



# BMW M3 (F80)/M4 (F82)

## FRONT APPLICATION

Kit 76041

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 which could result in damage to the vehicle, minor to severe personal injury or death.*

## **Protect your Air Lift Performance Purchase by Completing your Warranty Registration**



Thank you for purchasing an Air Lift Performance product!

Take a photo of your sales receipt and then scan the  
QR code to complete your online warranty registration.

# TABLE OF CONTENTS

## P.02

### **Introduction**

Notation Explanation

---

## P.03

### **System Overview**

Hardware Content

---

## P.04

### **Install the System**

Important Safety Notices

Section 1. Prepare the Vehicle

Section 2. Stock Suspension Removal

Section 3. Install the Kit Components

Section 4. Route the Air Lines

---

## P.11

### **Before Operating**

Set the Ride Height

Torque Specifications

Suggested Driving Air Pressure

Maximum Air Pressure

Check for Binding

Installation Checklist

Damping Adjustment

---

## P.13

### **Limited Warranty and Return Policy**

Warranty Registration & Claims

# Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the BMW M3 (F80)/M4 (F82). 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 a suspension replacement project. Special tools needed to complete the installation are noted on the System Overview 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](http://www.airliftperformance.com)**.

An Air Lift Performance air management system is highly recommended for this product. Learn more at **[air-lift.co/productlines](http://air-lift.co/productlines)**.

## NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information 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 VEHICLE OR MINOR PERSONAL INJURY.



### NOTE

*Used to help emphasize areas of procedural importance and provide helpful suggestions.*



