

## ATTIC LADDER INSTALLATION INSTRUCTIONS

MODELS: S224P, S254P, AS226P, AS256P, AL226P, AL256P, CS224P, CS224I, CS254P, CS254I, CL224P, CL224I, CL254P, CL254I, L224P, L254P, S305P, CS305P, L305P, CL305P, AL228P, AL258P

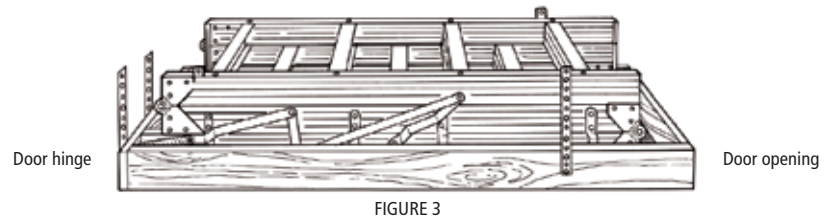
# WARNING

Before you start installing your new Louisville Ceiling Mounted Folding Attic Ladder, you must read and understand the following:

1. For residential use only. Not for use in a commercial or industrial setting
2. Installation requires two people.
3. Check the ceiling height to make sure the ladder length is correct. If the ladder is too short, return it to the point of purchase for an exchange. Under no circumstance is any folding attic ladder to be used when the ceiling-to-floor measurement exceeds the maximum ceiling height as indicated for the Ceiling Mounted Folding Attic Ladder you are installing (See "Max Ceiling Height" column in table 2, page 3).
4. This folding attic ladder is completely assembled and is ready for installation. Do not disassemble it to install.
5. The springs on this folding attic ladder are under pressure. Do not attempt to remove or replace before installation.
6. Prior to installation, verify that all fasteners are properly tightened. Re-check these periodically after initial installation.
7. Make sure there is no wiring or piping that the saw or drill can come in contact with during installation.
8. Opening or standing on the folding attic ladder's climbing sections prior to properly fastening to ceiling joists could cause serious bodily injury.
9. Verify that the unit meets local building codes and that the intended area of installation is of sufficient strength to be used for a walking or working surface.
10. If the home has roof trusses, do not cut the ceiling joists without consulting an engineer for approval.
11. Before installation, read all the instruction labels on the folding attic ladder.
12. Improper installation could result in serious bodily injury.
13. Do not attempt to open the door prior to installation.
14. Only use 16d nails or 1/4" x 3" lag screws (not included) for the permanent installation step.
15. Follow the "Adjust The Ladder Length" instructions on Step 3 for proper trimming instructions.
16. Annually lubricate (spray silicon recommended) pivot points of right and left folding arm mechanism (power arm assembly) to provide smooth, long-lasting operation.

### STEP 1: PRELIMINARY INSTALLATION INSTRUCTIONS

A. Attach four E-Z Hang temporary support straps to the frame. Refer to figure 3 and instructions listed below.



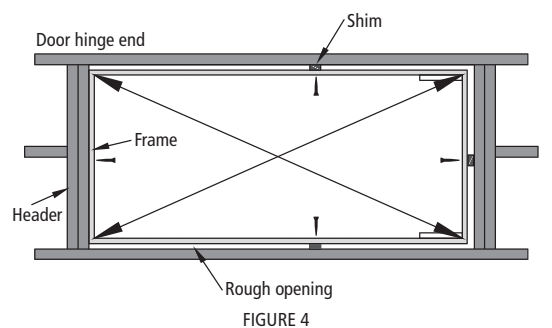
- Place the folding attic ladder on the floor with the door opening on your right-hand side.
  - Using the roofing nails and straps provided, attach one strap using two nails on the outside of the attic ladder frame at the extreme right hand corner near the door stop block.
  - Attach the second strap opposite the first strap on the far outside frame.
  - The third and fourth straps should be positioned on the door hinge side near each corner opposite the door opening.
- B. Position one person up in the attic, and position one person in the room below. When using a step ladder make sure ladder is fully open, all feet firmly supported and user's weight and materials does not exceed the load rating of the ladder.
- C. The person in the room below will need to raise the attic ladder into the rough opening and position the attic ladder's door frame flush with the ceiling surface.
- D. The person in the attic should then bend the metal E-Z Hang strapping at the four corners of the attic ladder frame over the adjoining ceiling joists and nail through the metal strapping using four of the 16d nails provided to temporarily suspend the attic ladder.

