
LevelLok® Model LL-STB-1

Ladder Leveling and Stabilizing System

Type IAA, 375-Pound Duty Rating

INSTALLATION AND OPERATION INSTRUCTIONS

CONTENTS

- Installation on Aluminum Ladders 2
- Installation on Fiberglass Ladders with Rung-to-Rail Connections 3
- Installation on Fiberglass Extension Ladders with Rung-to-Plate Connections 5
- Installation on Fiberglass Combination Ladders with Rung-to-Plate Connections ... 6
- Operation Instructions 12
- Helpful User Tips 12

CAUTION! READ AND FOLLOW INSTRUCTIONS CAREFULLY!

The LevelLok Leveling System includes a Fully Automatic Safety Lock that instantly engages whenever any pressure is applied to the Leveler foot assembly. The Leveler's inner leg will not retract unless all pressure is removed from the foot. This patented feature was designed for your safety, to assure the Levelers are locked and will remain locked while the ladder is in use.

Before each use: Check that the Leveler is assembled to ladder correctly and is in good working order. Make sure the Safety Lock is working properly. Inspect for damaged parts. Never use or repair a damaged Leveler. Destroy the Leveler if exposed to fire or chemicals. Keep your Leveler clean and free from foreign material such as wet paint, mud, grease, snow, oil, sand, etc.

Warnings: We do not assume responsibility for ladder failure, as we cannot predetermine material or condition of ladder on which the Leveler is mounted, nor do we assume responsibility for failure due to improper ladder use. Do not use the Leveler to support ladder in horizontal position. Do not use both Levelers in fully extended position to gain additional height.

Manufactured for

LEVELOK CORPORATION

PO Box 2834 • Poulsbo, Washington 98370

360-697-8629 Tel. • 360-697-5425 Fax • www.levelok.com

LevelLok® is a registered trademark of LevelLok Corporation.

U.S. Patent 5,678,656 • U.S. and foreign patents pending

Copyright © 2004-2006, LevelLok Corporation



When Safety Is Not An Option

INSTALLATION ON ALUMINUM LADDERS

1. Remove existing ladder shoes. The factory ladder shoe is normally bolted on, but if it is riveted on, simply drill out the hollow end of each rivet until the rivet lip is removed (rivet should then come out easily).
2. Position provided template on centerline of ladder rail, near bottom end of ladder leg (see **Figure 1-1**). The template should completely fit within ladder leg flanges, if any, and any protruding ladder rungs or rivets should not interfere with spacer plates on template.



Figure 1-1

➤ **IMPORTANT NOTE:** Upper two holes should be positioned above first ladder rung (see **Figure 1-1**).

3. Mark all three (3) holes using a felt tip marker or pencil as shown in **Figure 1-1**.
4. Drill all three (3) holes using an 11/32" diameter drill bit (see **Figure 1-2**). **NOTE: Holes must be drilled accurately or studs on Leveler will not align properly. Use a center punch if possible, or drill smaller 1/8" pilot holes first.**
5. Slide Leveler studs through holes until spacer plates are evenly seated against ladder rail (see **Figure 1-3**).



Figure 1-2

Special Note for Ladders which have a bracket on bottom of fly section (Example: Werner D1500 series): Check clearance of fly section (the upper, moveable section) at location of Leveler on extension ladder rail. If there is any interference, install thin rectangular aluminum spacer plates with metal adhesive (both included in kit), so they do not vibrate loose. These spacer plates will stand the Leveler further away from the rail to allow for fly section bracket clearance (see **Figure 2-4**, page 4).

6. Slide washers onto studs, then tighten locknuts with 1/2" wrench. Recommended torque is 9 ft-lbs. **DO NOT OVERTIGHTEN!** A snug fit is adequate.
7. **IMPORTANT NOTE:** The LL-STB-1 Leveler includes a **Fully**



Figure 1-3

Automatic Safety Lock that is instantly engaged when any force is applied to the Leveler foot assembly. The inner leg will not retract unless all force is removed from the bottom of the ladder shoe. This patented feature is for your safety and is designed to assure that the Levelers are locked and will remain locked under any load condition. Before using your new Levelers, make certain all fasteners have been properly tightened, and make sure the Safety Lock and all other moving parts are working properly. To get the most from your investment in a Levelok Leveler, please read the Operation Instructions and Helpful Tips on Page 12 of this document. We highly suggest our **Safety Aspects Training Video** (available separately). This 7-minute video offers a complete overview of the Levelok Leveling System and its many safety features, including essential information on its operation. This video is now being used by many U.S. utility companies as an integral part of their ladder safety training programs.

INSTALLATION ON FIBERGLASS D-RUNG LADDERS WITH RUNG-TO-RAIL CONNECTION

(Werner 6200 Series and Louisville FE 3200 Series)

1. Remove existing ladder shoe by removing the nut and bolt.
Removal of any additional ladder hardware is not required to install the LL-STB-1 Leveler!

2. On the outside of the lower side rail, mark a centerline approximately 12" in length. At a distance of 1 1/2" below the bottom edge of the lowest rung flange, along the centerline, mark the position for the first mounting hole on the ladder side rail (see **Figure 2-1**). This will reference the location of the two other holes.

