

Memphis Folding Stairs Inc.

Memphis, Tennessee 38182-0305

Instructions for Proper

Installation of Disappearing Stairway

WARNING

Do Not Attempt to Open Stairway before it is properly installed in the rough opening. Tension on the springs could cause the unit to snap back, possibly resulting in bodily injury.

NOTICE:

BEFORE INSTALLATION, Verify that this product and its installation meet all applicable building codes. Check stair carefully for shipping damage. Please mark the model name and size of the stair you purchased on the Product Parts List for future reference. **Keep this instruction brochure and parts list with the installed stair.**

You should have experience with squaring, leveling, sawing, and aligning structural supports before attempting to install this unit. If you do not have the skills to install a window frame or door unit, please hire a professional to install this stairway. Improper installation could result in stairway collapse and possible bodily injury.

WARNINGS

- This stair has been designed for **RESIDENTIAL USE ONLY**. Commercial uses of our stairways should be prohibited as our products are not designed to withstand those additional and significant stresses. Commercial use could cause stairway collapse, possibly resulting in severe bodily injury. Stairways are also designed to be used only where the ceiling to floor height does not exceed the specific length given for any particular model. Use of an improper length, either too long or too short, could also result in stairway collapse and possible bodily injury. **Under no circumstance is any stairway to be used where the ceiling to floor measurement exceeds 10'3".**
- This stair is completely assembled and ready for installation. **DO NOT DISASSEMBLE TO INSTALL.** Do not attempt to open up the stairway in any way before it is properly installed in the rough opening. Beginning to do so will place tension on the springs which could cause the unit to perform a sudden snapping movement that might injure your hands or feet or any bodily member in its vicinity.
- It is possible that some persons may experience difficulty in raising and/or lowering the attic stairway because of its weight and due to the distance between their own personal height and the room's ceiling height. Therefore, it is recommended that all persons always obtain assistance from another person in stairway raising and lowering activities so any such difficulty is safely remedied.
- Always face the stair when going up or down and always hold on to the handrail with your left hand. (Additional handrails are available from the factory.)
- Before installation of this stair, check that all bolts and nuts on section hinges, spring arm assemblies, and truss rods are in place and are tight. Periodic maintenance to tighten all nuts and bolts is necessary to maintain the stair in its designed rigid manner. During the lifetime of this stair, make certain that the spring arms remain in their straight line vertical alignment. Any deviation from this position could possibly cause excessive wear on the pivot plate and create a serious hazard. This misalignment could further cause the spring to become dislodged from its designed position and also create a serious hazard. Should the spring arms become misaligned or worn, they should be replaced immediately.
- The springs of the stair are under significant tension and they should not be removed. If a most unusual circumstance requires the removal of a spring, call our service department for complete instructions. (901-458-1161).

Other manufacturers use different types of parts and these parts are not interchangeable. Use only those parts designed for use with your particular model and size Memphis Folding Stair.

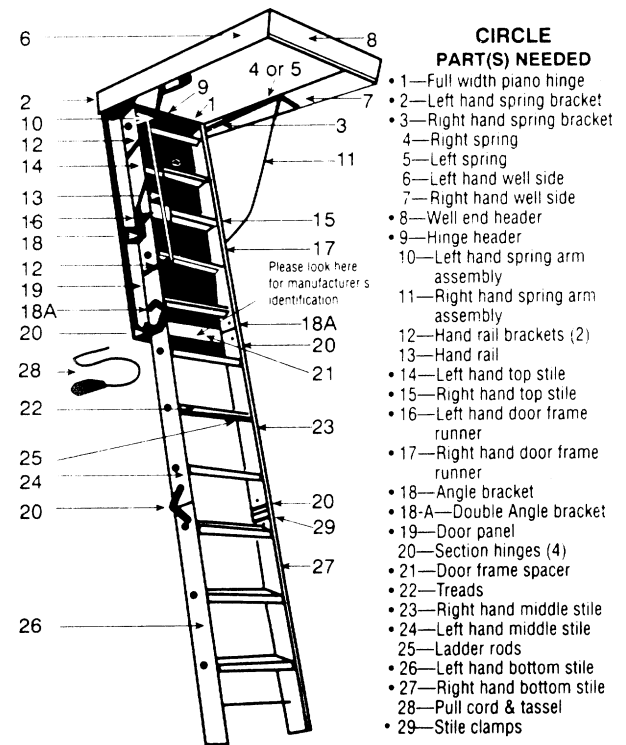
PRODUCT PARTS LIST PLEASE CHECK MODEL & SIZE