**CAUTION: This is only a temporary connection, NEVER climb on ladder in this condition.**

E. Carefully open attic ladder door but do not unfold the climbing section until indicated in step 3. Place the frame on the door hinge side of the ladder up against the header and center side to side in the rough opening. Temporarily secure to header with 16d nail. Make sure frame is flush with ceiling before nailing (figure 4, next page).

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F. Center and square the opposite side of attic ladder frame using shims. Ensure ladder frame is square by measuring diagonals of the frame within 1/8". Secure other sides of ladder frame to ceiling joists with remaining three 16d nails (figure 4).

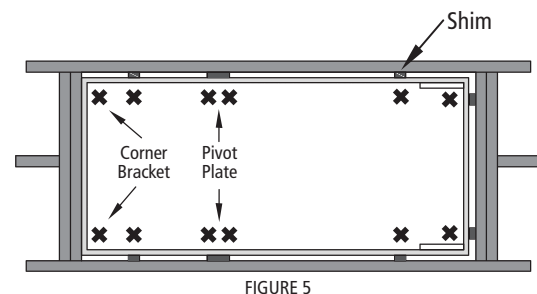


### STEP 2: PERMANENT INSTALLATION

A. Install fasteners at the 12 locations shown in figure 5 for permanent installation. Either 1/4" x 3" lag screws or 16d nails should be used. Install shims when necessary to fill any gaps between the door frame and rough opening. Make sure to install the fasteners in the holes provided in the corner brackets and pivot plates.

**NOTE:** When using lag screws first drill 1/4" diameter holes through the frame at each location to prevent splitting and follow with 3/16" pilot holes in the ceiling joist facilitate installation of the lag screw.

B. **WARNING: Never use deck or sheetrock screws for permanent installation.**



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### Included with your Folding Attic Ladder

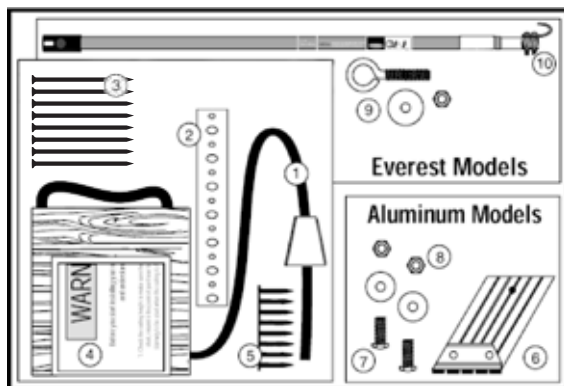


FIGURE 1: All models

NO.	ITEM	QTY.
1	Pull cord – 36"	1
2	Support Straps	4
3	16d nails	8
4	Installation Instructions	1
5	Roofing nails – 7/8"	8
6	**Aluminum feet	2
7	** 3/4" Bolts	2
8	** 1/4" Lock nuts & washers	2
9	+Eyebolt, nut & washer	1
10	+Pole hook	1

\*\*Aluminum models | + Everest models

TABLE 1

### ATTIC LADDER SERIES NAME AND MODEL NUMBER CROSS REFERENCE

WOOD					ALUMINUM				
Series	Models				Series	Models			
Premium	S224P	S254P	L224P	L254P	Summit	AS226P	AS256P	AL226P	AL256P
Champion	CS224P	CS254P	CL224P	CL254P	Everest	AL228P		AL258P	
	CS224I	CS254I	CL224I	CL254I					
Big Boy	S305P	CS305P	L305P	CL305P					

### MATERIALS REQUIRED

[1.] Stepladder [2.] Hammer [3.] Adjustable wrench [4.] Tape measure [5.] Hand saw [6.] Hack saw [7.] Drill [8.] Drill bit 3/16", 1/4" [9.] Phillips screw driver [10.] (12) 1/4" x 3" lag screws or 16d nails [11.] Shims

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### Installation instructions for wood models and for aluminum models

Read instructions and warnings completely before starting

**IMPORTANT: DO NOT OPEN FOLDING ATTIC LADDER UNTIL INSTRUCTED TO IN STEP NUMBER 3.**

#### Folding Attic Ladder Location:

Allow ample room for the swing clearance and the landing space of the folding attic ladder when it is opened (see figure 2 and table 2). Locate the folding attic ladder rough opening so that when you enter the storage area, you will have adequate head clearance.