ATTENTION – *If your ladder has a longer metal plate at this location then bottom hole will be drilled through metal. Figure 2-1 does not show the longer metal plate.*

3. Position the enclosed template so the first hole location can be seen through the bottom cardboard hole. Rotate the template about this hole until the other two cardboard holes are aligned with the centerline. Mark the position of these two holes on the ladder side rail (see **Figure 2-2**).

4. Drill all three (3) holes using an 11/32" diameter drill bit (see **Figure 2-3**). **NOTE:** Holes must be drilled accurately or studs on the LL-STB-1 leveler will not align properly. Drilling a 1/8" diameter pilot hole is recommended.

5. Epoxy as many of the thin, rectangular **Aluminum Standoff Plates** (Enclosed) as necessary to assure a flush, level fit. Use a small drop on either side of the hole on plate. The epoxy is required to prevent the spacers from rotating. (see **Figure 2-4**, page 4). **ATTENTION** - *If your ladder has a long metal plate then spacer plates may only be needed at the 2 upper mounting bolts of each leveler.*

6. Slide the LL-STB-1 leveler studs through holes until the standoff plate assembly is evenly seated against the fiberglass ladder side rail. There should not be any gaps (see **Figure 2-5**, page 4).

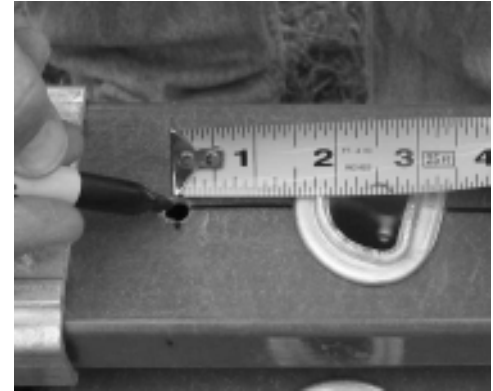


Figure 2-1



Figure 2-2



Figure 2-3

(Continued on Next Page)

Installation on Fiberglass Extension Ladders with Rung-to-Rail Connections (Cont'd)

- Slide washers onto studs, then tighten locknuts with a 1/2" wrench or socket. Due to the location of the first hole under the knee brace, it is recommended to start by tightening this nut first with a 1/2" open end wrench as you are sliding the studs through the holes. A snug fit is adequate. **DO NOT OVER TIGHTEN!** Recommended torque is 9 foot-pounds.

IMPORTANT NOTE: The LL-STB-1 Leveler includes a **Fully Automatic Safety Lock** that is instantly engaged when any force is applied to the Leveler foot assembly. The inner leg will not retract unless all force is removed from the bottom of the ladder shoe. This patented feature is for your safety and is designed to assure that the Levelers are locked and will remain locked under any load condition. Before using your new Levelers, make certain all fasteners have been properly tightened, and make sure the Safety Lock and all other moving parts are working properly. To get the most from your investment in a LeveLok Leveler, please read the Operation Instructions and Helpful Tips on Page 12 of this document. We also highly recommend our **Safety Aspects Training Video** (available separately). This 7-minute video offers a complete overview of the LeveLok Leveling System and its many safety features, including essential information on its operation. This video is now being used by many U.S. companies as an integral part of their ladder safety training programs.

