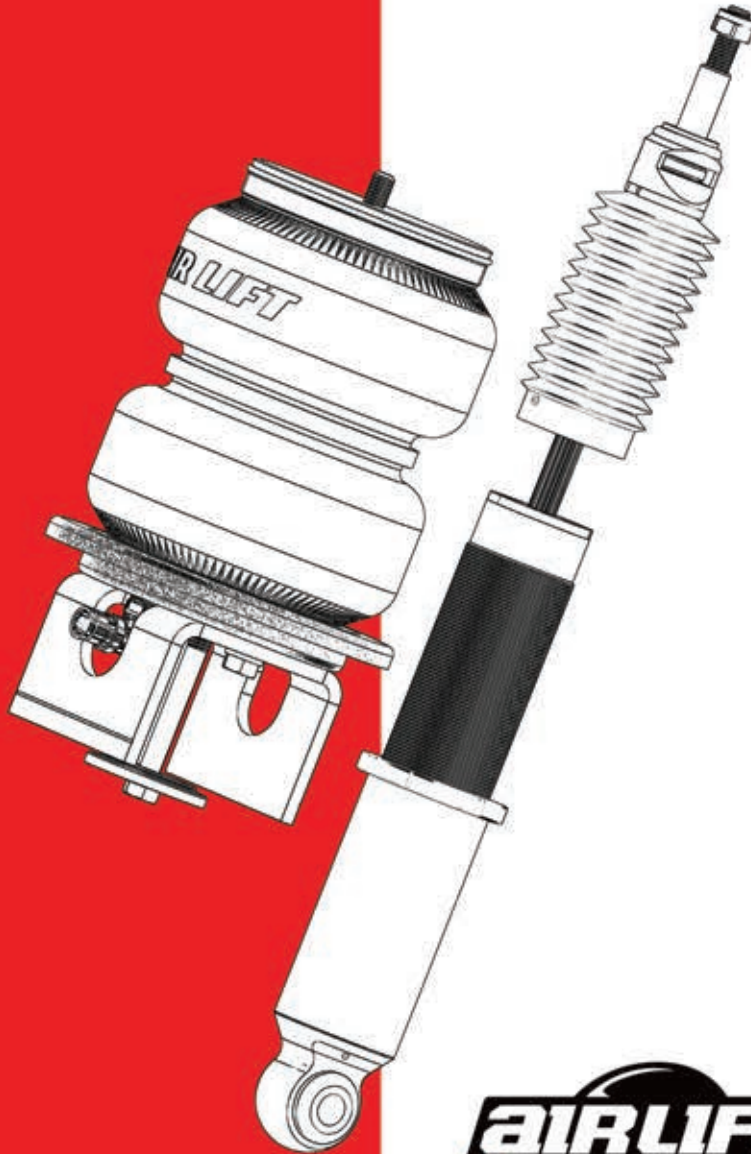


**Air Lift™**  
**PERFORMANCE**

**Kit 75676**  
**Volkswagen**  
**MKV & MKVI Platform**  
**Independent 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 MKV & MKVI 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.

## 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.

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## NOTE

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

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## 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	18585	3/8"-16 Nutsert .....	2
B	18436	3/8"-16 Nut .....	4
C	17463	3/8"-16 X 2.0" Threaded Rod .....	2
D	17447	3/8"-16 X 1.25" Threaded Rod .....	2
E	58531	Air Spring 2B6 Regular (Recess Mount) .....	2
F	21779	1/4" MNPT X 1/4" PTC Elbow (DOT) .....	2
G	21851	1/4" MNPT X 3/8" PTC 90° (DOT) .....	2
H	11801	Roll Plate .....	2
I	03992	Lower Bracket, MKV Rear .....	2
J	18427	3/8" Lock Washer .....	4
K	17101	3/8"-16 X 3/4" Hex Bolt .....	4
L	13980	Spring Seat Centering Spacer .....	2
M	17109	3/8"-16 X 3.5" Hex Cap Screw .....	2
N	17442	3/8"-16 X 3.0" Hex Cap Screw .....	2
O	26981	Shock, MKV/VI Rear Threaded Body .....	2

