



TOYOTA SUPRA (A90)

FRONT APPLICATION

Kit 76012

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.

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Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Toyota Supra (A90). 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**.

An Air Lift Performance air management system is highly recommended for this product. Learn more at **air-lift.co/productlines**.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information 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

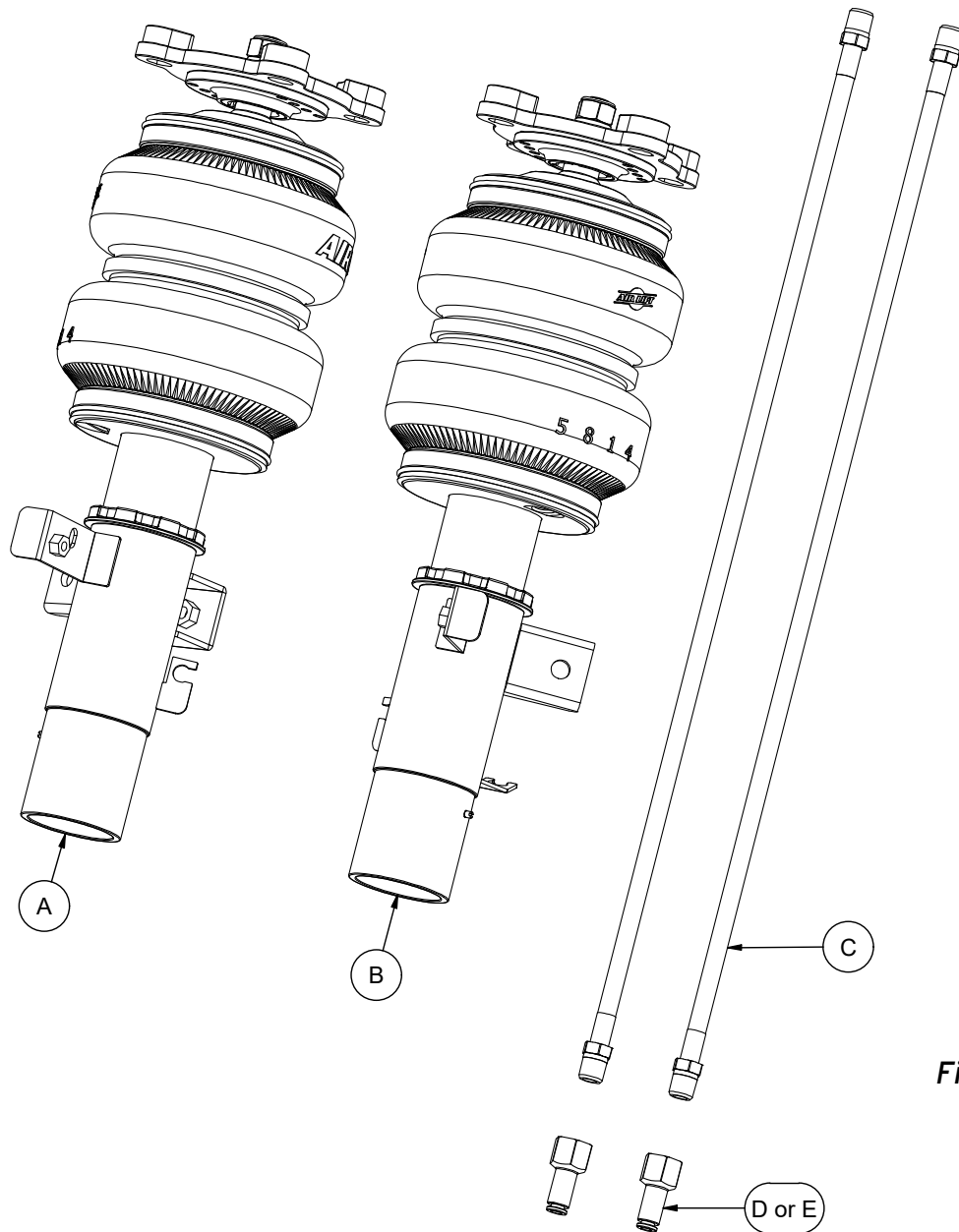


Fig. 1

HARDWARE CONTENT

Item	Part #	Description	Qty
A	35731	STRUT ASSEMBLY, SUPRA, GR, LF	1
B	35730	STRUT ASSEMBLY, SUPRA, GR, RF	1
C	20997	LEADER LINE, 1/4" ID	2
D	21810	1/4" FNPT X 1/4" PTC FITTING, DOT	2
E	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 (Figs. 2 & 3).



