

AIR LIFT
PERFORMANCE

Kit 78618
Nissan R35 GT-R
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.

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Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Nissan R35 GT-R. 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 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 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/SOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram

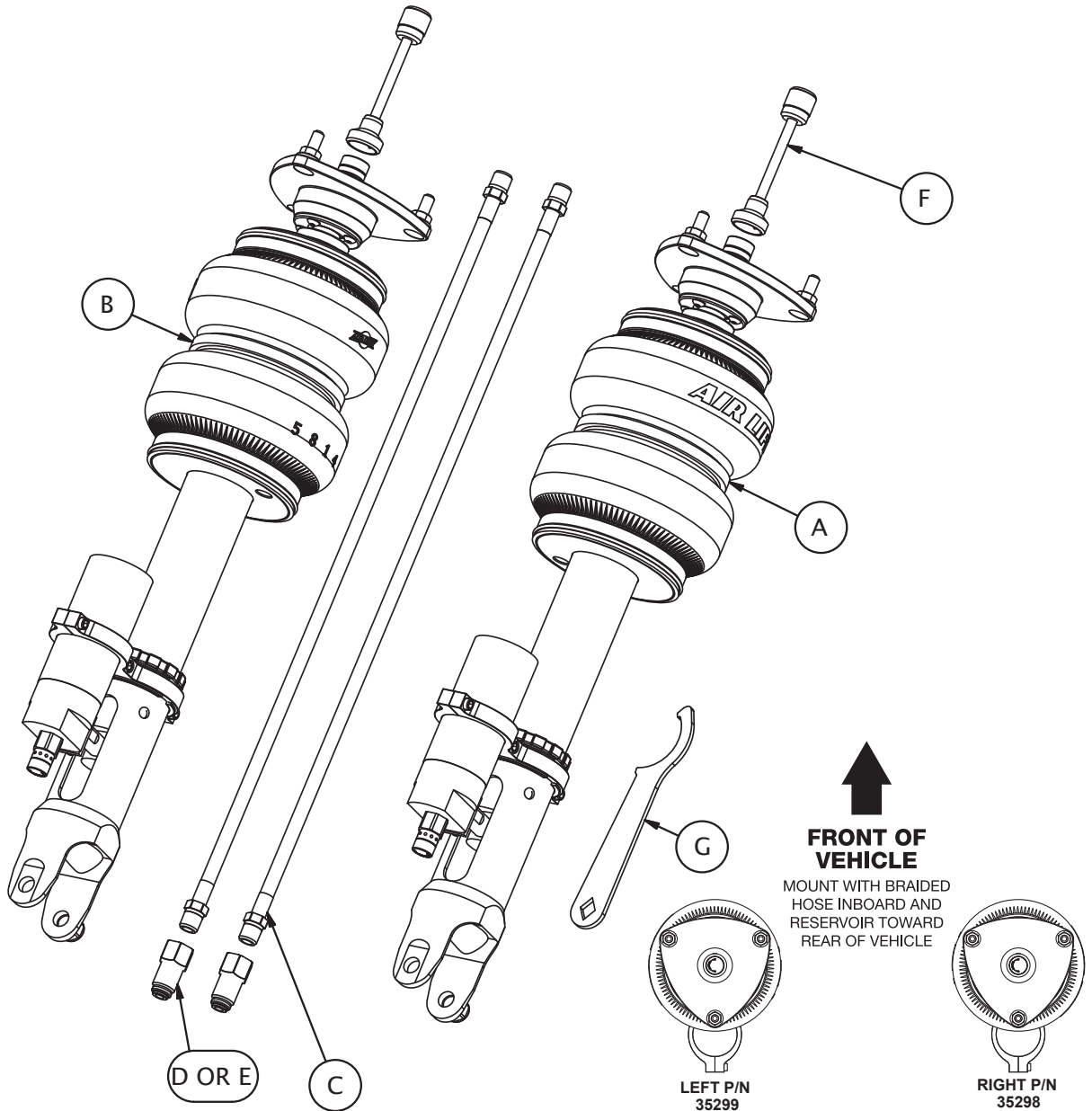


fig. 1

HARDWARE LIST

| Item | Part # | Description | Qty |
|------|--------|--|-----|
| A | 35298 | ASM, shock, R-35 GT-R, RR | 1 |
| B | 35299 | ASM, shock, R-35 GT-R, LR..... | 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 | | Flexible adjuster extension | 2 |
| G | | Spanner wrench..... | 1 |

* Union, 1/4" FNPT X 3/8" PTC are NOT included in this kit, but are available as a special order.