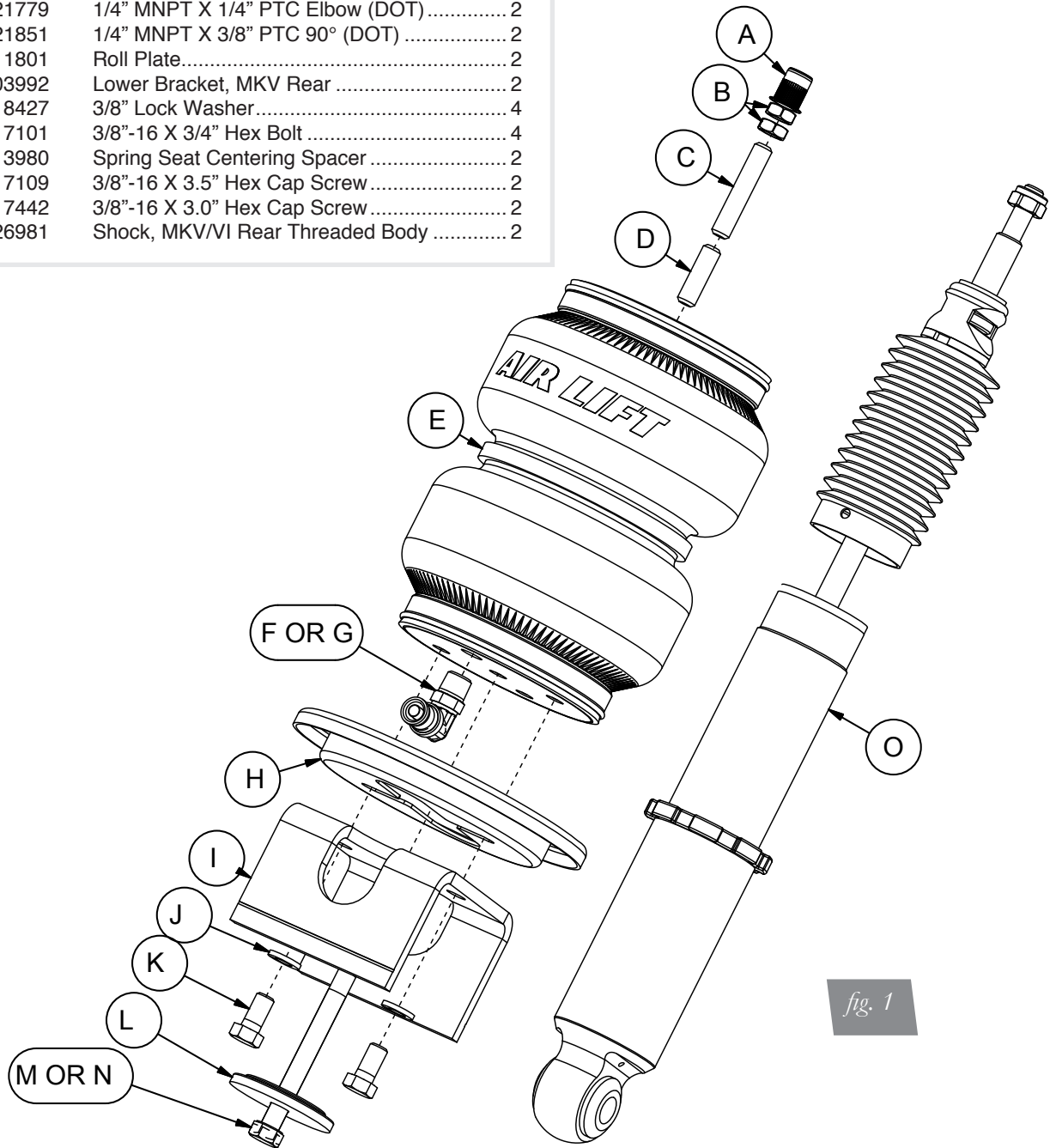


fig. 1

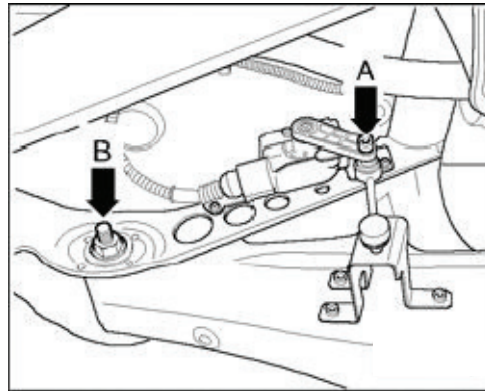
# Installing the Air Suspension

## PREPARING THE STOCK VEHICLE

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

### NOTE

*If the vehicle is equipped with automatic vertical headlight control, disconnect the coupling rod from the lower transverse link (fig. 2).*



*fig. 2*

3. To remove the coil spring, it is recommended that you use a spring compressor.

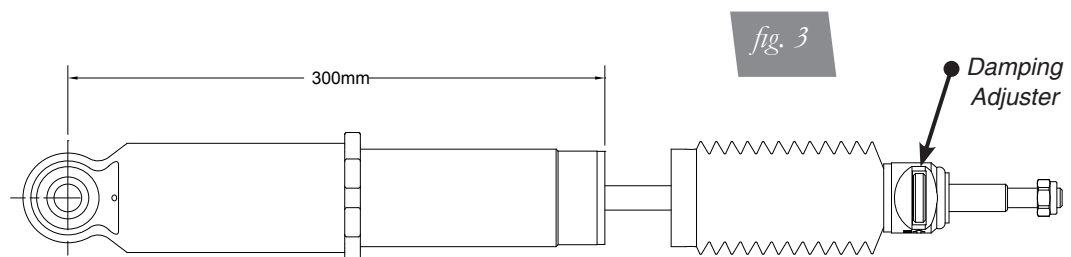
### CAUTION

**COIL SPRING UNDER COMPRESSION:** THE COIL SPRING CAN BE REMOVED BY SECURELY SUPPORTING THE LOWER TRANSVERSE LINK WITH A JACK AND REMOVING THE LOWER MOUNTING BOLT FROM THE WHEEL BEARING HOUSING. SLOWLY LOWER THE TRANSVERSE LINK UNTIL THE SPRING IS LOOSE AND FREE FROM TENSION.

4. Remove the rubber isolator in the lower transverse link.
5. Disconnect the lower transverse link from the hub.
6. Support the axle carrier and remove the lower shock mount.
7. Unbolt the upper shock bracket and remove the shock from the vehicle.
8. Remove the upper bracket plastic cap and remove the nut shock rod nut. Retain the upper shock bracket and plastic cap for later use.

