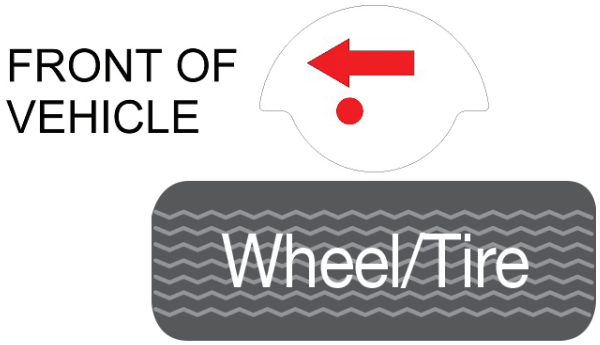


fig. 20

9. Insert air line through the hole into the air spring fitting. At this point, securely route the air line away from heat sources and suspension components (Fig. 21). Best practice is to route the air line behind the fender liner paying close attention to shock travel. Failure to protect the line from the shock may result in kinked hose. Fold the bent sheet metal into position while being cautious not to pinch the air line. Seal the cut edges with silicone.

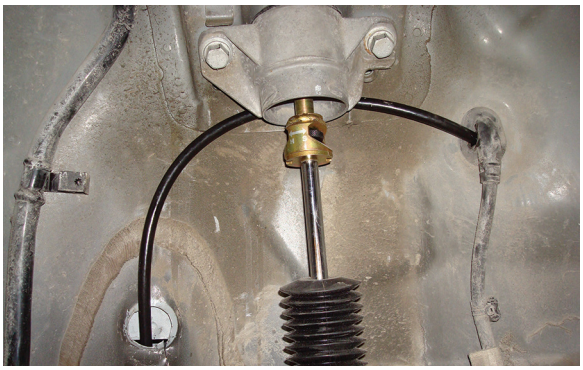


fig. 21

10. Compress the suspension fully and check clearance around the air spring and air line.
11. Reattach the inner fender liners and wheels.

ROUTING THE AIR LINES

1. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose 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.

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. 22).

Formula for Calculating Ride Height
(ME+MC)÷2=MID STROKE

fig. 22

4. With the suspension at this position, loosen, then re-torque the lower control arm bolts to manufacturer's specifications (Table 1):

Torque Specifications		
Location	Nm	Lb.-ft.
Upper shock absorber mount to body bolt	50 + 45 degrees	37
Shock absorber to wheel bearing housing bolt	150 + 180 degrees	111
Level control system sensor to body bolt	5	3.68
Level control system sensor to lower transverse link bolt	9	6.63
Lower transverse link to subframe bolt	70 + 180 degrees	52
Lower transverse link to wheel bearing housing nut	120 + 360 degrees	88
Tie rod to subframe nut	95	70
Tie rod to wheel bearing housing bolt	90 + 90 degrees	66

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
2.8-4.8BAR (40-70 PSI)	**8.6BAR (125 PSI)**
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 8.62BAR [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.

⚠ CAUTION

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

DAMPING ADJUSTMENT

Suspension damping is a matter of compromise. Setting it too stiff will make the ride feel jarring. In addition, if the suspension is too stiff, the tires will lose contact with the road, reducing control and power delivery. On the other hand, if the suspension is too soft, the car can experience brake dive and excessive bouncing. The sweet spot lies somewhere in the middle. Air Lift dampers have a range of adjustment, which allows the driver to tune the ride and handling to his or her preferences.

Air Lift recommends damper and air pressure settings for every vehicle kit, but it is impossible to consider every situation. For example, even though Air Lift kits replace the dampers and springs, vehicles with sport-tuned suspensions might have stiffer bushings, larger anti-roll bars, bigger wheels, wider tires, etc. These settings may need to be adjusted to different vehicles and driving characteristics.

1. The dampers in this kit have 30 settings, or “clicks,” of adjustable compression and rebound damping characteristics. Damping is changed by turning the integrated adjuster knob near the top of the shock. (Fig. 23).
2. Turn the adjuster clockwise when looking from the top, and the damping settings are hardened.
3. Each damper in this kit is preset to “-16 clicks.” This means that the damper is adjusted 16 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 2009 Audi A4 2.0T Quattro.