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

Installing the Air Suspension

PREPARING THE VEHICLE

1. Unclip the rear seat bases and remove the bases from the vehicle (fig. 2).



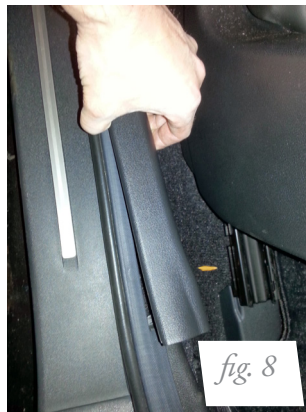
2. At the base of each rear seat back, remove the bolt shown in Figure 3, then push upward on the seat back. Remove both seat backs this way (figs. 4 and 5).



3. Unclip and remove the center cup holder between the rear seat locations.
4. Unbolt the two bolts at the base of the rear center speaker cover (fig. 6). With the two lower bolts removed, carefully unclip the speaker cover from the rear support and remove from the vehicle (fig. 7).



5. Remove both side sills (figs. 8 and 9).



6. Remove the weather-stripping from the rear most portion of the door opening (fig 10).

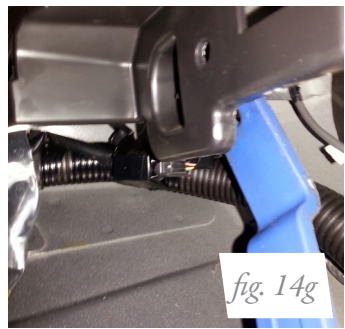


7. Unclip the rear side panel from the rear support and side (figs. 11 and 12). Remove it from the vehicle (fig. 13).

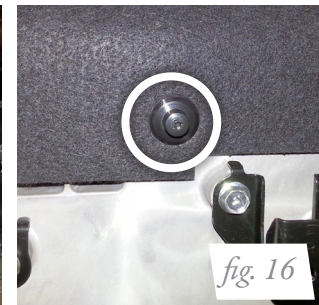


8. Remove the upper side trim by unthreading the screw beneath the hanger, unbolting the seat belt from the pillar and unclipping the remaining plastic retention clips (figs. 14a-14i).





9. Remove all the plastic screws holding the rear parcel shelf (figs. 15-17) and pull the shelf straight forward, then down (fig. 18).



10. Disconnect the Electronic Damping Control on each rear shock (figs. 19 and 20). This may be located beneath a foil shield with an adhesive backing (fig. 21); remove it if necessary.



