



Kit 78581

Nissan L32/L33/A35/A36

Front 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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A. Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension made for the Nissan Altima L32/L33/A35/A36. 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 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.



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NOTE

Indicates a procedure, practice or hint which is important to highlight.

B. 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/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.



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.

C. Installation Diagram

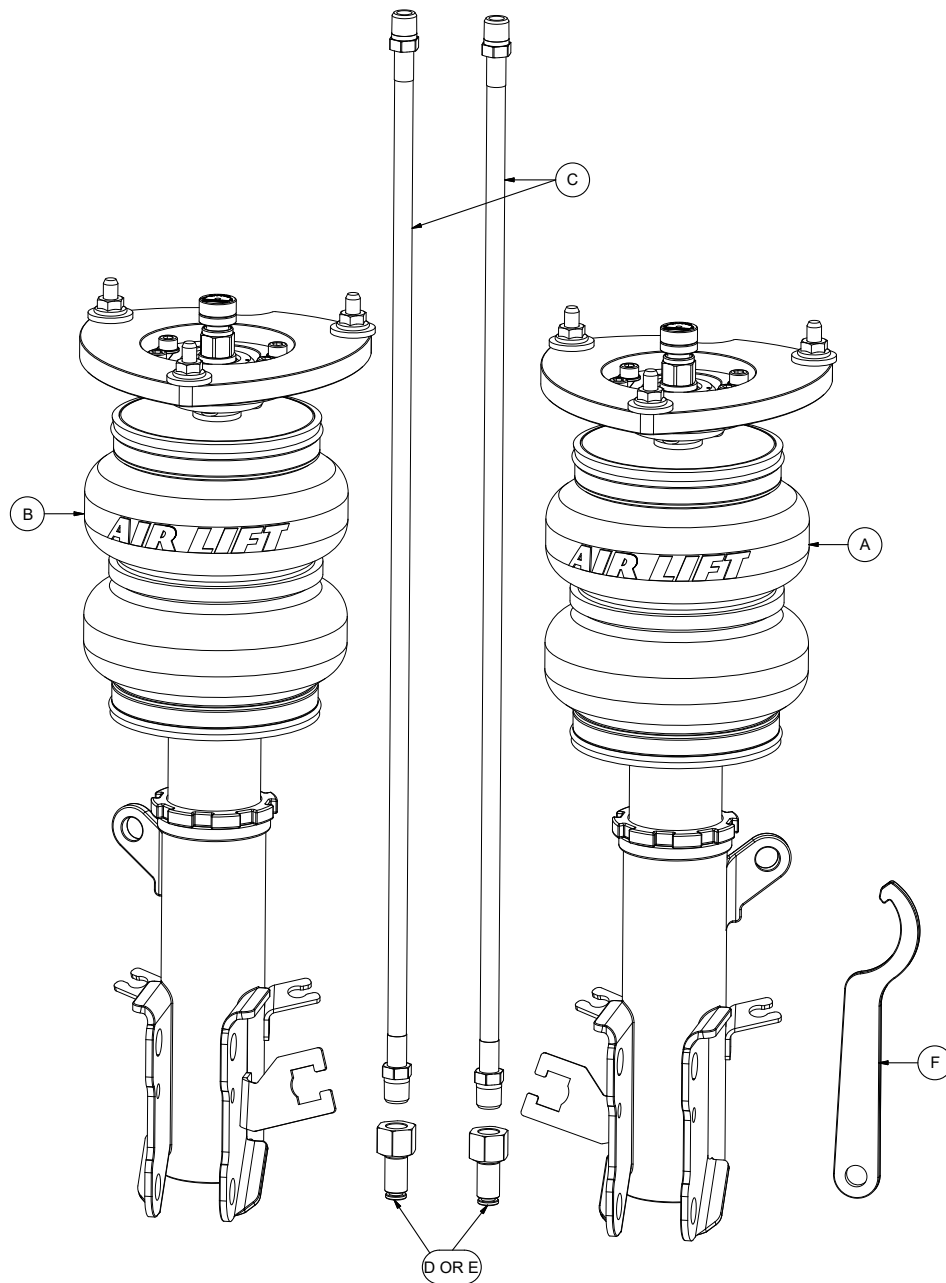


fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	35445	Strut, left front.....	1
B	35446	Strut, right front	1
C	20997	Leader line 1/4" ID	2
D	21810	Fitting 1/4" PTC-1/4" FNPT	2
E	21987	Fitting 3/8" PTC-1/4" FNPT	2
F	11289	M50 Spanner	1



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

D. Installing the Air Suspension

NOTE

See "Important Safety Notices" on page 2.