Fig. 2



Fig. 3

SECTION 2. STOCK SUSPENSION REMOVAL

1. Disconnect the sensor linkage from the lower control arm (Fig. 4).



Fig. 4

2. Unbolt the lower control arm from the subframe (Figs. 5 & 6).



Fig. 5



Fig. 6

3. Unclip the brake line bracket from the attaching bracket (Figs. 7 & 8).

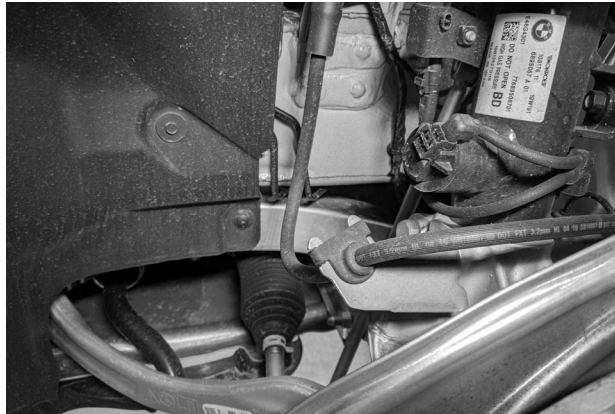


Fig. 7



Fig. 8

4. Disconnect the electronic damping control wires from the damper (Figs. 9 - 11).



Fig. 9



Fig. 10



Fig. 11

5. Unbolt the stabilizer link from the damper assembly (Fig. 12).

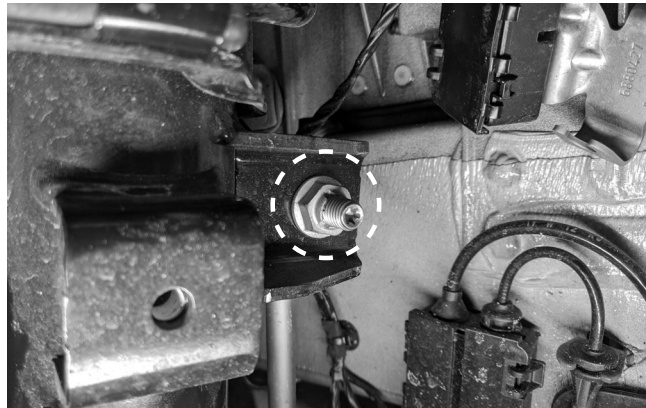


Fig. 12

6. Support the hub assembly and unbolt the lower pinch bolt from the wheel bearing housing (Fig. 13). Lower the assembly until the damper is disconnected (Fig. 14).



Fig. 13



Fig. 14

7. Within the engine compartment, unclip and lift the cowl cover (Figs. 15-17).

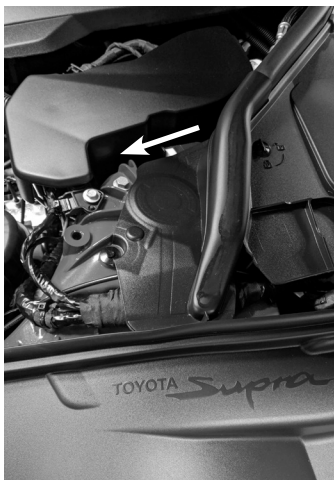


Fig. 16



Fig. 17

8. Remove the four upper mount bolts (Fig. 18) and remove the damper assembly from the vehicle (Fig. 19).



Fig. 18



Fig. 19

9. Remove the accelerometer from the damper (Fig. 20).



Fig. 20

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.