### TECH TIP

*Used to provide helpful tips to ease the installation process.*

# System Overview

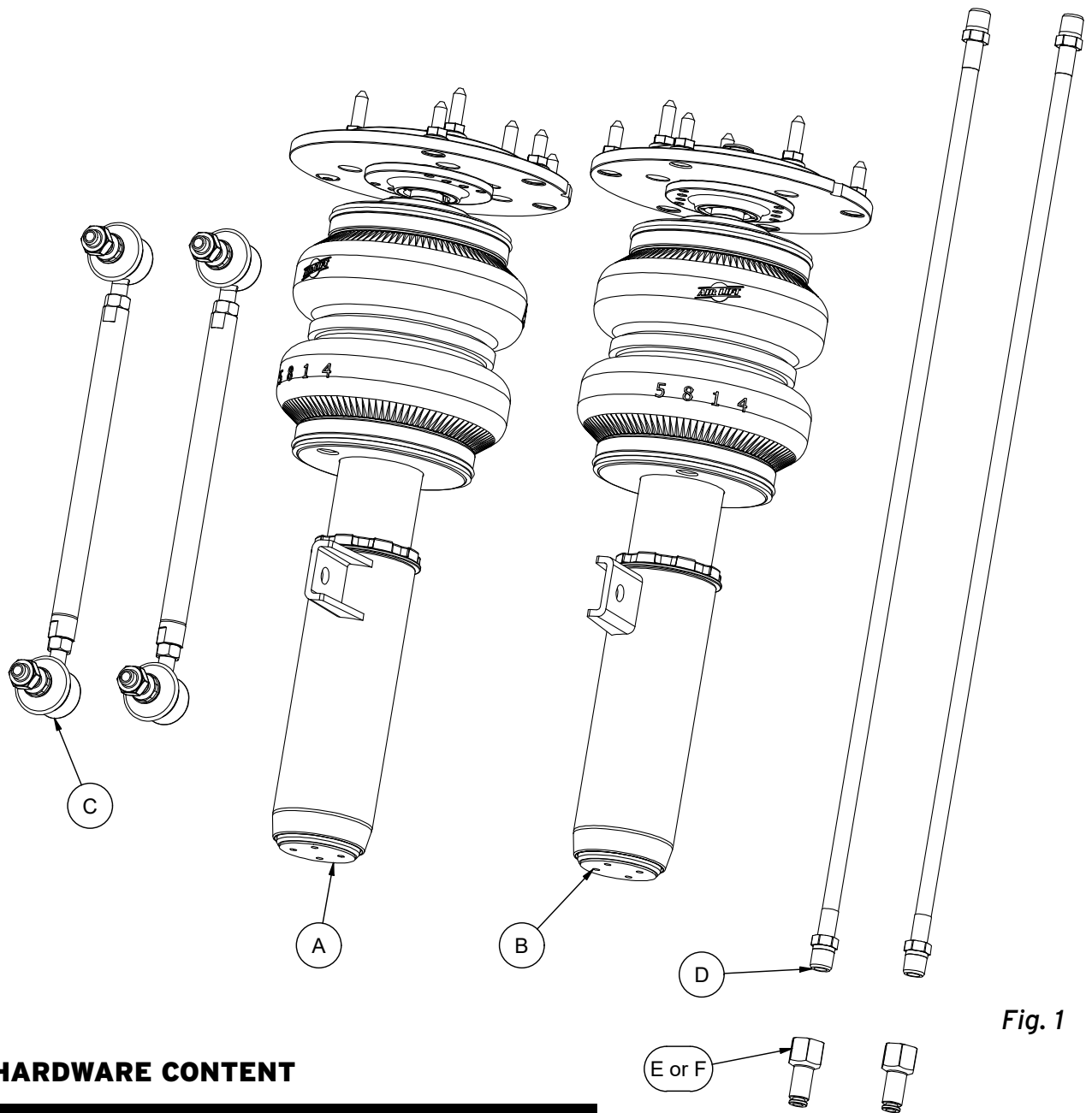


Fig. 1

## HARDWARE CONTENT

| Item | Part #    | Description                         | Qty |
|------|-----------|-------------------------------------|-----|
| A    | 35759     | STRUT ASSEMBLY, BMW F80(5-BOLT), RF | 1   |
| B    | 35760     | STRUT ASSEMBLY, BMW F80(5-BOLT), LF | 1   |
| C    | 76041-001 | END LINK, BMW F80 (5-BOLT), PAIR    | 1   |
| D    | 20997     | LEADER LINE, 1/4" ID                | 2   |
| E    | 21810     | 1/4" FNPT X 1/4" PTC FITTING, DOT   | 2   |
| F    | 21987     | 1/4" FNPT X 3/8" PTC FITTING, DOT   | 2   |



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

# Install the System



## NOTES

See important safety notices on page 2.

## SECTION 1. PREPARE THE VEHICLE

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

## SECTION 2. STOCK SUSPENSION REMOVAL

1. In the engine compartment, remove the cowl covers and rubber strut mount covers from both sides of the car (Fig. 2).



Fig. 2

2. Loosen and remove the nine bolts on the carbon fiber cross brace including on the coolant overflow reservoir. Remove the brace (Fig. 3).



Fig. 3

- Unclip the electronic damping control harness from the aluminum brace and separate it from the electrical connection. Unbolt the 17 bolts on the aluminum cross brace including the one for the coolant overflow reservoir. Two bolts are located under small covers at the base of the windshield in the middle. Vehicles with five-bolt upper strut mounts will have two additional bolts on each side. Remove the cross brace (Fig. 4).

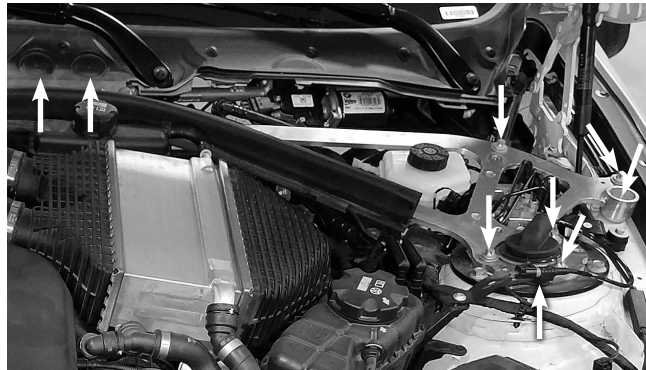


Fig. 4

**CAUTION**

RAISE THE VEHICLE WITH A JACK AT THE APPROVED LIFTING POINTS AND USE JACK STANDS TO SUPPORT THE VEHICLE.

- Remove the wheel, then remove the sway bar end link (Figs. 5 & 6).



Fig. 5



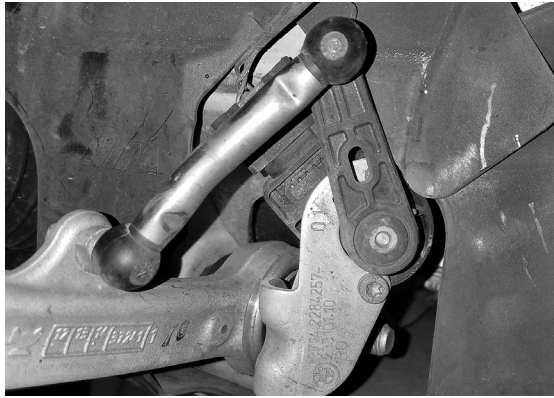
Fig. 6

- Disconnect the electronic damping control on the side of the strut (Fig. 7).



