

AIR LIFT
PERFORMANCE

Kits 78583/78584

Toyota Camry XV50 SE/LE

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 Toyota Camry XV50 SE/LE. 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.



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 VEHICLE OR MINOR PERSONAL INJURY.

NOTE

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

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



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

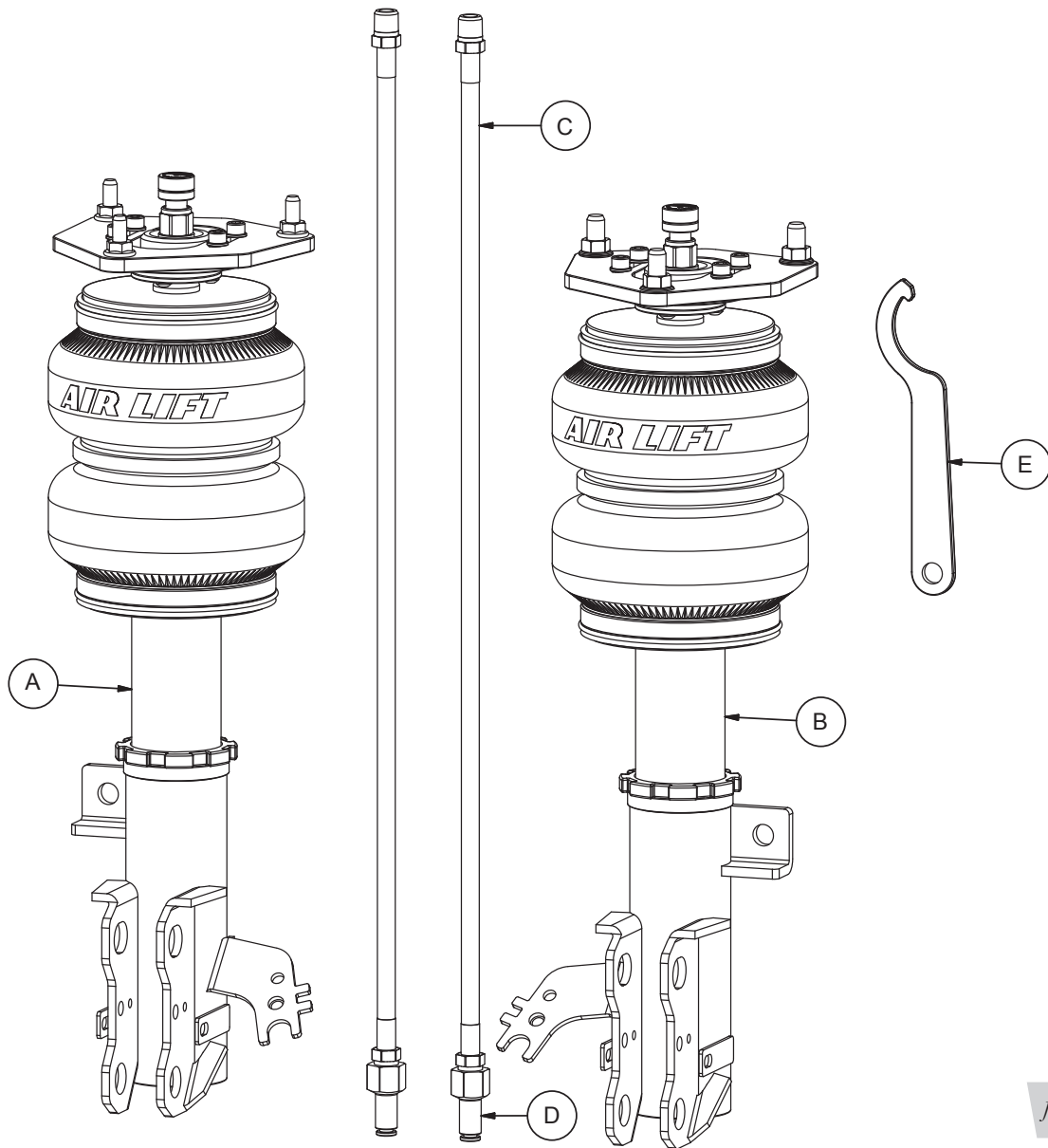


fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	35448	Strut, right front	1
B	35449	Strut, left front.....	1
C	20997	Leader line, 1/4"	2
D	21810	1/4" FNPT x 1/4" PTC fitting	2
E	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.