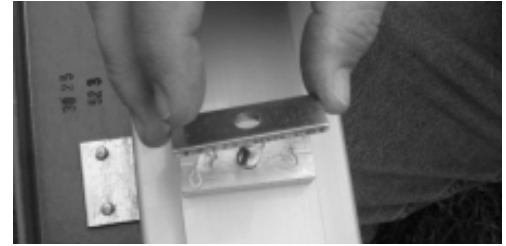


Figure 2-4

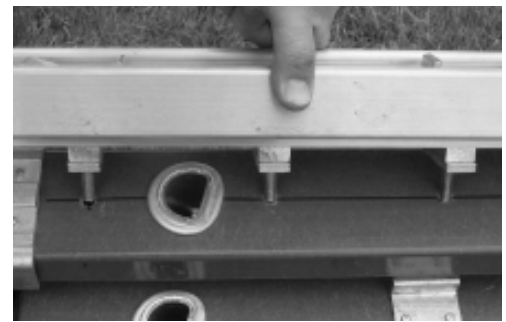


Figure 2-5

INSTALLATION ON FIBERGLASS EXTENSION LADDERS WITH RIVETED RUNG-TO-PLATE CONNECTIONS

**(Werner 7100 Series, Louisville FE 7200 Series and FE 4200 Series
and Similar Types of Fiberglass Extension Ladders)**

1. Remove existing stock extension ladder foot. Removal of the metal foot assembly is completely optional, but the small angle brace under first rung should remain on ladder. See **Fig 3-2A** for cut line on Werner 7100 series and similar ladders if removal is preferred. Removal of the metal foot assembly on Werner ladders and similar will reduce the overall weight of the ladder and help utilize the full 10" stroke of the Levelok Levelers.
2. Locate the 4 rivet heads at the lowest (first) ladder rung. These rivets secure the rung plate onto the ladder rail. (See **Figure 3-1A** for Werner and similar ladders and **Figure 3-3A** for Louisville and similar ladders). This next step will locate the first hole to be drilled. Using a black felt pen, mark a dot between the two rivet heads as shown in **Figure 3-1A** for Werner and similar and **3-3A** for Louisville and similar ladders. Drill a 1/8" diameter pilot hole at this dot. Next, drill an 11/32" diameter hole at this same location. This hole is to be drilled through the outer face of the ladder rail and all the way through the metal flange of the inside rung plate.
 - **IMPORTANT NOTE:** This hole placement is to prevent any possible interference between the inner rung plate curve and the 1/2" socket or wrench that will be used for tightening the nylon INSERT NUT later in the installation process.
3. Tape or clamp the TEMPLATE provided against outer ladder rail face along the centerline of rail (see **Figure 3-1B** for Werner and similar and **3-3B** for Louisville and similar ladders). Use the hole drilled in Step 2 as a guide for positioning the template in the correct location. Drill the two remaining 11/32" diameter holes through the ladder rail, using the template as a drill guide. **THE LOWER HOLE MAY NEED TO BE DRILLED THROUGH THE METAL FOOT ASSEMBLY PLATE.**
4. Check for proper fit and clearance for the Levelok Leveler's three mounting studs. The mounting studs should slide through the drilled holes without having to use force. After proper clearance through the holes is verified, remove the Leveler and set aside for Step 5.
5. "Slowly" rotate the appropriate, pre-installed 3/8" thick spacer plate **ON BACK OF LEVELER** a full 90 degrees using a large pair of pliers (see **Figure 3-5** for Werner and similar and **Figure 3-6** for Louisville and similar ladders). Vice Grips work best for this step. Grip the long sides of the spacer plate for best results.
 - **IMPORTANT NOTE:** Skip Step 6 if your ladder does not have a long, METAL, FOOT ASSEMBLY / RAIL SHIELD, as shown in either Figure 3-1A or 3-3A.
6. Open the Levelok kit provided and locate the packet of metal adhesive and thin aluminum spacer plates (1/8" x 3/4" x 2") provided. Place small drops of adhesive on one side of each plate, on either side of the pre-drilled hole. Next, with the glue side down, slide the spacer plates onto two upper-most, mounting studs and press securely against the pre-installed, 3/8" thick spacer plates. Maintain alignment between the mating parts (see **Figure 3-5** for Werner and similar and **Figure 3-6** for Louisville and similar ladders). Hold for 5-10 seconds.