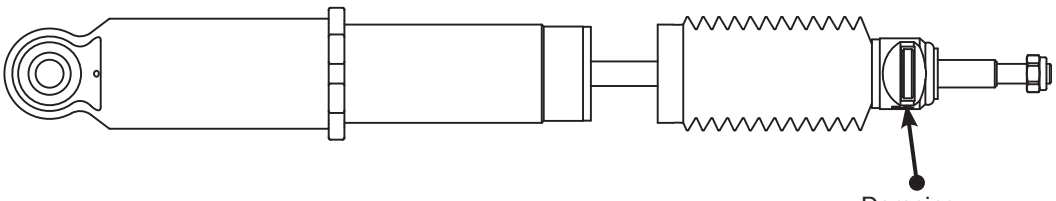


fig. 23

ALIGNING THE VEHICLE

1. Set the vehicle to the height at which it will most often be driven.
2. If the ride height is lower than stock, Air Lift recommends loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications (Table 1).

NOTE

It may be necessary to cycle the suspension to loosen the bushing from its mount. This will help re-orient the bushing at its new position based on the chosen ride height.

3. Get a shop alignment of the vehicle at the new chosen ride height.

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

These dampers have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height, or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the locking collar (Fig. 24).

The dampers in this kit may look different, but they all allow adjustment of the locking collar with the included spanner wrench.

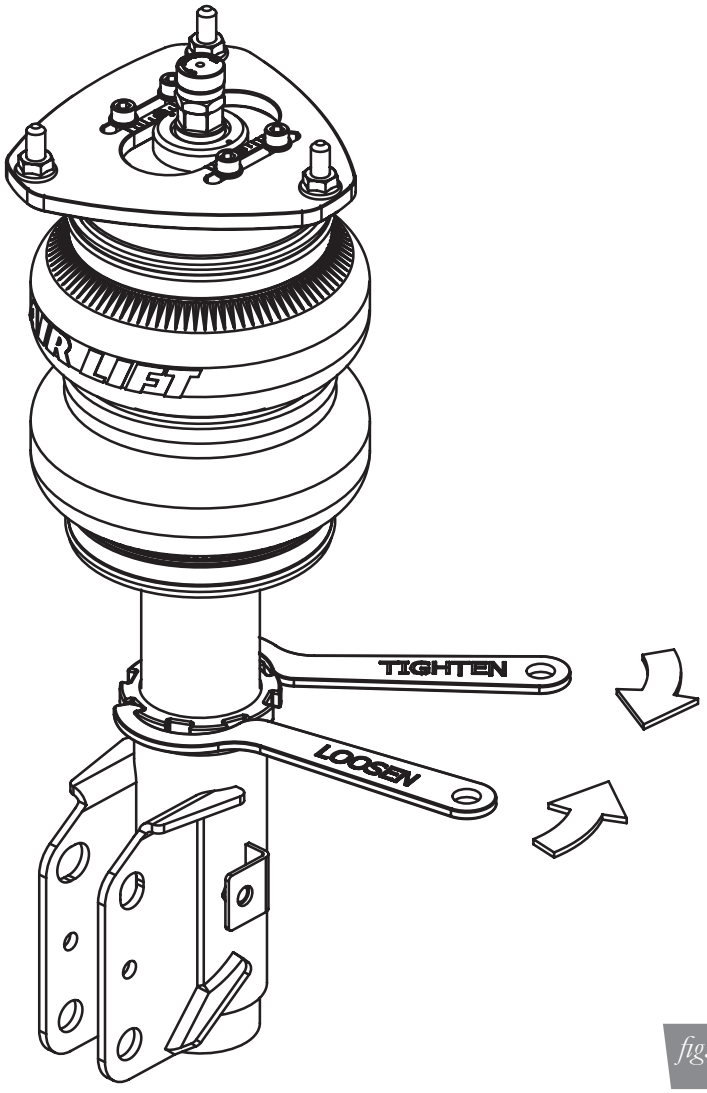


fig. 24

4. Deflate the air spring to 0 pressure on the corner you are adjusting.
5. Disconnect lower mount from suspension.
6. Spin the lower mount to the desired location.

NOTE *Not all vehicles will have further drop height available.*

7. Re-install lower mount to suspension and torque fasteners.
8. Tighten the lower locking collar to the lower mount using significant force.

