

Air Lift[™]
PERFORMANCE



Kit 75620
Nissan Z33 350z
& Infiniti G35
Rear Application

Kit 78639
Nissan Z33/Z34
Infiniti G35/G37
Rear Application
(No Shocks)

AIR LIFT
PERFORMANCE[™]

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.

PERFORMANCE SUSPENSION PARTS

Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Nissan/Infiniti Performance suspension 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, step-by-step installation information, maintenance tips, safety information and a troubleshooting guide.

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.

 **CAUTION**

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

Installation Diagram

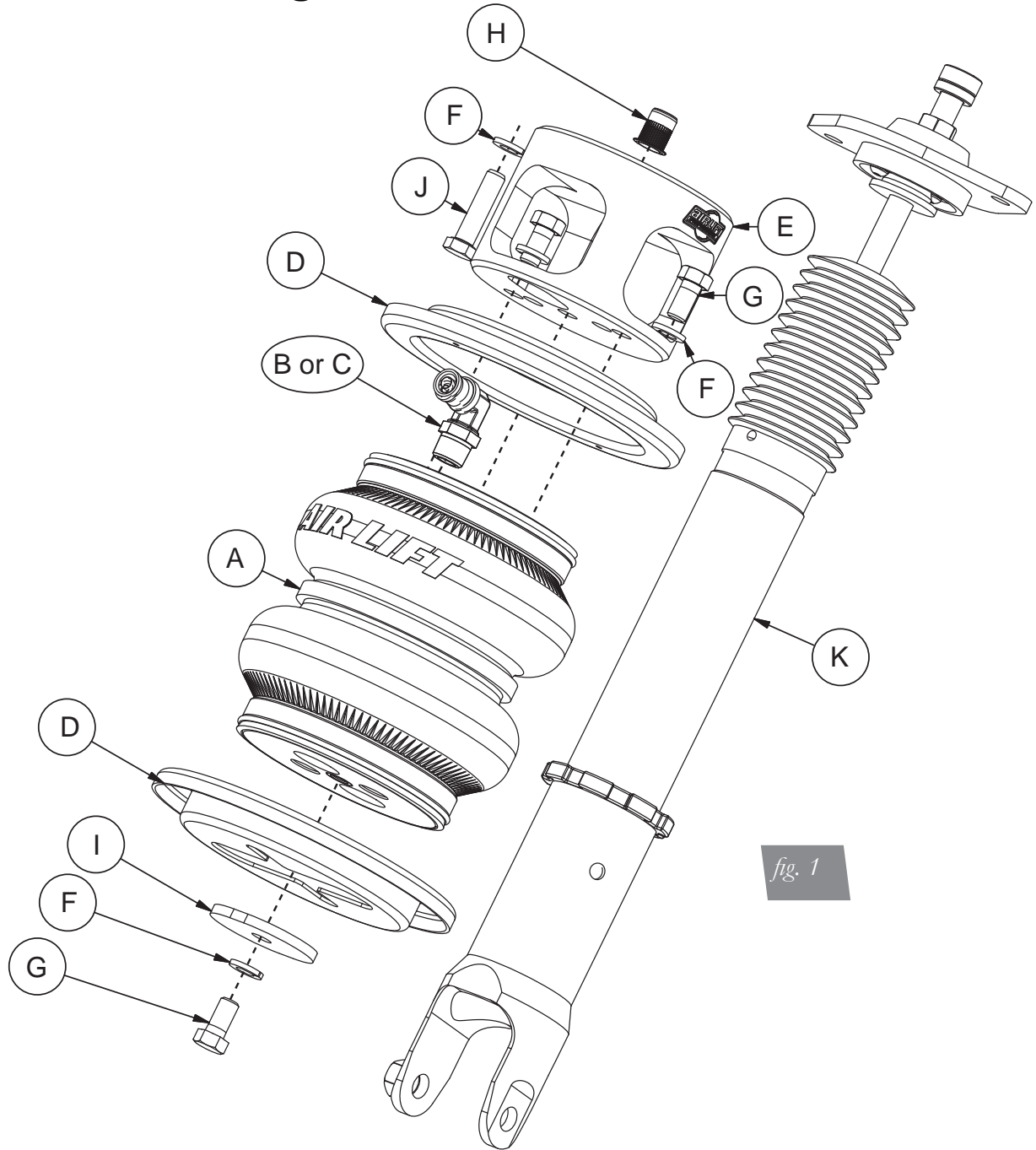


fig. 1

HARDWARE LIST

Item	Part #	Description.....Qty	Item	Part #	Description Qty
A	58530	Air Spring.....2	G	17203	3/8-24 X 3/4 Hex Bolt 6
B	21846	3/8"MNPT X 1/4"PTC, 90° 2	H	18585	3/8-16 Nutsert 2
C	21867	3/8"MNPT-3/8"PTC, 90° 2	I	13312	Spacer, Lower Centering..... 2
D	11801	Roll Plate.....4	J	17108	3/8-16 X 1.5" Hex Cap Screw 2
E	13311	Spacer, Upper Air Spring..... 2	K	26972	Rear Shock, Nissan Z33 2
F	18427	3/8" Lock Washer 8			

