Kit 78522

Volkswagen MKVII

Front Application

(for vehicles with 55mm lower strut diameter)

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-942 • (021910) • ECR 9416

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Introduction

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

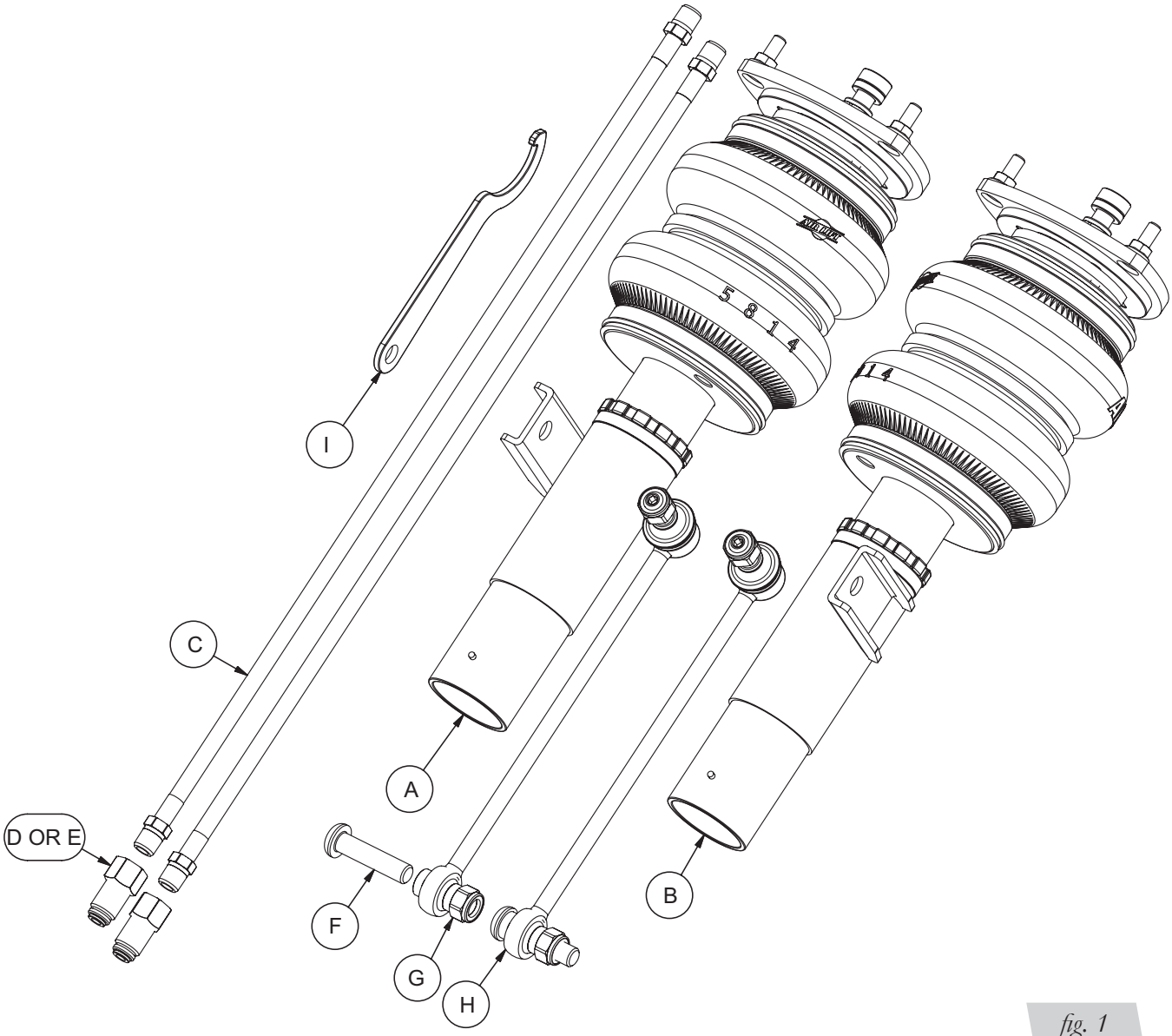

fig. 1

HARDWARE LIST

Item	Part #	Description	Qty
A	35310	ASM strut, MKVII front (55mm) right	1
B	35311	ASM strut, MKVII front (55mm) left	1
C	20997	Leader line, 1/4" ID	2
D*	21987	Union, 1/4" FNPT x 3/8" PTC, DOT	2
E	21810	Union, 1/4" FNPT x 1/4" PTC, DOT	2
F	17491	Male 12 x 1.25-50 button head cap screw	2
G	18546	Nylon lock nut	2
H		End link, VW MKVII front	2
I		Spanner wrench	1

*1/4" FNPT x 3/8" PTC fittings are NOT included in this kit, but are available as a special order.

