Installation & Operation Instructions
Folding Stairways

American Stairways Models 444, 544, 655 & 800

Bessler Space Saver

IMPORTANT–Read This First

Before installing your new Disappearing 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-installation and/or usage, could result in serious personal or property damage. Installations that produce heavy usage or above normal stresses on this stair are not recommended. "See suggested weight capacity chart below." 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. Only use 16d nails or 1/4 x 3" lag screws through the spring arm pivot plates, the corner brackets at the main header hinge, the opposite frame member and both side lengths of frame. Holes are provided to secure stair in ceiling joists with the feet of the bottom section cut properly according to factory instructions. **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 five maximum ceiling heights: 8'5", 8'9", 9'3", 10'0" 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 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 9 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 handrail 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.

*Aluminum Model 800 will not require cutting

Suggested weight capacity: Model 444 = 250 lbs.; Model 544 = 250 lbs.; Model 655 = 300 lbs.; Model 800 = 350lbs.; Bessler Space Saver = 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.

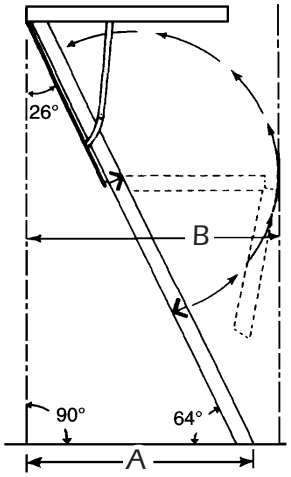

Figure 1

Table 1

Rough Opening	Ceiling Height *	# of Treads	A Landing Space	B Projection	Available in Models 444 WT	544 WT	655 WT	Space Saver WT
22.5" x 48"	8'5"	10	56"	60"	x 54 lbs.	x 56 lbs.	x 64 lbs.	x 64 lbs.
22.5" x 54"	8'9"	11	58"	66"	x 58 lbs.	x 60 lbs.	x 67 lbs.	x 67 lbs.
22.5" x 54"	10'	13	65"	79"	x 63 lbs.	x 65 lbs.	x 70 lbs.	x 70 lbs.
22.5" x 60"	9'3"	11	61"	69"			x 70 lbs.	x 70 lbs.
22.5" x 60"	10'6"	13	70"	80"			x 75 lbs.	x 75 lbs.
25.5" x 48"	8'5"	10	56"	60"	x 55 lbs.	x 60 lbs.	x 68 lbs.	x 68 lbs.
25.5" x 54"	8'9"	11	58"	66"	x 62 lbs.	x 65 lbs.	x 70 lbs.	x 70 lbs.
25.5" x 54"	10"	13	65"	79"	x 66 lbs.	x 68 lbs.	x 84 lbs.	x 84 lbs
25.5" x 60"	9'3"	11	61"	72"			x 73 lbs.	x 73 lbs.
25.5" x 60"	10'6"	13	70"	80"			x 89 lbs.	x 89 lbs.
30" x 54"	8'9"	11	59"	66"			x 84 lbs.	x 84 lbs.
30" x 54"	10'	13	66"	79"			x 92 lbs.	x 92 lbs.
30" x 60"	8'9"	11	59"	66"			x 94 lbs.	x 94 lbs.
30" x 60"	9'3"	11	61"	69"			x 91 lbs.	x 91 lbs.
30" x 60"	10'	13	66"	79"			x 96 lbs.	x 96 lbs.
30" x 60"	10'6"	13	70"	69"			x 96 lbs.	x 96 lbs.

* Folding Stairs Require Floor To Ceiling Measurement

Prepare The Rough Opening

Step 1A – Truss Installation

CAUTION: If your home uses roof trusses, do not cut ceiling cords (joists) without engineering consultation and approval.

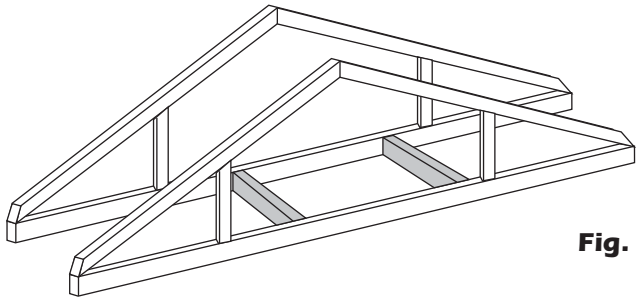

Fig. 2

Truss models are specially designed to fit between 24" on center truss ceilings. Install headers across truss cords to form a minimal 22" x 48" or 54" rough opening (Check Table 1 for dimensions for your specific model). Insure headers are plumb and square.