Installing the Air Suspension

PREPARING THE VEHICLE

1. Elevate and support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the rear wheels (fig. 2).



STOCK SHOCK AND SPRING REMOVAL

1. Support the hub assembly to prevent overextension of suspension components.
2. If retaining the factory shocks, continue on to step 4. Remove the lower shock bolt from the hub (figs. 3 & 4).



3. Remove the two upper shock bracket bolts and remove the shock from the vehicle (figs. 5 & 6).

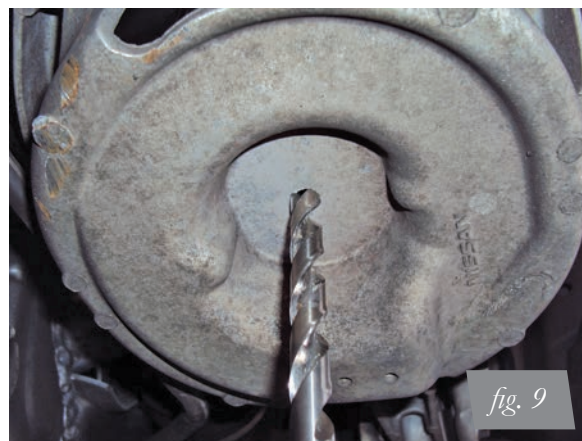


4. Unbolt the lower control arm from the hub and slowly lower the control arm down (fig. 7).
5. Remove the coil spring and rubber isolators from the spring seats. The conical upper spring isolator snaps into place and can be removed with a side-to-side motion (fig. 8).



AIR SUSPENSION INSTALLATION

1. Using the supplied centering spacer (I) as a template, drill a $13/32$ " (.406" diameter) hole through the center of the lower control arm spring seat (fig. 9).



2. To install the nutsert in the upper spring seat, the upper bracket can be used as a template to center the air spring location (fig. 10). Place the bracket against the spring seat and mark the center location. Drill a hole $17/32$ " (.531" diameter) through the spring seat.



fig. 10

3. Assemble the nutsert and tool bolt and insert the assembly into the drilled hole. While holding the nutsert spacer in place, tighten the tool bolt until the nutsert is fully seated and locked in place (figs. 11, 12 & 13).

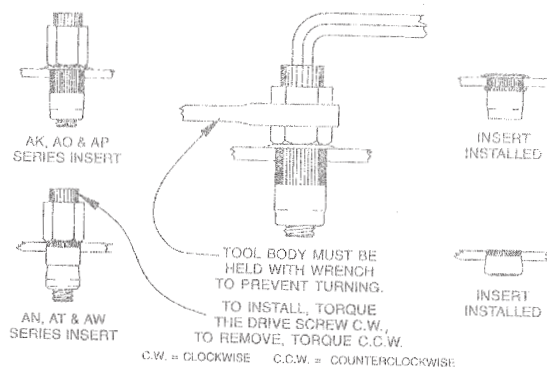


fig. 11



fig. 12



fig. 13

4. Reinstall the lower control arm to the hub. Do not torque at this time.
5. Attach the air spring upper bracket to the upper spring seat (fig. 14). Torque the upper bracket bolt (J with lock washer F) to 20Nm (15 lb-ft).



fig. 14

- Apply the roll plate underneath the air spring. Lift the upper control arm and attach the air spring assembly to the control arm with the centering spacer (I), bolt (G) and lock washer (F) through the previously drilled hole. Torque to 20 Nm (15 lb-ft) (figs. 15 & 16).



fig. 15



fig. 16

- If retaining the factory shocks, continue on to step 9. Insert the shock assembly into the shock tower and attach the upper bracket to the chassis (fig. 17). Torque the upper bracket nuts to 28 Nm (21 lb-ft).



fig. 17

- Attach the shock fork to the hub. Do not torque the attaching bolt at this time.
- Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose that is clear of all suspension components and axle. Routing should also allow for the suspension to extend without kinking or 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.
- With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the axle. Record this measurement as Max Compression.
- Cycle the suspension to Max Extension and record the measurement from the same reference points.
- Add ME and MC then divide by 2. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (fig. 15).