## INSTALLING THE REAR SHOCK

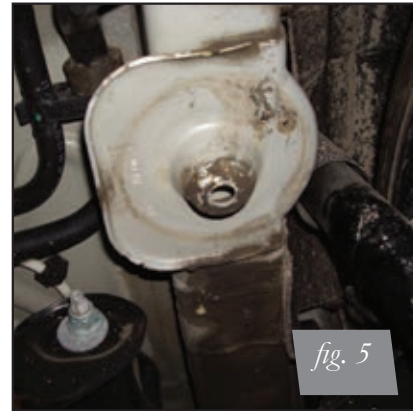
1. The rear shocks supplied in this kit are height adjustable through the use of the threaded lower mount. The shocks are threaded all the way down for maximum drop height. To adjust the height, loosen the locking collar and thread the shock cartridge in or out of the lower mount. Lock the shock cartridge in-place by torquing the collar against the lower mount 45 degrees beyond hand tight.
  - a. Thread the out to 300mm to match the compressed height of Bilstein Sport shocks (Fig. 3).



*fig. 3*

2. Attach the factory upper shock mount to the shock using the supplied nut and torque to 25NM (18ft-lbs).
3. Reattach the shock upper bracket to the chassis and torque bolts to 45Nm (33ft-lbs).
4. Align the lower shock eye with the axle carrier and reinstall the lower shock bolt. Do not torque at this time.
5. Use a 17/32" drill bit to enlarge the hole in the upper coil spring perch. If the upper coil spring perch has been removed, drill in the center of where the perch used to be.
6. The hole must be 17/32" for the nutsert to be effective (figs. 3-6).

