

Herringbone Installation Instructions

INTRODUCTION

This manual introduces the basic notices to know before you install herringbone engineered hardwood flooring. Please read the entire installation instructions carefully before proceeding with the installation.

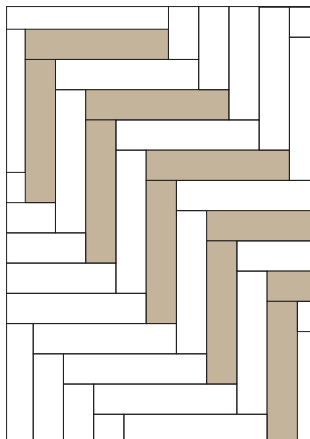
PRE-INSTALLATION WARRANTY

To ensure you are receiving the floor that you like and need, it is installer's duty, whether professional or DIY (do it yourself), to inspect all flooring before installation. If during inspection the installer or buyer feels the flooring is the wrong color, improperly manufactured, has finish problems, is off-grade or is the wrong gloss level, do NOT install the flooring. Please immediately contact the retailer from which the flooring was purchased. No claim will be accepted for flooring which is visually defective. If such flooring is installed, the installed flooring is deemed to be acceptable. Since wood is a product of nature, not plastic, standard industry practice allows for up to 5% of flooring shipped to have milling, handling, finish and/or grade defects. This warranty applies only to material that is in excess of this 5%.

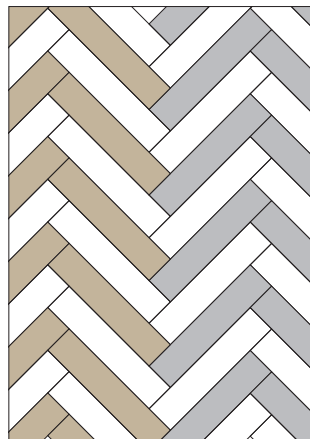
IMPORTANT

Herringbone Flooring must be installed using glue down and nailed down method only. Precision is the key when installing Herringbone hardwood flooring. Verify measurements and frequently check row alignment to ensure the pattern is laid accurately and evenly. Installing Herringbone flooring requires technical ability and suggested to be performed by qualified professional installers. Warranty coverage may be lost due to failure of installation and/or the use of improper materials or tools.

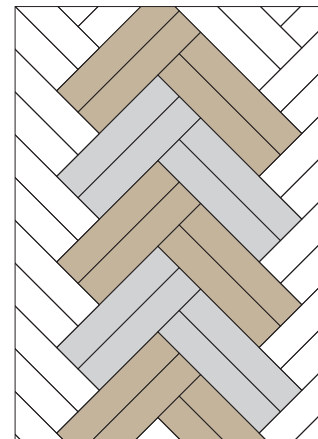
Square or Diagonal Herringbone



Single Herringbone



Double Herringbone



JOBSITE REQUIREMENTS

1) All work involving water or moisture should be complete before installing hardwood flooring.

For any new construction or remodeling project, hardwood flooring should be one of the last items installed. The jobsite should be monitored for consistent, normal room temperature of 68 deg. F (16 deg. C) in winter and 74 deg. F (22 deg. C) in summer, and relative humidity of 40~60% for at least one week before installation. This flooring should be kept in the shrink-wrapped boxes until immediately before installation. DO NOT remove from packaging and acclimate like solid hardwood floors! This can make the flooring very difficult to install. Tolerances between the tongue and groove are so exact that any expansion of the tongue due to acclimation might make the T&G fit too tight for easy installation. DO NOT install in areas subject to moisture, such as bathrooms or laundry rooms. Although this flooring can be glued directly to concrete, DO NOT use a concrete sealer nor install over one. See adhesive manufacturer's instructions and follow them to ensure problem free installation and access to their glue warranty. The concrete must be high compressive strength. All concrete sub-floors should be tested for moisture content using the calcium chloride test. In case of a claim, the only acceptable, accurate test method for sub-floor moisture content is the calcium chloride test.

