

AIR LIFT
PERFORMANCE

INSTALLATION GUIDE



78590 shown

***Builders Series* — Compact Bellows Style**

78589/590/591 Eye to Eye

78689/690/691 Eye to Stud

78789/790/791 Trunnion to Stud

78889/890/891 Trunnion to Eye

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 which could result in damage to the vehicle, minor to severe personal injury or death.



Watch the video

Info on Table of Contents page

TABLE OF CONTENTS

P.02

Introduction

- 02. Notation Explanation
 - 02. Important Safety Notices
-

P.03

Assembling the Damper

P.04

Optimizing the Travel

P.05

Before Operating

- 05. Check for Binding
- 05. Installation Checklist

Limited Warranty and Return Policy

Video-enhanced installation guides

Visit airliftcompany.com/workshop/category/install-videos to access our installation video archive*.

* subject to availability

Introduction

Air Lift Performance thanks you for purchasing the most complete, fully engineered high-performance air suspension. 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.

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 VEHICLE OR MINOR PERSONAL INJURY.



NOTE

Used to help emphasize areas of procedural importance and provide helpful suggestions.

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



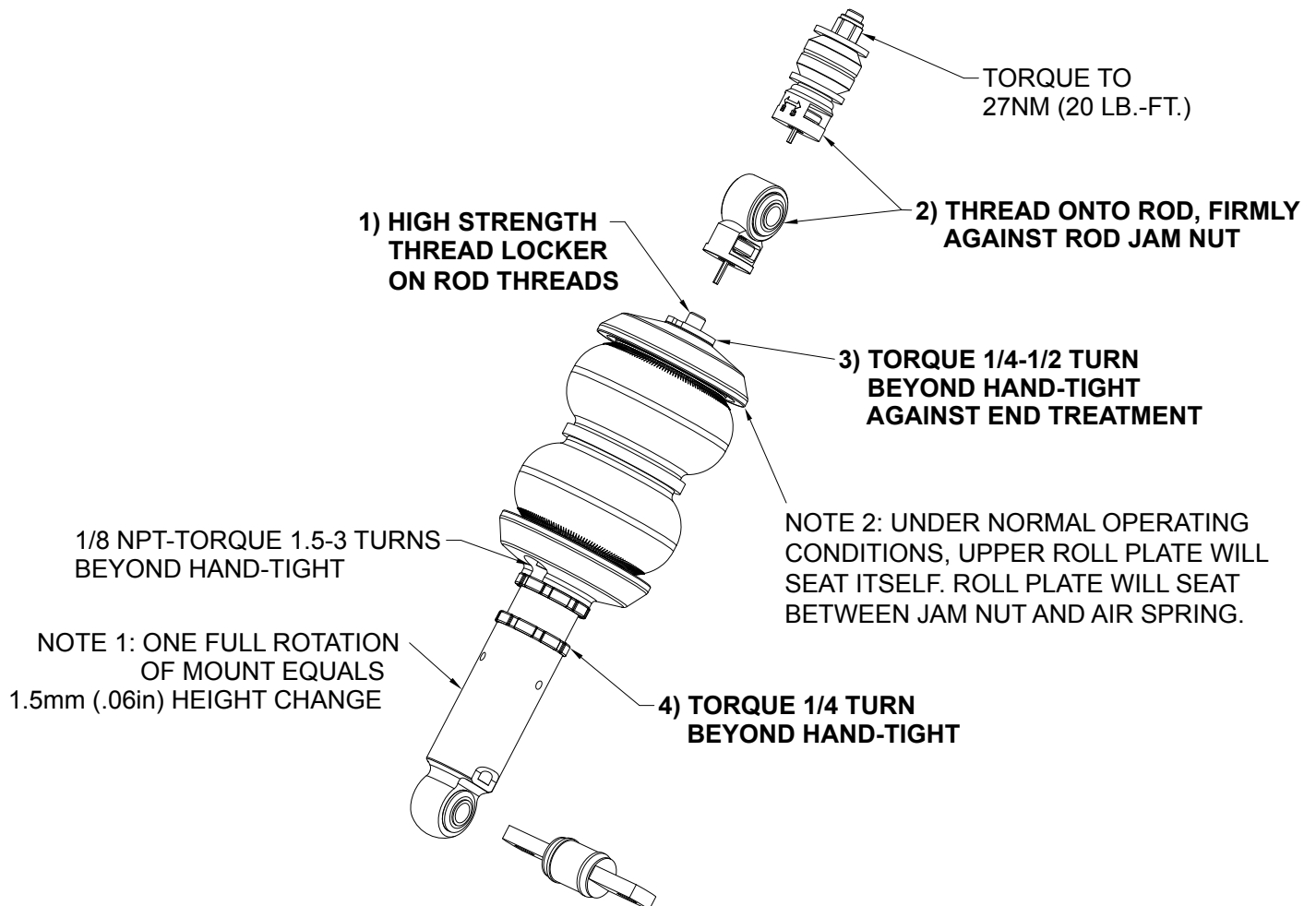
AFTER INSTALLATION, ENSURE ALL ORIGINAL EQUIPMENT VEHICLE SAFETY FEATURES ARE PROPERLY CALIBRATED BY A QUALIFIED TECHNICIAN. CHANGING VEHICLE HEIGHT



