

BE-119

Fire Rated Stair

Installation Instructions

Bessler Stairway Company

IMPORTANT—Read This First

Before installing your new BE-119 Stairway, contact your local Building Code Office to insure this product meets your local building codes. Please read and understand the following:

- 1.** This product is designed **for residential use only**. Failure to read and follow all directions, improper installation and/or usage, could result in serious personal injury or property damage. Installations that produce heavy usage or above normal stresses on this stair are not recommended. Suggested weight capacity is 350 lbs. Simple carpentry skills are required to install this stair; seek professional help if you do not possess these skills.
- 2.** After removing from carton, inspect stairway for damage, such as broken or split wood parts, or missing parts. If these are observed, return unit to your supplier for exchange.
- 3.** Do not disassemble stair to install, it is completely assembled.
- 4.** Make certain you read and follow all the installation instructions and warning labels, as these are designed to assist you in making a safe installation, extend the life of the stair and prevent personal injury.
- 5.** Secure using only 1/4 x 2" lag screws (provided) through pre-drilled installation holes. (See Figure 7.) **The use of sheet rock screws, deck screws or finish nails are prohibited, which can cause the stairway to suddenly fall from the opening possibly causing serious bodily injury.**
- 6.** Our stairways are manufactured for four maximum heights: 8'9", 9'3", 10' and 10'6". All units require cutting off the bottom section to fit the floor. Be sure to select proper unit for your ceiling height.
- 7.** After cutting off bottom section to fit the floor, have someone stand on the second or third step from the bottom and inspect the side rails to make certain there are no gaps between the hinged sections. All three sections should form a straight line. (See Figure 10 for correct stair alignment.)
- 8.** The coil springs at the top of the stair are under extreme pressure and should never be removed unless absolutely necessary, and then with extreme caution in removing and replacing spring; do this with the stair in the closed position, as there is less tension on the springs. During life of stair, periodic checks should be made of all wood and metal parts for wear and possible tightening. Spring arms, section hinges and all riveted metal joints should be lubricated periodically for easier operation and longer life. If for any reason any of the wood, metal, or other components of the stairway show signs of excessive wear or looseness, they should be replaced.
- 9.** Face the stair when going up or down - use hand-rail at all times. Close when you are through using it. Caution: handrail is for maintaining user's balance only and is not load bearing. Failure to return stairway sections back to their full closed position before closing door panel may result in damage to stairway and/or severe personal injury. Do not use the pull cord to swing the door panel upward when closing. Do not leave stair unattended when children are present.
- 10.** Due to the distance between the operator's personal height and the room's ceiling height and the weight of the stairway, it is possible that some persons may experience difficulty in raising and lowering the attic stairway. It is recommended that all persons obtain assistance from another person in stairway raising and lowering activities so any such difficulty is safely remedied.
- 11.** Do not use the stair if it is damaged in any way. Any damage, gaps or defections should be corrected. (Consult factory or local dealer for replacement parts or unit). Failure to follow instruction or warnings can lead to sudden stairway collapse and severe personal injury.

Suggested weight capacity: 350 lbs.

Keep all nuts & bolts tight!!! For residential use only!!!

Before You Install

To make sure you receive the best performance from your stairway, please take a few moments to familiarize yourself with all of the parts and guidelines. Seek professional help if not experienced in carpentry. Example: An experienced finish carpenter with good help should easily install the door jamb and stairs and adjust for operation in four hours or less. Time is directly dependent on skill and the understanding of these instructions. This is a stairway; taking your time and working safely helps prevent accidents.

Stairway Location

Locate your stairway in an attic area which is strong enough for walking and working on and has adequate headroom. **Avoid contact with electrical wiring during all phases of installation.**

Check Model Size And Dimensions

Refer to Figure 1 and Table 1 below to make sure the size of your specific model fits within the specified measurements. Make sure of the correct size of the rough opening for your specific model. Measure to be sure there is enough clearance for the stair as it is unfolded to its full length (Projection) and that there is enough space at the bottom of the stairway for a safe landing area.

