

Air Lift[™]
PERFORMANCE

Kit 75624

Volkswagen MKIV
Threaded Body

Rear 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.

PERFORMANCE SUSPENSION PARTS




Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Volkswagen MKIV Threaded Body 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, step-by-step installation information, maintenance tips, safety information and a troubleshooting guide.

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/SOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

HARDWARE LIST

Item	Part #	Description	Qty
A	58130	Tapered Sleeve.....	2
B	21851	1/4" MNPT X 3/8" PTC.....	2
C	21779	1/4" MNPT X 1/4" PTC, 90° Nickel....	2
D	07324	Upper Bracket Assembly	2
E	18427	3/8" Lock Washer	6
F	17187	3/8"-16 X 7/8" Hex Cap Screw	6
G	18422	3/8"-16 Flange Nut.....	2
H	18585	3/8"-16 Nutsert.....	2
I	10956	Washer, Plate	2
J	26700	Shock, Threaded MKIV Rear.....	2
K		Spanner Wrench.....	1

NOTE Use of axle relocation brackets, such as "Great Plates" voids the warranty. We will not warranty the air springs for premature failure due to any relocation of spring or axle from factory location.

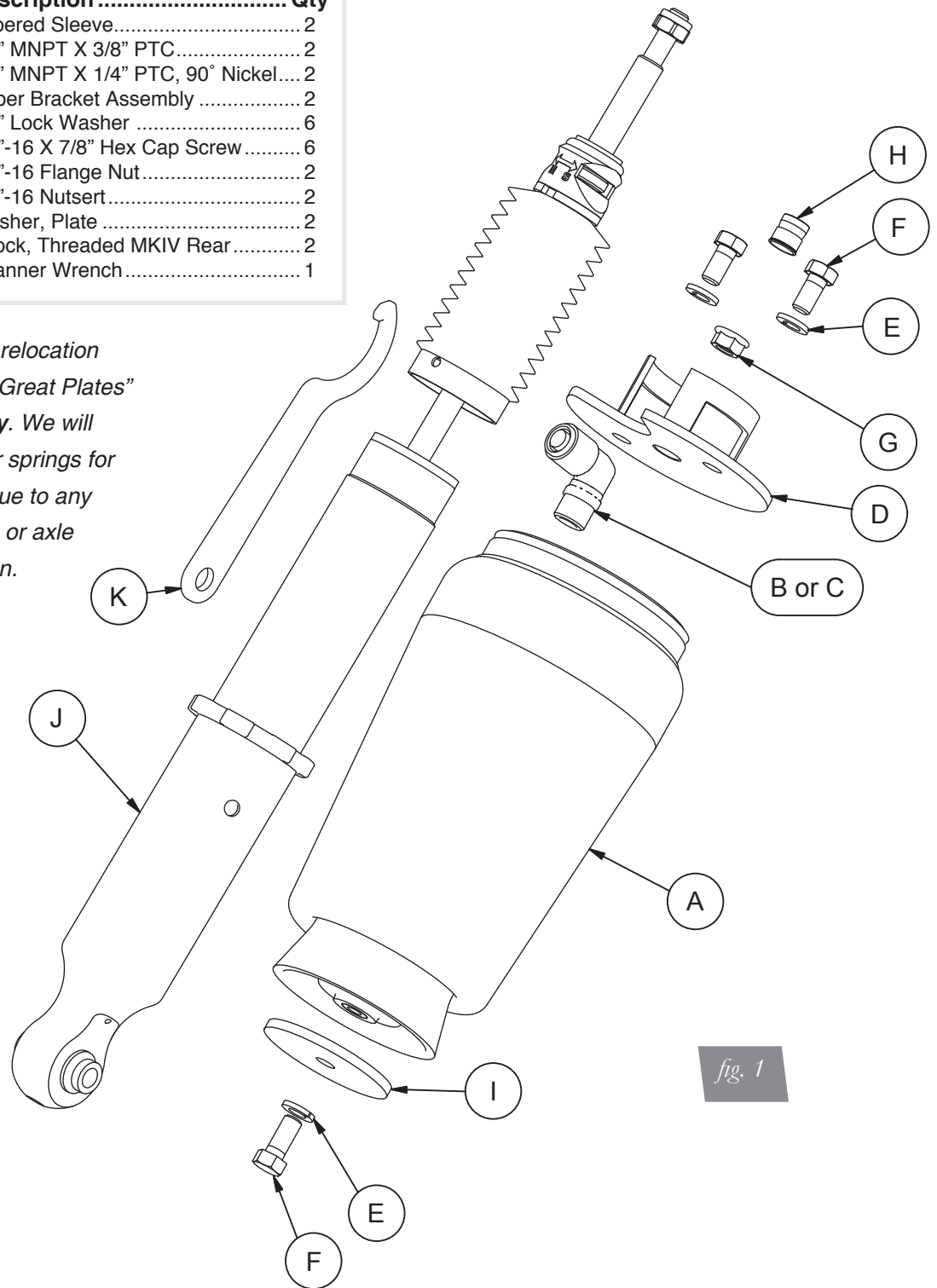


fig. 1

Installing the Air Suspension

PREPARING THE VEHICLE

1. Elevate the vehicle and support the body with a hoist or jack stands.
2. Remove the rear wheels.

REMOVING THE REAR SUSPENSION

