



RV Suspension Bolts and Nuts Kits

Installation Manual

(For Aftermarket Applications)

Table of Contents

Introduction 2

Safety 2

Resources Required 3

Prior to Installation 3

Installation 4

- Installation Tips 4
- Hanger Bolt Installation 4
- Equalizer Bolt Installation 4
- Wet Bolt Installation 5

Maintenance 5

Notes 6

RV Suspension Bolts and Nuts Kits

Installation Manual

(For Aftermarket Applications)

Introduction

The Bolt and Nut Kits for axle suspensions are designed for easy upgrading or replacing old fasteners.

NOTE: Upgrade or replacement of fasteners may be performed on an overslung **(Fig.1A)** or underslung **(Fig.1B)** axle configurations.

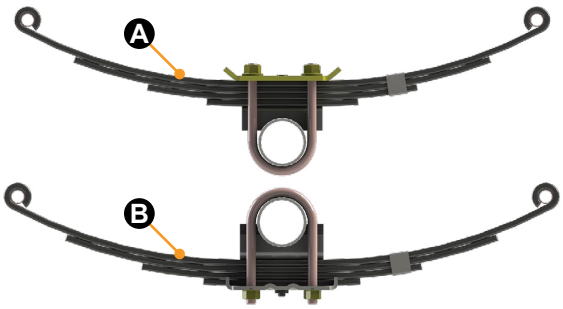


Fig.1

NOTE: Images used in this document are for reference only when assembling, installing and/or operating this product. Actual appearance of provided and/or purchased parts and assemblies may differ.

Additional information about this product can be obtained from lci1.com/support or by using the myLCI app. Replacement kits can be ordered from https://store.lci1.com/ or by using the myLCI app.

The LippertNOW app is available for free on Apple App Store® for iPhone® and iPad® and also on Google Play™ for Android™ users.

App Store® and iPad® are registered trademarks of Apple Inc.
Google Play™ and Android™ are trademarks of Google Inc.

For additional support on this product, scan this QR code or go to: https://support.lci1.com/suspension-parts

Safety

Read and understand all instructions before installing or operating this product. Adhere to all safety labels.
This manual provides general instructions. Many variables can change the circumstances of the instructions, i.e., the degree of difficulty, operation and ability of the individual performing the instructions. This manual cannot begin to plot out instructions for every possibility, but provides the general instructions, as necessary, for effectively interfacing with the device, product or system. Failure to correctly follow the provided instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the Lippert limited warranty.

⚠ WARNING

THE "WARNING" SYMBOL ABOVE IS A SIGN THAT A PROCEDURE HAS A SAFETY RISK INVOLVED AND MAY CAUSE DEATH OR SERIOUS PERSONAL INJURY IF NOT PERFORMED SAFELY AND WITHIN THE PARAMETERS SET FORTH IN THIS MANUAL.

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS PERSONAL INJURY.

⚠ CAUTION

THE "CAUTION" SYMBOL ABOVE IS A SIGN THAT A SAFETY RISK IS INVOLVED AND MAY CAUSE PERSONAL INJURY AND/OR PRODUCT OR PROPERTY DAMAGE IF NOT SAFELY ADHERED TO AND WITHIN THE PARAMETERS SET FORTH IN THIS MANUAL.

⚠ CAUTION

MOVING PARTS CAN PINCH, CRUSH, OR CUT. KEEP CLEAR AT ALL TIMES.

RV Suspension Bolts and Nuts Kits

Installation Manual

(For Aftermarket Applications)

Resources Required

- 1 to 2 people, depending on task
- Pneumatic impact wrench
- Torque wrench (ft-lb)
- Cordless or electric drill or screw gun
- Appropriate drive bits
- 11⁄16” deep well socket
- ¾” deep well socket
- 13⁄16” deep well socket
- Grease gun
- Steel tube to install bolts with grease fittings
- Multi-purpose grease marked with a NLGI code of GC-LB
- Floor jacks
- Floor jack stands
- Pry bar (optional)
- Hammer

Prior to Installation

⚠ WARNING

MAKE SURE THAT ANY POINTS OF CONTACT FOR THE JACK STANDS DO NOT RESULT IN DAMAGE TO ANY PANELS OR LINES UNDER THE TRAILER. IMPROPER RAISING OR LOWERING OF THE TRAILER COULD RESULT IN DEATH, SERIOUS PERSONAL INJURY OR SEVERE PRODUCT OR PROPERTY DAMAGE.