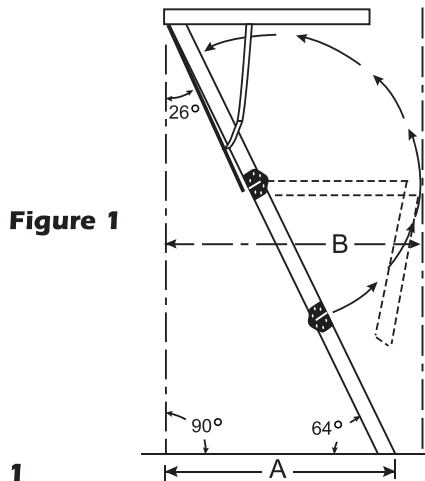


Figure 1

Table 1

Rough Opening	Ceiling Height	# of Treads	A Landing Space*	B Projection
22.5 x 54	8'9"	11	58"	66"
22.5 x 54	10'	13	65"	79"
22.5 x 60	9'3"	11	61"	72"
22.5 x 60	10'6"	13	70"	80"
25.5 x 54	8'9"	11	58"	66"
25.5 x 54	10'	13	65"	79"
25.5 x 60	9'3"	11	61"	72"
25.5 x 60	10'6"	13	70"	80"
30 x 54	8'9"	11	59"	66"
30 x 54	10'	13	66"	79"
30 x 60	9'3"	11	62"	72"
30 x 60	10'6"	13	70"	80"

*It is recommended adding 18" to landing space dimensions for safe ascent or descent of the stairway.

Required Manpower: 3

Required Equipment: Two 6ft step-ladders, electric/cordless drill, 5/32" or 1 1/64" drill bit, 1/2" socket and driver, 2x4 lumber pre-cut to length of floor to ceiling height for use as support braces ("T" Stands).

Step 1- Cut the rough opening through the ceiling material to the dimensions of the stair size (See Table 1). The rough opening size is approximately 1/4" wider and longer than the actual size of the stairway. This allows room to properly shim and square the stairway. It also keeps the stair close enough to the frame so that any open space can be sealed with caulk.

Step 2- Frame the rough opening. Using joist-size material (a minimum of 2 x 6) and 10d common nails, build a four-sided frame to install the stairway. Keep corners square to simplify installation. Use standard carpentry practices when building rough opening and check your local building code for correct configurations.

Installation parallel to existing joists normally requires a frame with single headers. (See Fig. 2)

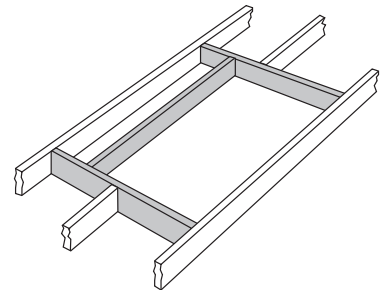


Fig. 2

Installation perpendicular to the existing joists requires a frame with double headers (See Fig. 3). If joists must be cut, stabilize them by nailing 2 joist-size boards perpendicular to the ceiling joists before cutting. The double joist sections must be long enough to be supported by a load bearing wall at both ends.

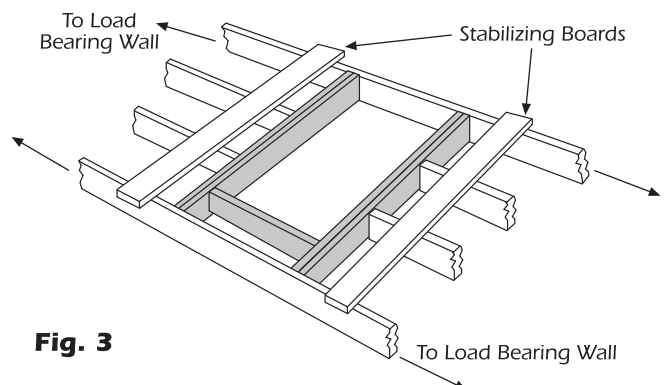


Fig. 3

Step 3- Place two stepladders directly under rough opening with steps facing out on both ladders. Place two "T" stands inside of stepladders. NOTE: Sheet rock jacks can be used in the place of "T" stands. (See Fig. 4)