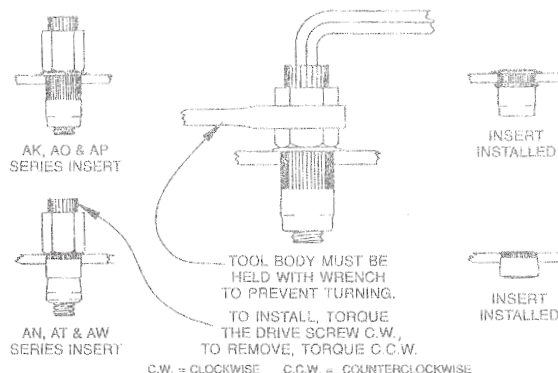
*Factory / OEM Upper Spring Perch*



*Previously Cut Spring Perch with Aftermarket Shock*



7. Assemble the nutsert and nutsert tool together and insert into the 17/32" hole. Review diagram below on how to attach the nutsert to the vehicle. (fig. 8).



8. Two lengths of threaded studs are included with the kit (C or D, fig. 1). The shorter stud is for vehicles that retain the coil spring perch bump. The longer threaded stud is for vehicles without the spring perch bump. Apply Loctite to the threads of the upper end cap and thread in the appropriate stud. Take the supplied nuts and thread both onto one stud (fig. 9, 10). Using the nuts jammed together, tighten the stud into the end cap until it bottoms (fig. 11). Remove both nuts (fig. 12).



fig. 9



fig. 10



fig. 11



fig. 12

9. Wrap the threads of the fitting with Teflon tape or thread sealant. Tighten the fitting  $1\frac{3}{4}$  turns beyond hand tight.
10. Thread the air spring into the lower end cap of the air spring. Tighten by hand (figs. 13, 14).

*Previously Cut Spring Perch with Aftermarket Shock*

fig. 13



fig. 14



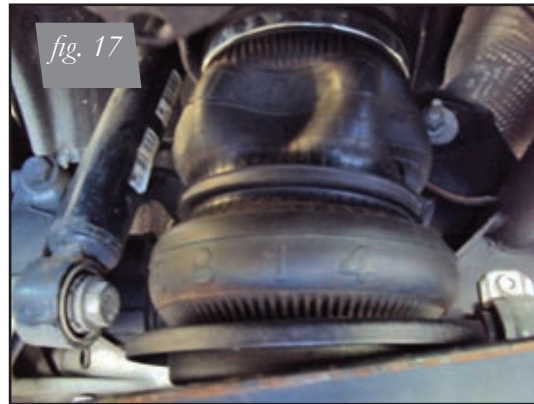
11. Orient the air fitting inline with lower transverse link toward the center of the vehicle.
12. The lower bracket in this kit has a scribe line. This indicates the height the bracket should be if using Air Lift rear shocks or shocks that allow for more drop than the factory shock absorbers with half cut jounce bumpers.

## CAUTION

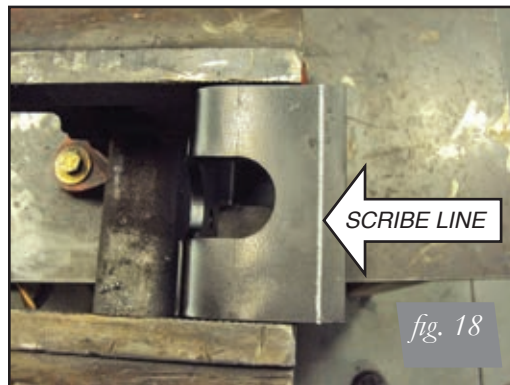
IF RUNNING A SHORTER-THAN-FACTORY SHOCK, THE BRACKET MUST BE TRIMMED DOWN TO PREVENT THE AIR SPRING FROM BEING OVER COMPRESSED AND POTENTIALLY CAUSING A RUPTURE.