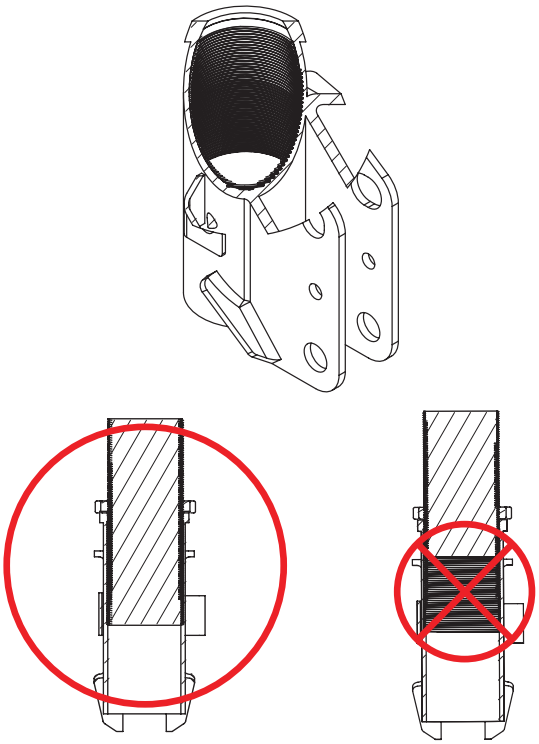
⚠ CAUTION

WHEN ADJUSTING HEIGHT UPWARD, MAKE SURE THAT THE DAMPER BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 25). WHEN ADJUSTING DOWNWARD, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

⚠ CAUTION

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON DAMPER! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

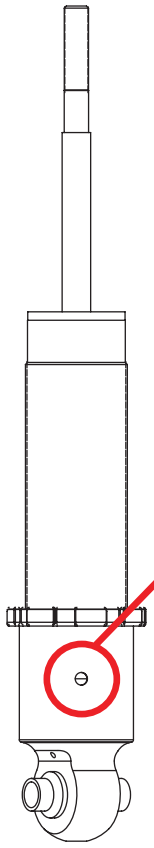
FOR STRUTS:



OK, no threads showing.

Not OK, threads are showing.

FOR SHOCKS:



Thread MUST be showing in window.

fig. 25

INSTALLATION CHECKLIST

☐ **Clearance** — Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and make sure there is at least 12mm (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”) for 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. 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.

POST-INSTALLATION CHECKLIST

☐ **Overnight leak down test** — Recheck air pressure 24 hours after installation and driving of the vehicle. If the pressure has dropped more than .34BAR (5 PSI), there is a leak that must be fixed.

☐ **Air pressure requirements** — It is important to understand the air pressure requirements of the air spring system. Regardless of load, the air pressure should always be adjusted to maintain adequate ride height at all times while driving.

☐ **Thirty-day or 800km (500-mile test)** —Recheck the air spring system after 30 days or 800km (500 miles), whichever comes first. If any part shows signs of rubbing or abrasion, the source should be identified and moved, if possible. If it is not possible to relocate the cause of the abrasion, the air spring may need to be remounted. If professionally installed, the installer should be consulted. Check all fasteners for tightness.

Use, Maintenance and Servicing

1. An Air Lift air management system is strongly recommended for this product, but it is possible to operate without one. The air lines can be routed to Schrader valves for use with a separate air compressor. Air lines and Schrader valves are not included with Air Lift Performance kits and would need to be purchased separately. To learn more about Air Lift air management systems visit **air-lift.co/productlines**.
2. Check the air pressure before driving.

⚠ WARNING

BEFORE SERVICING THE VEHICLE, MAKE SURE TO TURN OFF “RISE ON START” AND “PRESET MAINTAIN.” THIS WILL ELIMINATE ANY UNINTENDED SUSPENSION CYCLING IF YOU NEED TO TURN THE KEY ON IN THE VEHICLE FOR ANY REASON.

TUNING THE AIR PRESSURE.

Pressure determination comes down to three things — level vehicle, ride comfort and stability.

1. **Level vehicle**

   Depending on load, it is possible one side will need more pressure than the other to level the vehicle.

2. **Ride comfort**

   If the vehicle has a harsh ride, it may be due to either too much pressure or not enough causing frequent bottoming. Also, riding the vehicle at the top, or close to the top of the available stroke will cause an uncomfortable ride due to a lack of rebound travel. This situation should be avoided for driving any significant distance. Try different pressures to determine the best ride comfort. See the Air Lift suggested driving air pressure for this vehicle (Table 2).

3. **Stability**

   Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess. Tuning out these problems usually requires additional air pressure, damping or both.