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

SECTION 1. ASSEMBLING THE DAMPER

1. Apply two drops of supplied high strength thread locker to damper rod threads.
2. Thread chosen rod treatment onto the damper rod and tighten against the rod jam nut securely by hand.
3. Torque rod jam nut against end treatment 1/4-1/2 turns beyond hand-tight and allow thread locker to cure.
4. Adjust damper length as needed and torque locking collar 1/4 turn beyond hand-tight (see Note 1).
5. If installing the “trunnion bar” options, press the bushing out and with some lubricant, press the trunnion bar in until centered in the mount.



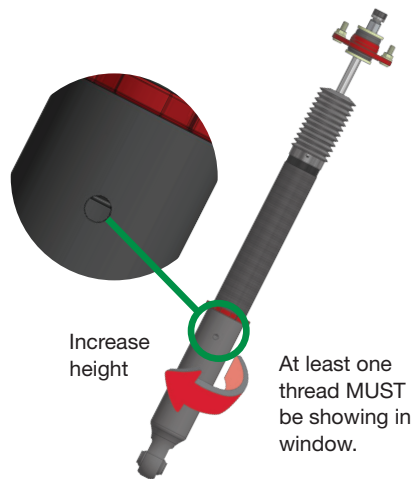
HARDWARE

Part #	Description
20998*	Leader line -1/8MNPT X 1/8MNPT
11291	M44 Spanner
Suggested fittings	
21667*	Fitting 1/4"PTC-1/8"FNPT, DOT
21994*	Fitting 3/8"PTC-1/8"FNPT, DOT

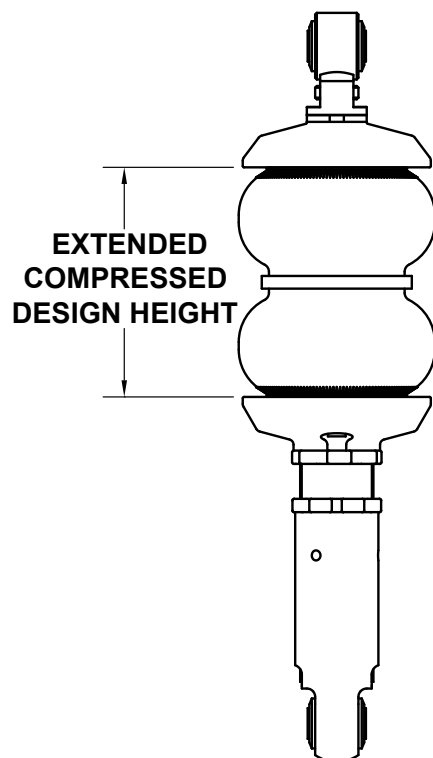
*Installation with leader line requires fitting 21667 or 21994.