REMOVING THE REAR SUSPENSION

1. Elevate and support the vehicle with a hoist or safety stands (fig. 22).



2. Remove the rear wheel and support the hub assembly (fig. 23).



3. Remove the three upper shock mount nuts (fig. 24).

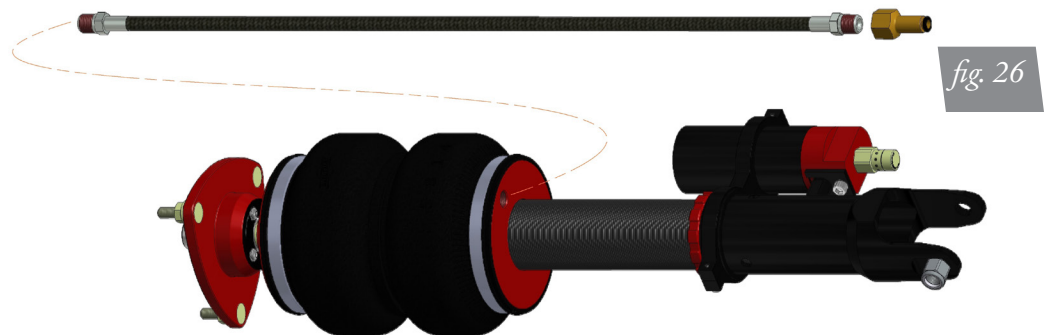


4. Remove the lower shock bolt and extract the stock rear shock assembly (fig. 25) from the vehicle.



AIR SUSPENSION INSTALLATION

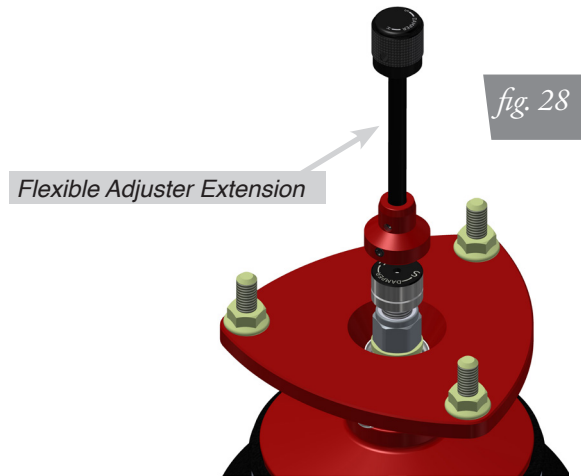
1. Begin by installing the leader line into the air spring (fig. 26). Apply thread sealant to the threads of the leader hose. Tighten the appropriate fitting to the airline 1 3/4 turns beyond hand-tight. Tighten the leader line into the air spring 1 3/4 turns beyond hand-tight.



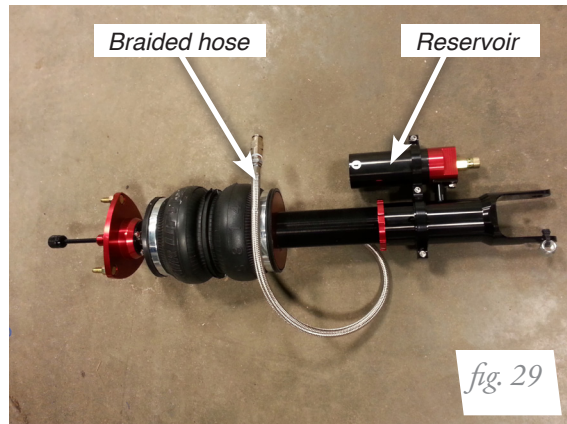
2. Remove the paper gasket from the factory shock upper mount and place onto the new shock assembly (fig. 27).



3. Add the damping adjuster flexible adjuster extension (fig. 28) to the top of the shock. Ensure the main damping adjuster knob is tight on the shock rod before sliding adjuster extension over knob and tightening set screw.



4. Attach the shock assembly to the shock tower with the three upper mount nuts. The external reservoir should be directed toward the rear of the vehicle and braided air line inboard (figs. 29 and 30). Torque to 27Nm (20 lb.-ft.).



5. Lift the hub assembly and install the lower shock mount bolt (fig. 31). Do not torque at this time.



Before Operating

SET THE RIDE HEIGHT

1. Refer to the User Guide supplied with this kit to set up the suspension.
2. Upon successful completion of the installation, follow these pressure requirements for the air springs.

| Torque Specifications | | |
|-----------------------------|---------------------------------|-----------|
| Location | Nm | lb.-ft. |
| Lower shock mount bolt/nut | 75 | 55 |
| Upper mount nut | 27 | 20 |
| Air Fitting (with sealant) | 1.5-3.0 turns beyond hand tight | |
| Lower damper locking collar | half turn beyond hand tight | |
| Reservoir collar bolts | 5 | 44 lb-in. |
| Wheel studs | 131 | 97 |



Suggested Driving Air Pressure



Maximum Air Pressure

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") for 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. 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.

