

# Kit 75520

Nissan Z33 350z & Infiniti G35

Front Application (excluding AWD)



## **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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## **A. Introduction**

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Nissan/Infiniti. 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**.

An Air Lift 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 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.



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



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



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



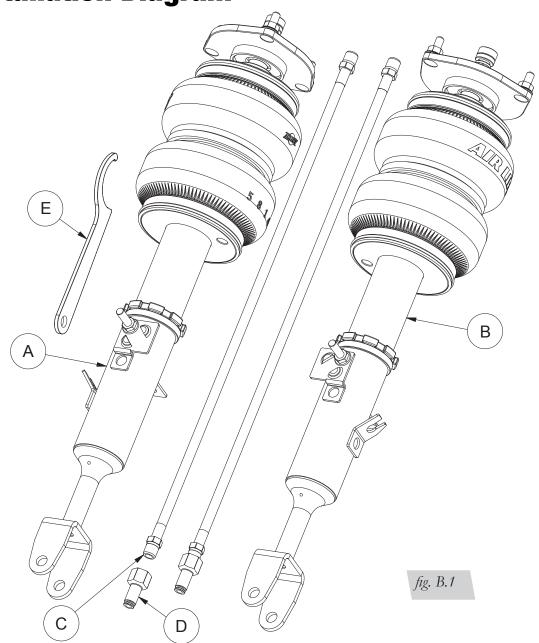
DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.



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



# **B.** Installation Diagram



#### **HARDWARE LIST**

Item	Part #	Description Qty
Α	35301	ASM, Shock, Nissan Z33 LF1
В	35300	ASM, Shock, Nissan Z33 RF1
С	20997	Leader line, 1/4" ID2
D	21810	1/4" FNPT X 1/4" PTC Union "DOT"2
E*	21987	1/4" FNPT X 3/8" Fitting "DOT"2
F		Spanner wrench1
		·

 $<sup>^{\</sup>star}1/4$ " FNPT x 3/8" PTC fittings are NOT included in this kit, but are available as a special order.



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

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# **C.** Installing the Air Suspension

#### PREPARING THE VEHICLE

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

#### STOCK SUSPENSION REMOVAL

- 1. Support the hub assembly to prevent overextension of suspension components.
- 2. Remove lower shock bolt from the transverse link (Figs. C.1 & C.2).





- 3. Unbolt the stabilizer bar from the lower transverse link.
- 4. Disconnect the wheel speed sensor wire and brake line from the shock (Figs. C.3 & C.4).







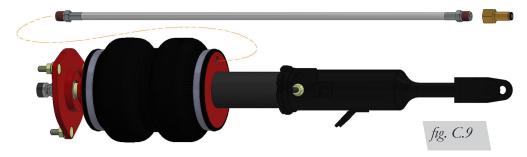
5. Within the engine compartment, unbolt and remove the tower brace. Nismo models will require the front support removed as well. (Figs. C.5, C.6, C.7 & C.8)



Unbolt the three upper shock mount bolts and remove the shock assembly from the vehicle.

#### **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 airline (1 3/4 turns beyond hand-tight). Tighten the leader line into the air spring 1 3/4 turns beyond hand-tight. (Fig. C.9)



- 2. Insert the shock assembly into the shock tower and attach the upper bracket to the chassis. The shock should be installed so that the air spring air port is directed towards the engine compartment. Torque the upper bracket nuts to 39Nm (28 lb.-ft.).
- 3. Attach the shock fork to the lower transverse link. Do not torque the attaching bolt at this time.
- 4. Clip the wheel speed sensor wire onto the bracket on the shock body. Secure the brake line to this bracket.
- 5. Reattach the tower brace and front supports. Torque to 45Nm (33 lb.-ft).

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#### **ROUTING THE AIR LINES**

- 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.
- 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.



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.

## **D. Before Operating**

Read the User Guide that came with this kit to set up the suspension.

Torque Specifications				
Location	Nm	Lbft.		
Upper bracket to chassis	39	28		
Upper control arms to bracket	70	52		
Transverse link to shock clevis	107	79		
Transverse link to subframe	130	96		
Stabilizer link to transverse link	88	65		
Wheels	99-126	73-93		
Tower brace	45	33		

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
55 PSI (3.79 BAR)	125 PSI (8.62 BAR)

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**

- Inflate and deflate the system (do not exceed 125 PSI [8.62 BAR]) 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 (5.17-6.21 BAR) and check all connections for leaks.



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



#### DAMPING ADJUSTMENT

- 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. D.2 & D.3) or an M3 hex key (not included).
- Turn the adjuster clockwise (H) and the damping settings are stiffened, reducing oscillations and body motion. Turn the adjuster counterclockwise (S) and the damping is softened.
- 3. Each damper in this kit is preset to "-12 clicks." This means that the damper is adjusted 12 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. This setting was developed on a 2007 Nissan 350z NISMO.





#### **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 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.

### **E. Maintenance and Use Guidelines**

- An Air Lift air management system is strongly recommended for this product, but it
  is possible to operate without one. The air lines can be routed to Schrader valves for
  use with a separate air compressor. Air lines and Schrader valves are not included
  with Air Lift Performance kits and would need to be purchased separately. To learn
  more Air Lift management systems visit air-lift.co/productlines.
- 2. Check the air pressure before driving.



SHOULD IT BECOME NECESSARY TO RAISE THE VEHICLE BY THE FRAME, MAKE SURE THE CONTROL SYSTEM IS TURNED OFF BEFORE LIFTING.

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# **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.

For additional warranty information contact Air Lift Company customer service.

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 **www.airliftperformance.com**.

## **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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