<input type="checkbox"/>	LOK-TREAD EXCEL	<input type="checkbox"/>	22 X 48 8'-5"	
<input type="checkbox"/>	LOK-TREAD LIFEGUARD	<input type="checkbox"/>	22 X 54 8'-9"	
<input type="checkbox"/>	LOK-TREAD OLYMPIC	<input type="checkbox"/>	22 X 54 10'	
<input type="checkbox"/>	LOK-TREAD IMPERIAL	<input type="checkbox"/>	25½ X 48 8'-5"	
<input type="checkbox"/>	LOK-TREAD ULTIMATE	<input type="checkbox"/>	25½ X 54 8'-9"	
<input type="checkbox"/>		<input type="checkbox"/>	25½ X 54 10'	
<input type="checkbox"/>		<input type="checkbox"/>	30 X 54 8'-9"	
<input type="checkbox"/>		<input type="checkbox"/>	30 X 54 10'	
<input type="checkbox"/>		<input type="checkbox"/>	30 X 60 8'-9"	
<input type="checkbox"/>		<input type="checkbox"/>	30 X 60 10'	

When ordering parts, failure to follow instructions or alteration of products as manufactured will render any warranties (implied or otherwise) null & void.

Any alteration will further cause the purchaser, user, and/or installer to assume any and all liabilities. Memphis Folding Stairs, Inc. **will not be held liable** for any damages or injuries caused by improper use of replacement parts.

NOTE: All heights as listed above are the maximum ceiling height that any given unit will accommodate.



REPLACEMENT PARTS FOR USE ON MFS PRODUCTS ONLY

Complete Installation kit available with everything needed to properly install your MFS stairway.

• Please Note: Part Nos. 1, 2, 3, 8, 9, 14, 15, 16, 17, 18, 18A, 19, 21, 22 are listed for identification purposes only and are not available as replacement parts. Nos. 23, 24 must be ordered as a complete middle stile section. Nos. 26, 27 must be ordered as a complete bottom stile section. No. 29 furnished for Excel, Lifeguard and Olympic Models only. FOR PARTS PRICES, CONSULT SERVICE DEPARTMENT. (901) 458-1161 • FAX (901) 458-7487

MFS website: www.memphisfoldingstairs.com
MFS85-0101-0101

Caution: Read complete instructions before installation.

STEP 1

LOCATING THE STAIRWAY:

Allow sufficient space for a safe landing area at the bottom of the stairway. Be sure there is enough clearance for the swing of the stair as it is being unfolded to its full length. (See Fig. 1 and explanation to determine proper clearance for landing space and projection.)

STEP 2

MAKING THE ROUGH OPENING:

Cut the rough opening through the plaster or ceiling material the same size as shown on the carton, then frame. Generally, the rough opening size of the stair as listed on the carton will be 1/2" wider and 5/8" longer than the actual net size of the stairway. This will allow for shimming and squaring the stair in the opening.

In most cases, stairways are installed parallel to ceiling joists. (See Fig. 2.) However, in some cases, the stair must be installed perpendicular to the ceiling joists (Fig 3).

CAUTION: If your home uses roof trusses, do not cut ceiling joists without engineering consultation and approval. If it is necessary to cut the ceiling joists or trusses, watch out for electrical wiring and be sure to tie these cut members to other joists or trusses with 2 x 6 or 2 x 8 headers, forming a four-sided frame or stairwell to install the stairway. Keep corners square to simplify installation. (Darkened areas in Fig. 2 & 3 illustrate the frame you will have to build before installing your stair.)

