





7189			0
10-705 • (031111) • ECR 7189			



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.

TABLE OF CONTENTS

9

Introduction 2
Notation Explanation
Important Safety Notices
Installation Diagram
Hardware List
Tools List
Installing the Air Suspension
Preparing the Vehicle
Removing the Strut
Installing the New Strut Assembly
Aligning the Vehicle
Before Operating
Installation Checklist
Product Use, Maintenance and Servicing
Suggested Driving and Maximum Air Pressures
Maintaining and Operating9
Troubleshooting Guide9
Frequently Asked Questions
Tuning the Air Pressure
Checking for Leaks
Fixing Leaks
Warranty & Returns Policy
Replacement Information12
Contact Information

0



Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this MKV 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 truck 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.

A CAUTION

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



Installation Diagram

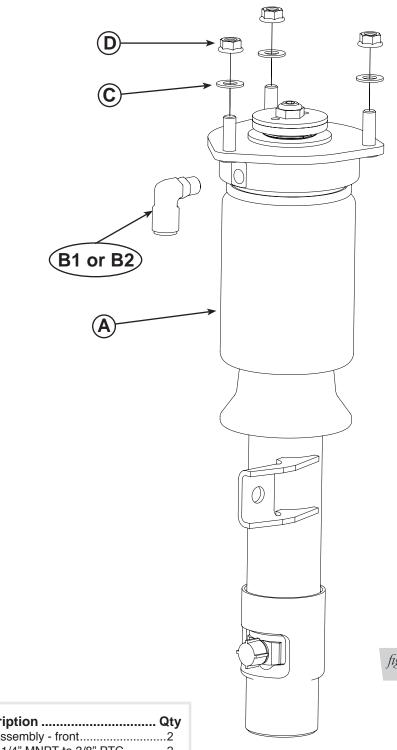


fig. 1

TOOLS LIST

Description Jack Jack stands or hoist Torque wrench Metric wrenches Standard wrenches VW Spreader 3424

HARDWARE LIST

ltem	Part #	Description	Qty
Α	35251	Strut assembly - front	.2
B1	21851	Elbow 1/4" MNPT to 3/8" PTC	.2
B2	221779	Elbow 1/4" MNPT x 1/4" PTC	.2
С	18444	3/8" Flat washer	.6
D	18435	3/8" Nyloc Nut	.6



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



Installing the Air Suspension

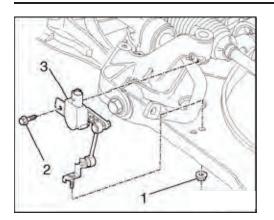
PREPARING THE VEHICLE

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

NOTE

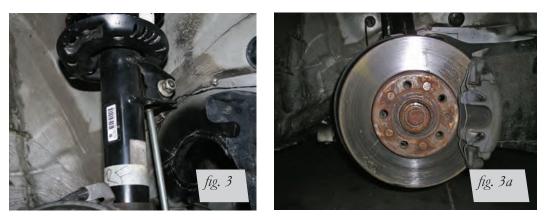
If the vehicle is equipped with Automatic Headlight Vertical Aim Control, detach the unit from the lower control arm (fig. 2 - part 1 pictured) to prevent overextension.

fig. 2



REMOVING THE STRUT

- 1. Unbolt the sway bar from the tab (fig. 3).
- 2. Unthread and remove the axle bolt from the hub assembly (fig. 3a).



3. Remove the three lower nuts from the lower ball joint and control arm (fig. 4). Detach the ball joint and hub assembly from the control arm.



fig. 4



4. Pull drive axle out of the hub assembly and secure the axle to the body with wire. TO PREVENT DAMAGE TO THE INNER AXLE JOINT, DO NOT ALLOW THE AXLE TO HANG FREE.

- 5. Reattach the lower ball joint to the lower control arm.
- 6. Support the hub assembly.
- 7. Remove the bolt at the back of the hub assembly to the strut.
- 8. Spread the hub assembly slot and push down on the hub to release the strut from its' lower mount (fig. 5). (Volkswagen specific tool is spreader 3424).



- 9. Pull weather-stripping away from the plenum chamber cover within the engine bay and pull cover up. Removing the wiper arms and completely removing the cover will gain more access.
- 10. Remove the three bolts from the upper strut mount (fig. 6) and remove the strut assembly from the vehicle.

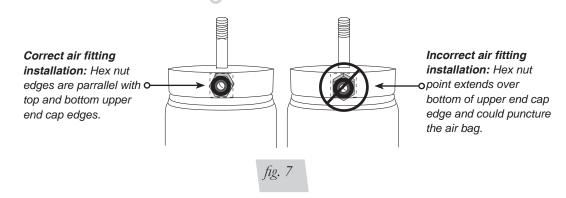


fig. 6

INSTALLING THE NEW STRUT ASSEMBLY

1. Prior to installing the strut, attach the air fitting provided to the threaded port at the top of the air spring (fig. 7). Seal with Teflon tape or thread sealant.

Air Lift Performance



- 2. Insert strut into the hub assembly with the sway bar tab towards the engine compartment. Reinstall the lower mounting bolt and torque to 70 Nm (52 ft/lbs).
- 3. Lift assembly into strut pocket and align upper mounting bolts with three holes. Using the supplied nuts, tighten the upper mount to 37 Nm (27 ft/lbs).
- 4. Remove the lower ball joint bolts again and separate the control arm from the joint. Reinsert the axle.
- 5. Reinstall the ball joint nuts and torque to 60 Nm (44 ft/lbs).
- Torque the hex head drive axle to 200 NM (148 ft/lbs). If the bolt is a 12 point, torque to 70 NM (52 ft/lbs).
- 7. Reattach the sway bar and torque to 65 NM (48 ft/lbs).
- 8. Reinstall the plenum chamber cover and wiper arms if previously removed.

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 radial bushings. Once they have been loosened, re-torque to stock specifications.

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.

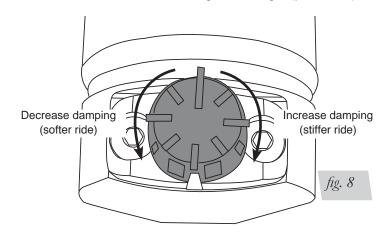
NOTE

CAUTION



Before Operating

- 1. Some struts for this vehicle come with a nine-position damping dial for added adjustability (fig. 8). If not, proceed to 2.
- Before driving your vehicle, set the new struts to their highest setting by turning the black dial on the shaft of the strut as far as it will go to the right (position 9).



2. Next, 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, Lifestyle recommends setting the strut dial (if equipped) to position 6 or higher.