13. Attach the lower bracket and roll plate with the lock washer and bolts provided. The roll plate is used with the full length lower bracket. Roll plates are not used with a cut bracket.

Installation with factory shock, roll plate and un-cut lower bracket (figs. 15, 16, 17)



Installation with aftermarket shock, no roll plate and cut bracket (figs. 18-21)



- Route the air line from the center of the cross-member, through the lower transverse link and attach insert into the air fitting (fig. 22).



fig. 22

- Reattach the lower transverse link to the hub. Do not torque at this time (fig. 23).

## NOTE

*If the lower bracket has been cut, the shorter length bolt should be used to secure the assembly to the lower transverse link with the centering washer and lock washer. Uncut brackets use the longer bolt (C or D, fig. 1) (fig. 24).*



fig. 23



fig. 24

- With the suspension fully compressed, take a measurement from the fender to some reference point, typically the center of the axle. Record this as Max Compression (MC). Cycle the suspension to Max Extension (ME) and record the measurement from the same reference points. Take the difference between the two numbers and divide by two. Add that value to the Max Compression number and then set the suspension to that point (fig. 25). This position gives 50% stroke in either direction and is a great starting point for ride height. At this position torque the lower clevis bolt, upper and lower control arm bolts to manufacturer's specifications (Table 1).

### Formula for calculating ride height

Step 1	Step 2	Step 3	Answer
$\frac{ME - MC}{X}$	$\frac{X}{2} = Y$	$\frac{Y + MC}{Z}$	<b>Z = DESIGN HEIGHT</b>

fig. 25



Table 1

Torque Specifications		
Location	Nm	ft. lbs.
Upper bracket to chassis	64	47
Upper shock mount cap	25	18
Axle carrier to shock eye	70	52
Axle carrier to upper control arm ball joint	70	52
Camber adjustment bolt	50	37°
Upper control arm to subframe	90	67
Rear suspension arm to subframe	90	67
Headlight alignment link	5.4	48 in/lbs
Wheels	103	76

17. Reinstall wheels and retake the Max Compression and Extension measurements from the fender to lower wheel lip. Recalculate the ride height at 50% stroke and set the vehicle to that height. Enjoy the new look and handling! Please make sure to get an alignment at the preferred drive height.

## 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 (figs. 4 & 5). 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 up from its mount. This will help re-orient the bushing at its new position based on the custom ride height.*

## DAMPING ADJUSTMENT

The shocks in this kit have 30 settings or “clicks” of adjustable compression and rebound damping characteristics. Damping is changed through the adjuster at the top of the shock rod. Turn the adjuster clockwise and the damping settings are hardened. Turn the adjuster counterclockwise and the damping is softened. Each rear 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/setting of damping. This setting was developed on a 2008 Volkswagen Jetta and may need to be adjusted to different vehicles and driving characteristics.