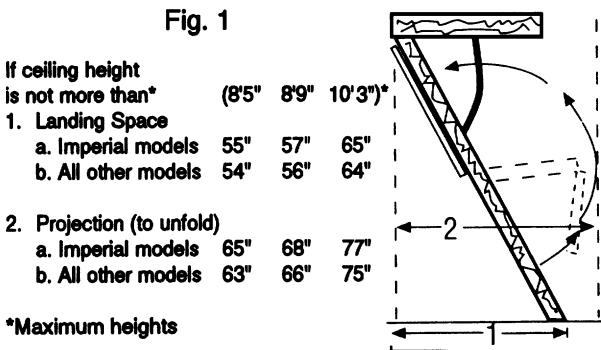


Fig. 2 & 3 show how to frame the rough opening for the stair. Installation parallel to existing joists requires only single joist and headers. **Installation perpendicular to the joists requires double headers and joists.** Make new ceiling joists and header sections from the same size lumber as the existing joists. When making double headers, fasten members together with 10d common nails. The double joist sections shown in Fig. 3 must be long enough to be supported by a load bearing wall at both ends.

Fig. 2

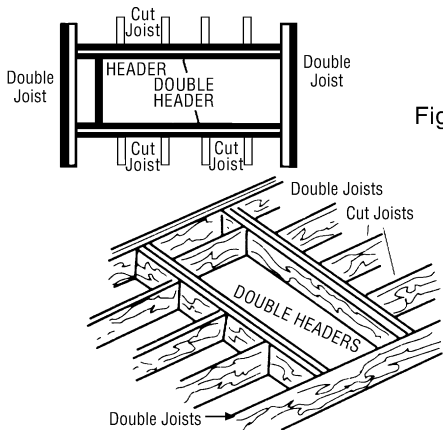
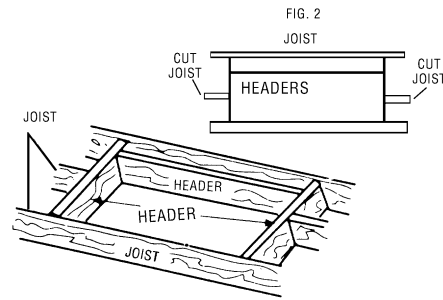
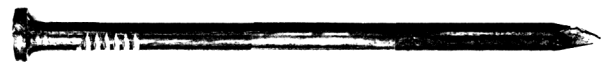


Fig. 3



10d COMMON NAIL
USE ONLY

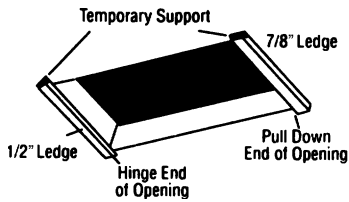
STEP 3

INSTALL TEMPORARY SUPPORTS FOR STAIRWAY:

It is necessary to hold the stairway in the prepared rough opening by use of temporary boards which extend across the width of the rough opening and form a ledge of 1/2" at the main hinge end and a 7/8" ledge at the pull cord end of the stair. These boards should be nailed securely enough to hold the weight of the stair in the rough opening (see Fig. 4). **THESE TEMPORARY BOARDS TO BE FURNISHED BY INSTALLER**

CAUTION: DO NOT PLACE ANY WEIGHT ON THE STAIR AT THIS TIME OR AT ANY TIME UNTIL AFTER YOU HAVE COMPLETED ALL PROCEDURES THROUGH STEP 5. USE A STEPLADDER OR AN EXTENSION LADDER WHENEVER IT IS NECESSARY TO PERFORM ANY ACTIVITY ABOVE YOUR OWN HEIGHT. ANY FAILURE TO FOLLOW THESE REQUIREMENTS COULD CAUSE THE STAIRWAY TO PARTIALLY, OR COMPLETELY, BECOME DETACHED FROM ITS CEILING LOCATION OR TO OTHERWISE FAIL DURING INSTALLATION OR THEREAFTER, POSSIBLY RESULTING IN SERIOUS BODILY INJURY.