You must have a rough opening as shown for your model in table 2. If not, proceed to the appendix for framing instructions.

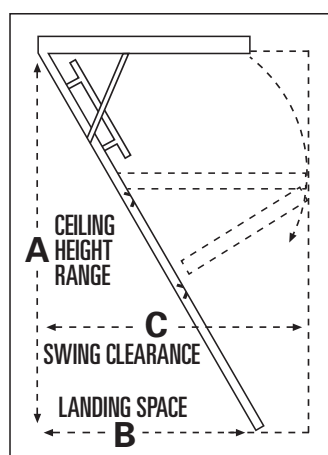


FIGURE 2

MODEL	ROUGH OPENING	MAX. CEILING HT. "A"	LANDING SPACE* "B"	SWING CLEARANCE "C"
S224P, AS226P, CS224P, CS224I	22 1/2" x 54"	8' 9"	63"	66"
S254P, AS256P, CS254P, CS254I	25 1/2" x 54"	8' 9"	63"	66"
L224P, AL226P, CL224P, CL224I	22 1/2" x 54"	10'	71"	75"
L254P, AL256P, CL254P, CL254I	25 1/2" x 54"	10'	71"	75"
S305P	30" x 60"	8' 9"	63"	66"
CS305P	30" x 54"	8' 9"	60"	69"
L305P	30" x 60"	10'	71"	75"
CL305P	30" x 54"	10' 1"	67"	79"
AL228P	22 1/2" x 63"	12'	85"	87"
AL258P	25 1/2" x 63"	12'	85"	87"

\*When installed at maximum ceiling height

TABLE 2

### STEP 3: ADJUST LADDER LENGTH

A. Carefully unfold ladder to the ground rotating bottom section behind middle section (figure 6). Press down on top and middle sections of the ladder to ensure the power arms are fully extended before taking measurements for trimming your ladder.

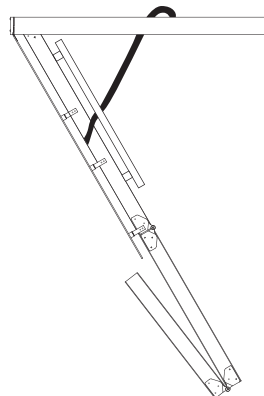


FIGURE 6

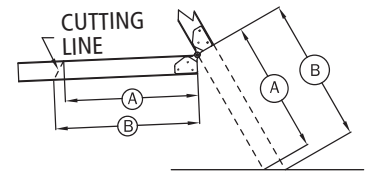


FIGURE 7

B. With a straight edge, measure distances from middle section to floor, for both A & B lengths (figure 7).

**WOOD MODELS: Proceed to "C"**  
**ALUMINUM MODELS: Skip to page 7 "Additional steps for aluminum models only"**

C. Record A & B values in table 3 for both rails.

	LEFT RAIL		RIGHT RAIL	
	A	B	A	B
Measurement to floor				

TABLE 3 (Wood models only)

D. Transfer these dimensions to the bottom section of the ladder right and left rails and draw a cutting line between the two points. Trim bottom section to length using wood saw (figure 7).

**Proceed to "Check the length after making your cuts" on page 8...**

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**ADDITIONAL STEPS FOR ALUMINUM MODELS ONLY:**

A. For aluminum models, complete table 4. Subtract 3/4" from each measurement and record the results in row titled "Rail cut length".

	LEFT RAIL		RIGHT RAIL	
	A	B	A	B
Measurement to floor				
Subtract for shoe	(-3/4")	(-3/4")	(-3/4")	(-3/4")
Rail cut length				

TABLE 4 (Aluminum models only)

B. Transfer cut length dimensions from table 4 to the bottom section of the ladder right and left rails and draw a cutting line between the two points. Trim bottom section to length using a metal cutting saw (figure 7).