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 vehicle and support suspension with safety stands (Fig. D.1). Remove the wheel (Fig. D.2).

fig. D.1



fig. D.2



2. Unbolt the brake hose/ABS sensor wire bracket from the strut tab (Figs. D.3 & D.4). Remove the ABS sensor wire retainers from the strut (Fig. D.5). Retain bolts and clips for reinstallation.



fig. D.3



fig. D.4



fig. D.5

3. Loosen and remove the sway bar end link from the strut (Figs. D.6 & D.7).



fig. D.6



fig. D.7

4. Loosen and remove the lower strut mount bolts and slide the lower strut mount off the steering knuckle (Fig. D.8).



fig. D.8

- Remove the upper strut mount nuts (Fig. D.9) and remove the strut from the vehicle (Fig. D.10).



fig. D.9



fig. D.10

INSTALLING AIR LIFT PERFORMANCE SUSPENSION

- Begin by installing the air line (C) into the air spring (A and B). Tighten the fitting (D) 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.11).

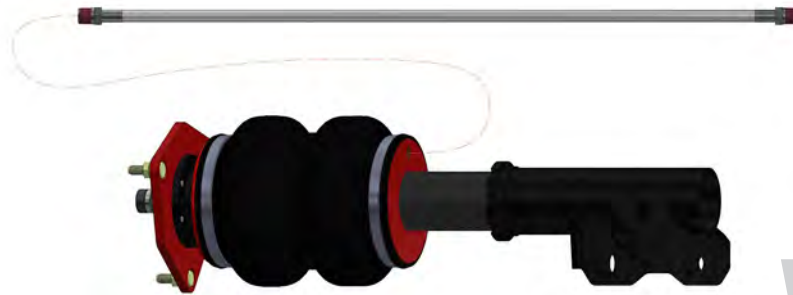


fig. D.11

- Insert the Air Lift Performance upper strut (A or B) mount into the chassis and install the upper strut mount nuts (Fig. D.12). Torque the nuts to 85Nm (63 lb.ft.). Ensure proper orientation of the lower strut mount to the front knuckle before torquing nuts.



fig. D.12

- Slide the Air Lift Performance lower strut mount over the steering knuckle. Reinstall the lower strut mount bolts (Fig. D.13) and torque them to 290Nm (214 lb.-ft.).



fig. D.13

- Reattach the ABS sensor wire retainers to the Air Lift Performance lower strut mount. Reinstall the brake hose/ABS sensor wire bracket to the strut with the previously removed bolt (Fig. D.14). Torque the bolt to 19Nm (14 lb.-ft.).

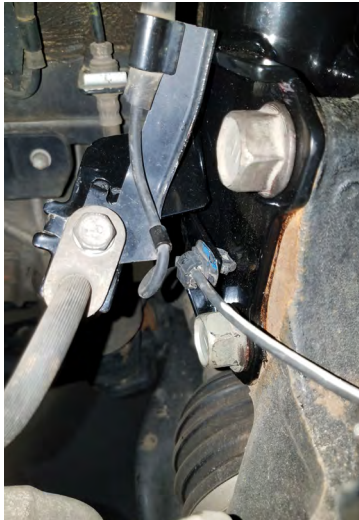


fig. D.14

5. Reinstall the sway bar end link on the Air Lift Performance strut tab (Fig. D.15). Torque the sway bar end link nut to 125Nm (92 lb.-ft.).



fig. D.15

6. Reinstall wheels and torque lugnuts to 103Nm (76 lb.-ft.).

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 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.

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.

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	85	63
Lower strut mount bolts	290	214
Brake hose/ABS sensor wire bracket bolt	19	14
Sway bar end link nut	125	92
Wheel lugnuts	103	76

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure
40-50 PSI (2.8-3.4BAR)	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



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 air 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 “-30 clicks.” This means that the damper is adjusted 30 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 2016 Toyota Camry SE.

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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AIR LIFT
PERFORMANCE

Kits 78683/78684

Camry XV50 SE/LE

Rear Application



INSTALLATION GUIDE

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B. Important Safety Notices



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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