Fig. 4



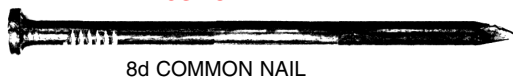
STEP 4

PLACING STAIRWAY IN ROUGH OPENING

Raise the complete stairway into the attic by turning the stair sideways through the rough opening and then lowering it carefully, placing the main header end (hinge end) on the 1/2" ledge and the pull cord end on the 7/8" ledge. This can be done from the attic while a helper on the floor is needed to lower the stair sections out of the way for nailing the stair frame to the rough opening frame. After the stairway has been placed upon these temporary support ledges, the complete stairway should not be raised or lowered from the resting position and it should not be dislodged from that resting position in any manner. Any failure to follow this important instruction could cause the stairway to fall through the ceiling opening, which circumstance might well cause significant bodily injury. As an additional safeguard against dropping the stair through the rough opening, it is suggested that several 8d common nails (see Fig. 5) be driven through the stair frame into the rough frame to help hold the stair in place. Do not drive these nails home as they can be removed after permanent nailing is completed.

Fig.5

USE ONLY



When used properly, the size screws and nails suggested are best.

Be sure stair is square and level in the rough opening. Blocks of wood can be used for shims to straighten the stair frame in the event it has become bowed in inventory. This is normal since

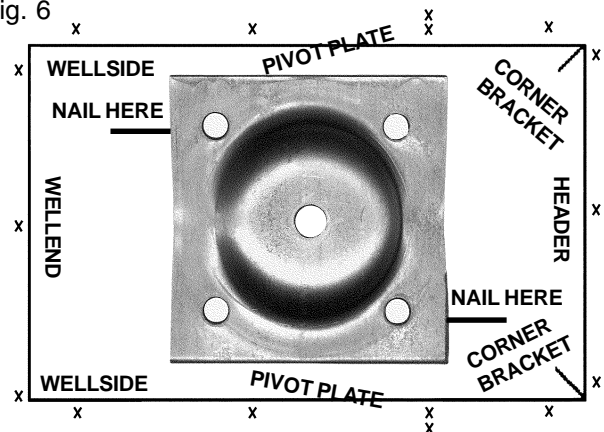
these wood parts are subjected to strong spring tension, sometimes several months before installation. Bowing may be straightened by use of nails and shims.

STEP 5

Carefully lower the stairway and unfold the stairway sections. **DO NOT STAND ON THE STAIR AT THIS TIME. USE STEP LADDER OR EXTENSION LADDER. (REFER TO CAUTION IN STEP 3.)**

Nail the sides (wellsides) of the stairway to the rough opening joists using 16d nails or 1/4 X 3" lag screws only. Use of other fasteners such as finish nails, staples, sheet rock or deck type screws can cause sudden, catastrophic failure, and should never be used. Nailing must be completed by placing the nails in the pre-punched holes in the pivot plate on the spring arms and in the pre-punched holes in the spring brackets at the hinge header. It is important that these nails be placed as instructed. (Refer to Fig. 6 for placement of nails or screws.) Finish by placing at least sixteen 16d nails, or 1/4 X 3" lag screws (see Fig. 7), at positions shown on diagram. These nails or screws must go through the two wellsides, wellend and hinge header into the rough opening joists. Remove the temporary slats and the 8d common nails used for temporary support. Install the finish molding which is to be furnished by the installer.