SECTION 2. OPTIMIZING THE TRAVEL

1. Adjust the assembled damper lengths to optimize the total available travel. Each complete 360 degree rotation of the lower mount changes the damper length by 1.5mm (.06in).
2. Always have damper threads within the sight-hole of the lower mount. Failure to maintain appropriate threaded engagement may cause a disassembly between the damper body and lower mount, resulting in loss of damping, unsafe conditions and damage to the vehicle or self.
3. With the suspension set at the newly developed Design Height, loosen and retorque all pivot joint fasteners to the Manufacturers recommended torque value.



4. Know the limits of what is being installed! For further information on extension and compression, scan the QR code on the back cover.



P/N	EXTENDED	COMPRESSED	DESIGN HEIGHT	TOTAL STROKE	MAX LOAD @ 100PSI
78589	98mm [3.86in]	35mm [1.38in]	66.5mm [2.62in]	63mm [2.48in]	775kg [1709lbs]
78590	118mm [4.65in]	35mm [1.38in]	76.5mm [3.01in]	83mm [3.27in]	596kg [1315lbs]
78591	138mm [5.43in]	35mm [1.38in]	86.5mm [3.46in]	103mm [4.06in]	536kg [1181lbs]
78689	98mm [3.86in]	35mm [1.38in]	66.5mm [2.62in]	63mm [2.48in]	775kg [1709lbs]
78690	118mm [4.65in]	35mm [1.38in]	76.5mm [3.01in]	83mm [3.27in]	596kg [1315lbs]
78691	138mm [5.43in]	35mm [1.38in]	86.5mm [3.46in]	103mm [4.06in]	536kg [1181lbs]
78789	98mm [3.86in]	35mm [1.38in]	66.5mm [2.62in]	63mm [2.48in]	775kg [1709lbs]
78790	118mm [4.65in]	35mm [1.38in]	76.5mm [3.01in]	83mm [3.27in]	596kg [1315lbs]
78791	138mm [5.43in]	35mm [1.38in]	86.5mm [3.46in]	103mm [4.06in]	536kg [1181lbs]
78889	98mm [3.86in]	35mm [1.38in]	66.5mm [2.62in]	63mm [2.48in]	775kg [1709lbs]
78890	118mm [4.65in]	35mm [1.38in]	76.5mm [3.01in]	83mm [3.27in]	596kg [1315lbs]
78891	138mm [5.43in]	35mm [1.38in]	86.5mm [3.46in]	103mm [4.06in]	536kg [1181lbs]

Before Operating



Maximum Air Pressure



DO NOT EXCEED MAXIMUM AIR PRESSURE OF 130PSI (9.0BAR). EXCEEDING MAXIMUM AIR PRESSURE MAY RESULT IN EXCESSIVE BOTTOMING OUT AND WILL VOID THE WARRANTY.

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 130 PSI [9.0BAR]) 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. 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.

For more information, refer to the User Guide.

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.



Thank you for purchasing Air Lift Performance products!

Need Help?

The Air Lift Company customer service department is open from 8 a.m. to 8 p.m. ET Monday through Friday. Call (800) 248-0892 or (517) 322-2144 for calls from outside the U.S. and Canada.



CONNECT BY SEARCHING FOR **AIR LIFT PERFORMANCE** #LIFEONAIR

AIR LIFT
PERFORMANCE

2727 Snow Road Lansing, MI 48917 or P.O. Box 80167 Lansing, MI 48908-0167
Toll Free (800) 248-0892 • Local (517) 322-2144 • Fax (517) 322-0240
www.airliftperformance.com



MADE IN USA
WITH GLOBAL
COMPONENTS

Air Lift Company 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 Company at (800) 248-0892 or visit airliftperformance.com.