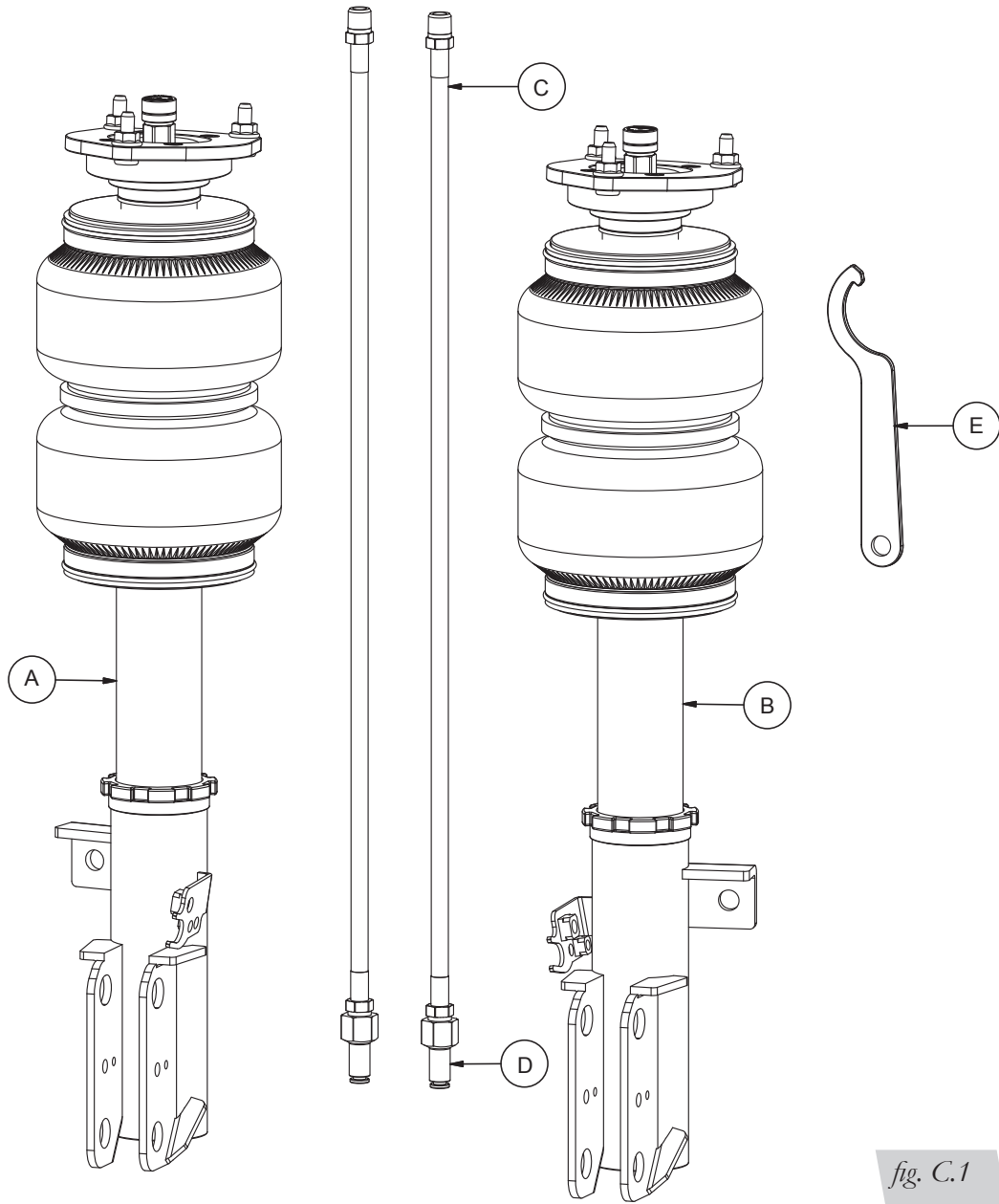


fig. C.1

HARDWARE LIST

Item	Part #	Description	Qty
A	35452	Strut, right rear.....	1
B	35453	Strut, left rear.....	1
C	20997	Leader line, 1/4"	2
D	21810	1/4" FNPT x 1/4" PTC	2
E	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.

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 REAR SUSPENSION

1. Raise the vehicle and support the suspension with safety stands. Remove the wheel (Fig. D.1).



fig. D.1

2. Loosen and remove the brake hose and ABS sensor wire bracket bolts (Fig. D.2). Position the brake hose and ABS sensor wire away from the strut (Fig. D.3).



fig. D.2



fig. D.3

3. Remove the sway bar end link nut and position the sway bar end link away from the strut (Fig. D.4).



fig. D.4

4. Remove the rear lower seat section by lifting up and sliding forward (Fig. D.5 & D.6).



fig. D.5



fig. D.6

CAUTION

FOLLOW MANUFACTURER'S PROCEDURE FOR DISCONNECTING SIDE CURTAIN AIR BAGS. FAILURE TO FOLLOW MANUFACTURER'S PROCEDURE AND PRECAUTIONS MAY RESULT IN INJURY OR DAMAGE TO VEHICLE.

5. Remove both rear seat side bolsters by removing the lower attaching bolts and pulling up (Figs. D.7 & D.8). If the vehicle is equipped with side curtain air bags, follow the manufacturers recommended procedure to disconnect them before removing the side bolsters.



fig. D.7



fig. D.8

6. With the side bolsters removed, access to the upper strut mount nuts is possible. Loosen and remove the upper strut mount nuts (Figs. D.9 & D.10).



fig. D.9



fig. D.10

7. Remove the lower strut mount bolts (Fig. D.11). Slide the lower strut mount off the rear knuckle (Fig. D.12). Remove the strut from the vehicle (Fig. D.13).