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 #27669 or #27671, AutoPilot V2 Air Management System, is highly recommended for this product.
- 6. Please continue by reading the Product Use, Maintenance and Servicing section.



INSTALLATION CHECKLIST

- □ Clearance test Inflate the air springs to 75-90 PSI and make sure there is at least ½" clearance from anything that might rub against each sleeve. Be sure to check the tire, brake drum, frame, shock absorbers and brake cables.
- □ Leak test before road test Inflate the air springs to 75PSI 90PSI and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- ❑ Heat test 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 test Recheck all bolts for proper torque.
- Road test The vehicle should be road tested after the preceding tests. 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 of the paperwork that came with the kit.

Technician's	Signature	

Date_____

POST-INSTALLATION CHECKLIST

- Overnight leak down test Recheck air pressure after the vehicle has been used for 24 hours. If the pressure has dropped more than 5 PSI, then there is a leak that must be fixed. Either fix the leak yourself or return to the installer for service.
- ❑ Air pressure requirements I understand the air pressure requirements of my 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 I understand that I must 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.

Product Use, Maintenance and Servicing

Suggested Driving Air Pressure

Maximum Air Pressure

75 PSI

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.

A 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.

If the preceding steps do not solve the problem, it is most likely caused by a failed air spring - either a factory defect or an operating problem. Please call Air Lift at (800) 248-0892 for assistance or a replacement air spring.





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.

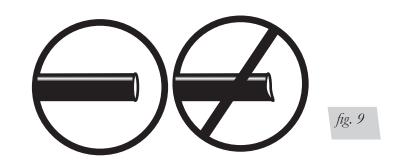
Checking for leaks

- 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. 9). Reinsert the air line into the push-to-connect fitting.





- 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.
- If the preceding steps have not resolved the problem, call Air Lift customer service at (800) 248-0892.

Warranty and Returns Policy

Air Lift Company warrants the Performance line of products to the original purchaser against manufacturing defects one year from the date of purchase when used on cars and trucks as specified under normal operating conditions. The warranty does not apply to products that have been improperly applied, improperly installed, or which have not been maintained in accordance with installation instructions furnished with all products. The consumer will be responsible for removing (labor charges) the defective product from the vehicle and returning it, transportation costs prepaid, to the dealer from which it was purchased or to Air Lift Company for verification.

Air Lift will repair or replace, at its option, defective products or components. A minimum \$10.00 shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift at (800) 248-0892 in the U.S. and Canada (elsewhere, (517) 322-2144) for a Returned Materials Authorization (RMA) number. Returns to Air Lift can be sent to: Air Lift Company • 2727 Snow Road • Lansing, MI • 48917.

Product failures resulting from abnormal use or misuse are excluded from this warranty. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages is not covered. The consumer is responsible for installation/reinstallation (labor charges) of the product. Air Lift Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights and you may also have other rights that may vary from state-to-state. Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages. The above limitation or exclusion may not apply to you. There are no warranties, expressed or implied including any implied warranties of merchantability and fitness, which extend beyond this warranty period. There are no warranties that extend beyond the description on the face hereof. Seller disclaims the implied warranty of merchantability. (Dated proof of purchase required.)



Replacement Information

If you need replacement parts, contact the local dealer or call Air Lift customer service at (800) 248-0892. 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

If you have any questions, comments or need technical assistance contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.

For inquiries by mail, our address is PO Box 80167, Lansing, MI 48908-0167. Our shipping address for returns is 2727 Snow Road, Lansing, MI 48917.

You may also contact us anytime by e-mail at sales@airliftcompany.com or on the web at www.airliftcompany.com.

Need Help?

Contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.

Register your warranty online at www.airliftcompany.com/warranty



Thank you for purchasing Air Lift Performance products!

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

Printed in the USA





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.

TABLE OF CONTENTS

Introduction
Notation Explanation 2 Important Safety Notices 2
Installation Diagram 3 Hardware List 3
Installing the Air Suspension4Preparing the Stock Vehicle4Installing the Air Spring4Aligning the Vehicle10
Before Operating 11 Installation Checklist 11 Post-Installation Checklist 11
Product Use, Maintenance and Servicing.12Suggested Driving Air Pressure and Maximum Air Pressure12Maintenance Guidelines12Troubleshooting Guide12Frequently Asked Questions12Tuning the Air Pressure.13Checking for Leaks13Fixing Leaks13
Warranty and Returns Policy
Replacement Information14
Contact Information



Introduction

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

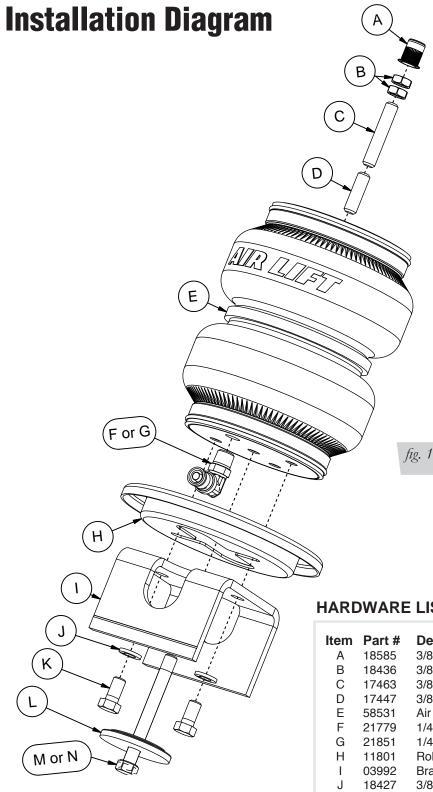
Gross Vehicle Weight Rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

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.

A CAUTION

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



HARDWARE LIST

ltem	Part #	Description	Qty
Α	18585	3/8-16, Nutsert	2
В	18436	3/8-16, Nut	4
С	17463	3/8-16 x 2.0, Threaded Rod	2
D	17447	3/8-16 x 1.25, Threaded Rod	2
Е	58531	Air Spring, 2B6 Reg, 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 Degree DOT	2
Н	11801	Roll Plate	2
I	03992	Bracket, Lower, MKV Rear	2
J	18427	3/8 Lock Washer	4
K	17101	3/8-16 x 3/4 Hex Bolt	4
L	13980	SPC, Spring Seat Centering	2
Μ	17109	3/8-16 x 3.5, HCS CZ	2
Ν	17442	3/8-16 x 3.0, HCS CZ	



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



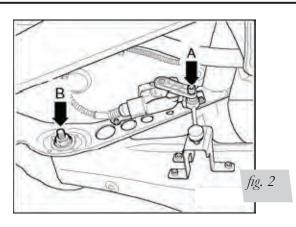
Installing the Air Suspension

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).



