

**AIR LIFT**  
**PERFORMANCE**

# Kit 75557

Subaru BRZ, Scion FR-S  
and Toyota GT86

***Front 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.*





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# Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Subaru BRZ/Scion FR-S/Toyota GT86. Read these installation instructions to correctly and safely set up the vehicle for a #lifeonair.

Air Lift assumes that the installer has the mechanical knowledge and ability to work on vehicle suspension systems and has basic tools necessary to complete the project. Special tools needed to complete the installation are noted on the Installation Diagram page.

Air Lift Performance 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 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 which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

** DANGER**

INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

** WARNING**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

** CAUTION**

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

**NOTE**

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

## Important Safety Notices

** WARNING**

DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.

** CAUTION**

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

# Installation Diagram

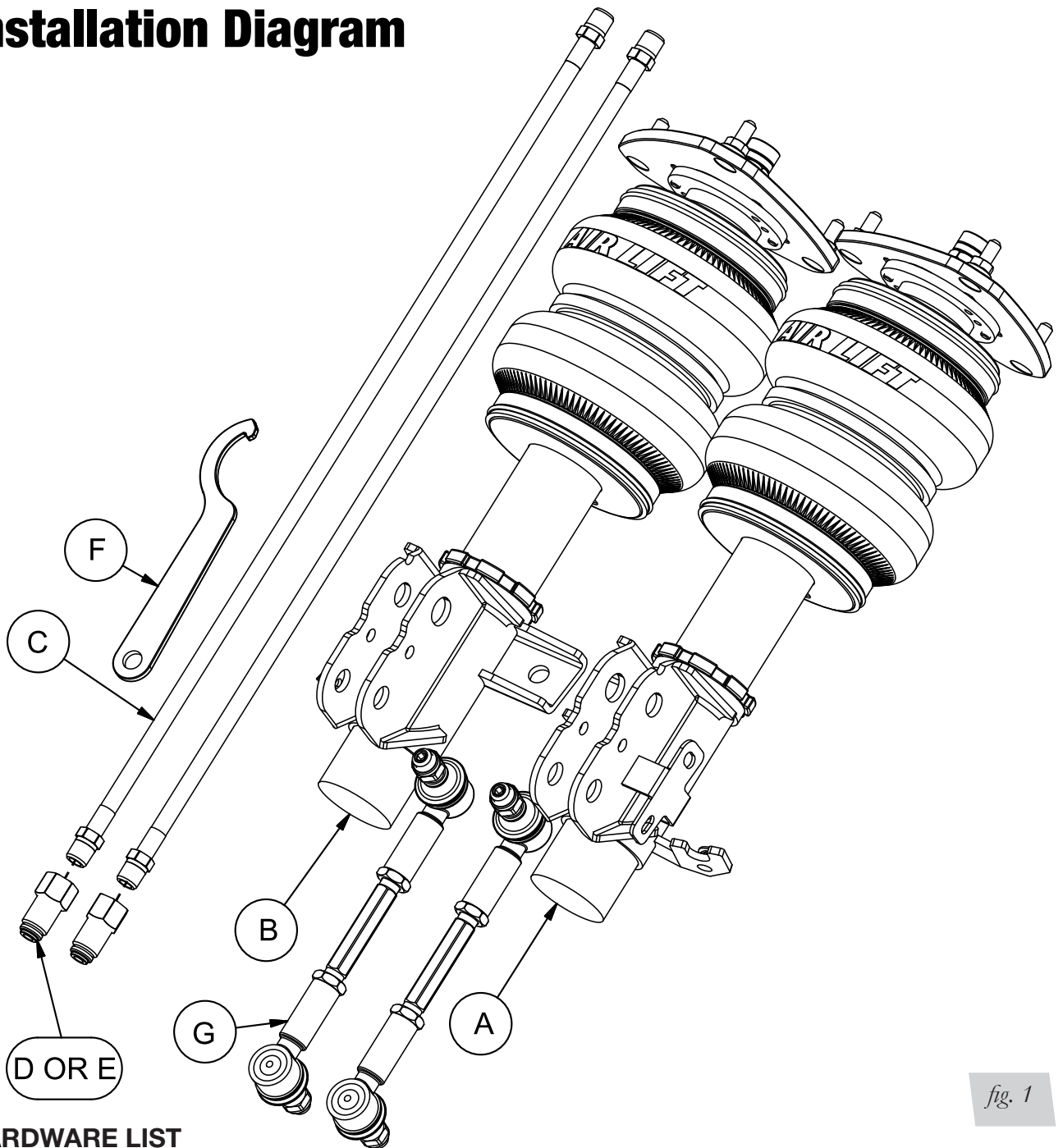


fig. 1

## HARDWARE LIST

Item	Part #	Description .....	Qty
A	35230	Strut assembly, BRZ/FRS/GT86 Front Right .....	1
B	35231	Strut assembly, BRZ/FRS/GT86 Front Left .....	1
C	20997	Leader line, 1/4" ID .....	2
D	21810	Union, 1/4" FNPT X 1/4" PTC, DOT .....	2
E	21987	Union, 1/4" FNPT X 3/8" PTC, DOT .....	2
F		Spanner wrench.....	1
G		Adjustable sway bar end link.....	2



