Air Lift™ PERFORMANCE

Kit 75583

MKII-III Platform

front application

AIRLIFT PERFORMANCE®

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-733 • (021106) • ECR 7094

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this MKII-III 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.

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 LIFESTYLE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

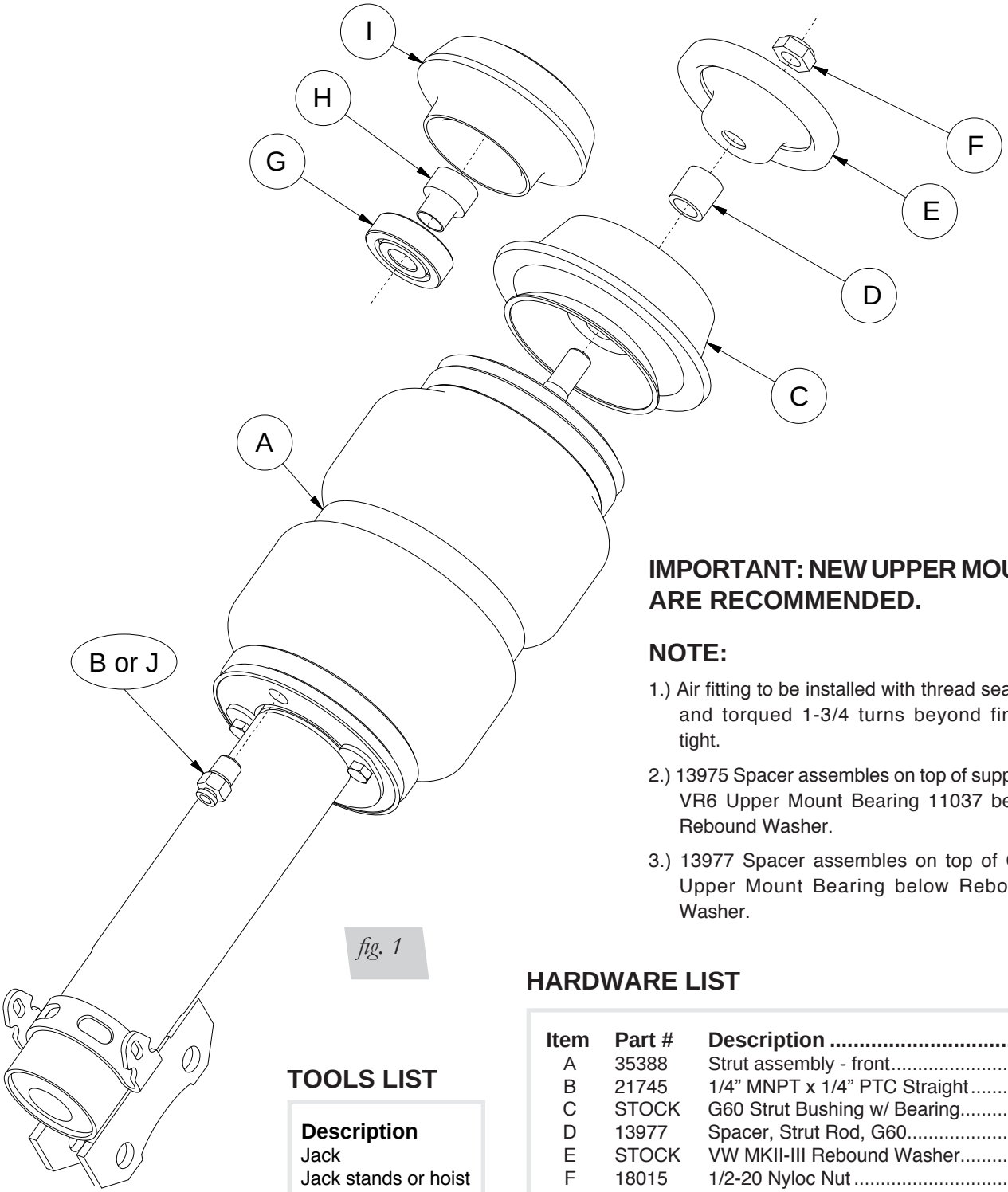

fig. 1

IMPORTANT: NEW UPPER MOUNTS ARE RECOMMENDED.

NOTE:

1.) Air fitting to be installed with thread sealant and torqued 1-3/4 turns beyond finger tight.

2.) 13975 Spacer assembles on top of supplied VR6 Upper Mount Bearing 11037 below Rebound Washer.

3.) 13977 Spacer assembles on top of G60 Upper Mount Bearing below Rebound Washer.