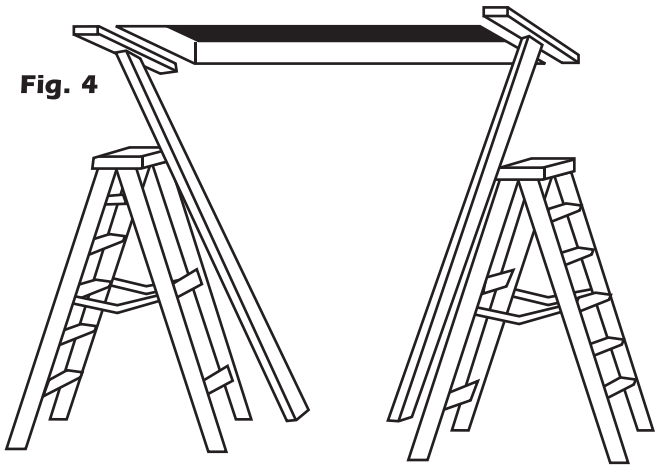


Fig. 4

Step 4- Run a 1/4" - 1/2" bead of caulk (enclosed) around the header end of the stair (end with hinge) from the break in the insulation on one side to the break in the insulation on the other side. Bead should be situated where the horizontal meets the vertical. (See Fig. 5)

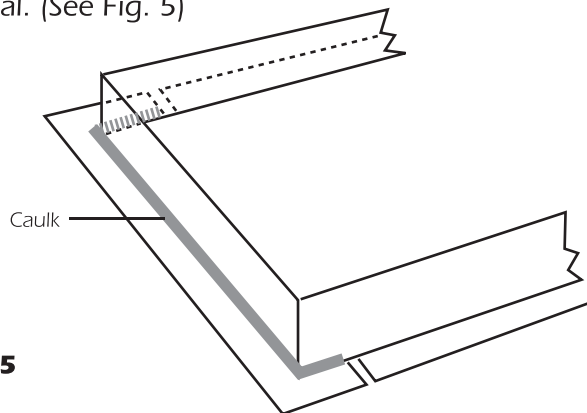


Fig. 5

Step 5- With a helper in the attic, carefully place the stairway onto the top of the stepladders. Have the two ground installers raise the stairway into the rough opening. Secure the door panel tightly against the ceiling with the "T" stands. (See Fig. 6)

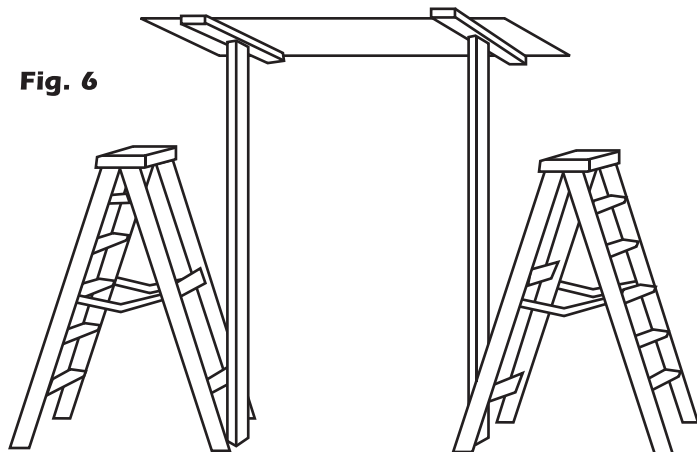


Fig. 6

Step 6- The worker in the attic must make sure the stairway is square, level and firmly situated in the rough opening with equal spacing all around (no more than 1/4"). Blocks of wood or plywood can be used as shims to make any necessary adjustments. Place shims behind pre-drilled installation holes.