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. Elevate and support the vehicle with a hoist or safety stands.
2. Remove the front wheel and support the hub assembly (Fig. 2).

fig. 2

REMOVAL OF STOCK SUSPENSION

1. Within the engine compartment, remove the weather-stripping from the plastic cowl cover (Figs. 3 & 4).

fig. 3

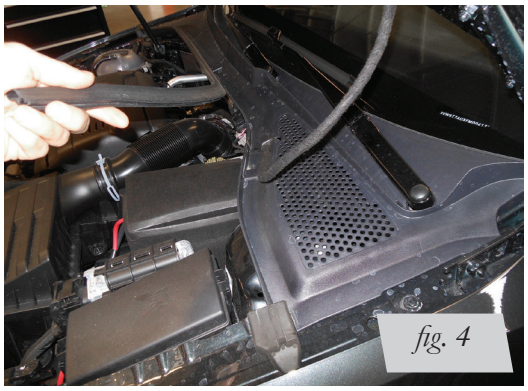

fig. 4

2. Remove both wiper arms (Figs. 5a-5c).

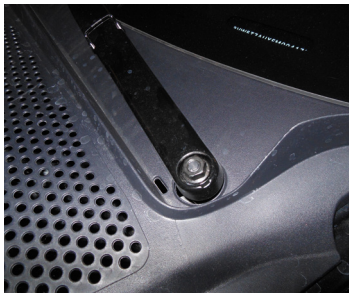

fig. 5a

fig. 5b

fig. 5c

3. Unclip the hose from the cowl cover and remove both sections of cover from the vehicle (Figs. 6a-6d).


fig. 6a


fig. 6b


fig. 6c


fig. 6d

4. Remove the stabilizer bar end link from the strut and bar (Figs. 7a-7d).

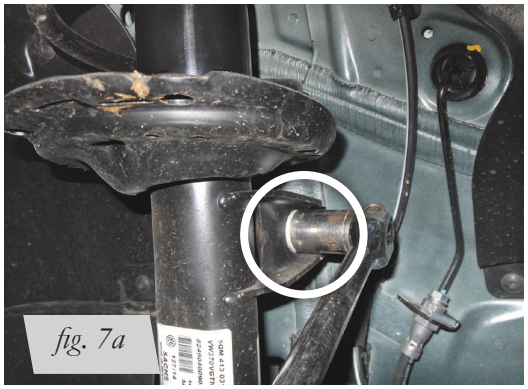
fig. 7a

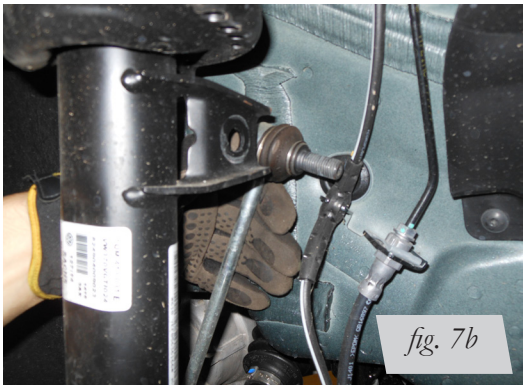
fig. 7b

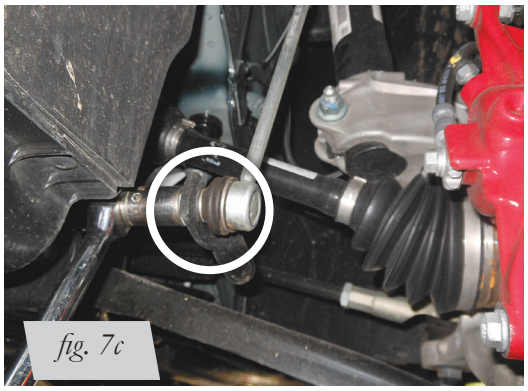
fig. 7c


fig. 7d

5. Remove the axle bolt from the bearing hub (Figs. 8a & 8b).

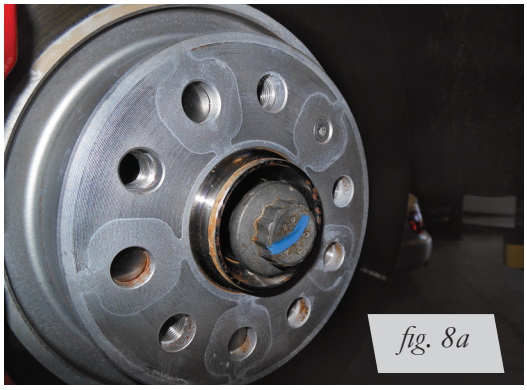

fig. 8a

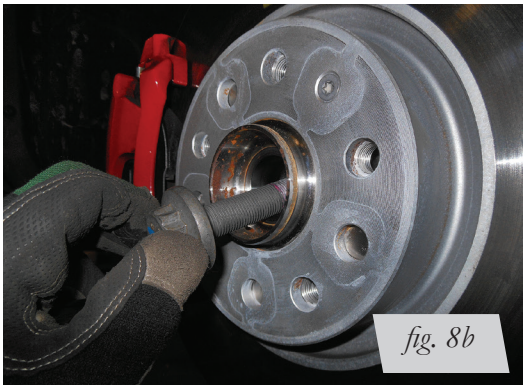

fig. 8b

6. Remove the lower strut pinch bolt (Fig. 9).