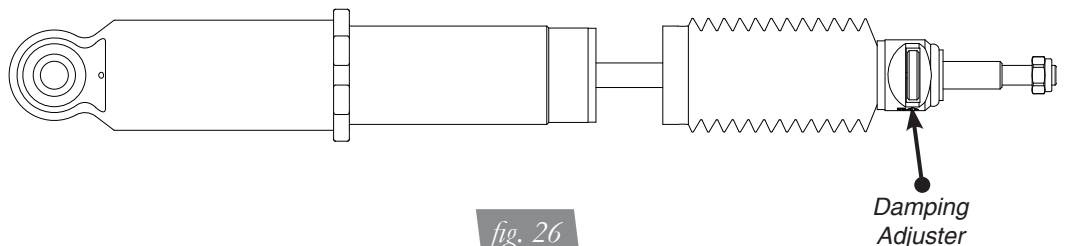


fig. 26

## 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. 27).

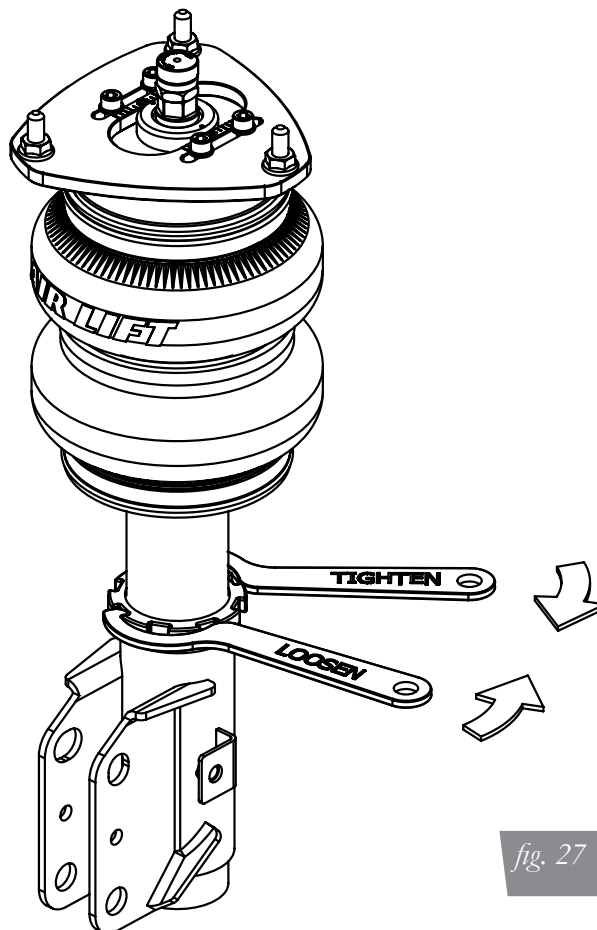


fig. 27

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.*

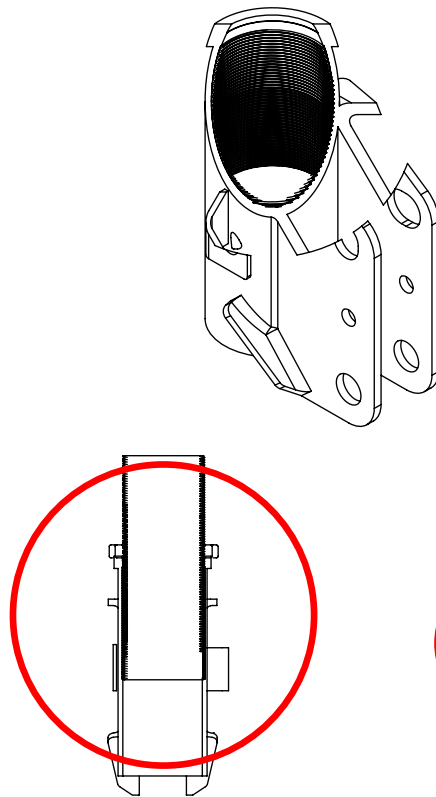
### CAUTION

WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT. (FIG. 28) 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.

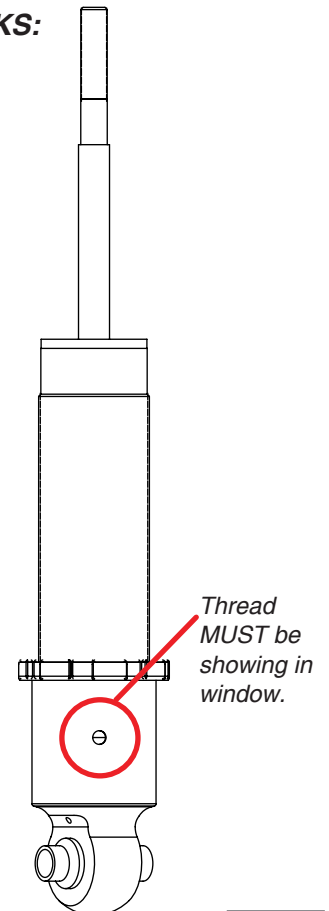
#### FOR STRUTS:



OK, no threads showing.

Not OK, threads are showing.

#### FOR SHOCKS:



Thread  
MUST be  
showing in  
window.

fig. 28