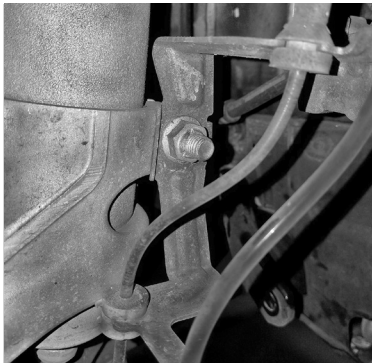
Fig. 7

6. Disconnect the headlight alignment linkage from the lower control arm (Fig. 8).

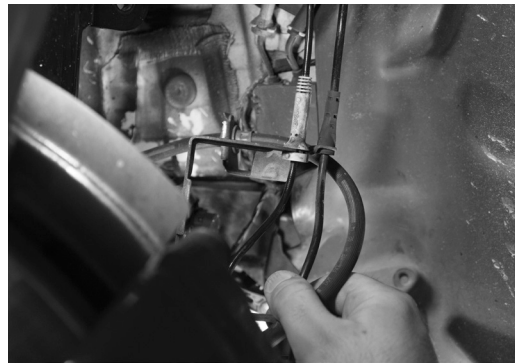


**Fig. 8**

7. Support the hub and remove the lower strut mount nut and pull the brake line bracket from the strut (Figs. 9 & 10).

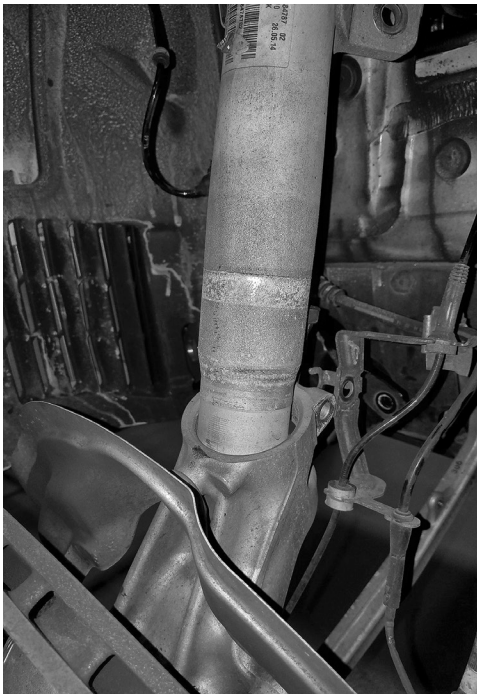


**Fig. 9**



**Fig. 10**

8. Slide the steering knuckle off of the strut body (Figs. 11 & 12).



**Fig. 11**



**Fig. 12**

- Remove the upper strut mount bolts and remove the strut. Leave the mounting plate in place (Fig. 13). Leave the damper control connector on the strut.



\*Three-bolt upper mount shown.

Fig. 13

## SECTION 3. INSTALL THE KIT COMPONENTS

### **i** PLEASE READ - IMPORTANT INSTALLATION INFORMATION



**FOR COIL TO AIR UPGRADE KIT INSTALLATIONS ONLY:** Please refer to the included Coil to Air Upgrade Kit installation guide (MN-2000) for details on how to disassemble the coilovers and assemble the air springs.

Also refer to your control system installation guide to ensure the installation of your air suspension system is complete.