fig. 9

7. Support the hub assembly and remove the three lower ball joint bolts (Fig. 10).

fig. 10

8. Rotate the hub and remove the axle from the bearing. Support the axle and slide the hub down from the strut (Fig. 11).

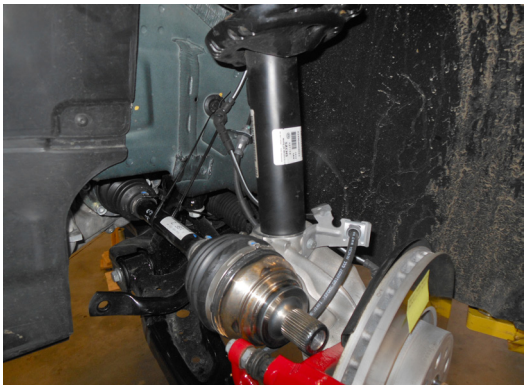

fig. 11

9. Unbolt the three upper strut mount bolts and remove the strut from the vehicle (Figs. 12a & 12b).

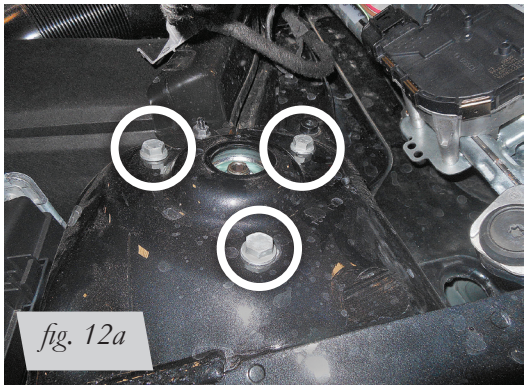
fig. 12a


fig. 12b

10. Insert the axle through the bearing (Fig. 13a), reattach the axle bolt and three lower ball joint nuts (Fig. 13b). Torque ball joint nuts to 60Nm (44 lb.-ft.) Thread the axle bolt in place (Fig. 13c). See torque specifications (page 10) for axle bolt values.

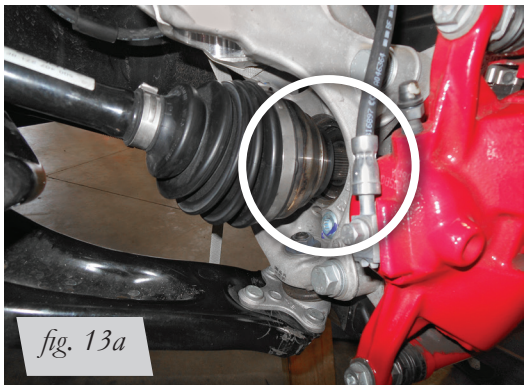
fig. 13a

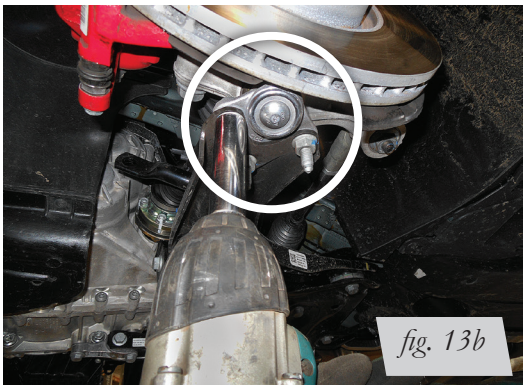
fig. 13b


fig. 13c

INSTALLING THE KIT COMPONENTS

1. Install the leader line into the air spring (Fig. 14) with thread sealant, torque 1 3/4 turns beyond hand-tight. Attach the desired air fitting to the leader line with thread sealant, torque 1 3/4 turns beyond hand-tight.