Troubleshooting Guide

PROBLEM	CAUSE	SOLUTION
Air spring won't maintain pressure.	Leak at fitting, air line not cut properly or damage to air line during installation.	Find location of leak by spraying listed components with soapy water solution and look for bubbles. Tighten air fitting, re-cut air line or replace damaged components.
	Leak at lower O-ring on damper if air spring is over the damper.	Spray bottom of air spring with soapy water solution and look for bubbles. Contact Air Lift customer service at **(800) 248-0892** to determine if component should be replaced.
Knocking noise when hitting bumps.	Loose suspension component such as locking collar on damper.	Tighten lower locking collar with significant force, check and tighten suspension components to factory specs at desired ride height.
	Driving vehicle too close to maximum extension.	Check current ride height and compare to maximum height. If there is less than 25mm (1”) difference, reduce air pressure to lower ride height.
		Lengthen strut or shock to increase available up travel.
Suspension bottoms out.	Air pressure is too low, causing air springs to bottom out.	Raise air pressure.
The ride is too bouncy.	Air pressure is too high, causing air springs to be too stiff.	Lower air pressure and adjust damper length if necessary to achieve proper ride height.
	Damping is inadequate.	Increase damping with adjusters.
The ride is too soft or floaty.	Damping is inadequate.	
The ride is too harsh.	Excessive damping.	Reduce damping with adjusters.

TIPS FOR INSTALLING AIR LINES

When cutting air lines, use a sharp knife or a hose cutter and make clean, square cuts (Fig. 26). Do not use scissors or wire cutters because these tools will deform the air line, causing it to leak around fittings. Do not cut the lines at an angle.

Do not bend the 1/4” hose at a radius of less than 25mm (1”) and do not put side load pressure on fitting. The hose should be straight beyond the fitting for 25mm (1”) before bending.

Inspect hose for scratches that run lengthwise on hose prior to installation. Contact Air Lift customer service at **(800) 248-0892** if the air line is damaged.

To watch a video demonstrating proper air line cutting, go to air-lift.co/cuttingairline

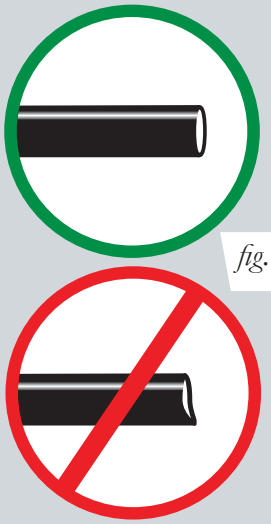


fig. 26

CHECKING FOR LEAKS

1. Inflate the air spring to at least 5.5BAR (80 PSI).
2. Spray all connections with a solution of liquid dish soap and water. Spot leaks easily by looking for bubbles in the soapy water.
3. Check the air pressure again after 24 hours. A .14-.28BAR (2-4 PSI) loss after initial installation is normal. Retest for leaks if the loss is more than .34BAR (5 PSI).

FIXING LEAKS

1. **Air line to PTC fitting**: Try pushing the air line firmly into the fitting to ensure it is properly seated. If leak persists, deflate the spring and remove the air line by pushing the collar toward the fitting body and pulling firmly on the air line. Trim 25mm (1”) off the end of the air line making sure the cut is clean and square. Reinsert air line firmly into fitting and pull back on the air line to make sure it is seated.
2. **Threaded connection**: If possible, tighten the fitting another half turn. If the leak persists, deflate spring, remove fitting and re-coat threads with thread sealant. Reinstall to hand tight and then use wrench to finish tightening an additional 1 3/4 turns.
3. **Air spring O-ring seal**: If a leak is found at the upper or lower air spring seal on a strut or shock, contact Air Lift customer service at **(800) 248-0892.**

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.

Replacement Part Information

If replacement parts are needed, call Air Lift customer service. Most parts are immediately available and can be shipped the same day.

Contact Air Lift Company customer service at (800) 248-0892 first if:

- Parts are missing from the kit.
- Need technical assistance on installation or operation.
- Broken or defective parts in the kit.
- Wrong parts in the kit.
- Have a warranty claim or question.

Contact the retailer where the kit was purchased:

- If it is necessary to return or exchange the kit for any reason.
- If there is a problem with shipping if shipped from the retailer.
- If there is a problem with the price.

Contact Information

Mailing address	P.O. Box 80167 Lansing, MI 48908-0167
Shipping address for returns	2727 Snow Road Lansing, MI 48917
Phone	Toll free: (800) 248-0892 International: (517) 322-2144
Email	service@airliftcompany.com
Web address	www.airliftcompany.com

Air Lift Company 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 Company at **(800) 248-0892** or visit **www.airliftperformance.com**.

Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial (517) 322-2144.

Connect by searching for **Air Lift Performance** *#LifeonAir*

Thank you for purchasing Air Lift Performance products!

Air Lift Performance • 2727 Snow Road • Lansing, MI 48917 or P.O. Box 80167 • Lansing, MI 48908-0167
Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240 • www.airliftperformance.com

Printed in the USA
JJC-1017