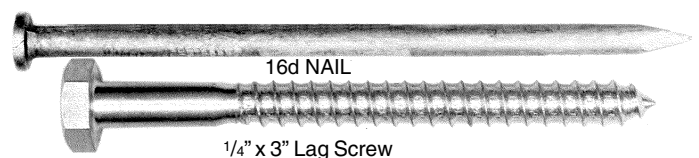
Fig. 6



X Indicates recommended location of nails or screws

Fig. 7

USE ONLY

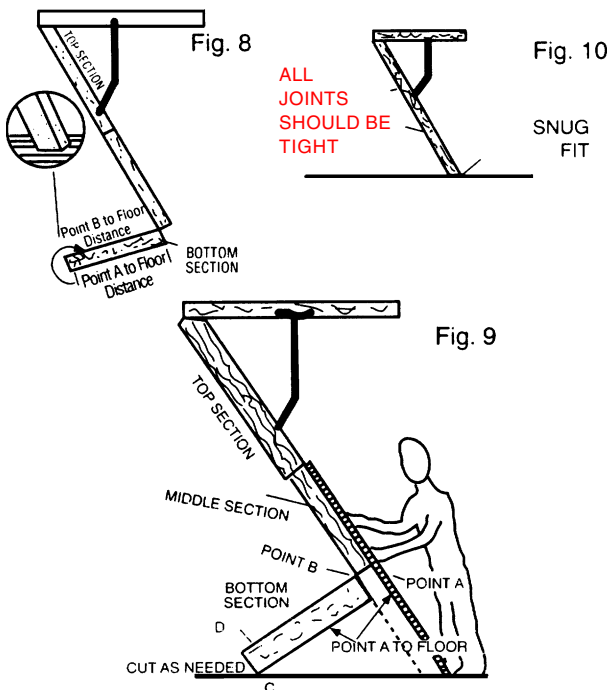


STEP 6

ADJUSTMENT OF STAIRWAY SECTIONS TO CEILING HEIGHT

Pull stairway down. Open the stair sections, folding the bottom section under the middle section so that the top and middle sections form a straight line (see Fig. 8). Applying pressure so that the spring arms are fully extended, and maintaining this pressure, use a straight edge placed on top of middle section (Fig. 9). Slide straight edge down until it contacts floor. Measure from point "A" to floor. Record measurement on top side of bottom section "C." Using same procedure, measure bottom side "B" to floor. Record measurement on bottom side "D." Cut from "C" to "D" (Fig. 9).

It is possible for your landing area to be uneven due to a floor drain, unlevel floor, etc. Be sure to measure both sides of the bottom section using the above procedures. Bottom section should fit flush to the floor on both sides after cutting (see insert Fig. 8). This is the proper length to correspond to your ceiling height. Joints will be tight (see Fig. 10) at each section with weight on stair.



CAUTION A:

When you have finished installing your stair properly, stand on the second step of the bottom section to check that the stair is slanted from the ceiling to the floor and that all sections of the stair are in a completely straight line as shown (see Fig. 11). This

should occur whenever you are using your stair.

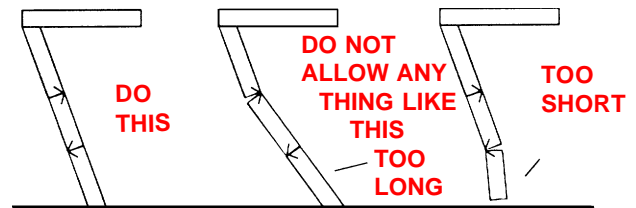


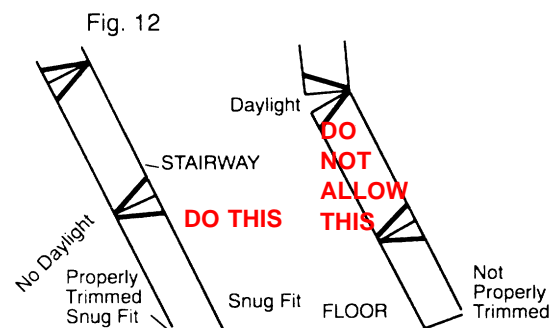
Fig. 11

CAUTION B:

The feet of the stairway that will rest upon the floor MUST ALWAYS be trimmed so that each part of the foot (or bottom section of the stair) will ALWAYS fit flush to the floor and rest firmly and snugly on the floor (see Fig. 12). DO NOT ALLOW the feet of the stairway to rest on any structure such as boxes, blocks, platforms, other stairway landings, etc., as such structures are not considered to be a safe, stable, or permanent base for the feet of the stair. Stairs are designed for specific ceiling to floor measurements and the correct length of stair MUST be used to fit these measurements where the stair is to be installed.

CAUTION C:

If stairway is cut off too short, corrections cannot be made. You must replace the bottom section immediately before the stairway is to be used. If stairway is installed before final floor covering is applied (vinyl flooring, carpet, etc.), then length adjustment must be made. Re-measure and re-cut for proper length as shown in STEP 6, "ADJUSTMENT OF STAIRWAY SECTIONS TO CEILING HEIGHT."



WARNING: Any failure to completely follow Cautions A, B, & C above could likely place undue stress on the components of the stairway and cause a break in the stairway, possibly causing bodily injury.