COIL SPRINGS UNDER TENSION, PROCEED WITH EXTREME CARE!



1. Support the hub with a jack and remove the lower shock bolt. Slowly lower the axle until the axle hangs free. Move to the other side of the vehicle and repeat this process until the axle and springs hang freely.
2. Remove the coil springs and rubber isolators.
3. Unbolt the two shock upper bracket bolts and remove the shock from the vehicle.
4. Remove the plastic cap to reveal the shock rod nut and remove the rod nut. Remove the upper bracket from the shock.

INSTALLING THE AIR SUSPENSION

1. Use a 17/32" (.531" diameter) drill bit to drill the hole precisely in the upper coil spring perch (figs. 2 & 3).

NOTE

The hole must be 17/32" (.531 diameter) for the nutsert to be effective.



2. Assemble the nutsert and nutsert tool (fig. 4) together and insert into the drilled hole (fig. 3). While holding the nutsert spacer in place, tighten the tool bolt until the nutsert is fully seated and locked in place.

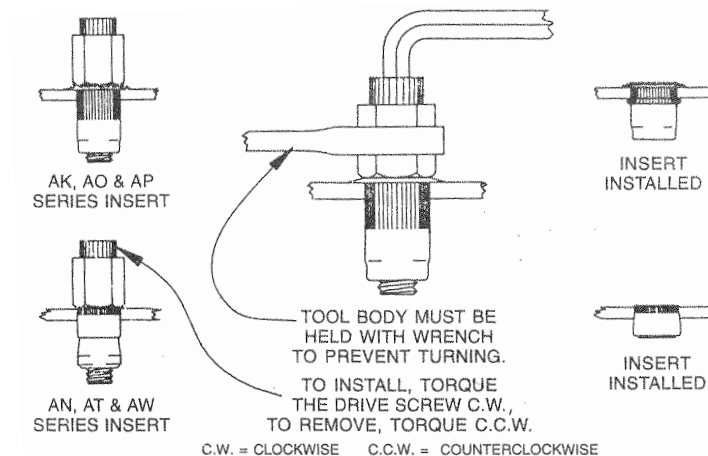
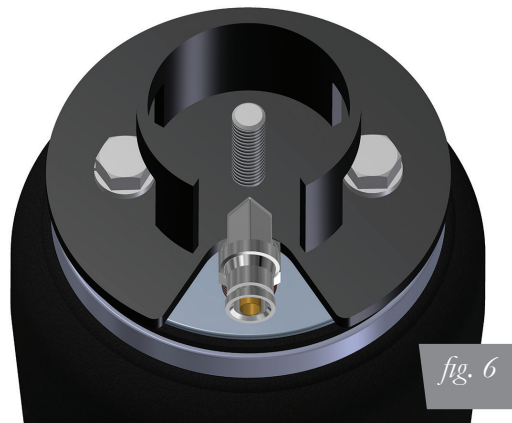


fig. 4



3. At the lower spring perch, lightly grind the center hole larger so that the air spring can sit flush in the lower coil spring perch.
4. Apply thread sealant to the threads of the air fitting and thread into the air spring 1 3/4 turns beyond hand tight (fig. 6).