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

# Installing the Air Suspension

**NOTE**

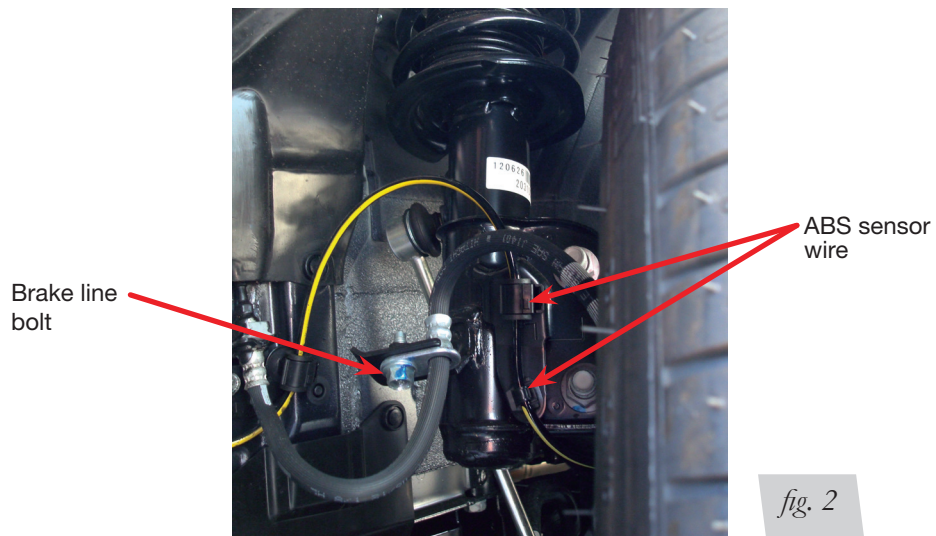
See important safety notices on page 2.

**PREPARING THE VEHICLE**

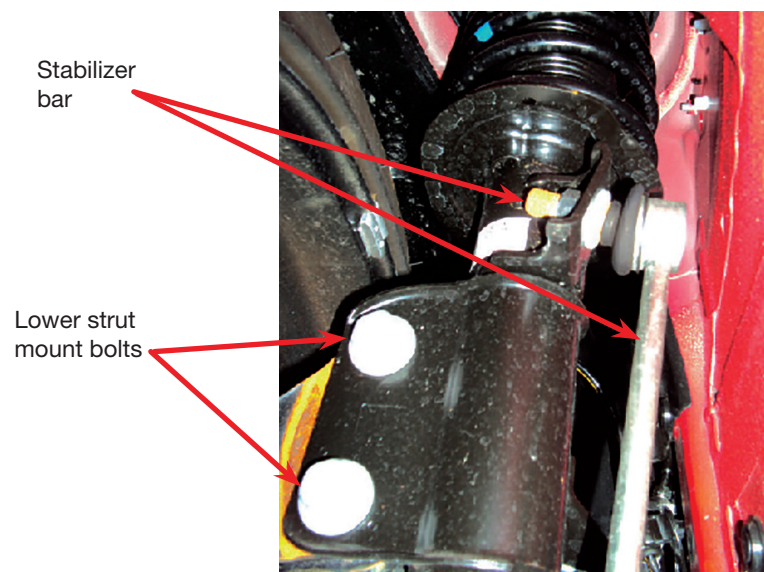
1. Elevate and support the vehicle with a hoist or safety stands.
2. Remove the front wheels.

**STOCK SUSPENSION REMOVAL**

1. Remove the bolts retaining the brake hose and unclip the ABS sensor wire (Fig. 2).



2. Disconnect the stabilizer bar from the strut body and the lower control arm (Fig. 3).



3. Support the hub then unbolt and remove the two lower strut mount bolts (Fig. 3).

4. Unthread the three upper bracket nuts within the engine compartment and remove the strut from the vehicle (Fig. 4).

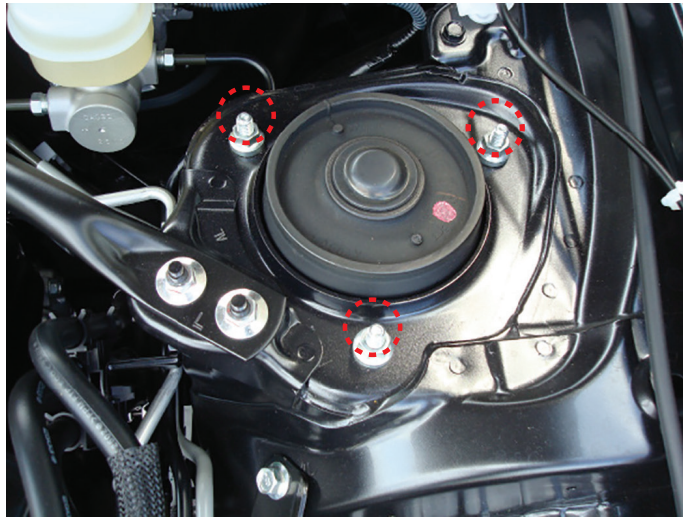


fig. 4

## INSTALLING THE KIT COMPONENTS

1. Begin by installing the leader line into the air spring. Apply thread sealant to the threads of the leader line. 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. 5).