REMOVING THE STOCK SUSPENSION

1. Raise the vehicle and remove the wheel. Support the suspension with a safety stand (Figs. D.1, D.2 & D.3).



fig. D.1



fig. D.2



fig. D.3

2. Disconnect ABS sensor wire from strut brackets (Fig. D.4).



fig. D.4

3. Remove brake hose retainer clip and remove brake hose from bracket (Figs. D.5 & D.6).



fig. D.5



fig. D.6

4. Unfasten nut from sway bar end link. Remove sway bar end link from strut tab (Figs. D.7 & D.8).



fig. D.7



fig. D.8

5. Remove lower strut mount bolts. Separate the lower mount from the steering knuckle (Figs. D.9 & D.10).

*fig. D.9**fig. D.10*

6. Remove upper strut mount bolts and remove strut from the vehicle (Figs. D.11 & D.12).

*fig. D.11**fig. D.12*

INSTALLING THE KIT COMPONENTS

1. Begin by installing the air line into the air spring. Tighten the appropriate fitting to the air line (1 3/4 turns beyond hand-tight). Tighten the air line into the air spring 1 3/4 turns beyond hand-tight (Fig. D.13).

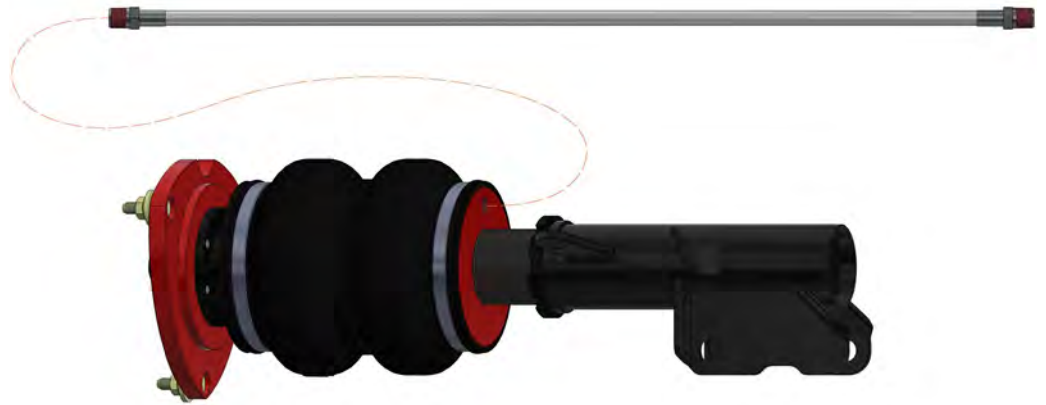


fig. D.13

2. Insert the Air Lift Performance strut into the vehicle. Install the upper mount washers and nuts (Figs. D.14 & D.15). Torque the nuts to 35Nm (26 lb.-ft.).



fig. D.14



fig. D.15

3. Insert the steering knuckle into the lower strut mount. Install the lower mount bolts (Figs. D.16 & D.17). Torque the bolts to 140Nm (103 lb.-ft.).

*fig. D.16**fig. D.17*

4. Insert the sway bar end link into the tab on the strut (Fig. D.18). Install the nut and torque to 84Nm (62 lb.-ft.).

*fig. D.18*

5. Reinstall the brake hose into the brake hose bracket with the retainer clip (Fig. D.19).

*fig. D.19*

6. Reinstall the ABS sensor wire into the retainer brackets on the lower strut mount (Fig. D.20).



fig. D.20

ROUTING THE AIR LINES



WARNING

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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.
3. Reinstall the rear wheels (see torque specifications in *Table 1*).