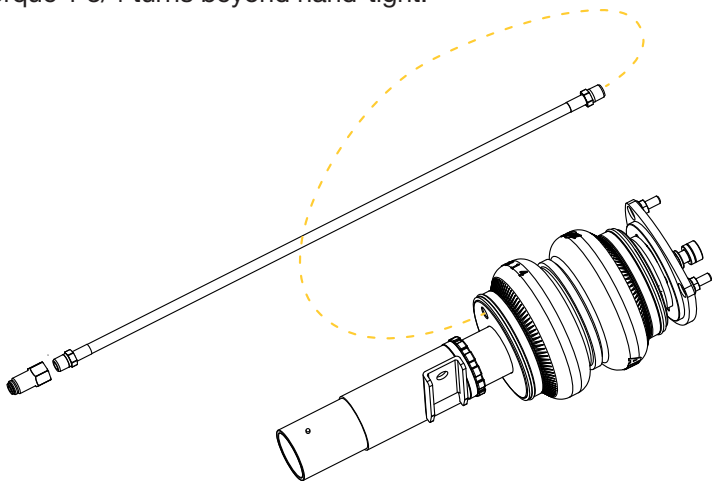

fig. 14

2. Attach the strut camber plate to the chassis (Figs. 15a & 15b). Torque nuts to 27Nm (20 lb.-ft.).

fig. 15a

fig. 15b

3. Lift the hub assembly, sliding over the strut lower mount with the locating pin between the clamp area (Fig. 16a). With the lower mount fully seated (Fig. 16b), install the lower clamp bolt (Fig. 16c). Torque to 70Nm (52 lb.-ft.).

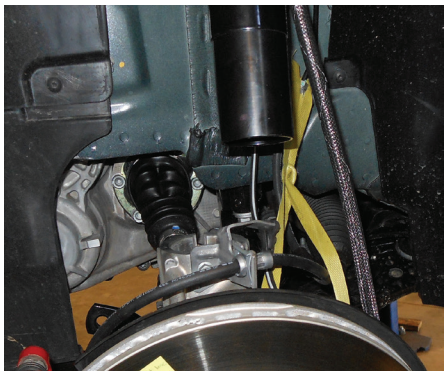

fig. 16a

fig. 16b

fig. 16c

4. Insert the supplied bolt (F) through the stabilizer bar with the bolt head inboard toward the engine compartment. Slide the supplied end link (H) with spacer on each side of the rod end onto the bolt. Thread the nut onto the bolt and torque to 65Nm (48 lb.-ft.) (Fig. 17).

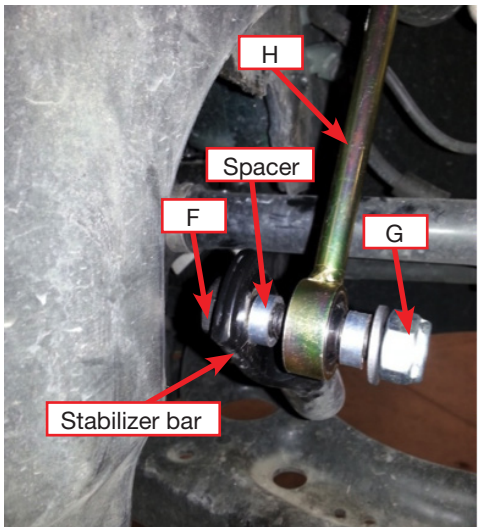

fig. 17

5. Attach the end link stud to the end link tab on the strut (Fig. 18). Torque to 65Nm (48 lb.-ft.).

fig. 18

ROUTING THE AIR LINES

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 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.

⚠ WARNING

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.

Before Operating

SETTING THE RIDE HEIGHT

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

Torque Specifications		
Location	Nm	lb.-ft.
Camber plate to chassis	27	20
Lower strut clamp bolt	70	52
Stabilizer end link to bar	65	48
Stabilizer end link to strut	65	48
Camber adjustment bolt	15	11
Ball joint to control arm	60	44
Axle bolt (12 point without ribs)	200	148
Axle bolt (12 point with ribs)	70 + 90 degrees	52 + 90 degrees
Forward control arm to sub-frame bushing bolt	70 + 180 degrees	52 + 180 degrees
Wheel studs	120	89
Braided air line threads	1 3/4 turns beyond hand-tight	

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
45-55 PSI (3.1-3.8BAR)	**125 PSI (8.6BAR)**
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND **WILL VOID THE WARRANTY**.	

Table 2

INSTALLATION CHECKLIST

- ☐ **Clearance** — Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and make sure there is at least 1/2” (13mm) clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
- ☐ **Leak** — Inflate the air springs to 75-90 PSI (5.2-6.2BAR) 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" (152mm) 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 (Table 2). Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- ☐ **Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all paperwork that came with the kit.

DAMPING ADJUSTMENT

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. 19 & 20) 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 “-15 clicks.” This means that the damper is adjusted 15 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 2015 Volkswagen GTI.

fig. 19

fig. 20

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.

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.

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Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240 • www.airliftperformance.com

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