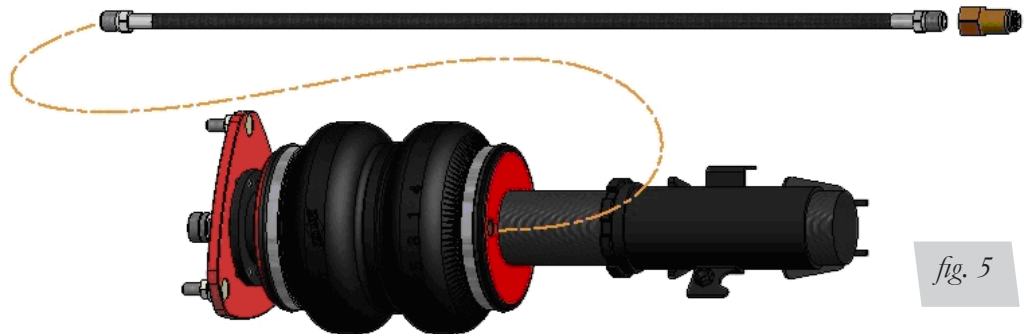


fig. 5

2. Align the strut assembly with the upper bracket holes in the strut tower. Thread the nuts onto the camber plate studs. Lift the hub assembly into the strut lower mount and reinstall bolts. See *Torque Specifications (Table 1)*.
3. Reinstall the brake hose bracket and ABS sensor wire clips. See *Torque Specifications (Table 1)*.
4. Install the supplied stabilizer bar end link into strut body and lower control arm. See *Torque Specifications (Table 1)*.

### CAUTION

INSTALLER MUST USE SUPPLIED, SHORTER, SWAY BAR END LINK OR POSSIBLE DAMAGE TO COMPONENTS MAY OCCUR.

## ROUTING THE AIR LINES

1. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader 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.

# Before Operating

## SETTING THE RIDE HEIGHT

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

Torque Specifications		
Location	Nm	Lb.-ft.
Camber plate to chassis	20	15
Camber plate adjustment bolts	15	11
Strut lower mount bolts	175	129
Brake hose bolt	32	24
Stabilizer bar to transverse link	30	22
Wheel bolts	120	89

*Table 1*

Suggested Driving Air Pressure	Maximum Air Pressure
<b>45 PSI (3.1BAR)</b>	<b>125 PSI (8.6BAR)</b>
<p>FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND <b>WILL VOID THE WARRANTY.</b></p>	

*Table 2*

## CHECK FOR BINDING

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 75-90 PSI and check all connections for leaks.



**CAUTION**

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



## INSTALLATION CHECKLIST

- Clearance** — Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
- Leak** — Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- Heat** — Be sure there is sufficient clearance from heat sources, at least 6" (152mm) from air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at **(800) 248-0892**.
- Fastener** — Recheck all bolts for proper torque.
- Road** — Inflate the air springs to recommended driving pressures (Table 2). Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all paperwork that came with the kit.

## DAMPING ADJUSTMENT

Suspension damping is a matter of compromise. Setting it too stiff will make the ride feel jarring. In addition, if the suspension is too stiff, the tires will lose contact with the road, reducing control and power delivery. On the other hand, if the suspension is too soft, the car can experience brake dive and excessive bouncing. The sweet spot lies somewhere in the middle. Air Lift dampers have a range of adjustment, which allows the driver to tune the ride and handling to his or her preferences.

Air Lift recommends damper and air pressure settings for every vehicle kit, but it is impossible to consider every situation. For example, even though Air Lift kits replace the dampers and springs, vehicles with sport-tuned suspensions might have stiffer bushings, larger anti-roll bars, bigger wheels, wider tires, etc. These settings may need to be adjusted to different vehicles and driving characteristics.

1. The dampers in this kit have 30 settings, or "clicks," of adjustable compression and rebound damping characteristics. Damping is changed through the damper rod using the supplied adjuster (Figs. 6 & 7) 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 in this kit is preset to "-15 clicks." This means that the damper is adjusted 15 clicks away from full stiff, which starts at 0. Counting up from full stiff is the preferred method of keeping track of, or setting, damping.



fig. 6

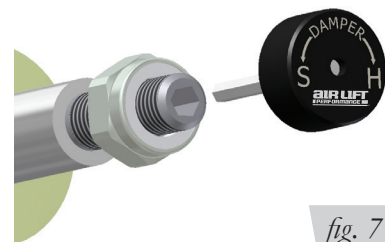


fig. 7

## Limited Warranty and Return Policy

Air Lift Company provides a 1-year limited warranty to the original purchaser of Air Lift Performance damper kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on vehicles as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available online at [www.airliftperformance.com/warranty](http://www.airliftperformance.com/warranty).

For additional warranty information contact Air Lift Company customer service.

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## Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial (517) 322-2144.



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