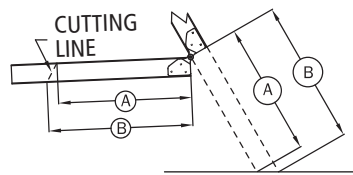


FIGURE 7 (repeated from previous page)

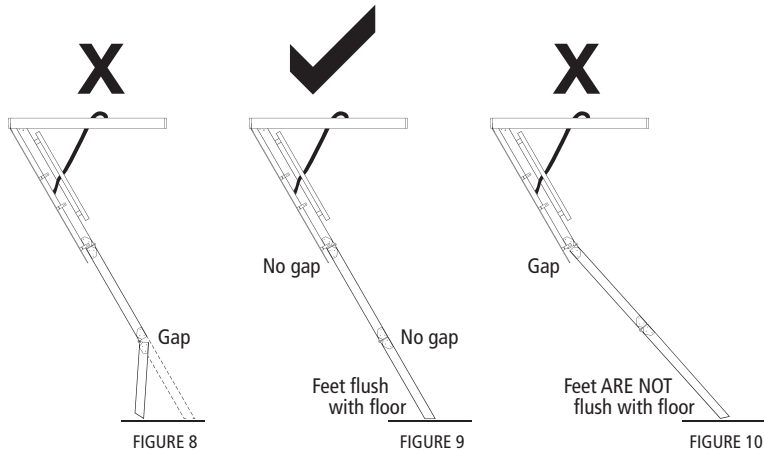
C. Rotate bottom section back in line with top sections and press down on the middle section to ensure that the power arms are fully extended.

D. Slide aluminum foot over ladder rail. Position foot so that the extended sections remain straight and the foot is in full contact with the floor. Drill 1/4" hole through the rail using the hole provided on the foot as a template. Anchor securely with 3/4" bolts and locknuts provided.

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**CHECK THE LENGTH AFTER MAKING YOUR CUTS**

Again, be sure the attic ladder power arms are fully extended. Trimmed correctly, your attic ladder should look like figure 9. Verify that there are no gaps in the section and both feet are flat on the floor.



If the attic ladder looks like figure 10, then both of the legs are too long and need to be trimmed further.

If the attic ladder looks like figure 8, then both of the legs are too short, and the attic ladder is not safe to use. A new lower section would need to be purchased from the manufacturer.

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For customer service, call Louisville Ladder at 1-800-666-2811 or e-mail [info@LouisvilleLadder.com](mailto:info@LouisvilleLadder.com)

**ADJUSTING THE SPRING TENSION (IF NEEDED)** [CS305P & CL305P models only]

Your attic ladder is equipped with a unique and easy way to adjust the tension on each of the two springs. With the attic ladder in the closed position, use an adjustable or 7/16" wrench and tighten (turn clockwise) the red kep nut on the J-bolts that attach the springs to the door panel. Alternate the tightening of each spring to raise the door panel evenly so it ends up flush with the ceiling.

**INSTALLING HARDWARE**

A. Ladders with pull cord and pendant.

- Thread pull cord through pre-drilled hole in door and tie a knot in end of cord.
- Be sure the knot is large enough to not slip through the hole.

B. Ladders with eye-bolt and pole hook.

- Slide eye-bolt through the hole in the attic ladder door.
- Install washer onto eye-bolt on the opposite side of the door.
- Securely fasten nut onto the eye-bolt.

**TRIM INSTALLATION**

To install trim molding leave 3/8" clearance between the door panel at the hinge end and 1/8" clearance on the other 3 sides.

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**EVEREST ALUMINUM 12' FOLDING ATTIC LADDER OPENING AND CLOSING INSTRUCTIONS**

**Closely follow instructions attached to pole hook when opening and closing Everest Folding Attic ladder.**

Required to operate: Two People | Attic ladder Pole hook | Stepladder or Step Stool

**Opening Instructions:**

1. Standing on the floor, reach up with the pole hook and firmly hook the eye-bolt on the attic door and pull to open door.
  2. Position a stepladder to the side of the attic ladder's climbing section drop-down area.
- DANGER: never place stepladder or person in the path of the attic ladder's climbing section drop-down area.**
3. Position the two people (one on the stepladder and one on the floor) on either side of the attic ladder drop-down area.
  4. The person on the stepladder should slowly and carefully begin unfolding the two hinged sections of the attic ladder to the person on the floor.
  5. Continue to unfold the attic ladder until both sections are fully extended. Press downward on the climbing section to ensure power arm assembly is fully open and in the locked position.