Formula for Calculating Ride Height

$$(ME+MC)\div 2=MID\ STROKE$$

fig. 18

- With the suspension at this position, loosen, then re-torque the lower control arm bolts to manufacturer's specifications (Table 1).

Torque Specifications		
Location	Nm	lb-ft
Upper bracket to chassis	20	15
Lower air spring attachment bolt	20	15
Lower control arm to hub	72.5	53
Lower control arm to sub-frame	72.5	53
Upper control arm to sub-frame	72.5	53
Trailing link to sub-frame	72.5	53
Trailing link to hub	87.5	65
Transverse link to hub	87.5	65
Transverse link to sub-frame	72.5	53
Shock lower mount to hub (350z/G35)	110	81
Shock upper mount to chassis	28	21
Wheels (350z/G35)	99-126	73-93

Table 1

DAMPING ADJUSTMENT

The shocks in this kit have 30 settings, or “clicks”, of adjustable compression and rebound damping characteristics. Damping is changed through the shock rod using the supplied adjuster or a 3mm allen wrench.

Turn the adjuster clockwise and the damping settings are hardened. Turn the adjuster counterclockwise and the damping is softened.

Each 350z/G35 shock is preset to “-12 clicks”. This means that the shock is adjusted 12 clicks away from full stiff. Counting down from full stiff is the preferred method of keeping track/setting of damping. This setting was developed on a 2007 Nissan 350z NISMO and may need to be adjusted to different vehicles and driving characteristics.



fig. 19



fig. 20

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 bushings (fig. 11). Once they have been loosened, re-torque to stock specifications (Table 1).

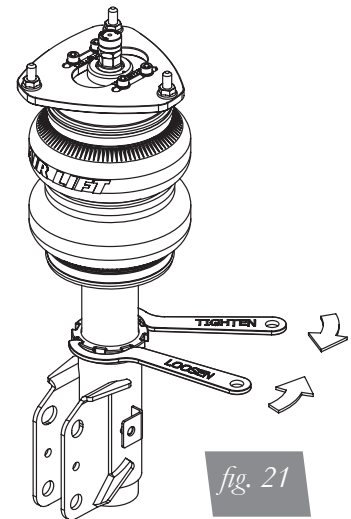
NOTE

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.

ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your dampers have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height, or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

1. Support the vehicle with jack stands or a hoist at approved lifting points.
2. Remove the wheel.
3. Using the supplied spanner wrench, loosen the lower locking collar (fig. 21).
4. Deflate the air spring to 0 PSI on the corner you are adjusting.
5. Disconnect lower mount from suspension.
6. Spin the lower mount to the desired location.



NOTE

Not all models will have further drop height available.

7. Re-install lower mount to suspension and torque fasteners.
8. Tighten the lower locking collar to the lower mount using significant force.

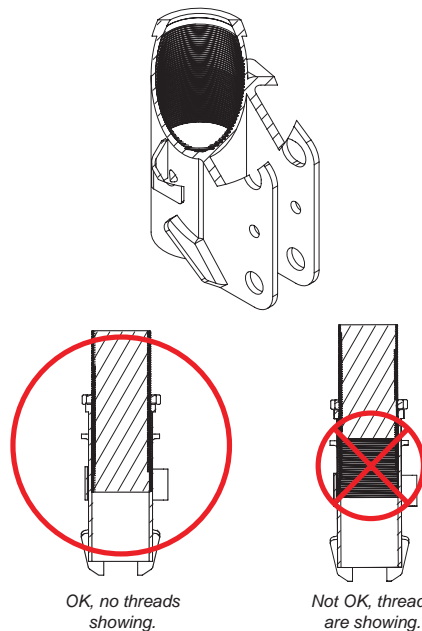
CAUTION

WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE DAMPER BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 22). WHEN ADJUSTING DOWNWARDS, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

CAUTION

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON DAMPER! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

FOR STRUTS:



FOR SHOCKS:

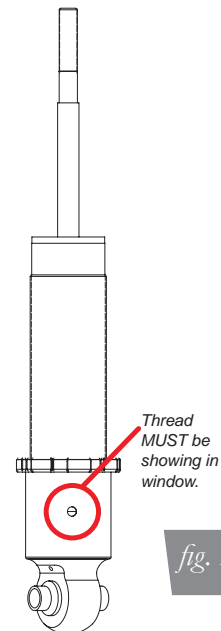


fig. 22