1. Park the trailer on a level surface.

2. With the trailer still connected to the tow vehicle, lower the front landing gear or the tongue jack until contact with the ground is made.

3. Disconnect all internal and external power supplies.

4. Using properly rated floor jacks, lift the trailer according to the manufacturer’s recommendation until the wheels are no longer in contact with the ground **(Fig.2)**.

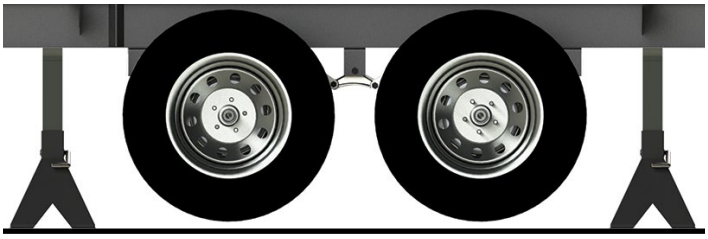


Fig.2

5. Support frame in accordance with the manufacturer’s recommendations.

6. Remove the wheels and set aside wheels and lug nuts.

7. Using a floor jack, lift the axles slightly and place jack stands under the axles **(Fig.3)** so that the shackle bolts can be driven out with a hammer.

NOTE: Allowing the axles to drop could result in damage to the wiring for the electric brakes.

8. With an impact wrench or other appropriate wrench, loosen the nuts of the leaf spring hanger bolts **(Fig.3A)** and the nuts on the equalizer bolts **(Fig.3B)**.

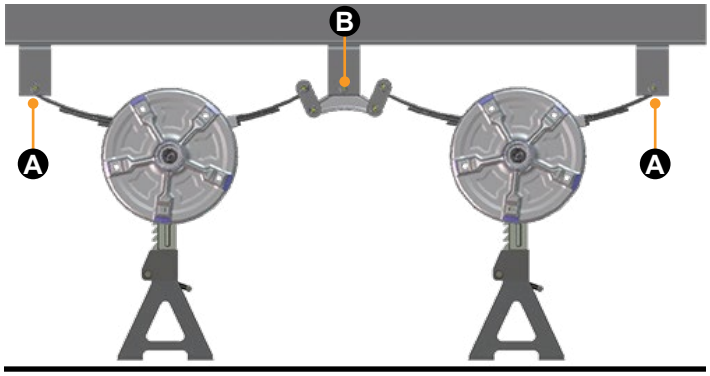


Fig.3

NOTE: Hold the head of the bolts with a wrench.

9. Drive out the leaf spring hanger bolts **(Fig.3A)** and equalizer bolt **(Fig.4A)** with a hammer, so that the bolts unseat from the hanger. Remove the bolts.

NOTE: Pry bar may be used to remove the equalizer bolt. The equalizer should hang freely from the shackle links.

10. Trailer is ready for installation of new nuts and bolts.

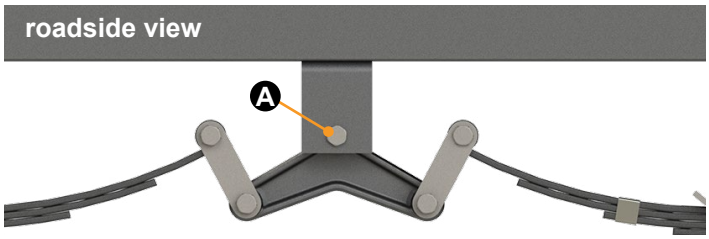


Fig.4

RV Suspension Bolts and Nuts Kits

Installation Manual

(For Aftermarket Applications)

Installation

⚠ WARNING

THE TRAILER MUST BE SUPPORTED PER MANUFACTURER'S RECOMMENDATIONS BEFORE WORKING UNDERNEATH. FAILURE TO DO SO MAY RESULT IN DEATH OR SERIOUS PERSONAL INJURY.