7. Mount the Leveler by passing the mounting studs through the drilled holes in the ladder rail. (See **Figure 3-2B** for Werner and similar and **Figure 3-4B** for Louisville and similar ladders.) For 375 pound ladders place the 2" square washers (provided in kit) over the upper-most mounting studs. Place large round, fender washer

Installation on Fiberglass Extension Ladders with Rung-to-Plate Connections (Cont'd)

over the 2" square washer (see **Figure 3-2A** and **3-4A**). The mounting stud penetrating the rung plate does not require a washer. The bottom mounting stud on the Louisville ladder requires a thin aluminum spacer plate as a washer (see **Figure 3-4A**). Tighten all 3 nylon insert nuts with a 1/2" wrench or socket, to the recommended torque of 9 foot-pounds. **YOUR FIBERGLASS EXTENSION LADDER / LEVELOK LEVELING SYSTEM IS NOW READY FOR USE.**

- **IMPORTANT NOTE:** The LL-STB-1 Leveler includes a **Fully Automatic Safety Lock** that is instantly engaged when any force is applied to the Leveler foot assembly. The inner leg will not retract unless all force is removed from the bottom of the ladder shoe. This patented feature is for your safety and is designed to assure that the Levelers are locked and will remain locked under any load condition. Before using your new Levelers, make certain all fasteners have been properly tightened, and make sure the Safety Lock and all other moving parts are working properly. To get the most from your investment in a Levelok Leveler, please read the Operation Instructions and Helpful Tips on Page 12 of this document. We also highly recommend our **Safety Aspects Training Video** (available separately). This 7-minute video offers a complete overview of the Levelok Leveling System and its many safety features, including essential information on its operation. This video is now being used by many U.S. companies as an integral part of their ladder safety training programs.

INSTALLATION ON FIBERGLASS COMBINATION LADDERS WITH RIVETED RUNG-TO-PLATE CONNECTIONS

To install the Leveler on your fiberglass *combination* ladder with riveted rung-to-plate connections, follow these steps:

- Start at **Step 2 on Page 5** ("Installation on Fiberglass Extension Ladders with Rung-to-Plate Connections"). Removal of the FOOT OR METAL FOOT ASSEMBLY on the fiberglass combination ladder is not recommended.
 - Follow **Steps 2 through 5**.
 - Skip Step 6.
 - Complete the installation by following Step 7. YOUR FIBERGLASS COMBINATION LADDER / LEVELOK LEVELING SYSTEM IS NOW READY FOR USE.**
- **IMPORTANT NOTE:** The LL-STB-1 Leveler includes a **Fully Automatic Safety Lock** that is instantly engaged when any force is applied to the Leveler foot assembly. The inner leg will not retract unless all force is removed from the bottom of the ladder shoe. This patented feature is for your safety and is designed to assure that the Levelers are locked and will remain locked under any load condition. Before using your new Levelers, make certain all fasteners have been properly tightened, and make sure the Safety Lock and all other moving parts are working properly. To get the most from your investment in a Levelok Leveler, please read the Operation Instructions and Helpful Tips on Page 12 of this document. We also highly recommend our **Safety Aspects Training Video** (available separately). This 7-minute video offers a complete overview of the Levelok Leveling System and its many safety features, including essential information on its operation. This video is now being used by many U.S. companies as an integral part of their ladder safety training programs.