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.

INSTALLING THE AIR SPRING

1. 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.

The hole must be 17/32" for the nutsert to be effective (figs 3-6).

fig. 3



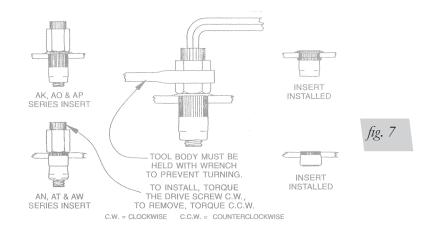
Factory / OEM Upper Spring Perch



Previously Cut Spring Perch with Aftermarket Shock



2. 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. 7).

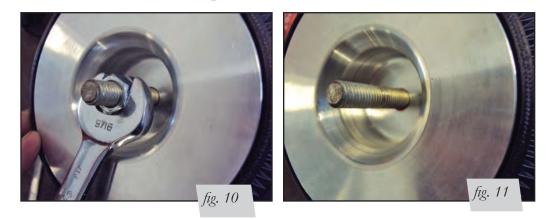


3. Two lengths of threaded studs are included with the kit (C or D, fig. 1). The shorter stud is for vehicles that retain the coil spring perch bump. The longer threaded stud is for vehicles without the spring perch bump. Apply Loctite to the threads of the upper end cap and thread in the appropriate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



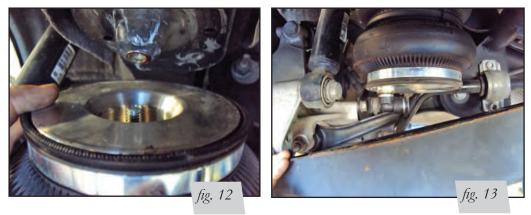
Air Lift Performance





- 4. Wrap the threads of the fitting with Teflon tape or thread sealant. Tighten the fitting 1 ³/₄ turns beyond hand tight.
- 5. Thread the air spring into the nutsert. Tighten by hand (figs. 12, 13 for a factory shock, figs. 14, 15 for an aftermarket shock).

Installation With Factory Shock



Previously Cut Spring Perch with Aftermarket Shock







- 6. Orient the air fitting inline with lower transverse link toward the center of the vehicle.
- 7. 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.

A 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.

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. (See figs. 16-18 for installation with a factory shock, figs. 19-22 for aftermarket shock.)

Installation with factory shock, roll plate and un-cut lower bracket



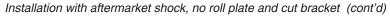


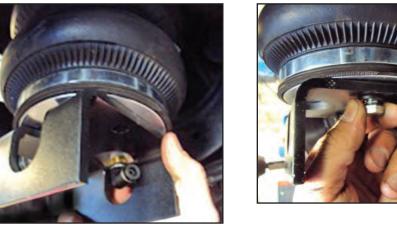
Installation with aftermarket shock, no roll plate and cut bracket





fig. 22







8. Route the air line from the center of the cross-member, through the lower transverse link and attach insert into the air fitting (fig. 23).



9. Reattach the lower transverse link to the hub. Do not torque at this time (fig. 24).





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. 25).



10. 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. 26). 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).

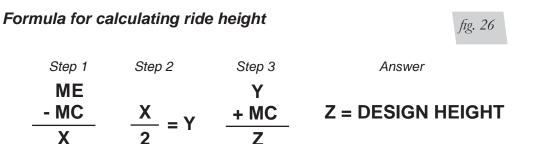


		Table 1
Torque Specifications		
Location	Nm	ft. Ibs.
Upper bracket to chassis	64	47
Upper shock mount cap	25	18
Axle carrier to shock eye	70	52
Axle carrier to upper control arm ball joint	70	52
Camber adjustment bolt	50	37°
Upper control arm to subframe	90	67
Rear suspension arm to subframe	90	67
Headlight alignment link	5.4	48 in/lbs
Wheels	103	76

.....



11. 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! Now go 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.
- 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.



Before Operating

A CAUTION

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

- 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 PSI 90 PSI and check all connections for leaks.
- 3. Air Lift part #27669 or #27671, AutoPilot V2 Air Management System, is highly recommended for this product.
- 4. Please continue by reading the Product Use, Maintenance and Servicing section.

INSTALLATION CHECKLIST

- □ Clearance test Inflate the air springs to 75-90 PSI and make sure there is at least ½" clearance from anything that might rub against each sleeve. Be sure to check the tire, brake drum, frame, shock absorbers and brake cables.
- □ Leak test before road test Inflate the air springs to 75 PSI 90 PSI and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- □ Heat test 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 test Recheck all bolts for proper torque.
- Road test The vehicle should be road tested after the preceding tests. 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 of the paperwork that came with the kit.

Technician's Signature_____

Date_

POST-INSTALLATION CHECKLIST

- Overnight leak down test Recheck air pressure after the vehicle has been used for 24 hours. If the pressure has dropped more than 5 PSI, then there is a leak that must be fixed. Either fix the leak yourself or return to the installer for service.
- □ Air pressure requirements 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.



NOTE

Product Use, Maintenance and Servicing

Suggested Driving Air Pressure

Maximum Air Pressure

40-70 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

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.

A 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, the threaded connection into the air spring, and all fittings in the control system.
- 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. If the preceding steps do not solve the problem, it is possibly caused by a failed air spring either a factory defect or an operating problem. Please call Air Lift at (800) 248-0892 for assistance.

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

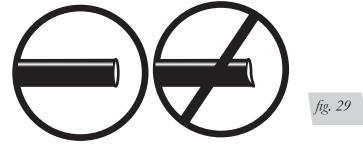
Stability translates into safety and should be the priority, meaning the driver may need to sacrifice a perfectly level and comfortable ride. Stability issues include roll control, bounce, dive during braking and sponginess. Tuning out these problems usually requires additional air pressure, strut damping, 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. 29). Reinsert the air line into the push-to-connect fitting.
 - 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.
- If the preceding steps have not resolved the problem, call Air Lift customer service at (800) 248-0892.





Warranty and Returns Policy

Air Lift Company warrants its performance products for one year to the original purchaser against manufacturing defects one year from the date of purchase when used on cars and trucks as specified under normal operating conditions. The warranty does not apply to products that have been improperly applied, improperly installed, or which have not been maintained in accordance with installation instructions furnished with all products. The consumer will be responsible for removing (labor charges) the defective product from the vehicle and returning it, transportation costs prepaid, to the dealer from which it was purchased or to Air Lift Company for verification.

Air Lift will repair or replace, at its option, defective products or components. A minimum \$10.00 shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift at (800) 248-0892 in the U.S. and Canada (elsewhere, (517) 322-2144) for a Returned Materials Authorization (RMA) number. Returns to Air Lift can be sent to: Air Lift Company • 2727 Snow Road • Lansing, MI • 48917.