Step 1B–standard installation (without Trusses)

Cut the rough opening through the ceiling material to the size shown in Table 1 for the size of your stair. The rough opening size is approximately 1/2" wider and longer that the actual size of the stairway. This allows room to properly shim and square the stairway.

Step 2– Frame the rough opening. Using joist-size material 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.

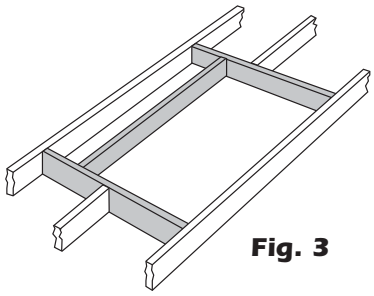

Fig. 3

Installation parallel to existing joists normally requires a frame with single headers. (See Fig. 3)

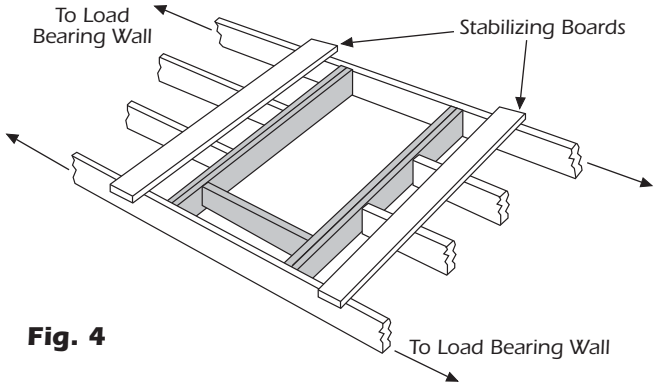

Fig. 4

Installation perpendicular to the existing joists requires a frame with double headers (See Fig. 4). 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.

Install The Stairway

Step 3– On the ceiling side of the rough opening, nail two 1" x 4" temporary slats to hold the stairway in the rough opening. (Temporary Boards Not Supplied By American Stairway.) Each slat should extend beyond the ends of the opening and extend approximately 1/2" into the rough opening to form a ledge. The slats should be nailed securely enough to hold the weight of the stairway (See Fig. 5).

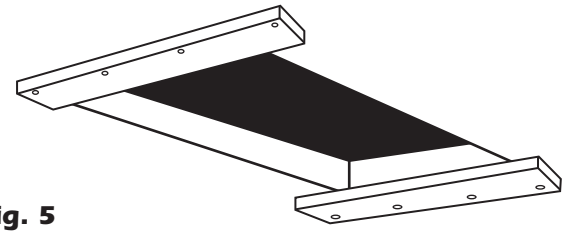

Fig. 5

CAUTION: Do not place any weight on the stair at this time.

Step 4– With a helper in the attic, carefully raise the stairway into the rough opening, and position it on the ledges formed by the slats. The plywood panel of the stairway should not be blocked by the slats so it is free to swing open.

CAUTION: Be sure the stair does not shift and come off the temporary slats. This could cause the stair to fall through the opening and could damage the stair or cause personal injury.

As an extra precaution, temporarily drive an 8d nail through each side jamb of the stair, just above the stop blocks and into the rough opening frame. Do not drive the nails in completely so they can be removed when the permanent nailing is completed.

Step 5– 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 square, level and firmly situated in the rough opening. Blocks of wood or plywood can be used as shims to make any necessary adjustments.

Because the wood parts are often subjected to strong spring tension for several months before installation, it is normal for the stair frame to become bowed while in inventory. The frame, however, can be easily straightened by using nails and shims.

Step 6– Permanently mount the stairway using 16d nails or 1/4 x 3" lag screws.

WARNING: Do not use sheetrock screws or any other fasteners other than what is stated in these instructions.

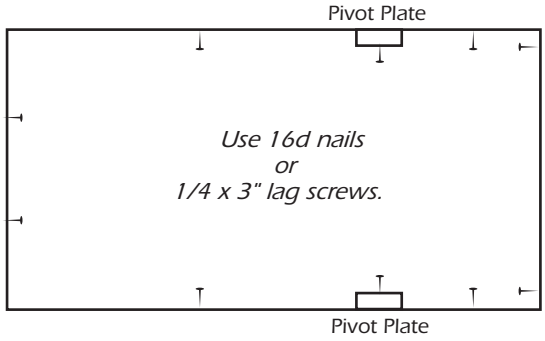

Fig. 6

Holes have been predrilled in the pivot plates of the spring arms and the piano hinge. Also nail through the end board into the rough opening header. Complete permanent nailing with sufficient 16d nails to secure stair to all sides of the opening. Pilot holes should be drilled if lag screws are used. (See Fig. 6 above for suggested placement of nails.)