Installation Tips

It is important that the components are attached to the vehicle frame in the proper manner. Here are some guidelines:

- The nut should not be used to "pull" the bolt into the hanger. Instead, the bolt should be driven into the hanger using a hammer. This will fully seat the serrations of the bolt into the hanger hole and provide maximum resistance to rotation during service.
- Hanger bolts that are free to rotate will drastically reduce the service life of the hangers.
- Over tightening the nuts can lead to fastener failure. The torque specification for the 7⁄16" - 20 hex locknut used on the shouldered bolts is 30-50 ft-lbs (41-68 Nm).
- If non-shouldered bolts are being used, tighten the 9⁄16" - 18 hex locknut only snug against the hanger surface. The axle spring eye must be free to rotate on the bolt for proper suspension articulation and performance.
- Using an impact wrench without holding the other side of the bolt with a wrench can damage the serrations of the bolt.
- Both the shackle bolts and equalizer bolt must be installed from the outside-in towards the center of the trailer chassis. This ensures that the bolt threads do not interfere with any other assemblies. This applies to bolts with or without grease fittings.

Hanger Bolt Installation

1. Insert the hanger leaf spring bolt **(Fig.5A)** in the front hanger outside plate, through the leaf spring eye and out the backside of the hanger plate.

2. Torque the nut to 30-50 ft-lbs (41-68 Nm).

3. Reconnect electric brakes, if applicable.

4. Remount wheels.

Front of Trailer

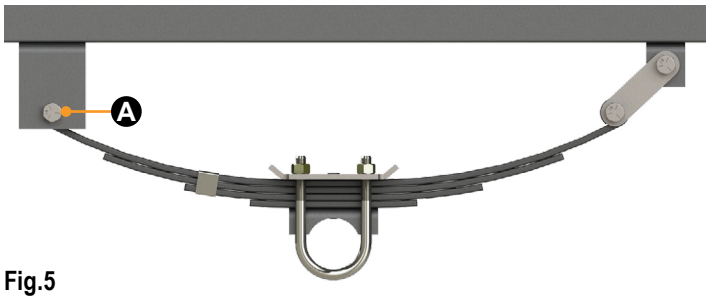


Fig.5

Equalizer Bolt Installation

1. Install the equalizer bolt **(Fig.6A)** through the equalizer hanger outside plate **(Fig.6B)**, the top most bronze equalizer bushing **(Fig.6C)**, and through the equalizer hanger inside plate **(Fig.6D)**.

2. Use a hammer or a piece of steel tube (for bolts with a grease fitting) and drive the bolt into the equalizer hanger outside plate, until the bolt head **(Fig.6A)** is seated against the hanger outer plate surface **(Fig.6B)**.

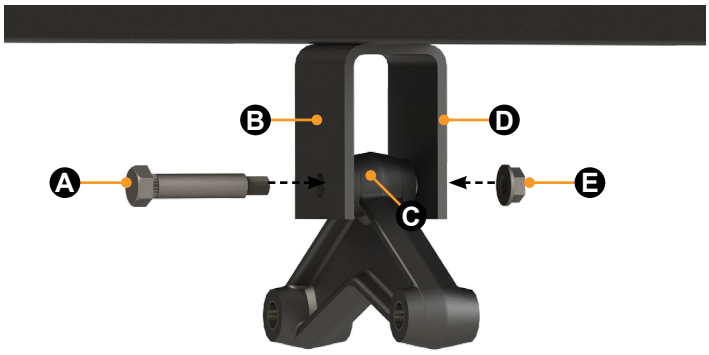


Fig.6

3. Thread a nut **(Fig.6E)** onto the exposed equalizer bolt thread until the nut seats against the hanger. Torque the nut until it bottoms out on the bolt shoulder at 30-50 ft-lbs (41-68 Nm).