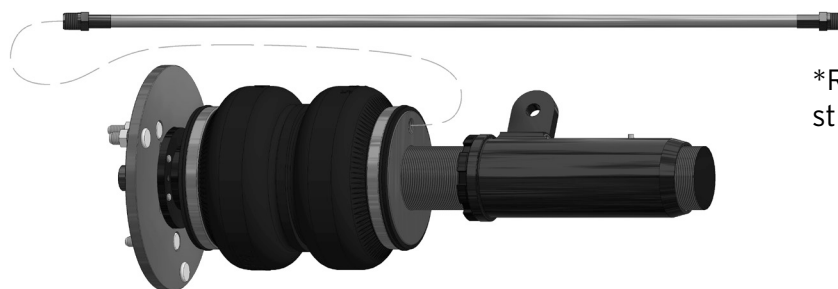


#### NOTES

*All dampers come pre-set to even lengths, and locking collars are pre-tightened. It is always recommended to double-check that the dampers are the same length side to side, and the locking collars are tight.*

*Please refer to the User Guide included with the kit for any suspension setup adjustments.*

- Begin by installing the leader line into the air spring. Tighten the appropriate fitting to the air line (1 3/4 turns beyond hand-tight). Tighten the leader line into the air spring 1 3/4 turns beyond hand-tight (Fig. 14).



\*Representative strut shown

Fig. 14

2. Insert the strut assembly within the strut tower and attach with the bracket in place. Torque to 28Nm (21 lb.-ft) (Fig. 15).



\*Three-bolt upper mount shown.

**Fig. 15**

3. Slide the damper into the steering knuckle until seated against the taper within the knuckle. Use the jack to assist in aligning the damper with the knuckle. Reinstall the brake line bracket along with the lower mount bolt and nut. Torque to 56 Nm (41 lb.-ft.) (Fig. 16).



**Fig. 16**

4. Install the included end link. Torque the end link nuts 56 Nm (41 lb.-ft.) (Figs. 17 & 18).

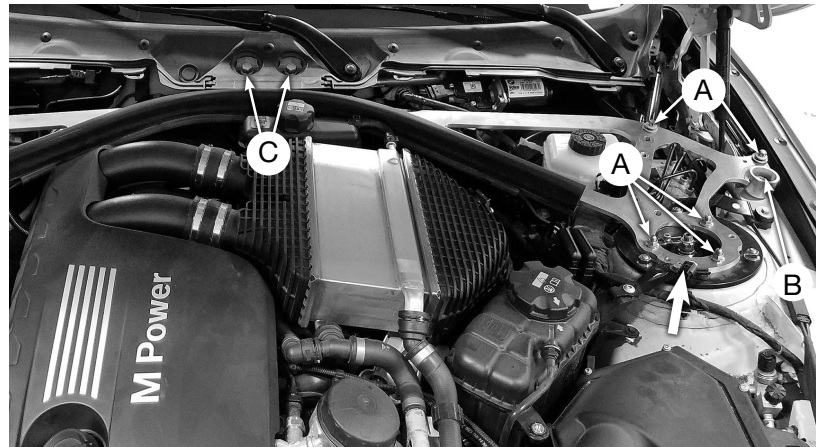


**Fig. 17**



**Fig. 18**

5. Bolt the aluminum cross brace (Fig. 19) back in place and reattach the coolant overflow reservoir. Replace the plastic covers over the bolts at the base of the windshield. See Table 1 for torque specifications.

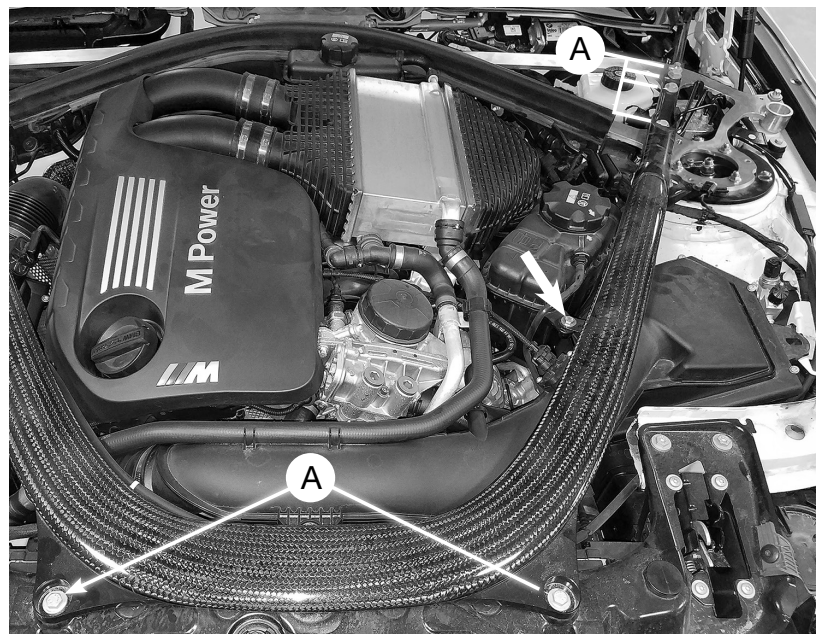


**Fig. 19**

| Torque Specifications for Aluminum Cross Brace |                 |                 |
|--|-----------------|-----------------|
| Location                                       | Nm              | Lb.-ft.         |
| A  | 28              | 21              |
| B  | 34              | 25              |
| C  | 56 + 90 degrees | 34 + 90 degrees |