TOOLS LIST

Description
Jack
Jack stands or hoist
Torque wrench
Metric Wrenches
Standard Wrenches

HARDWARE LIST

Item	Part #	Description ..... Qty
A	35388	Strut assembly - front.....2
B	21745	1/4” MNPT x 1/4” PTC Straight.....2
C	STOCK	G60 Strut Bushing w/ Bearing.....2
D	13977	Spacer, Strut Rod, G60.....2
E	STOCK	VW MKII-III Rebound Washer.....2
F	18015	1/2-20 Nyloc Nut 2
G	11037	VR6 Strut Bearing, VW MKII-III.....2
H	13975	VR6 Strut Rod Spacer, VW MKII-III....2
I	STOCK	VR6 Strut Bushing 2
J	21853	1/4” MNPT x 3/8” PTC Straight.....2

Installing the Air Suspension

PREPARING THE VEHICLE

1. Elevate the vehicle and support the body with a hoist or jack stands.

2. Remove the front wheels.

REMOVING THE STRUT

1. Unbolt the brake line/ABS bracket from the strut, save for later reinstallation (fig. 2).

fig. 2

2. Support the hub assembly. Unbolt the lower spindle mounting bolts and save for later reinstallation (fig. 3).

fig. 3

3. Remove the upper strut mount nut within the rebound washer. Remove the strut assembly from the vehicle. Skip step 4 if using new upper mounts (fig. 4).

fig. 4

4. Using a coil spring compressor, securely mount the assembly in the compressor and carefully apply tension to the coil spring. Once the coil spring tension is secure, unthread the upper mount nut and remove the nut and mount bushing from the assembly. Slowly release tension from the coil spring. Save the upper mount bushing for later reinstallation.

INSTALLING THE NEW STRUT ASSEMBLY

1. Prior to installing the strut, apply Teflon tape or thread sealant to the threads of the air fitting and thread into the lower end cap of the air spring. Torque 1-3/4 turns beyond hand tight.

2. **IMPORTANT**: 4 cylinder chassis vehicles will install the stock mount onto the strut rod, followed by the long 13977 spacer over the stock mount and underneath the stock rebound washer when installed (see installation diagram - fig. 1). VR6 chassis vehicles will use the supplied bearing and spacer to replace the stock bearing that is removable from the mount. VR6 mounts will need rubber removed from the top side of the mount to clear the rebound washer. Skim a layer of rubber off from this area of the mount until metal is shown approx. 1/8 inch down. See figures below (fig. 5a and fig. 5b).

fig. 5a

4 Cylinder Shown

fig. 5b

VR6 Shown

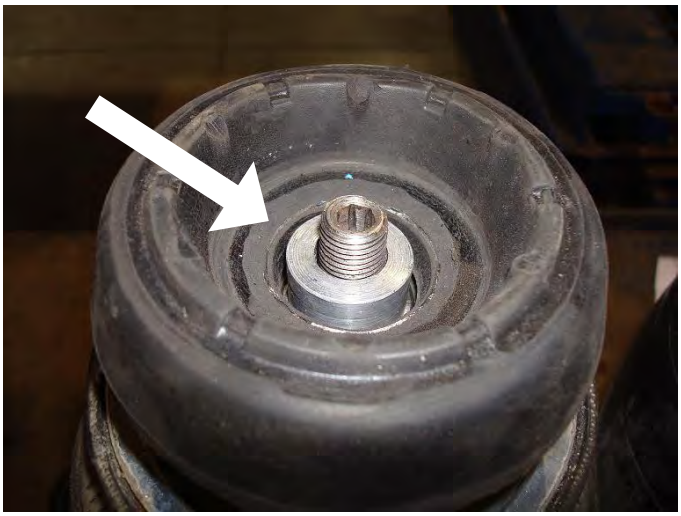

fig. 6

Rubber removed from VR6 mount

3. Lift hub and strut assembly into the strut pocket. Align the stock upper mount with the pocket and install the stock rebound washer and supplied nyloc nut. Torque to 54Nm (44ft-lbs)

4. Reattach the ABS bracket and brake line to the tab.

5. Lift the hub assembly and align spindle knuckle with the spindle tabs on the strut and reinstall the previously removed bolts. 19mm head bolts are torque to 80Nm (59ft-lbs) while 18mm head bolts are torque to 95Nm (70ft-lb).

6. Compress suspension fully and check for clearance issues around the axle, tie rods, control arm, brake lines and the air spring. Modify if necessary.

7. Install wheel and torque to 110Nm (81ft-lbs).

ALIGNING THE VEHICLE

1. Using the control system set the vehicle height to the new desired ride height and align there.

2. If the 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.

Torque Specifications		
Location	Nm	ft. lbs.
Strut to wheel bearing housing (18mm bolt head)	95	70
Strut to wheel bearing housing (19mm bolt head)	80	59
Upper nut to strut rod	54	44
Wheels	110	81

Table 1

NOTE *It may be necessary to cycle the suspension to loosen the bushing up from its mount. This will help unload the bushing to make it last longer at its new position based on the custom ride height.*

Before Operating

1. Completely deflate and reinflate the air bags 2-3 times. This procedure will purge any trapped air in the dampers and allow for maximum performance. For ride performance and the most versatility.