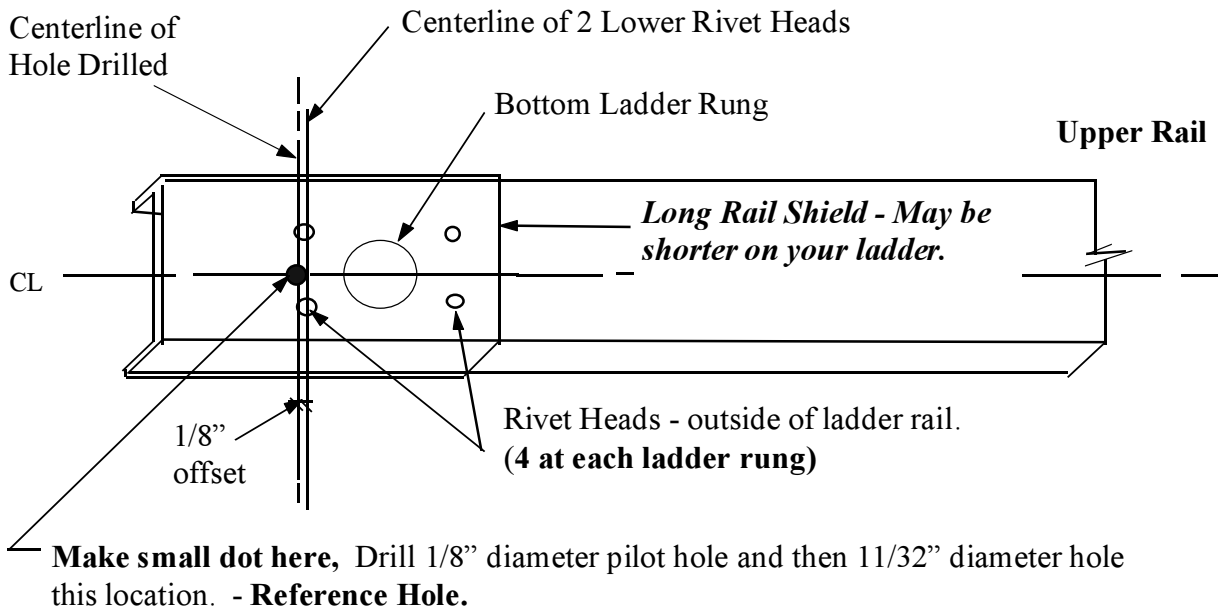


Figure 3-1A

**Locate and Drill LOWER MOUNTING STUD HOLE
(Werner and similar ladders)**

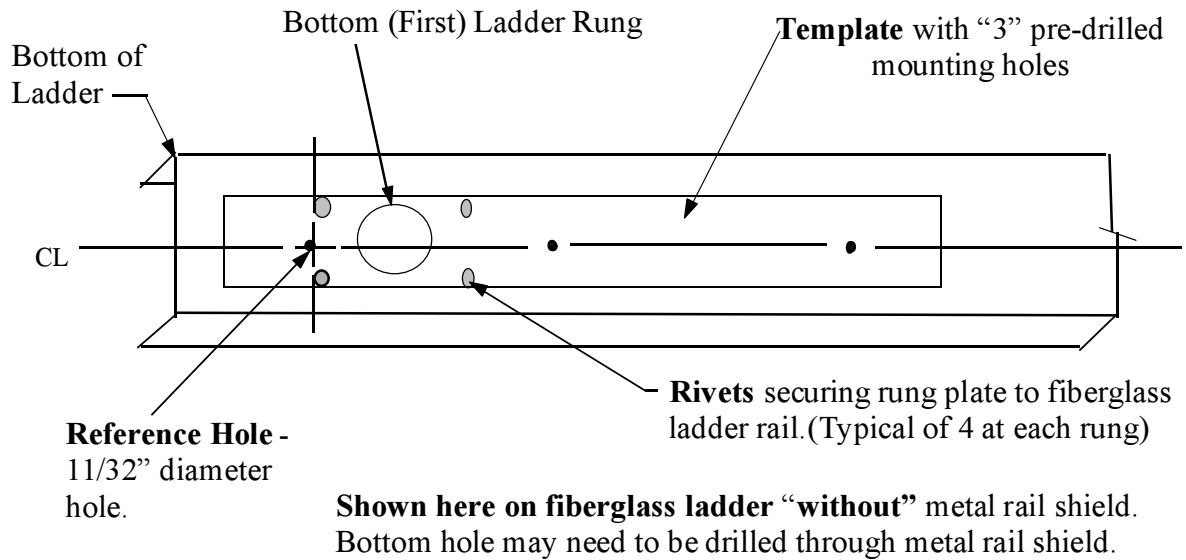


Figure 3-1B

**Position TEMPLATE and Drill 2 Upper Holes
(Werner and similar ladders)**