Step 7- Stairway must be secured from above while door is closed and braced firmly against ceiling. Permanently mount the stairway using 1/4 x 2" lag screws that are provided. Using a 1/8" drill bit, drill pilot holes into the jamb through the pre-drilled holes in the frame. Some holes may not be accessible yet because of the closed stairway.

First secure the header end to the jamb (end with the piano hinge – holes 1 & 2). Then secure the well end (hole 3). Utilizing pre-drilled holes provided in frame, continue to secure as many holes as possible before opening door panel. (See Fig. 7 for location of pre-drilled holes in frame.)

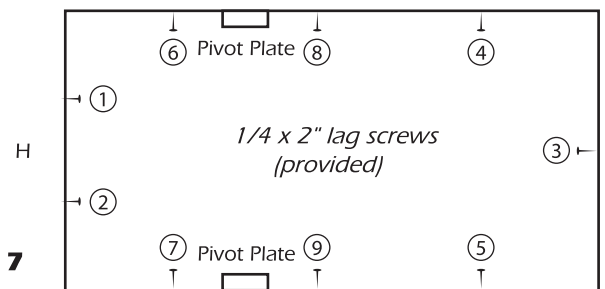


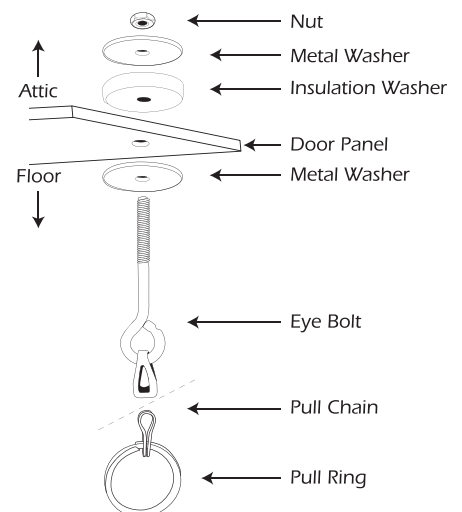
Fig. 7

Step 8- Remove "T" stands and then carefully open the stairway from below and lower the stair sections.

CAUTION: Do not stand on the stairway at this time.

Make sure the stairway is still square, level and firmly situated in the rough opening with equal spacing. Complete permanent attachment with lag screws in the remaining pre-drilled installation holes.

Step 9- Pull Chain Installation.



WARNING: For maximum fire resistance, Insulation Washer must be placed on attic side of door panel.

Adjust Stairway To Ceiling Height

Trim the stairs only after the floor beneath the stairway is finished. Adding or removing carpet or other flooring material will change the measurements for the length of the stairway.

Step 10- Fully extend the folding section of the stairway. Fold the bottom section of the stairway under the middle section, so that the top and middle sections form a straight line (See Fig. 8). Apply pressure on the stairs to ensure the spring arms are fully extended.

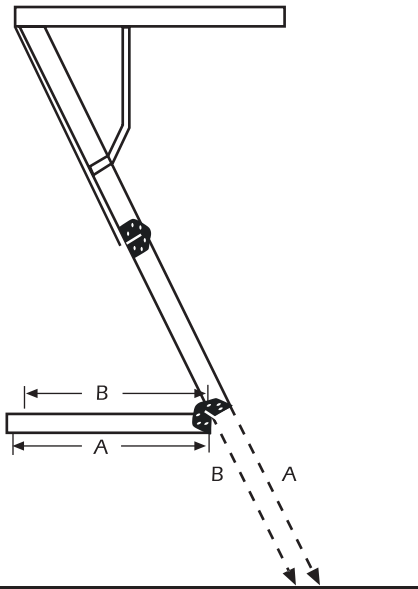


Fig. 8

Step 11- Place a straight edge on top of the middle section and slide it down until it contacts the floor. Measure the distance from the end of the middle section to the floor (A in Fig. 8). Mark the distance on the A side (front) of the bottom stringer.