Product failures resulting from abnormal use or misuse are excluded from this warranty. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages is not covered. The consumer is responsible for installation/reinstallation (labor charges) of the product. Air Lift Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights and you may also have other rights that may vary from state-to-state. Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages. The above limitation or exclusion may not apply to you. There are no warranties, expressed or implied including any implied warranties of merchantability and fitness, which extend beyond this warranty period. There are no warranties that extend beyond the description on the face hereof. Seller disclaims the implied warranty of merchantability. (Dated proof of purchase required.)

Replacement Information

If you need replacement parts, contact the local dealer or call Air Lift customer service at (800) 248-0892. 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.

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

If you have any questions, comments or need technical assistance contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144. You may also contact customer service anytime by e-mail at techsupport@airliftperformance.com.

For inquiries by mail, our address is PO Box 80167, Lansing, MI 48908-0167. Our shipping address for returns is 2727 Snow Road, Lansing, MI 48917.

You may also contact our sales team anytime by e-mail at sales@airliftperformance.com or on the web at www.airliftperformance.com.

- Broken or defective parts in the kit.
- · Wrong parts in the kit.
- Have a warranty claim or question.

Notes





Notes

Notes



Need Help?

Contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.



Thank you for purchasing Air Lift Performance products!

Air Lift Company • 2727 Snow Road • Lansing, MI 48917 or PO 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



Kit Details 27671



HARDWARE LIST

Part #	Description Qty	Part #	Description Qty
72605	4pt Fast Air Manifold - 1/4"" 1	24542	ATC/ATO Fuse Adaptor1
27042	Gen 3 Display 1	21247	1/2" MNPT X 1/4" FNPT3
26498-002	Electrical Harness - FastAir 1	21190	1/2" MNPT Center Sunk Hex Plug 4
20946	DOT 1/4" Air Line2ft	21779	DOT Swivel Elbow 1/4Pipe - 1/4 PTC 1
22630	DOT Elbow 1/4PTC - 1/4PTC6	21993	DOT Swivel Elbow 1/4MNPT-1/4PTC.1
24672	Fuse, spade 3amp1	21633	Push Lock Valve1
24547	Fuse, spade, 30amp1	20946	DOT 1/4" Air Line50ft
24500	ATC Fuse holder w/ cap2	17263	1/4-14 X 1 Heavy Duty Washer3
24645	16GA Butt Connector1	18444	3/8" Flat Washer8
24752	12-10GA Butt Connector3	17188	3/8-16 x 1.25 Hex Cap Screw
24748	12GA Ring Terminal 3/8"2	18435	3/8-16 Nyloc Nut4
24524	Female Spade Terminal1	16380	Compressor (200 psi)1
24595	12GA Female Spade Terminal1	10991	Air Tank (5 gallon)1
24561	Adaptor, Mini Fuse1	10466	8" Zip Tie10



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



incorrect installation.

MN-754 • (021208) • ECR 7393

TABLE OF CONTENTS

0

Installing the AutoPilot V2 Kit 3
Setup and Calibration
Program Presets 6
Troubleshooting Guide7
Use the System 10
Electrical Schematic 11
Warranty and Returns Policy
Replacement Information 12
Contact Information 12
NPT Assembly Instructions
Manifold Template 14
AutoPilot V2 Remote Control Unit
16380 Compressor Template

Ο



Installing the AutoPilot V2 Kit

INSTALL COMPONENTS (SEE FIGURE 17, PAGES 8-9)

1. Layout: Plan component location first. Prior to mounting components, check to make sure the electrical harness connections will reach the manifold and compressor, the compressor leader hose will reach the tank, and the plumbing will route cleanly through the vehicle.

NOTE: Be sure to install all components as far as possible from any heat sources. Plan and prepare harness and plumbing routing thru the vehicle: eliminate all sharp edges that could chafe, use grommets when passing through compartment walls.

NOTE: If harness must be lengthened, use properly sized butt connectors and wire. If extending power/ground wires, use 8AWG wire minimum or contact Air Lift.

NOTE: Supplied harness is only capable of powering one (1) compressor. If installing dual compressors, a second dedicated power wire is required. Consult page 9 for proper wiring, and Air Lift for an optional second compressor harness.

NOTE: Air Compressors ingest moisture and will deposit it inside the tank. The AutoPilot V2 system does not include moisture separators or filters, and does require periodic tank moisture drain. If using an Engine Driven compressor, proper oil and water filtration must be added as these compressors will contaminate the air suspension system.

2. Prepare and install:

Compressor

- Prepare compressor intake: if inside vehicle, attach filter to port on end of compressor (Fig. 17). If compressor located outside vehicle, snorkel inlet filter to dry location inside vehicle.
- Center punch and drill four holes using the template on page 15.
- Attach using hardware supplied with compressor.

Manifold

- Locate manifold above compressors and tank if possible to avoid compressor ingested water from gathering in manifold.
- · Position manifold in desired location: make sure manifold mount surface is flat.
- Fasten using the two provided self-tapping screws. *If mounting surface not flat, add washers to space the manifold up over surface irregularities.*

Tank pre assembly (see fig. 17)

NOTE: compressors ingest moisture and will deposit water in the tank. Tanks must be regularly purged – be sure to provide easy access to drain/fill valve (preferably outside the vehicle).

- · Apply thread sealant as necessary.
- Determine tank location and orientation prior to installing fittings.
- In the lower most tank threaded port, install drain/fill PTC fitting.
- · Choose a tank threaded port for the compressor fitting.
- Choose highest tank threaded port for manifold airline routing.
- Plug the remaining tank ports with hex plugs.

Tank install (see fig. 17)

- Use tank feet as template, drill holes for hardware assembly.
- Attach tank using supplied hardware.
- Cut appropriate length of hose from the manifold port 5, to the PTC fitting on tank.
- Route drain/fill air line with schrader valve (preferably outside vehicle).

NOTE: Use a standard hose cutter or razorblade. Cut all hose ends square and as smooth as possible.