E. Before Operating

SETTING THE RIDE HEIGHT

1. Refer to the User Guide supplied with this kit to set up the suspension.

Torque Specifications		
Location	Nm	lb.-ft.
Upper strut mount nuts	35	26
Lower strut mount bolts	140	103
Sway bar end link nut	84	62
Wheel lugs	115	85
Fitting 1/4" PTC-1/4" FNPT	1 3/4 turns beyond hand tight	
Fitting 3/8" PTC-1/4" FNPT	1 3/4 turns beyond hand tight	
Leader line to air spring	1 3/4 turns beyond hand tight	

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
35-45 PSI (2.4-3.1BAR)	125 PSI (8.6BAR)
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND WILL VOID THE WARRANTY.	

Table 2

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 125 PSI [8.6BAR]) 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 (5.2-6.2BAR) and check all connections for leaks.

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.

DAMPING ADJUSTMENT

1. 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. E.1 & E.2) 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 in this kit is preset to "-18 clicks." This means that the damper is adjusted 18 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 2018 Nissan Altima.

For more information, refer to the User Guide.



fig. E.1



fig. E.2

Notes

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**.

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Kit 78682

Nissan L33/A35/A36

Rear Application



INSTALLATION GUIDE

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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 Altima L33/A35/A36 Rear. Read these installation instructions to correctly and safely set up the vehicle for a #lifeonair.