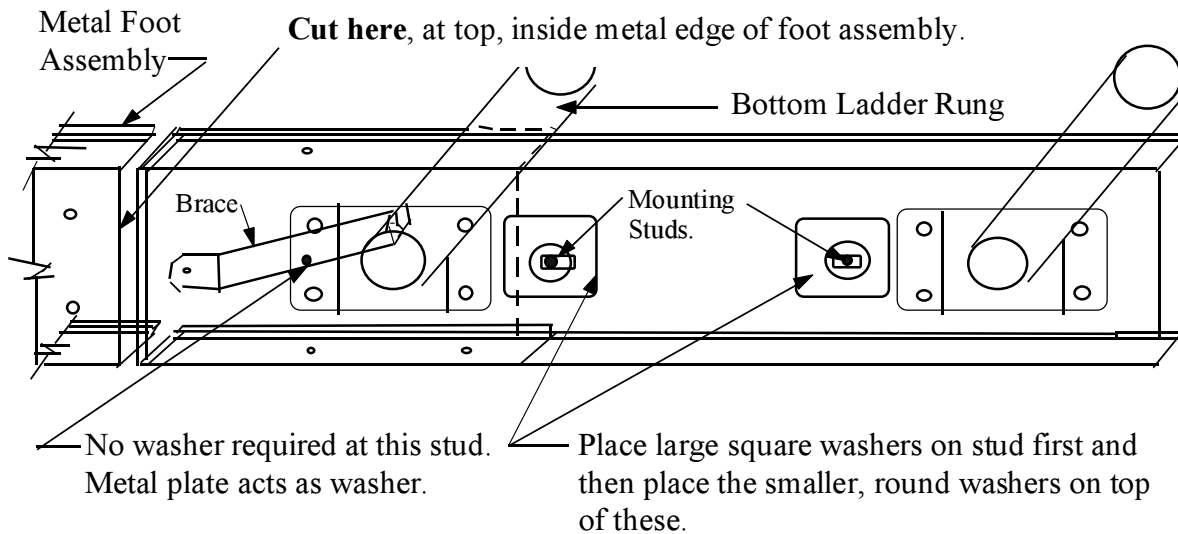


Figure 3-2A

**Location of CUT-LINE and WASHERS on
Inside of Fiberglass Ladder Rail
(Werner and similar ladders)**

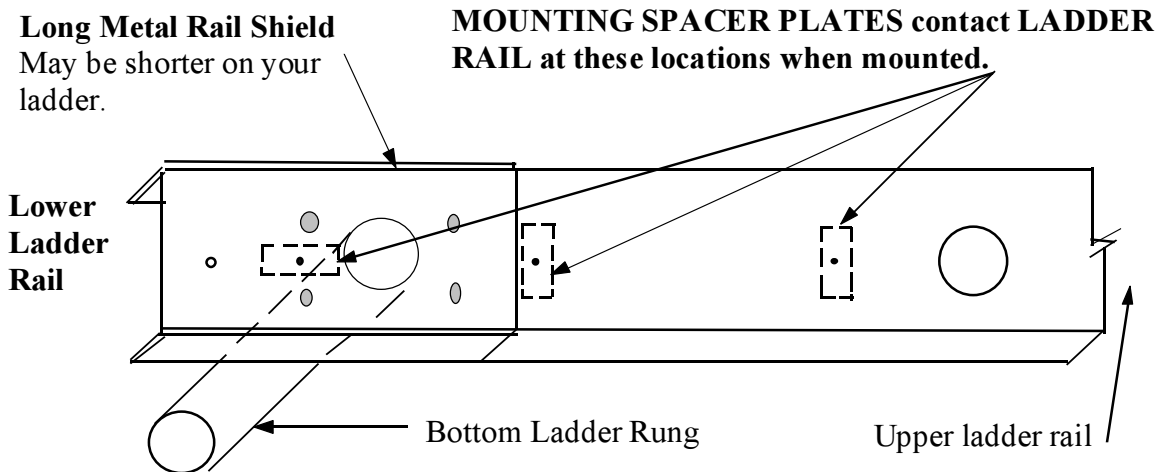
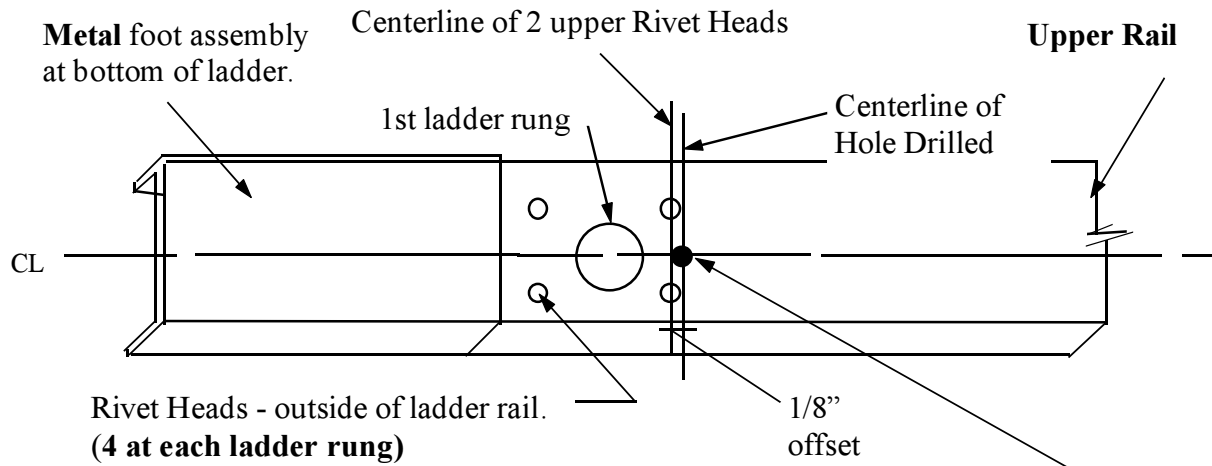