Viair	Max. Tank Pressure	
380C	175	
400C	150	
444C	175	
450C	150	
480C	175	



INSTALL HARNESS

1. Disconnect battery ground while installing system.

- 2. Compressor / manifold connections (see fig. 17)
 - · Attach the manifold connector, it will "click" into place once fully seated.
 - Mount the compressor relay in a preferred location using a self-tapping screw.
 - Cut off the spade and eyelet from the compressor power and ground wires.
 - Strip ¼" of wire casing from the compressor wires.
 - Strip ¼" of wire casing from the black and pink harness wires. NOTE: Use appropriate terminal crimp tool to ensure a good connection.
 - · Using butt connector attach the RED compressor wire to the PINK harness wire.
 - · Using butt connector attach the BLACK compressor wire to the BLACK harness wire.
 - Carefully apply heat (preferably with a heat gun) to seal these connections.
- 3. Battery / ignition connections (see fig. 17)
 - Identify the power, ground, + ignition leg of the harness.
 - Ground: 10AWG black wire, Power: 10AWG red wire, Ignition: 18AWG pink wire.
 - Route power + ground leg of the harness free from any heat source to the battery.
 - Using Butt connector attach red wire to fuse holder.
 - Attach 3/8" eyelet to the other end of the fuse holder and attach to battery +.
 - Attach 3/8" eyelet to the black wire and attach to battery ground.
 - Route the 18AWG pink wire to a key switched IGNITION source that remains on during cranking. Examples
 include: ECU, Fuel Pump. Do not select an accessory source.
 - Using Butt connector attach the pink ignition wire to a fuse holder.
 - Select ignition source and attach the fused ignition wire.
 - Use fuse adaptors as necessary.

4. Display

- Route display cable as desired to the preferred operating location.
- Attach the display cable to the main harness cable (small white 3 cavity connector).

5. Reconnect battery

INSTALL AIR LINES

NOTE: Use a standard hose cutter or razorblade. Cut all hose ends square and as smooth as possible.

Route and attach air lines to air springs

- · Route air lines free from abrasive edges and heat sources.
- · Attach manifold port FL to the front, drivers side left spring.
- · Attach manifold port FR to the front, passengers side right spring.
- Attach manifold port RL to the rear, drivers side left spring.
- Attach manifold port RR to the rear, passengers side right spring.
- Attach manifold port T to the PTC fitting previously installed on the tank.
- Manifold port E is the exhaust port.
 - Port E can be left open, or routed to a preferred exhaust location.

NOTE: Air lines should be pushed in firmly, with a slight back and forth rotational twist – check connection by pulling on each line to verify robust connection.

NOTE: Release the air line from the fitting by releasing air, pushing on the line, depressing the ring towards the fitting, and then pulling the hose out of the fitting.

Setup and Calibration

AutoPilot V2 is an advanced pressure-based air suspension control system, using state-of-the-art software algorithms to calibrate or map the control system to your vehicle. Once the system is calibrated, the algorithm predicts required "valve open time" to move the air suspension to achieve preset target pressures. AutoPilot V2 has 8 programmable presets, allowing the user to input 8 different combinations of the 4 corner air spring pressures.

After installing AutoPilot V2 in your vehicle, please follow the steps below to properly setup your new system! If changes are made after installing and calibrating the system such as changes to air springs, lines, tank, compressor, or other vehicle modifications the system must be recalibrated.

SYSTEM CALIBRATION AND SETTINGS

- Key-on power up, compressor should come on to fill the tank. Check to make sure system is triggered by IGNITION source: while starting the engine, the system should be ON. If not, please refer back to "Install Harness" on page 4.
- Press buttons 1 and 5 at the same time (1+5) and hold for 5-10 seconds until settings and diagnostics mode main page appears (fig. 2).
- Press button 1: TANK ADJUST. Set tank pressure preference by pressing MIN and MAX up/down buttons (fig. 3). Press buttons 1+5 to exit to settings and diagnostics mode.

Calibrate to your vehicle

NOTE: System will automatically deflate to 0 PSI and inflate to 100 PSI.

- Press button 2 to enter CALIBRATE (fig. 4). Press SYSTEM CAL Button 1, follow instructions to calibrate AutoPilot V2 system to your vehicle. Once calibration is complete, Press buttons 1+5 to exit to settings and diagnostics mode.
- Press button 3 to enter BACKLIGHT (fig. 5). Set display backlight to your preference by pressing the + and – on R (Red), G (Green), B (Blue). Press buttons 1+5 to exit to settings and diagnostics mode.

Automatic preset maintenance

6. Press button 4 to enter PRESET MAINTAIN (fig. 6). Press Button 8 to turn ON or OFF. When ON, this function actively monitors air spring pressure and will fill to maintain active preset pressure.

NOTE: This function will not exhaust pressure. If air spring pressure is higher than preset target, only the operator pressing the preset button again will activate the system to exhaust air spring pressure (for safety). Press buttons 1+5 to exit.

NOTE: PRESET MAINTAIN should be off for performance/ track driving or if operating in extremely hilly areas.

3 LF RF LR RR fig. 1 **Button Definition** 1. TANK ADJUST 2. CALIBRATE fig. 2 3. BACKL IGHT PRESET MAIN ∇ 4. Δ Δ MIN=145 MAX=175 fig. 3 ∇ ∇ MENU IBRAT CAI fig. 4 TEN ISIND BACKL IGHT fig. 5 R G в PRESET MAINTAIN? fig. 6 ON ∇





- 7. Press button 8 to toggle to settings page 2 (fig. 7).
- Press button 5 to run a compressor test (fig. 8). This function will exhaust the tank to your specified MIN tank pressure, then turn ON the compressor and measure its inflate time to achieve MAX pressure. AutoPilot V2 will record this fill time, allowing the operator to compare future fill times to determine compressor performance. Press buttons 1+5 to exit.
- 9. Press button 6 to view the number of hours the compressor has been running.

🖝 Rise on start

- 10. Press button 7 to enter RISE ON START (fig. 9). This function will automatically activate valves to achieve preset 1 target pressures when the vehicle is keyed-on. This function allows the operator to drive away seconds after vehicle is started. Press buttons 1+5 to exit.
- 11. Press button 8 to toggle between PSI and BAR pressure units and check software version. Press buttons 1+5 to exit.

NOTE: BAR is actually DeciBar values.

12. Press buttons 1+5 to exit settings and diagnostics – you are now ready to create presets!

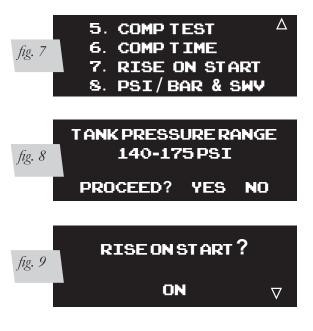
Program Presets

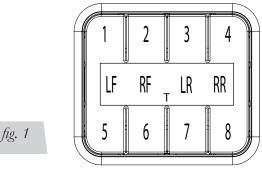
NOTE: Preset 1 should always be entered as the desired ride pressure for the RISE ON START function.