Step 7– Remove the temporary slats and 8d nails used for temporary support.

Adjust Stairway To Ceiling Height

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

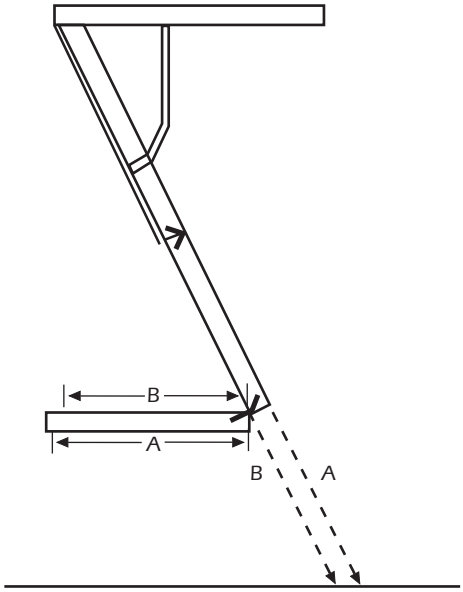

Fig. 7

*** For Model 800 (Aluminum Stairs) skip to Step 13**

Step 8– *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. 7). Apply pressure on the stairs to ensure the spring arms are fully extended.*

Step 9– *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. 7). Mark the distance on the A side of the bottom stringer.*

Step 10– *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. 7). Mark the distance on the B side of the bottom stringer. It is possible for the landing area to be uneven, so repeat this procedure on the other stringer.*

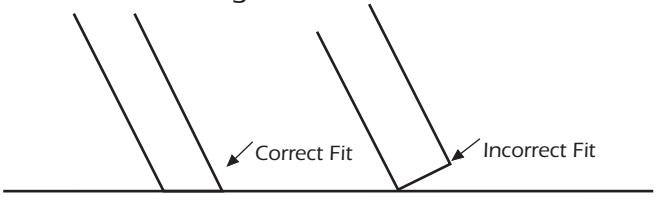

Fig. 8

Step 11– *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. 8)*

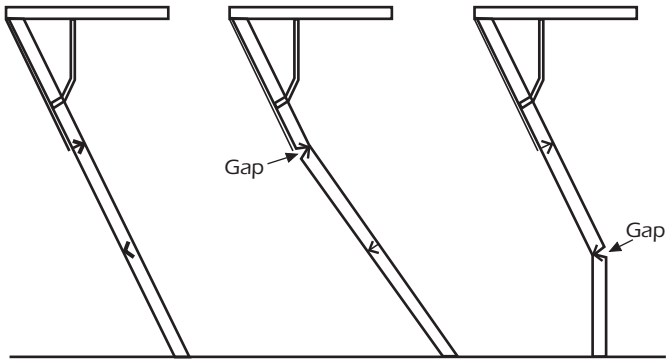

Fig. 9 – Correct **Fig. 10 – Too Long** **Fig. 11 – Too Short**

Step 12– *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. 9). If the stairs are too long (Fig. 10), trim them again. If the stairs are too short (Fig. 11), do not use them. The bottom section will have to be replaced. Contact your vendor or The American Stairway Company.*

Step 13– *For Model 800 (aluminum stairs) slide the aluminum feet over the ladder rail. Position the feet so that the extended section remains straight and the feet are in full contact with the floor. Drill through the hole provided in the feet into the ladder section. Secure the feet to the section with the bolts provided.*

Fig. 12

CAUTION: *Do not use the stairway unless the stairs fit flush with the floor, and the joints are tight with no gaps. (See Figures 9-11) 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.

Trimming the stairway opening

Step 14– *Select a moulding and trim around the stairway opening. Allow a gap of approximately 1/8" between the plywood panel of the stairway and the moulding.*

American Stairways, Inc.

3807 Lamar Ave. ▪ Memphis, TN 38118
901-795-9200 ▪ Fax 901-795-1253
www.americanstairways.com

FORM NO. 444–9/05