

Air Lift[™]
PERFORMANCE

Kit 75621

Nissan Z34 370z

Infiniti G37

Rear 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.

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.



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

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.

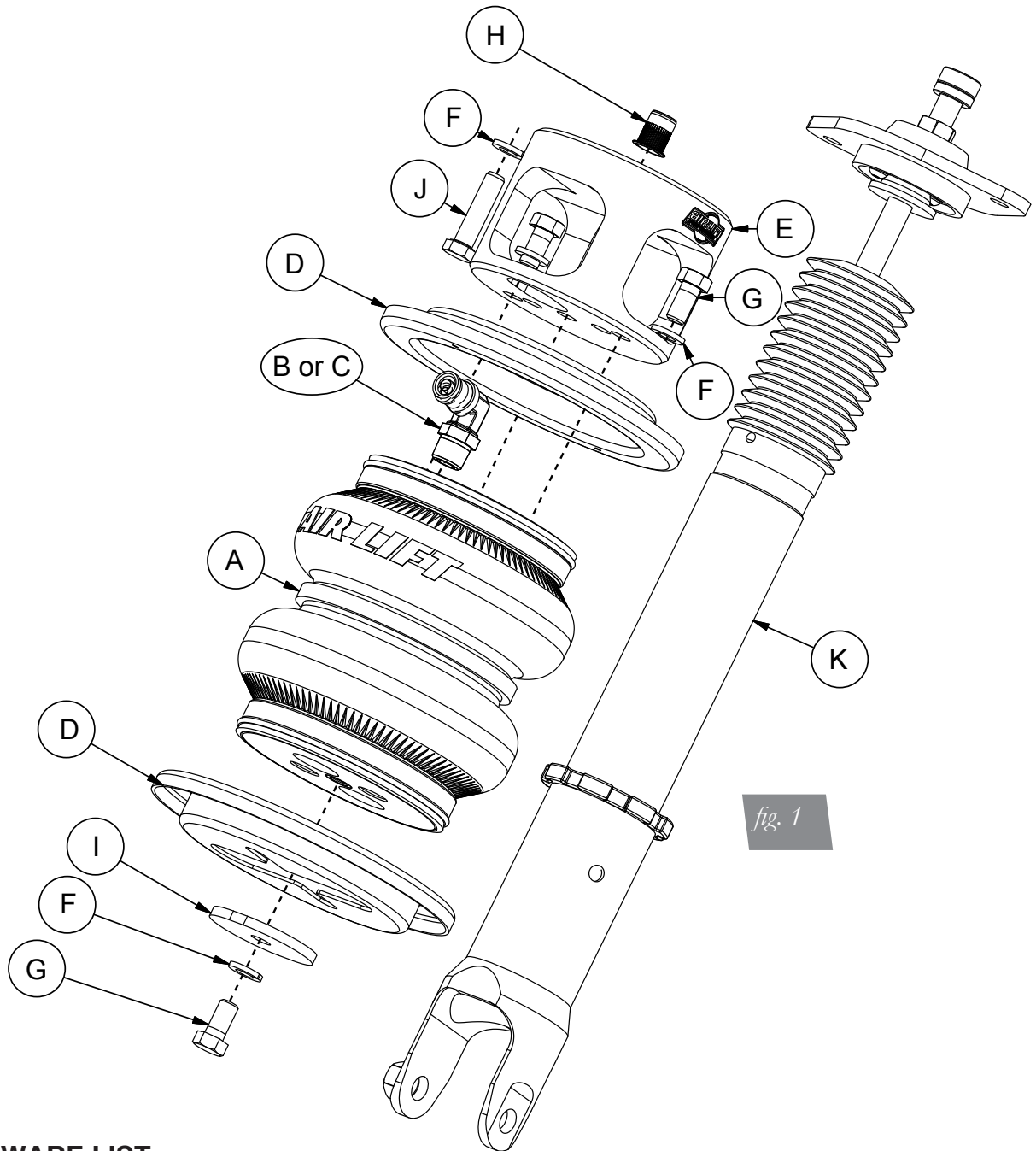


DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.



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

Installation Diagram



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 X 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	26998	Rear Shock, Nissan Z34..... 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. 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).

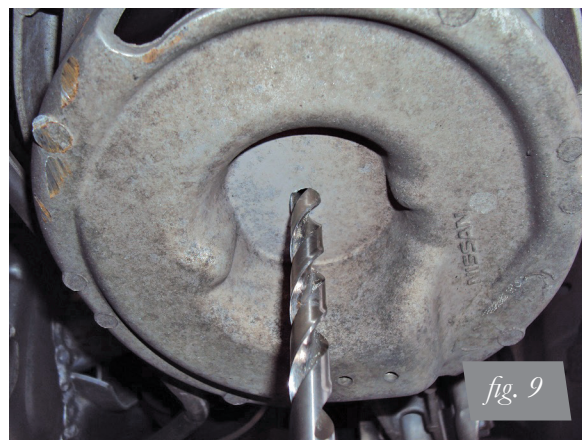


4. Unbolt the lower control arm from the hub and slowly lower the control arm down (fig. 7).
5. Remove the coil spring and rubber isolators from the spring seats. The conical upper spring isolator snaps into place and can be removed with a side-to-side motion (fig. 8).