5. Attach the upper bracket to the air spring using the supplied lock washers and bolts. Torque to 27Nm (20lb-ft).
6. Thread the air spring/bracket assembly into the installed nutsert. Tighten by hand while positioning the air fitting where the air line will have maximum clearance.
7. Extend the air spring into the lower spring perch and lock in place with the large washer, lock washer and bolt (fig. 7). Torque to 7Nm (5lb-ft).



8. Apply the factory upper shock mount to the new shock (fig. 8). Torque to 25Nm (18lb-ft). Reinstall the plastic cover on the upper mount (fig. 9).



fig. 8

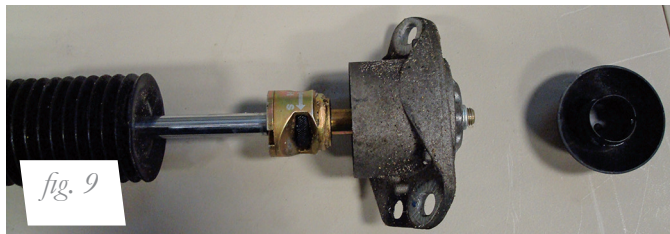


fig. 9

9. Install the upper mount with shock to the chassis (fig. 10). Torque the bolts to 75Nm (55lb-ft).



fig. 10

10. Reinstall the lower shock bolt through the twistbeam axle and shock (fig. 11). Do not torque at this time.

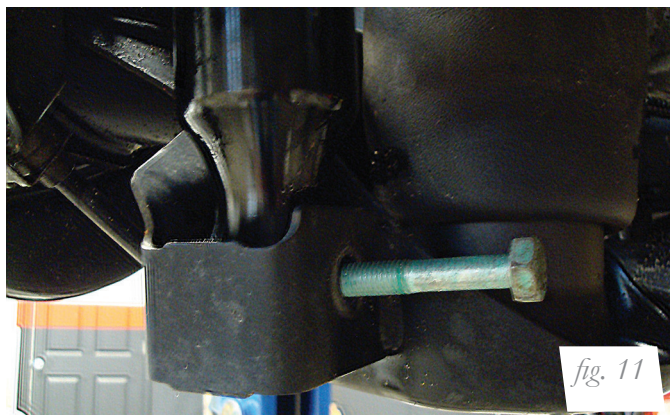


fig. 11

11. 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. Routing should also allow for the suspension to extend without kinking the line or rubbing on other components. Check clearances to all other components.
12. With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the axle. Record this measurement as Max Compression.
13. Cycle the suspension to Max Extension and record the measurement from the same reference points.
14. Add ME and MC then divide 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. 12).

Formula for Calculating Ride Height

$$(ME+MC)\div 2=MID\ STROKE$$

fig. 12

15. With the suspension at this position, torque the lower shock bolt and upper and lower control arm bolts to manufacturer’s specifications (Table 1).

Torque Specifications		
Location	Nm	lb-ft
Shock rod nut	25	18
Upper shock mount to chassis bolts	75	55
Shock eye mount bolt	60	44
Air spring upper bracket bolts	27	20
Air spring lower bolt	7	5
Wheels	120	89

Table 1

DAMPING ADJUSTMENT

The shocks in this kit have 30 settings, or “clicks”, of adjustable compression and rebound damping characteristics. Damping is changed using the adjuster knob integrated into the upper shock rod.

Turn the adjuster clockwise and the damping settings are hardened. Turn the adjuster counterclockwise and the damping is softened.