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

3. 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.
4. Inflate the air springs to 75PSI - 90PSI and check all connections for leaks.
5. Air Lift part #27741 or #27630, High Performance 4 Path Air Management System, is highly recommended for this product.
6. Please continue by reading the Product Use, Maintenance and Servicing section.

Product Use, Maintenance and Servicing

Suggested Driving Air Pressure	Maximum Air Pressure
45 PSI	125 PSI
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) WILL RESULT IN BOTTOMING OUT, OVER-EXTENSION OR RUBBING AGAINST ANOTHER COMPONENT AND WILL **VOID THE WARRANTY**.	

MAINTENANCE GUIDELINES

NOTE *By following these steps, vehicle owners will obtain the longest life and best results from their air spring.*

1. Check the air pressure before driving.
2. Never inflate beyond 125 PSI.
3. If you develop an air leak in the system, use a soapy water solution to check all air line connections, before deflating and removing the spring.
4. When increasing load, always adjust the air pressure to maintain normal ride height. Increase or decrease pressure from the system as necessary to attain normal ride height for optimal ride and handling. Remember that loads carried behind the axle (including tongue loads) require more leveling force (pressure) than those carried directly over the axle.

⚠ CAUTION FOR YOUR SAFETY AND TO PREVENT DAMAGE TO YOUR VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR), AS INDICATED BY THE VEHICLE MANUFACTURER. ALTHOUGH YOUR AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 125 PSI, THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON YOUR LOAD.

5. Always add air to the springs in small quantities, checking the pressure frequently. Sleeves require less air volume than a tire and inflate quickly.
6. Should it become necessary to raise the vehicle by the frame, make sure the control system is turned off before lifting.

Troubleshooting Guide

1. Leak test the air line connections, threaded connection of the elbow into the air spring, and the inflation valves.
2. Inspect the air lines to be sure none are pinched. Tie straps may be too tight. Loosen or replace the strap and replace leaking components.
3. Inspect the air line for holes and cracks. Replace as needed.
4. Look for a kink or fold in the air line. Reroute as needed.

Frequently Asked Questions

Q. Will installing air springs increase the weight ratings of a vehicle?

No. Adding air springs will not change the weight ratings (GAWR, GCWR and/or GVWR) of a vehicle. Exceeding the GVWR is dangerous and voids the Air Lift warranty.

Q. How long should air springs last?

If the air springs are properly installed and maintained they can last indefinitely.

Q. Will raising the vehicle on a hoist for service work damage the air springs?

No. The vehicle can be lifted on a hoist for short-term service work such as tire rotation or oil changes. However, if the vehicle will be on the hoist for a prolonged period of time, support the axle with jack stands in order to take the tension off of the air springs.

Tuning the Air Pressure

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

1. **Level vehicle**

   If the vehicle's headlights are shining into the trees or the vehicle is leaning to one side, then it is not level. Raise the air pressure to correct either of these problems and level the vehicle.

2. **Ride comfort**

   If the vehicle has a rough or harsh ride it may be due to either too much pressure or not enough. Try different pressures to determine the best ride comfort. See Air Lift suggested driving air pressure.

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, strut damping, or both.

Checking for leaks

1. Inflate the air spring to 80 PSI.
2. Spray all connections and the inflation valves 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 lbs.

Fixing Leaks

1. If there is a problem with a swivel fitting:
   a. Check the air line connection by deflating the spring and removing the line by pulling the collar against the fitting and pulling firmly on the air line. Trim 1" off the end of the air line. Be sure the cut is clean and square (see fig. 7). Reinsert the air line into the push-to-connect fitting.

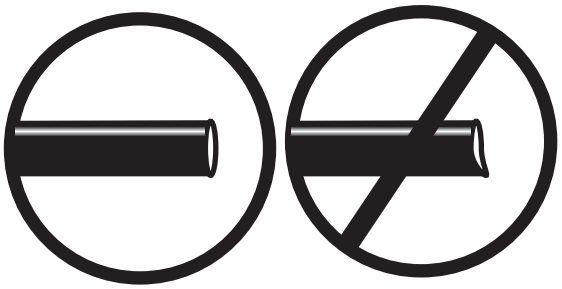

fig. 7

b. Check the threaded connection by tightening the swivel fitting another ½ turn. If it still leaks, deflate the air spring, remove the fitting, and re-coat the threads with thread sealant. Reinstall by hand tightening as much as possible and then use a wrench for an additional two turns.