AIR SUSPENSION INSTALLATION

1. Using the supplied centering washer 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).

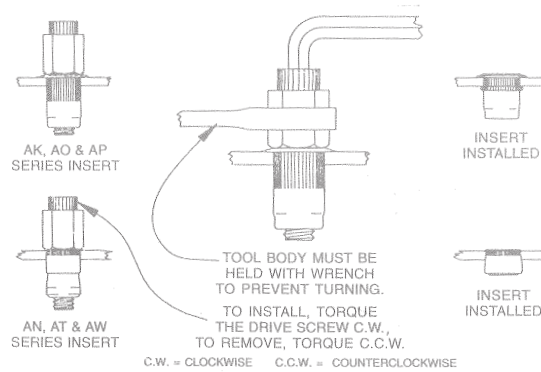


fig. 11



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).

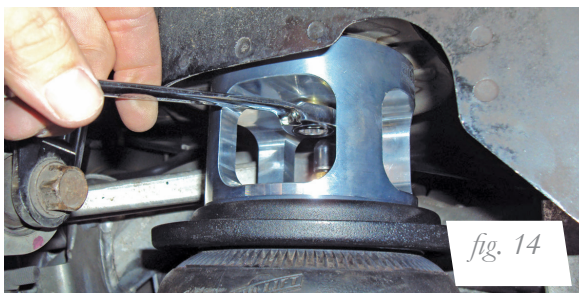
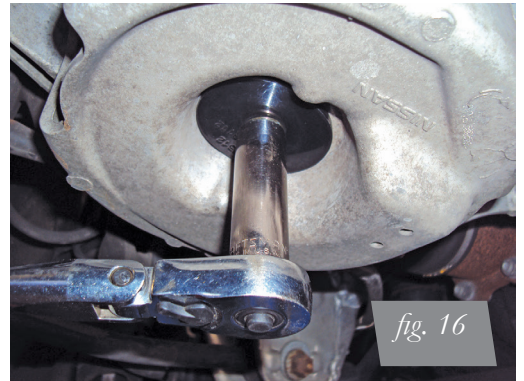
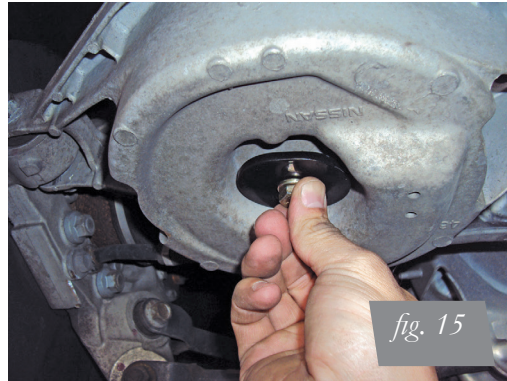


fig. 14

- 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)



- 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).



- Attach the shock fork to the hub. Do not torque the attaching bolt at this time.
- 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.
- Take the difference between the two numbers and divide by two. Add that value to the original Max Compression number. Set the suspension to this point. This position gives 50% stroke in either position and is a starting point for ride height.
- With the suspension at this position, torque the lower shock bolt and upper and lower control arm bolts to manufacturer’s specifications (Table 1).

Formula for calculating ride height (fig. 18):

Step 1:	Step 2:	Step 3:	Answer:
$\frac{ME - MC}{X}$	$\frac{X}{2} = Y$	$\frac{Y + MC}{Z}$	Z = DESIGN HEIGHT

fig. 18

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 370z/G37 shock is preset to “-20 clicks”. This means that the shock is adjusted 20 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 2012 Infiniti G37 sedan and may need to be adjusted to different vehicles and driving characteristics.



fig. 19

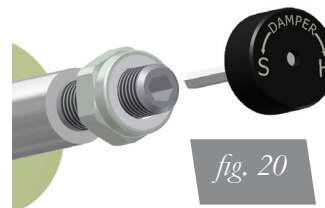


fig. 20

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	123	91
Shock upper mount to chassis	28	21
Wheels	108	80

Table 1

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).

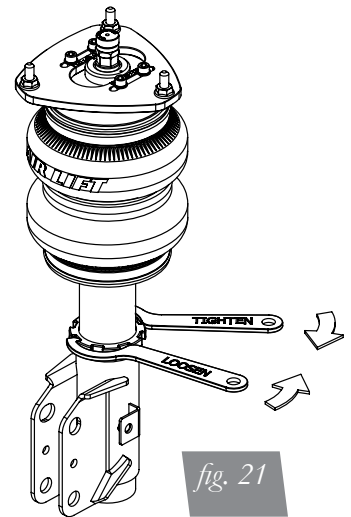
NOTE

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 struts 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.

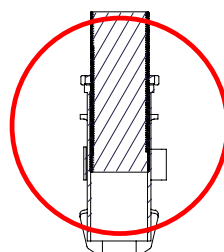
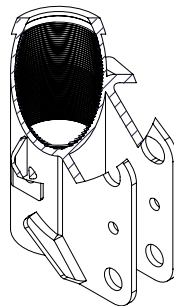
CAUTION

WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT 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.

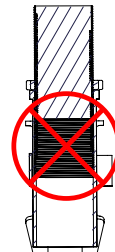
CAUTION

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

FOR STRUTS:



OK, no threads showing.



Not OK, threads are showing.

FOR SHOCKS:

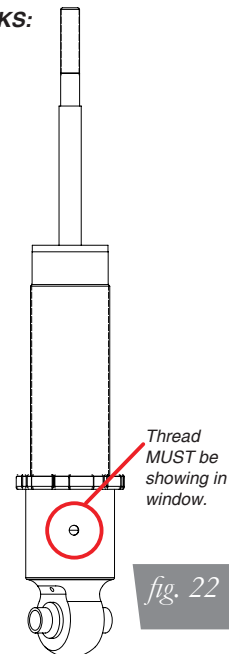


fig. 22