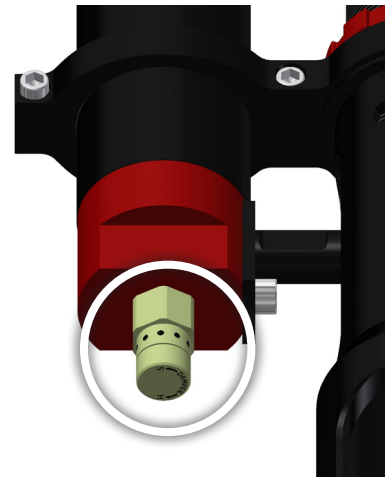
DAMPING ADJUSTMENT

There are two forms of damping adjustment with this Nissan R35 GT-R suspension kit.

Rebound adjustment is controlled by the adjuster on the shock rod, located within the passenger compartment (fig. 33). Turn the damping knob clockwise to “harden” the suspension rebound. Turn the knob counterclockwise to “soften” the suspension rebound. The Air Lift setting is -13R (13 clicks away from full hard). This was developed on a 2009 GT-R and may need adjustment to meet vehicle differences or driving demands.



Compression damping is adjusted through the remote reservoir attached to the shock body. Turn the damping knob on the reservoir (fig. 34) clockwise to “harden” the suspension compression setting. Turn the knob counterclockwise to “soften” the suspension compression setting. The Air Lift setting is -18C (18 clicks away from full hard). This was developed on a 2009 GT-R and may need adjustment to meet vehicle differences or driving demands.

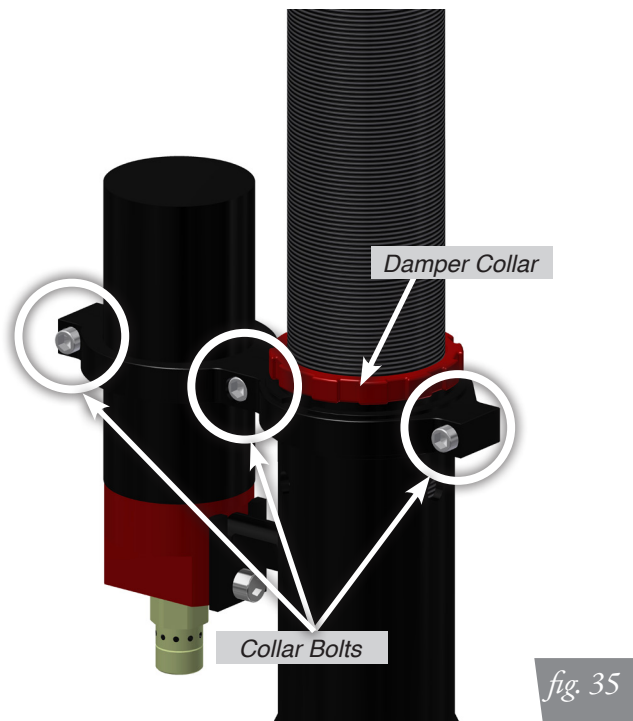


THREADED HEIGHT ADJUSTMENT

The shock assembly can be adjusted by threading the damper cartridge in or out of the lower mount. To do this, the collar holding the external reservoir must be loosened first!

CAUTION

FAILURE TO LOOSEN THE THREE ATTACHING BOLTS (FIG. 35) OF THE RESERVOIR COLLAR CAN RESULT IN THE ATTACHING TUBE TO DETACH OR BECOME SIDE-LOADED, CAUSING A LEAK OR PREMATURE FAILURE OF THE DAMPER.



1. Loosen the three reservoir collar bolts.
2. Loosen the damper collar using the provided spanner wrench.
3. Make the threaded height adjustment.
4. Tighten the damper collar 1/2 turn beyond hand-tight.
5. Tighten the reservoir collar bolts evenly to 5Nm (44 lb.-in.)

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.

Notes

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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