1. Begin by installing the leader line (C) 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. 21).

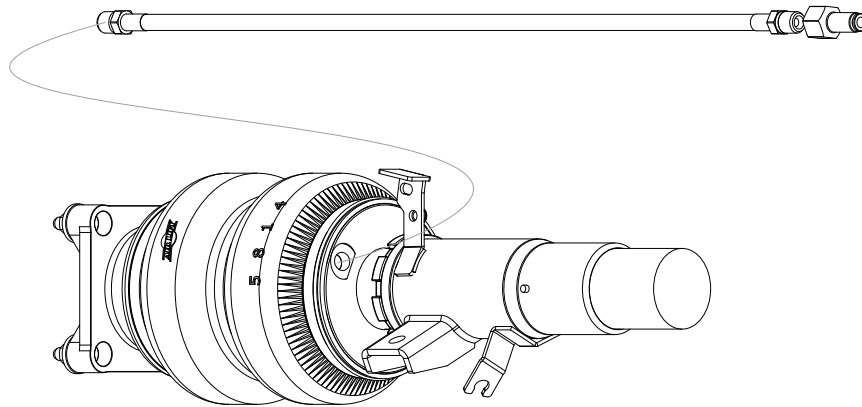
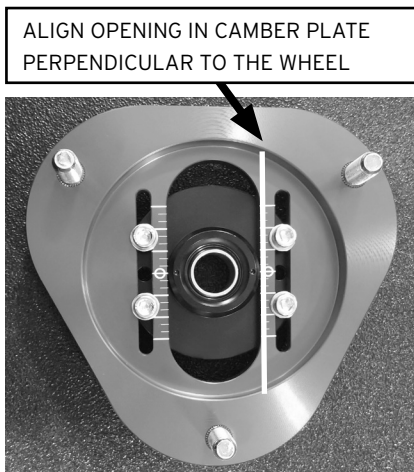


Fig. 21

2. Attach the upper mount to the chassis. Torque nuts to 28Nm (21 lb.-ft.) (Fig. 22).

NOTE

When adjusting camber, verify clearance around the air spring throughout all suspension travel.



Shown above is a representative image of a camber plate.



Ensure orientation of damper plate to vehicle.

Fig. 22

- Lift the hub assembly onto the damper, align the sensor wire bracket and attach the lower pinch bolt (Figs. 23 & 24). Torque to 56Nm + 90 degrees (41 lb.-ft. + 90 degrees).



Fig. 23



Fig. 24

- Align and reattach the lower control arm to the subframe (Fig. 25). Do not torque at this time.



Fig. 25

- Reattach the stabilizer end link to the damper (Fig. 26). Torque the end link nut to 56Nm (41 lb.-ft.).



Fig. 26

6. Clip the sensor wires to the damper (Fig. 27).



Fig. 27

7. Reattach the accelerometer to the damper (Figs. 28 & 29) and torque bolt to 9Nm (80 lb.-in.).



Fig. 28



Fig. 29

8. Reinstall the brake line to the attaching bracket (Figs. 30 & 31).



Fig. 30



Fig. 31

9. Reattach the sensor linkage to the lower control arm (Fig. 32).
10. Torque lower control arm to the subframe at ride height with suspension loaded. Torque to 100Nm + 90 degrees (74 lb.-ft. + 90 degrees) (Fig. 33)



Fig. 32



Fig. 33

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.
Upper mount to chassis	28	21	
Damper lower pinch bolt	TTY 56+90 degrees	TTY 41+90 degrees	
Stabilizer linkage to damper	56	41	
Accelerometer to damper	9	6.6	80
Control arm to subframe	103	76	
Wheel bolts	TTY 100+90 degrees	TTY 74+90 degrees	
Camber adjustment bolt	7	5.2	62
Damper locking collar	45 degrees beyond hand-tight		
Air line and fitting	1 3/4 turns beyond hand-tight with thread sealant		

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



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.

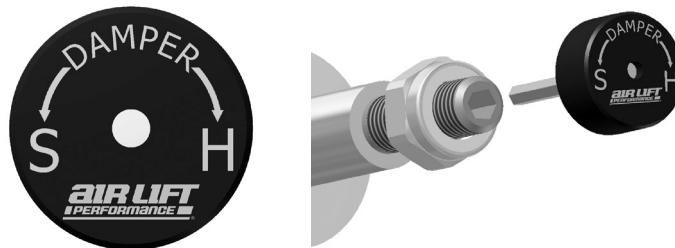
1. Inflate and deflate the system (do not exceed 8.6BAR [125 PSI]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
2. Inflate the air springs to 5.2-6.2BAR (75-90 PSI) and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



Connect by searching for **Air Lift Performance** #LifeonAir

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