Figure 3-2B

**Positioning of SPACER PLATES at Final Assembly
(Werner and similar ladders)**

ATTENTION: The Thin Aluminum Spacer Plates (3/4" x 2" x 1/8") inside the Retrofit Kit are necessary on ladders with Long Metal Rail Shields. These spacer plates are used to shim the upper 2 mounting plates on the back of the Leveler. Use adhesive enclosed.



Make small dot here, Drill 1/8" diameter pilot hole and then 11/32" diameter hole this location. - Reference Hole. This is the center hole on template.

Figure 3-3A

**Locate and Drill Center MOUNTING STUD HOLE
(Louisville and similar ladders)**

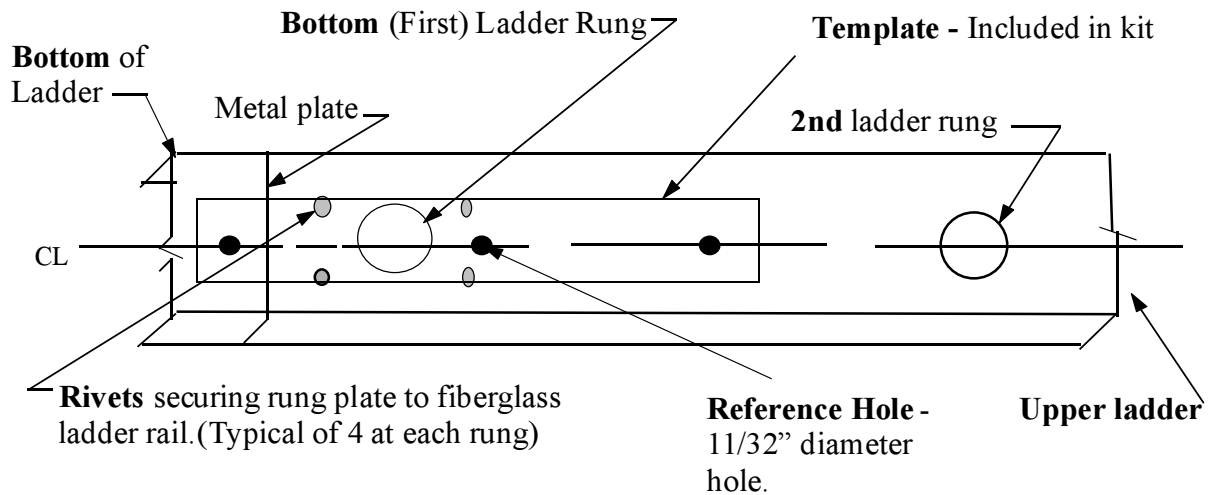


Figure 3-3B

**Position TEMPLATE and Drill Upper and Lower Holes
(Louisville and similar ladders)**

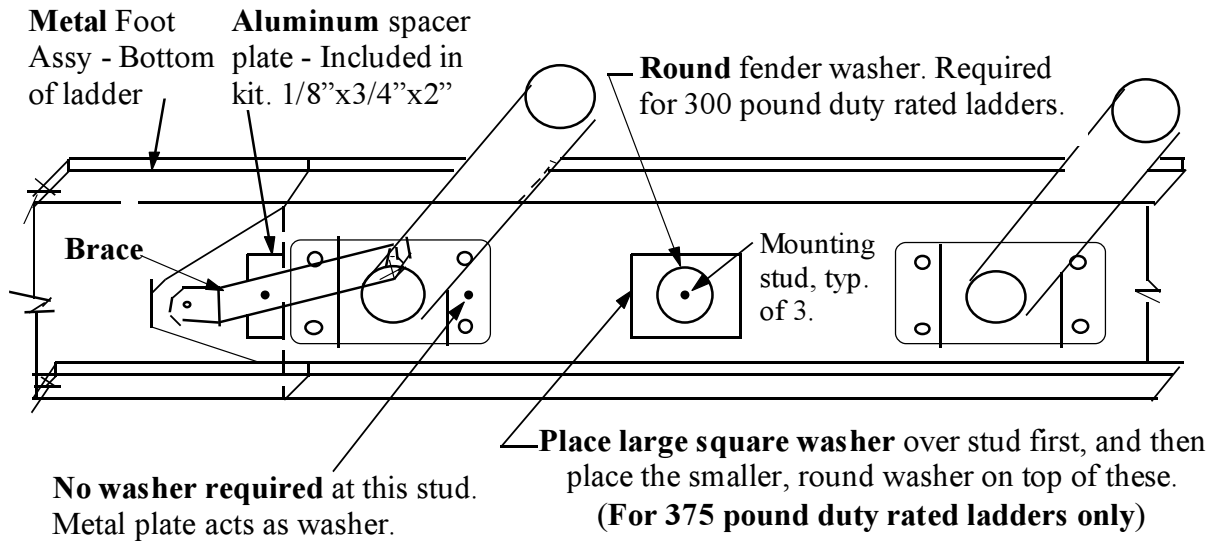


Figure 3-4A

Location of Aluminum Spacer Plate and WASHERS on Inside of Fiberglass Ladder Rail (Louisville and similar ladders)

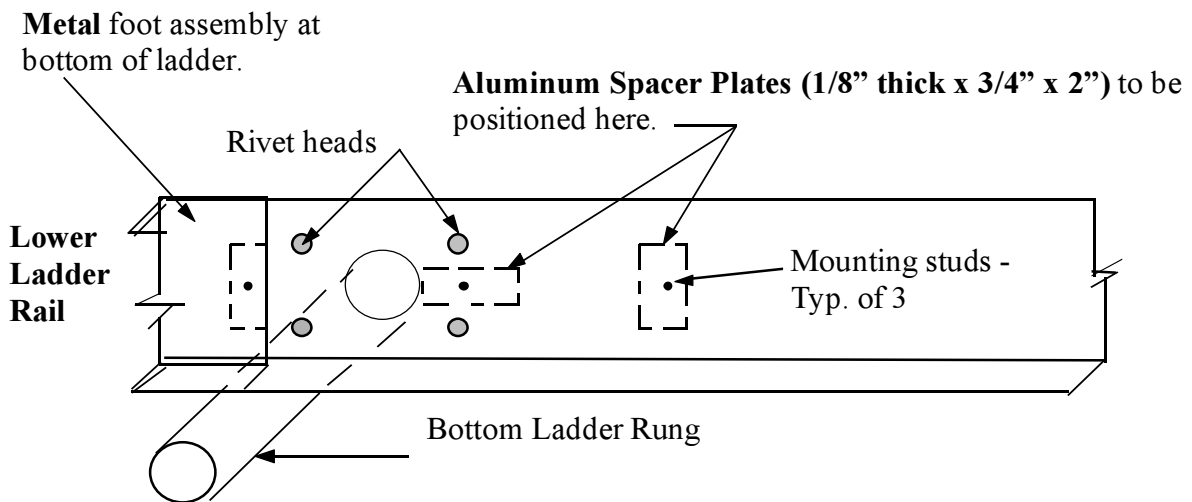


Figure 3-4B

Positioning of SPACER PLATES at Final Assembly (Louisville and similar ladders)

ATTENTION: The Thin Aluminum Spacer Plates (3/4" x 2" x 1/8") inside the Retrofit Kit are necessary on ladders with Long Metal Rail Shields. These spacer plates are used to shim the upper 2 mounting plates on the back of the Leveler. Use adhesive enclosed.