**Closing Instructions:**

1. Position one person on the stepladder and the other on the floor on either side of the attic ladder.
2. The person on the floor should begin to fold up the bottom and middle sections, handing off to the person on the stepladder to complete the folding process.
3. Use the pole hook to tap the power arm toward the open end of the attic ladder (away from the door hinge) to release power arm (See figure 12).
4. Hook the eye-bolt on the door with the pole hook and push firmly upward until the springs engage. Slowly control the door with the pole hook until completely closed.
5. Remove pole hook and store in a safe place.

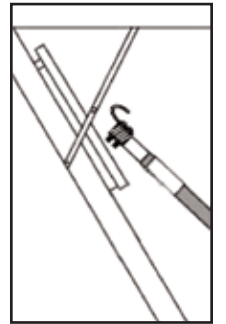


FIGURE 12

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**APPENDIX – Framing A Rough Opening Parallel To Ceiling Joist**

Make a rough opening to the size as required in table 2 (page 3) ensuring that the dimensions of the diagonals of the frame are the same as illustrated in figure 13.

**A. For Rough opening without joist removal (figure 13)**

- Locate headers in front and rear of the opening as shown in figure 13.
- Check for squareness by making sure that diagonal measurements are within 1/8".
- Secure using (3) 16d nails into each end of the Header.

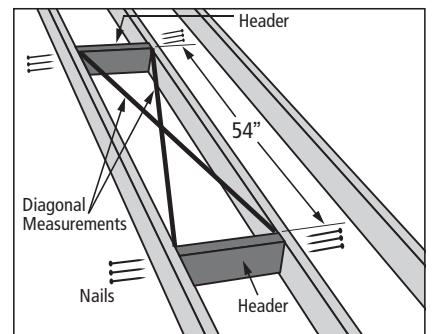


FIGURE 13

**B. Rough opening with joist removal (figure 14)**

- Install temporary support boards spanning both sides of joists to be removed.
- Remove joist at length to allow for double headers to be installed on both ends of opening.

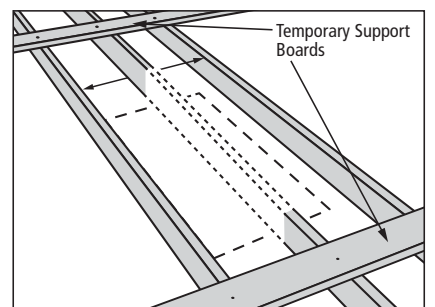


FIGURE 14

Continued on next page...

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**(figure 15)**

- Locate double headers at each end of opening and secure with (3) 16d nails into each end of the headers.
- Install stringer and check for squareness by making sure that diagonals are within 1/8".
- Secure using (3) 4" nails into each end of the stringer.

**CAUTION: Consult an engineer or obtain architectural approval for installations that require the removal of roof trusses or rough openings perpendicular to the ceiling joists.**

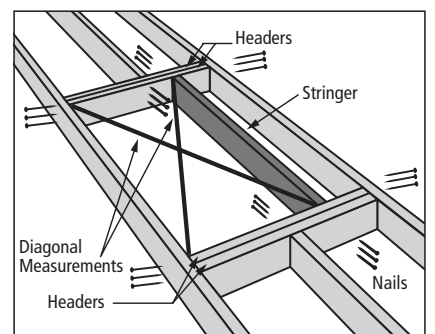


FIGURE 15



**Louisville Ladder Inc.**  
7765 National Turnpike, Unit 190  
Louisville, KY 40214

1-(800)-666-2811 (U.S. & CANADA)  
1-(502)-636-2811 | FAX: 1-(800)-274-4566  
[www.LouisvilleLadder.com](http://www.LouisvilleLadder.com)

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