 Determine ride pressures: press buttons 1+5 to toggle display to MANUAL MODE. Manually activate each corner (see MANUAL Mode section page 10) to achieve desired "normal driving" ride pressure. (fig. 10)

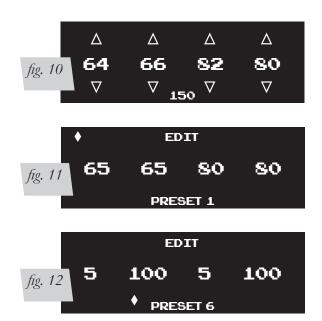
8 programmable presets

- Program preset 1: press buttons 1+5 to toggle display to PRESET MODE. Press and hold button 1 to set 1: release button and actual air spring pressures will appear (fig. 11). Fine-tune the pressures by pressing up/down buttons. Press + hold to scroll. Press buttons 1+5 to exit.
- 3. You are now free to program the additional 7 presets to desired pressures. Typical presets can be:
 - "Low": set pressures to the lowest possible pressures for extreme low driving stance
 - "Front up": for speed bump or driveway clearance
 - · "Rear up": for added load of passengers, equipment
 - "Play": for those that want to enjoy their air suspension freedom, AutoPilot V2 has a special function that recognizes side-side presets. When left side pressures are equal, and right side pressures are equal but >25psi different than left, the algorithm will activate side to side instead of front to back. It will also equalize all air spring pressures when exiting





Button Definition



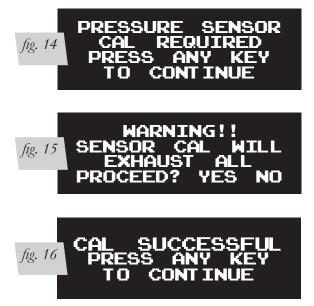
the "play" preset, conserving air by using the high pressure side to inflate the low pressure side. Pairing two "play" presets together allows side-side activation that consumes far less air than manual mode activation would consume (Figs. 12 & 13).

PRESSURE SENSOR CALIBRATION

If the AutoPilot V2 system experiences a pressure reading that appears to be incorrect or if the Display instructs you that calibration is required (fig. 14), then please follow the procedure below.

- 1. Enter Settings Menu.
- 2. Select Calibration Menu (fig. 2).
- 3. Select Sensor Cal (fig. 4).
- 4. Follow the text on the display to calibrate the pressure sensors (figs. 14 & 15).
 - a. You will be required to disconnect all the air lines from the manifold for the calibration process to complete.
 - b. Once complete connect the air lines.



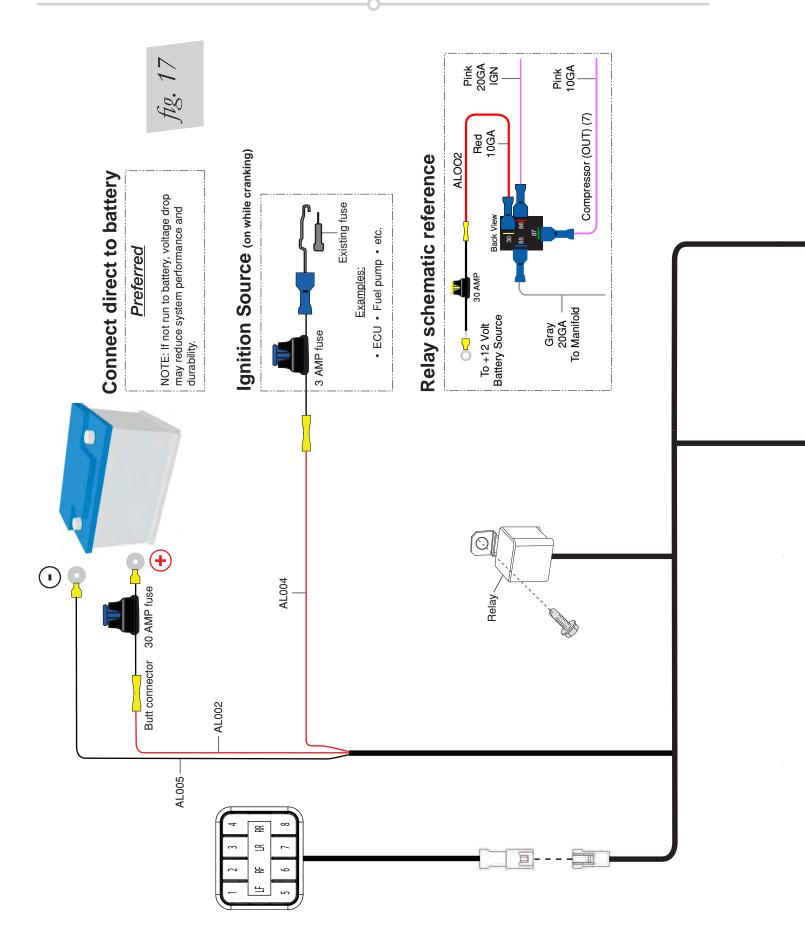


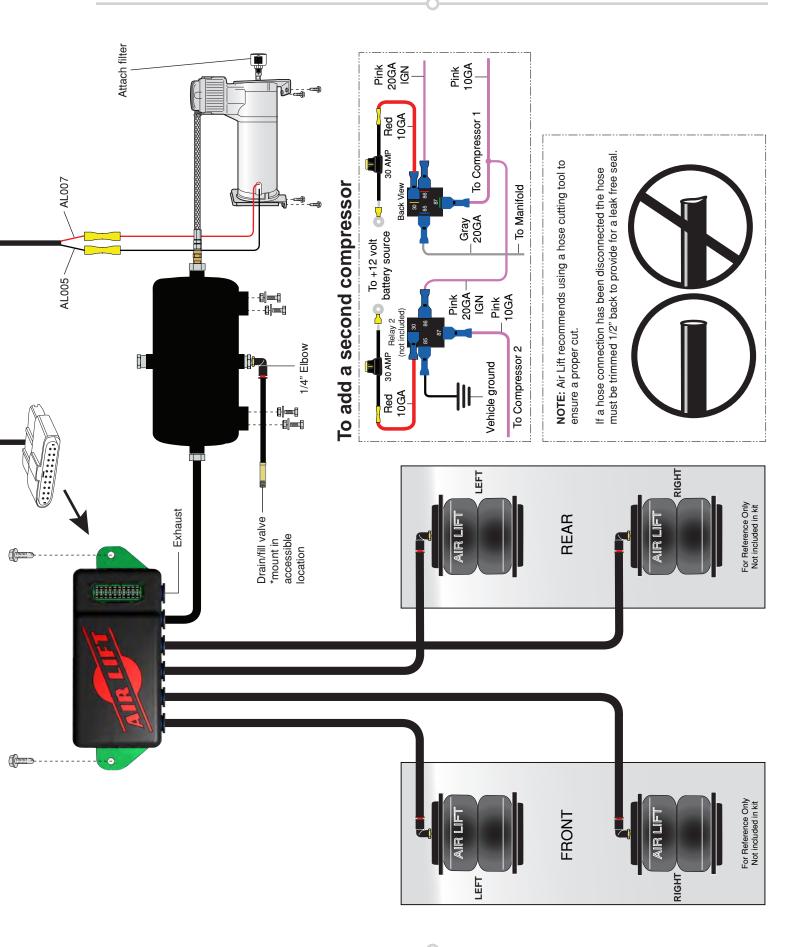
Troubleshooting Guide

For further technical assistance please contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.