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C. Installation Diagram

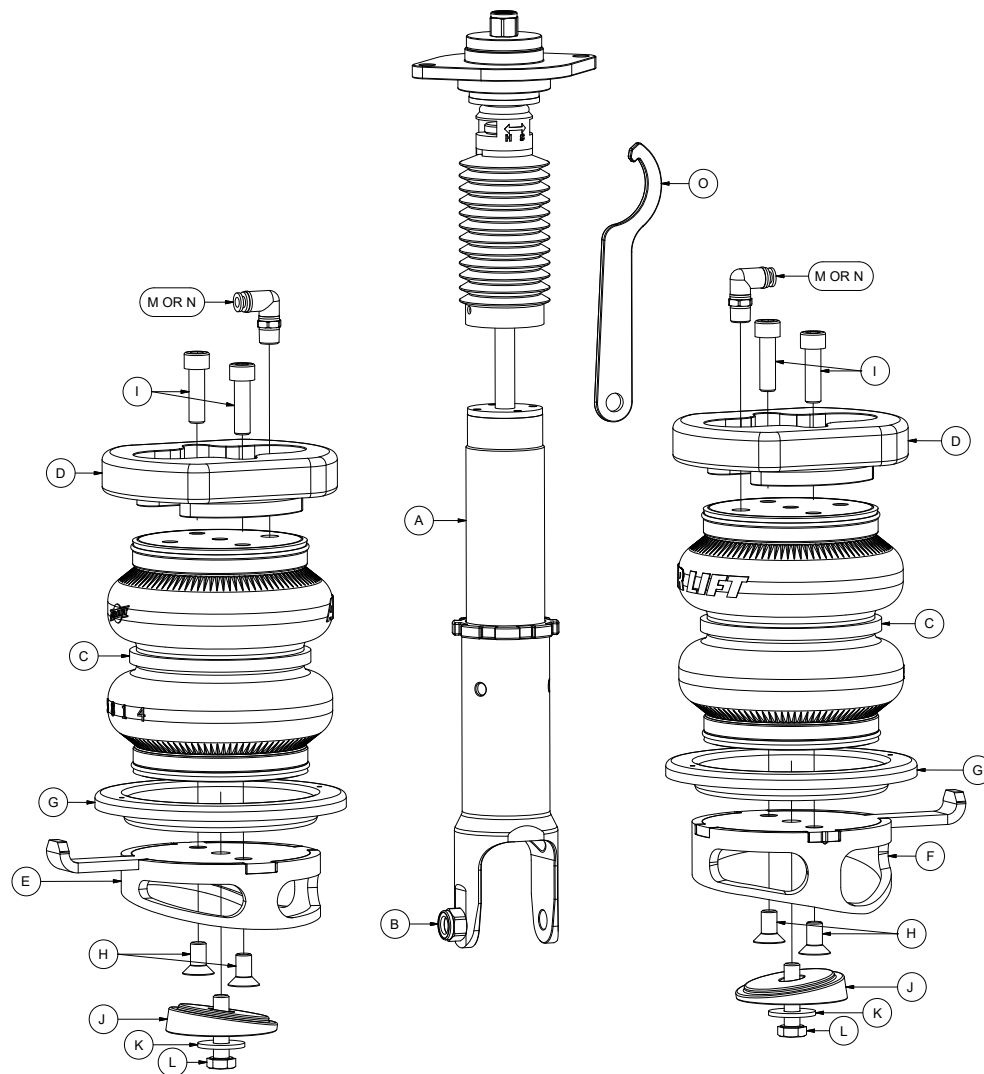


fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	26624	Shock, rear	2
B	18616	M12x1.25x12 Nylon lock nut.....	2
C	58550	Air spring	2
D	13330	Upper spacer.....	2
E	03901	Lower mount, left.....	1
F	03902	Lower mount, right	1
G	11801	Roll plate.....	2
H	17931	M10x1.5x20 Flat head screw	4
I	17518	M10x1.5x35 Socket head cap screw	4
J	13329	Centering spacer	2
K	18630	10.5x30x2.5 Flat washer.....	2
L	17933	M10x1.5x40 Hex head cap screw	2
M	21779	Fitting 1/4" PTC-1/4" MNPT.....	2
N	21851	Fitting 3/8" PTC-1/4" MNPT.....	2
O	11289	M50 Spanner	1

SPECIAL TOOLS REQUIRED

Description.....	Qty
Spring compressor	1



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

D. Installing the Air Suspension

NOTE

See "Important Safety Notices" on page 2.

CAUTION

RAISE THE REAR OF THE VEHICLE WITH A JACK AT THE APPROVED LIFTING POINTS AND USE SAFETY STANDS TO SUPPORT THE VEHICLE.

REMOVING THE STOCK SUSPENSION

1. Raise the vehicle and remove the wheel. Support the suspension with a jack (Figs. D.1 & D.2).



fig. D.1



fig. D.2

2. Loosen and remove the sway bar end link nut. Remove the sway bar end link from the lower control arm (Figs. D.3 & D.4).



fig. D.3



fig. D.4

3. Loosen and remove lower shock mount bolt (Figs. D.5 & D.6).



fig. D.5



fig. D.6

4. Loosen and remove the upper shock mount nuts. Do not discard. Remove the shock from the vehicle (Figs. D.7 & D.8).



fig. D.7

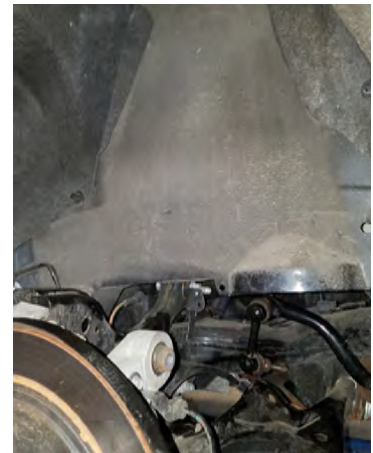


fig. D.8

5. Using a spring compressor, compress and remove the rear coil spring. An OTC 7045B Spring Compressor is recommended. Loosen the lower control arm inner and outer pivot bolts to lower the control arm and remove the coil spring. Otherwise, follow the manufacturer's recommended coil spring removal procedure (Figs. D.9, D.10 & D.11).

*fig. D.9**fig. D.10**fig. D.11*

INSTALLING THE AIR SUSPENSION

1. Install fitting (M or N) in the air spring upper end cap (Fig. D.12). Tighten the fitting to 1 3/4 turns beyond hand-tight.

*fig. D.12*

2. Install upper air spring spacer (D) with two M10-1.5x35 socket head screws (I) (Fig. D.13). Torque the screws to 46Nm (34 lb.-ft.).

*fig. D.13*

NOTE

The air spring assemblies are left and right side specific (Fig. D.14). The left side lower bracket has three cutouts and the right side lower bracket has two cutouts. The "L" shaped feature of the brackets provide correct orientation in the lower control arms. Note the hole in the lower control arm slightly inboard from the spring pocket (Fig. D.15). This hole will accept the "L" shaped feature of the lower bracket in order to properly locate the air spring.