4. Place the axles into the normal operating position.

Wet Bolt Installation

1. Disconnect all internal and external power supplies.

2. Using jack stands to support chassis per manufacturer's recommendations, support axle for safe disassembly of axle bolts and hardware.

3. Remove the wheels and set aside wheels and lug nuts.

4. After removing axle bolts, inspect spring eyes **(Fig. 7A)** for brass bushings **(Fig. 7B)**. Replace brass bushings if needed by using the following procedure:

A. Place an appropriately-sized punch onto the brass bushing. An appropriately- sized punch will allow the bushing to slip onto the shaft, but not slide off the other end.

B. Insert the end of the punch into the spring eye.

C. Drive the old bushing out with a hammer.

D. As the old bushing is driven out, the new bushing will be inserted into the spring eye.

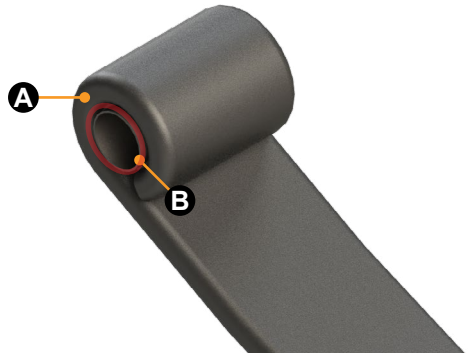


Fig.7

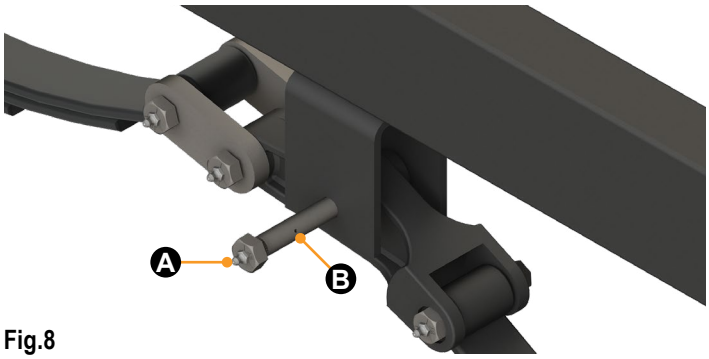


Fig.8

5. Replace standard mounting hardware, one at a time, with wet bolts and 7⁄16" locking flange nuts. Insert the wet bolts with the grease fittings **(Fig. 8A)** on the inside of the spring hangers into the axle mounting holes. The serrations under the head of the wet bolt should be fully inserted into the hanger or shackle.

NOTE: The wet bolt grease hole **(Fig. 8B)** should be positioned at 3 or 9 o'clock. If the grease hole locations are not installed properly, the weight of the chassis will prevent the grease from fully lubricating the brass bushings.

6. Tighten the locking flange nuts to the shoulders of wet bolts. If the serrations under the head of the wet bolt are not fully inserted into the hanger or shackle, carefully tap the wet bolt into position with a rubber mallet or similar tool. Care should be taken not to damage the grease fittings.

7. Apply enough grease to fully lubricate the brass bushing. Typically, two squirts from a manual grease gun is sufficient.

8. Reconnect electric brakes, if applicable.

9. Remount wheels.

Maintenance

Every 12 months or 36,000 miles (57,936 km), which ever comes first, check the equalizers and wet bolts if applicable, to be sure they are free from debris and that the nuts are torqued at 30-50 ft-lbs (41-68 Nm).

If using the triple axle wet bolts with grease fittings, use any multi-purpose grease marked with the NLGI code of GC-LB.

Notes



Manual information may be distributed as a complete document only, unless Lippert provides explicit consent to distribute individual parts.

All manual information is subject to change without notice. Revised editions will be available for free download at lippert.com. Manual information is considered factual until made obsolete by a revised version.

Please recycle all obsolete materials and contact Lippert with concerns or questions.