PROBLEM	CAUSE	SOLUTION	
Compressor doesn't run.	There is a blown fuse or relay, bad ground, or poor electrical connections.	Replace the fuse, check the ground wire, or check the compressor connector.	
Compressor runs all the time.	The compressor relay is defective or there is a leak.	Replace the relay or locate the leak and repair.	
Air spring or tank leak.	Fitting seal or air line compromised.	Check to make sure air lines are seated in connectors. Inspect fittings with soapy water. Trim hose or re-seal fitting.	
Nothing happens when the vehicle is key-on ignition active.	There is a blown fuse or a poor connection.	Replace the fuses and check the electrical connections.	
The display does not light up.	There is a blown fuse or a poor connection.	Replace the fuses and check the electrica connections.	
Compressor runs all the time but no fill tank.	Compressor inline check valve fitting has been overtorqued.	Loosen fitting and check again. Replace if needed.	
System takes more than 4 iterations to achieve target pressure.	Calibration may need to be adjusted or system may need to be recalibrated .	Adjust "ADJ" value or Recalibrate system to reduce # of iterations.	
Spring pressures are not zero when fully deflated.	Pressure sensor calibration is off.	Recalibrate using Pressure Sensor Calibration Routine.	







हासिएन



Use the System

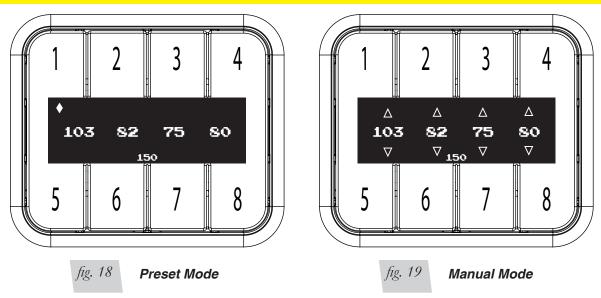
Now that your system is set up, it's time to use it. If changes are made after installing and calibrating the system such as changes to air springs, lines, tank, or compressor the system must be recalibrated.

There are two modes: PRESET, and MANUAL. Pressing buttons 1and 5 together will toggle between modes. After 10 seconds of non-use, the display enters standby where the LCD dims. Any button hit will "wake-up" the display and allow users to activate the system. See mode operation below for more details.

PRESET mode

- First button press will display the programmed preset. Users can quickly view each preset prior to activating to make sure they are selecting the desired preset.
- 2nd button press of the same preset will activate it. The system will iterate up to 6 times to achieve the preset target pressures by +/- 3 psi. Display shows "PLEASE WAIT" as it iterates, then will flash "SUCCESSFUL" when achieved or "UNSUCCESSFUL" if not able to achieve the target pressure window. NOTE: if your system is not hitting Presets quickly, change the "ADJ" value. Enter "Settings and Diagnostics" mode (press Button 1+5 for more than 5 seconds), press #2 CALIBRATE, then ADJUST SYSTEM to toggle the value between 0 and 10; higher values increase system fill rates to overshoot target pressures.

Micro adjust to ±1 PSI: If more accuracy is desired, double press the same preset and the system will refine pressures closer to target.



MANUAL mode

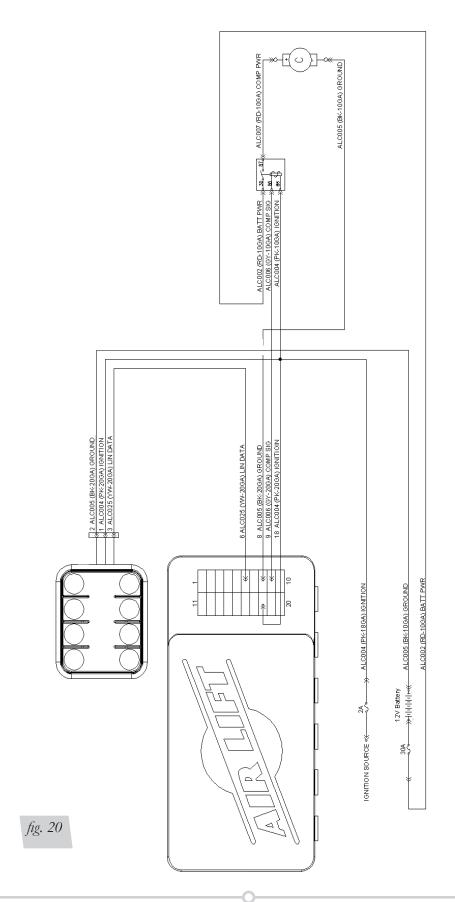
MANUAL mode allows the user to fill or exhaust each spring. The display will show arrows above and below the pressures to indicate manual control mode. The arrow will be solid when the spring is filling / exhausting, and just an outline when not active.

■ Manual mode with Easy Control Tap[™]

The system detects button press time. For a very short (<0.1sec) duration press, the system will open the valves for a defined "burst", changing pressure minimally so users can fine-tune their pressures. For a longer than 0.1 sec duration press, the valves open as long as you hold it down. If a button is held active the fill / exhaust will timeout after 10 seconds.

- Fill springs: buttons 1 4
- Exhaust springs: buttons 5 8

Electrical Schematic





Warranty and Returns Policy

Air Lift Company warrants its performance products for one year to the original purchaser against manufacturing defects one year from the date of purchase when used on cars and trucks as specified under normal operating conditions. The warranty does not apply to products that have been improperly applied, improperly installed, or which have not been maintained in accordance with installation instructions furnished with all products. The consumer will be responsible for removing (labor charges) the defective product from the vehicle and returning it, transportation costs prepaid, to the dealer from which it was purchased or to Air Lift Company for verification.

Air Lift will repair or replace, at its option, defective products or components. A minimum \$10.00 shipping and handling charge will apply to all warranty claims. Before returning any defective product, you must call Air Lift at (800) 248-0892 in the U.S. and Canada (elsewhere, (517) 322-2144) for a Returned Materials Authorization (RMA) number. Returns to Air Lift can be sent to: Air Lift Company • 2727 Snow Road • Lansing, MI • 48917.