Each shock is preset to “-15 clicks”. This means that the shock is adjusted 15 clicks away from full stiff. Counting down from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2002 Volkswagen Jetta TDi and may need to be adjusted to different vehicles and driving characteristics.



fig. 13

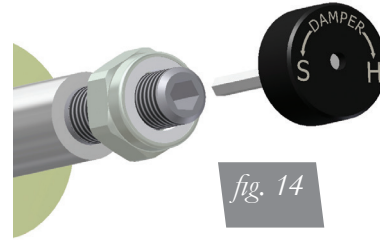


fig. 14

ALIGNING THE VEHICLE

1. Using the control system, set the vehicle height to the new custom ride height.
2. If the custom ride height is lower than stock, we recommend 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.

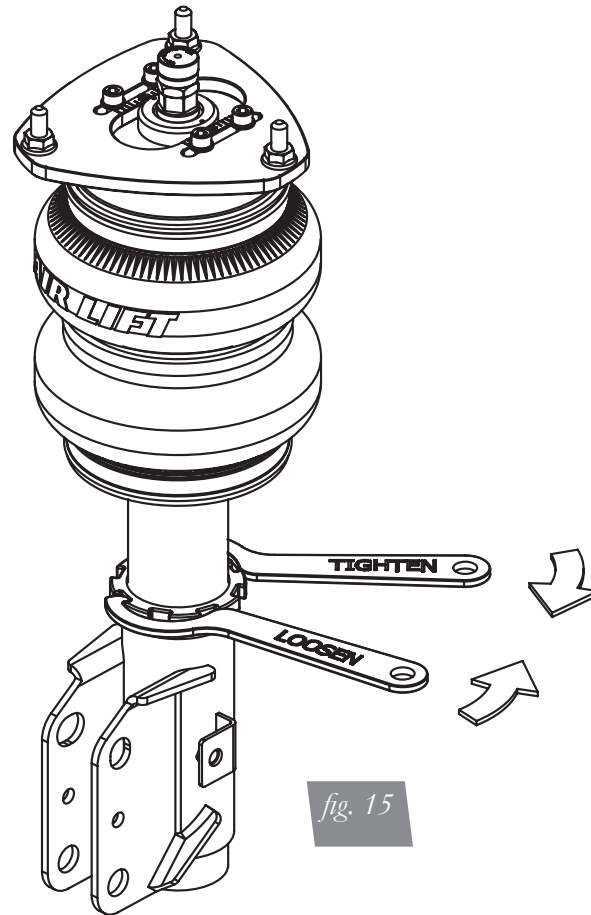
NOTE

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

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your struts 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 lower locking collar (fig. 15).



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.

NOTE

Not all models 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

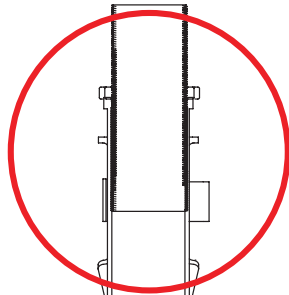
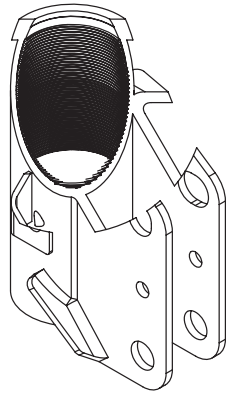
WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 16). WHEN ADJUSTING DOWNWARDS, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING

OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

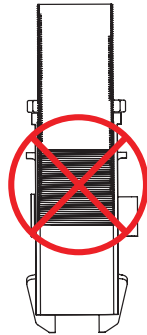
CAUTION

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

FOR STRUTS:

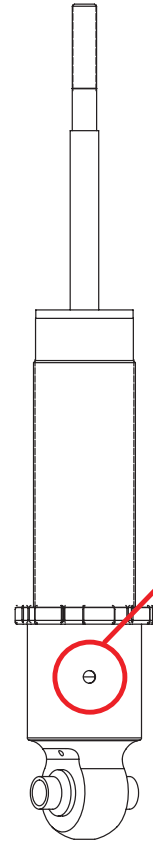


OK, no threads showing.



Not OK, threads are showing.

FOR SHOCKS:



Thread MUST be showing in window.

fig. 16