Step 12- Place a straight edge on the bottom of the middle section and slide it down until it contacts the floor. Measure the distance from the end of the middle section to the floor (B in Fig. 8). Mark the distance on the B side (back) of the bottom stringer. It is possible for the landing area to be uneven, so repeat this procedure on the other stringer.

Step 13- Draw a straight line between the points. Cut each bottom stringer to the proper length, along the lines drawn. The bottom section of the stairs should fit flush with the floor on both sides after cutting. (See Fig. 9)

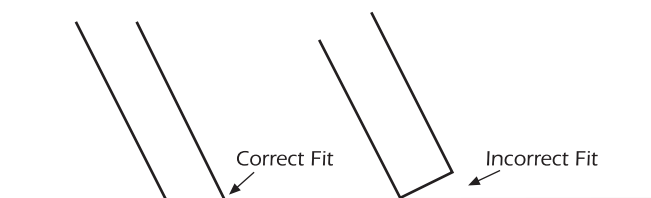


Fig. 9

Step 14- Check to make sure of proper length. Standing on second step of the bottom section, the stairs should fit flush with the floor and all joints should be tight with no gaps (Fig. 10). If the stairs are too long (Fig. 11), trim them again. If the stairs are too short (Fig. 12), do not use them. The bottom section will have to be replaced. Contact your vendor or Bessler Stairway Company.

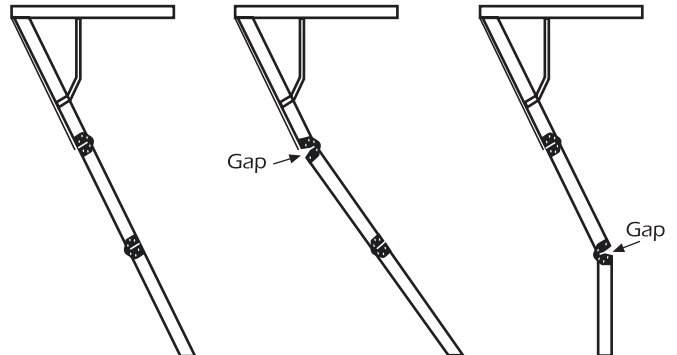


Fig. 10 - Correct Fig. 11 - Too Long Fig. 12 - Too Short

CAUTION: Do not use the stairway unless the stairs fit flush with the floor, and the joints are tight with no gaps. Failure to cut properly could cause undue stress on the stairway and could result in personal injury.

If final/additional flooring (carpet, vinyl, etc.) is installed after stairway is installed, length adjustment will be necessary. Repeat Steps 8 - 12.

Sealing The Opening

Step 15- Walk up the stairs; and using the remaining caulk, seal the opening between the stairway frame and the rough opening. (See Fig. 13) Gap should not exceed 1/4".

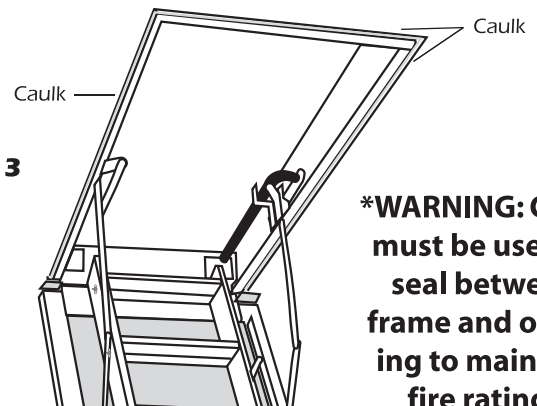


Fig. 13

***WARNING: Caulk must be used to seal between frame and opening to maintain fire rating.**

B **BESSLER STAIRWAY COMPANY**
A Division of ASI
3807 Lamar Ave. ■ Memphis, TN 38118
901-795-9200 ■ Fax 901-795-1253
www.bessler.com