Product failures resulting from abnormal use or misuse are excluded from this warranty. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages are not covered. The consumer is responsible for installation/reinstallation (labor charges) of the product. Air Lift Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights and you may also have other rights that may vary from state-to-state. Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion or limitation of incidental or consequential damages. The above limitation or exclusion may not apply to you. There are no warranties, expressed or implied including any implied warranties of merchantability and fitness, which extend beyond this warranty period. There are no warranties that extend beyond the description on the face hereof. Seller disclaims the implied warranty of merchantability. Dated proof of purchase required.

Replacement Information

If you need replacement parts, contact the local dealer or call Air Lift customer service at (800) 248-0892. 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.
- Technical assistance on installation or operation is needed.
- 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

If you have any questions, comments or need technical assistance contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144. You may also contact customer service anytime by e-mail at techsupport@airliftperformance.com.

For inquiries by mail, our address is PO Box 80167, Lansing, MI 48908-0167. Our shipping address for returns is 2727 Snow Road, Lansing, MI 48917.

You may also contact our sales team anytime by e-mail at sales@airliftperformance.com or on the web at www.airliftperformance.com.

Air Lift Performance

NPT Assembly Instructions

- 1. Inspect port and fitting to ensure both are free of contaminants and excessive burrs and nicks.
- 2. Apply a stripe of liquid pipe sealant around the male threads leaving the first two threads uncovered.
- 3. Screw finger tight into the port.
- 4. Wrench tighten the fitting to the correct Turns Past Finger Tight position (see following table).

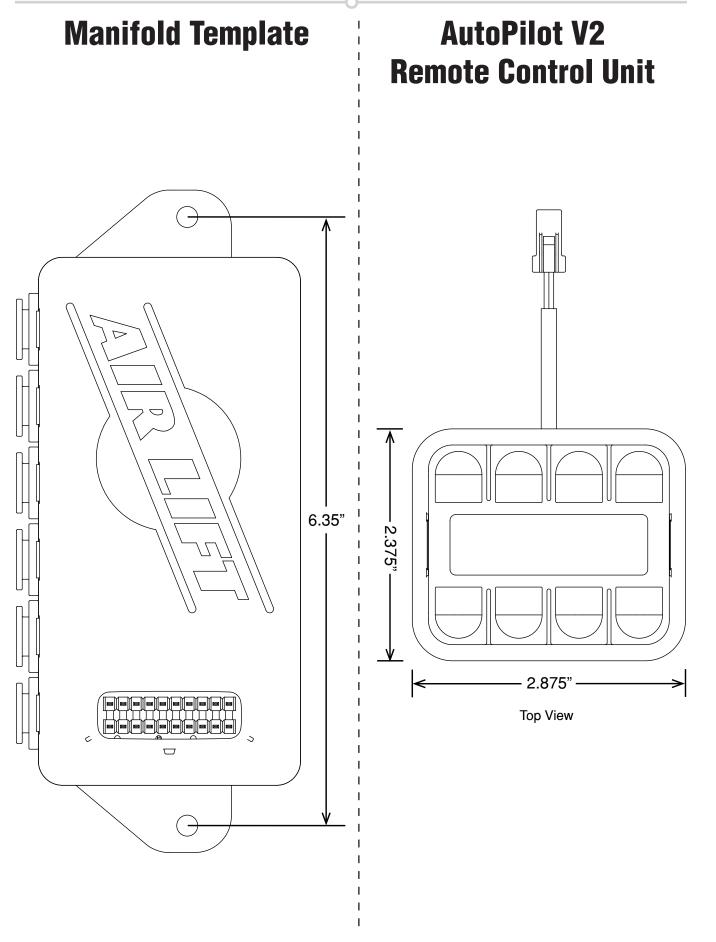
CAUTION: NEVER BACK OFF AN INSTALLED PIPE FITTING TO ACHIEVE PROPER ALIGNMENT. LOOSENING INSTALLED PIPE FITTINGS WILL CORRUPT THE SEAL AND CONTRIBUTE TO LEAKAGE AND FAILURE.

Torque Specifications							
Fitting Size	Dash Size	Turns Past Finger Tight	Torque ft/lbs				
1/8" NPT	-02	1.5 - 3.0	12				
1/4" NPT	-04	1.5 - 3.0	25				
3/8" NPT	-06	1.5 - 3.0	40				
1/2" NPT	-08	1.5 - 3.0	54				
3/4" NPT	-12	1.5 - 3.0	78				
1" NPT	-16	1 - 2.5	112				
11⁄4" NPT	-20	1 - 2.5	154				
1½" NPT	-24	1 - 2.5	211				
2" NPT	-32	1 - 2.5	300				

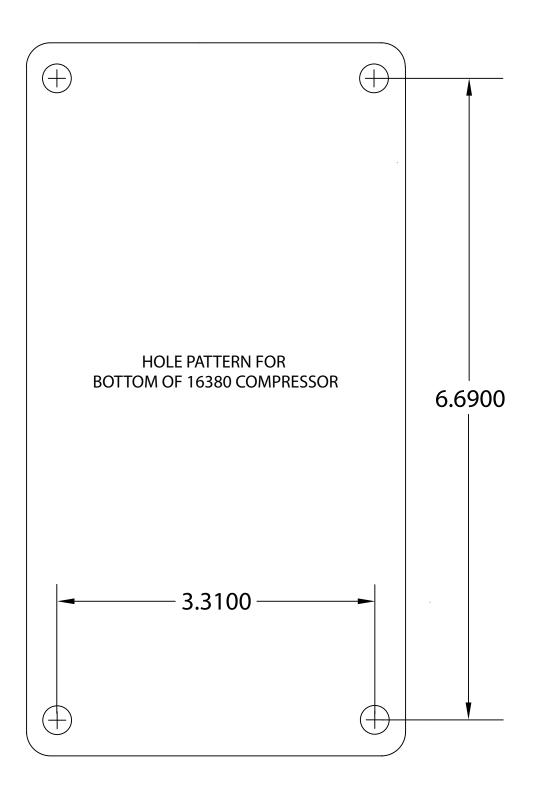
Table 1











Need Help?

Contact our customer service department by calling (800) 248-0892, Monday through Friday, 8 a.m. to 8 p.m. Eastern Time. For calls from outside the USA or Canada, our local number is (517) 322-2144.



Thank you for purchasing Air Lift Performance products!

Air Lift Company • 2727 Snow Road • Lansing, MI 48917 or PO 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

)