fig. D.11



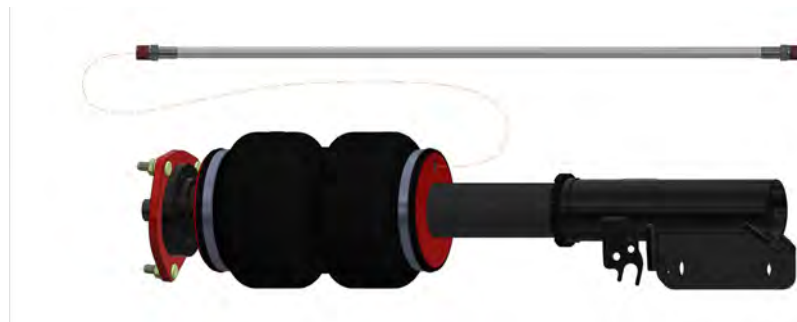
fig. D.12



fig. D.13

INSTALLING THE AIR SUSPENSION

1. Begin by installing the air line (C) into the air spring. Tighten the fitting (D) 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.14).

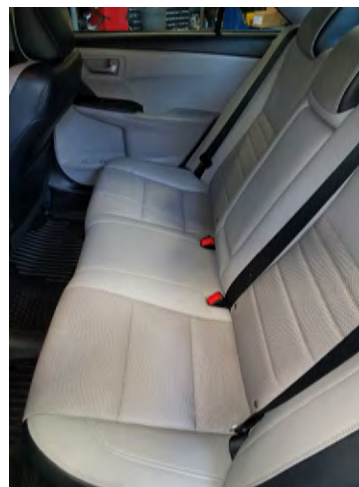
*fig. D.14*

2. Insert the Air Lift Performance upper strut mount into the chassis. Install the upper strut mount nuts (Fig. D.15) and torque them to 39Nm (29 lb.-ft.). Ensure proper orientation of the lower strut mount to the rear knuckle before torquing nuts. Install the Air Lift Performance threaded damping adjuster and adjuster extensions.

*fig. D.15***CAUTION**

FOLLOW MANUFACTURER'S PROCEDURE FOR RECONNECTING SIDE CURTAIN AIR BAGS. FAILURE TO FOLLOW MANUFACTURER'S PROCEDURE AND PRECAUTIONS MAY RESULT IN INJURY OR DAMAGE TO VEHICLE.

3. Torque the rear seat side bolster bolts to 18Nm (13 lb.-ft.). If disconnected, reconnect the side curtain airbags, per the manufacturer's procedure. The rear seat can be reinstalled at this time (Fig. D.16).

*fig. D.16*

- Slide the lower strut mount onto the rear knuckle and install the previously removed lower strut mount bolts (Fig. D.17). Torque the bolts to 290Nm (214 lb.-ft.).

*fig. D.17*

- Reinstall the sway bar end link on the Air Lift Performance strut tab (Fig. D.18). Torque the nut to 39Nm (29 lb.-ft.).

*fig. D.18*

- Reinstall the brake hose and ABS sensor wire with the previously removed bolts (Fig. D.19). Torque the brake hose bolt (2) to 19Nm (14 lb.-ft.) and the ABS sensor wire bolt (1) to 8.5Nm (75 in.-lb.).

*fig. D.19*

- Reinstall wheels and torque to 103Nm (76 lb.-ft.).

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.

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.

E. Before Operating

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

Torque Specifications		
Location	Nm	Lb.-ft.
Upper Strut Mount Nuts	39	29
Rear Seat Side Bolster Bolts	18	13
Lower Strut Mount Bolts	290	214
Sway Bar End Link Nut	39	29
Brake Hose Retainer Bolt	19	14
ABS Sensor Wire Retainer Bolt	8.5	75 in.-lb.
Leader line/fitting	1 3/4 turns beyond hand-tight	
Rear Strut Rod Bolts	85	63
Forward and Lower Suspension Arm Bolts	100	74
Wheel Lugnuts	103	76

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

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 air springs to recommended driving pressures (Table 2). Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
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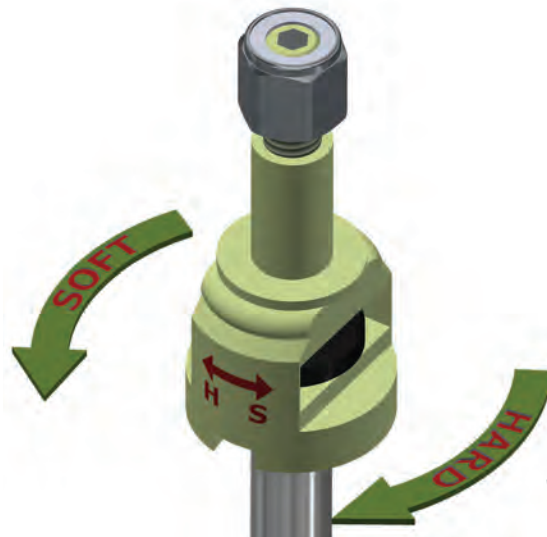


fig. E.1

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