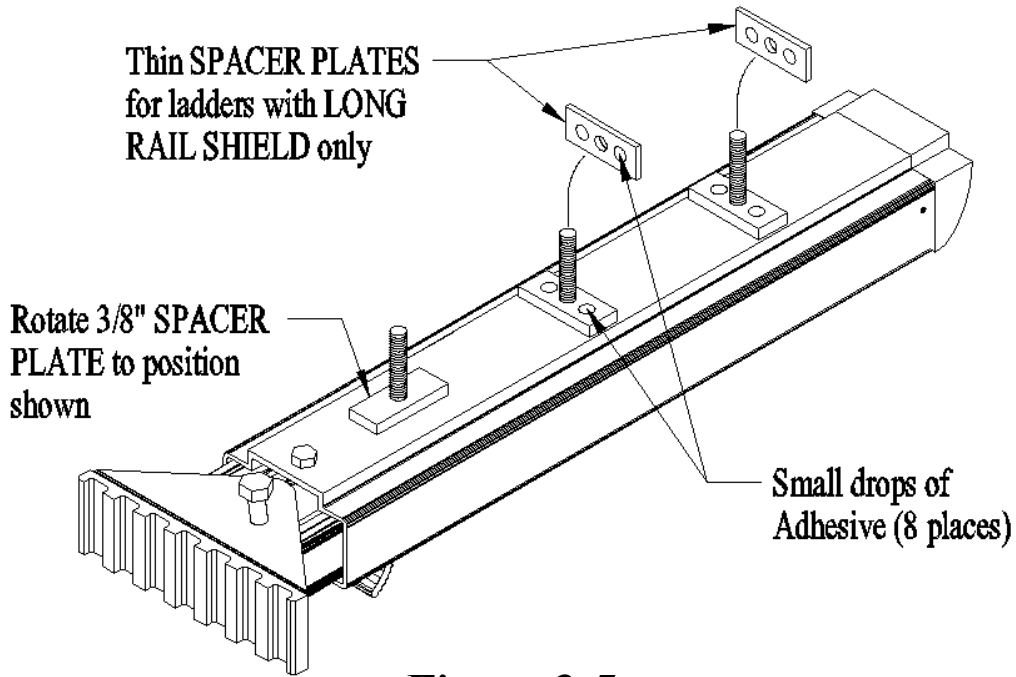


Figure 3-5

**Rotating Pre-installed SPACER PLATE
and Thin SPACER PLATE Positioning
(Werner and similar ladders)**

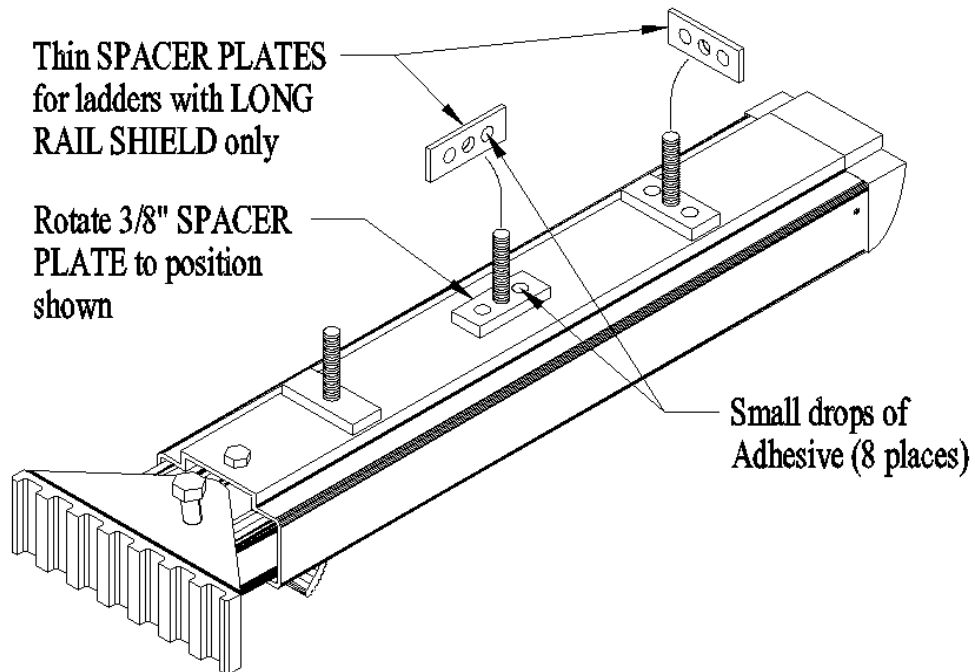


Figure 3-6

**Rotating Pre-installed SPACER PLATE
and Thin SPACER PLATE Positioning
(Louisville and similar ladders)**

OPERATING INSTRUCTIONS

1. Follow the instructions supplied with your ladder - and always use your ladder only at the proper 75-1/2 degree angle.
2. To adjust Levelok Levelers on uneven terrain, flip the lower foot pedal out, then press down with your foot (see **Figure 4-1**). This will extend the leg down to the bearing surface, and activate the Automatic Safety Lock.
3. To move the ladder to another location, simply remove all weight from the extended leg by pulling the ladder rail towards you while keeping the ladder in a rested position. (This disengages the Automatic Safety Lock.) Next, depress the upper (smaller) pedal with the ball of your foot or your thumb to release the locking mechanism (see **Figure 4-2**). Finally, apply downward pressure on the release lever; the leg will smoothly retract upward to the starting position. Move the ladder and repeat Steps 1 and 2 to set it up in another location.



Figure 4-1



Figure 4-2

Before each use: Check that the Leveler is assembled to ladder correctly and is in good working order. Make sure the Safety Lock is working properly. Inspect for damaged parts. Never use or repair a damaged Leveler. Destroy the Leveler if exposed to fire or chemicals. Keep your Leveler clean and free from foreign material such as wet paint, mud, grease, snow, oil, sand, etc.

Warnings: Do not use the Leveler to support ladder in horizontal position. Do not use both Levelers in fully extended position to gain additional height.

USER TIPS: “The ABCs of the LL-STB-1”

- A. Always keep the Levelok Ladder Leveler and Stabilizer in its retracted position when relocating a ladder. This will make each leveling operation much simpler.
- B. Always lean the ladder at the proper angle of 75-1/2 degrees against the surface of a building, a telephone pole or other surface to act as an upper ladder support before extending the Leveler. This will enable you to maintain a proper balance while using your foot to extend the Leveler downward.
- C. Always keep the ladder at the proper angle of 75-1/2 degrees and resting in its supported position (at both the upper and lower ends) while retracting the Leveler. This enables you to maintain your balance while keeping the ladder stationary until you retract the Leveler with your foot or hand.