**Table 1**

6. Reinstall the carbon fiber cross brace along with the radiator overflow reservoir bracket (Table 1) (Fig. 20).



**Fig. 20**

7. Reinstall the cowl covers. The electronic damping control connectors are not used. The rubber strut mount cover can be put back in place.
8. Reconnect the headlight alignment linkage. Torque to 6Nm (53 lb.-in.) (Fig. 8).

## SECTION 4. ROUTE THE AIR LINES



### 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.

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.



### PLEASE READ - IMPORTANT INSTALLATION INFORMATION

Please refer to your control system installation guide for more details on air line routing and to ensure the installation of your air suspension system is complete.

# Before Operating

## SET THE RIDE HEIGHT

1. Refer to the User Guide supplied with this kit to set up the suspension.

| Torque Specifications                  |                               |         |         |
|--|-------------------------------|---------|---------|
| Location                               | Nm                            | lb.-ft. | lb.-in. |
| Lower strut mount bolt                 | 56                            | 41      |         |
| M10 upper strut mount bolts            | 56                            | 41      |         |
| M8 upper strut mount bolts             | 28                            | 21      |         |
| End link nuts                          | 56                            | 41      |         |
| Aluminum and carbon fiber cross braces | See Table 1 on Page 8         |         |         |
| Headlight alignment linkage            | 6                             |         | 53      |
| Wheel studs                            | 140                           | 103     |         |
| Camber plate adjustment bolts          | 10                            | 7       |         |
| Braided air lines                      | 1 3/4 turns beyond hand-tight |         |         |

2. Upon successful completion of the installation, follow these pressure requirements for the air springs.



**Suggested Driving Air Pressure**



**Maximum Air Pressure**



**CAUTION**

FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND **WILL VOID THE WARRANTY.**

## CHECK FOR BINDING



### CAUTION

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

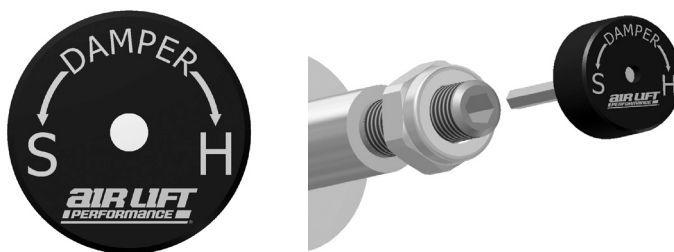
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and check all connections for leaks.

## INSTALLATION CHECKLIST

- Clearance** – Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and make sure there is at least 13mm (1/2") 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 5.2-6.2BAR (75-90 PSI) 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 152mm (6") 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 (see previous page). Drive the vehicle 16km (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 paperwork that came with the kit.

## DAMPING ADJUSTMENT

1. The dampers in this kit have 32 settings, or “clicks,” of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (example shown here) or a 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 will need to be set after installation and your initial drive, as they are not pre-set. It may take multiple adjustments to dial in your ideal ride. A good starting point is in the middle at 16 clicks from full soft, then drive the vehicle and make adjustments either softer or stiffer.

For more information, refer to the user guide.

# Limited Warranty and Return Policy

Air Lift Company provides a limited warranty\* to the original purchaser of Air Lift Performance Air Suspension kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on cars and trucks 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.

\* Full Limited Warranty and Return Policy are available at [www.airliftperformance.com/warranty](http://www.airliftperformance.com/warranty) and are subject to change.

## WARRANTY REGISTRATION & CLAIMS

- To register your warranty, please visit <https://www.airliftperformance.com/support/warranty-registration/>
- To submit a warranty claim, please visit <https://www.airliftperformance.com/support/submit-warranty-claim/>

**Thank you for purchasing Air Lift Performance products!**

## Need Help?

Contact Air Lift Company Customer Service at (800) 248-0892 or +1 (517) 322-2144 for calls from outside the U.S. and Canada.



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