3. Install the air spring assembly by tilting it downward with the "L" shaped feature pointing inward and down (Fig. D.16). Continue moving the air spring inward until it is able to sit in the control arm spring seat. Ensure that the "L" shaped feature is properly aligned in the hole (Fig. D.17). If installed properly, the air spring should be centered and the roll plate will be flush with the top edge of the spring pocket (Figs. D.18 & D.19). The air line should be routed and installed into the fitting at this time. (see *Routing the Air Lines*) (Fig. D.20).

Left Bracket

Right Bracket



fig. D.14



fig. D.15



L-shaped feature

fig. D.16



L-shaped feature
is properly aligned
in the hole

fig. D.17



fig. D.18



fig. D.19



fig. D.20

4. Install the air spring centering spacer (J) with bolt (L) and washer (K). Rotate the centering spacer while tightening the bolt by hand. Adjust the orientation of the spacer so the bolt head and washer sit flush against the surface of the spacer (Figs. D.21, D.22 & D.23). Torque the bolt to 46Nm (34 lb.-ft.).

*fig. D.21***Correct***fig. D.22***Incorrect***fig. D.23*

5. Insert the Air Lift Performance upper shock mount into the chassis and install the previously removed nuts (Fig. D.24). Torque the nuts to 25Nm (18 lb.-ft.).

*fig. D.24*

6. Raise the jack until the lower mount of the Air Lift Performance shock is aligned with the bushing of the rear suspension knuckle. Install the lower shock mount bolt with the nylon locking nut included with the Air Lift Performance shock (Figs. D.25 & D.26). Torque the bolt to 110Nm (81 lb.-ft.).

*fig. D.25**fig. D.26*

7. Reinstall the sway bar end link and nut (Fig. D.27). Torque the nut to 55Nm (41 lb.-ft.).



fig. D.27

8. Raise the suspension with the jack until the air spring upper mount is seated (Fig. D.28). Inflate the air spring to approximately 25 PSI (1.7BAR) (Fig. D.29). The jack can now be lowered and the air spring upper mount is seated.



fig. D.28



fig. D.29

ROUTING THE AIR LINES

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 components and axle.
2. 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.



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E. Before Operating

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

Torque Specifications		
Location	Nm	Lb.-ft.
Air spring upper spacer socket head screws	46	34
Centering spacer bolt	46	34
Upper shock mount nuts	25	18
Lower shock mount bolt	110	81
Sway bar end link nut	55	41
Lower control arm inner pivot bolt	169	125
Lower control arm outer pivot bolt	118	87
Wheel lugs	115	85
Fitting 1/4" PTC-1/4" FNPT	1 3/4 turns beyond hand-tight	
Fitting 3/8" PTC-1/4" FNPT	1 3/4 turns beyond hand-tight	

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
45-55 PSI (3.1-3.8BAR)	125 PSI (8.6BAR)
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND WILL VOID THE WARRANTY.	

Table 2

CHECK FOR BINDING

1. Inflate and deflate the system (do not exceed 125 PSI [8.6BAR]) 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 (5.2-6.2BAR) and check all connections for leaks.

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.
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- ☐ **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.

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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 in this kit is preset to "-14 clicks." This means that the damper is adjusted 14 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 2018 Nissan Altima.

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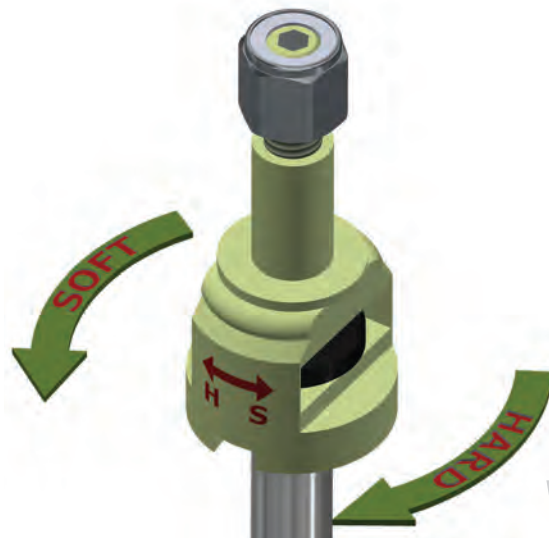


fig. E.1

Limited Warranty and Return Policy

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