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2) All sub-floors must be level and clean

The maximum tolerance is 3/16" per 10'. If necessary, flatten out any irregularities using #20 grit paper and fill any low spots with leveling compound recommended by adhesive manufacturer. Prepare slab according to adhesive manufacturer's recommendation.

3) Wood sub-floors must be

Dry and well secured, with a moisture content under 12%. The bottom side, if facing outside (like a crawl space) must be under 15% MC and a 6-mil Polyfilm placed over the dirt in the crawl space. Adequate ventilation must exist, with clearance of 18" to 24". Nailed down or screwed down every 6 inches along the joist to avoid squeaking.. Leave 1/8" gap around perimeter. Leveled by sanding or grinding down high spots and filling in low spots with an underlayment patch as necessary. Preferred subfloor: 3/4" CDX grade Plywood subfloor / underlayment (Exposure 1), 4' x 8' sheets or 3/4" OSB subfloor / underlayment grade, PS2 rated, sealed side down, with joist spacing of 19.2" on center or less.

4) Concrete sub-floor must be

Fully cured for at least 60 days. Installed properly with minimum 6-mil Polyfilm between concrete and ground.

Dry all year round. DO NOT install over concrete if you are not sure it will remain dry. Tested for moisture by using calcium chloride test. Follow adhesive manufacturer's suggestions.

5) Sheet vinyl must be

Well bonded and fully glued to the floor. Do not install over perimeter glued floors. This warranty does not apply if not fully and securely bonded to subfloor. DO NOT install over vinyl thicker than 1/8" or more than one layer of vinyl. In good condition. Clean and level, no debris. DO NOT install over vinyl tiles. Consult adhesive maker about suitability - adhesive is not warranted. Please follow adhesive maker's guidelines. Abrading of the vinyl surface might be necessary.

PREPARATION

Visually inspect the boards before installation. Once installed, the boards are considered accepted by the installer and the homeowner. Each pack of Herringbone contains six left planks and six right planks. A left-tongue plank and a right-tongue plank will be required to form each joint. The Herringbone direction should run in accordance with client preference. The pattern may look best with the points in the direction of the longest dimension of the room or toward a major focal point. Flatness of the subfloor is critical when dealing with a herringbone installation.

START INSTALLATION

Mark Center of the room and Working Lines

Typically herringbone looks best with the points running in the longest direction of the room or directed at a focal point. When that is determined, snap a line down the center of the room. Using trammel points and follows these guidelines to find and mark the center of the room and to define working lines. The overall board pattern is readily definable in herringbone layouts. The faces of a left board and a right board are mirror images of each other. Equal amounts of both are shipped with flooring orders.

- ◆ Measure the width of the place from top to bottom left of center (Line A in Figure 1).
- ◆ Find the center of Line A and mark it (Point A).
- ◆ Measure the width of the room from top to bottom right of center (Line B).
- ◆ Find the center of Line C and mark it (Point B).
- ◆ Adjust for any difference in center between Point A and Point B. For example, if Point A is one inch different than Point B, divide the difference by two to establish the new center point of Line A.
- ◆ Snap a line the length of the room from Point A through Point B. This is now Line E.
- ◆ Find the center point of Line E and mark it Point E.
- ◆ From Point E, use trammel point at fixed position on flat board to mark through Line E left of center to right of center, and mark it Point G and Point H.
- ◆ From Point G and H, use trammel point at a fixed position, on flat board to draw arc above and under Line E. Mark this Arc I and J.
- ◆ From Point G and H, use trammel point at a fixed position, on flat board to draw arc above and under Line E. Mark this Arc K and L.
- ◆ Where Arc I and Arc K intersect, mark it Point M.
- ◆ Where Arc J and Arc L intersect, mark it Point N.
- ◆ Snap a line from Point M through Point N, and mark it Line C.
- ◆ Where Line C intersects Line E is the center of the room. Line E and Line C also form a 90-degree angle.
- ◆ Check the 90-degree angle using the 3- 4- 5 method as shown in Figure 2.

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FIGURE (1)

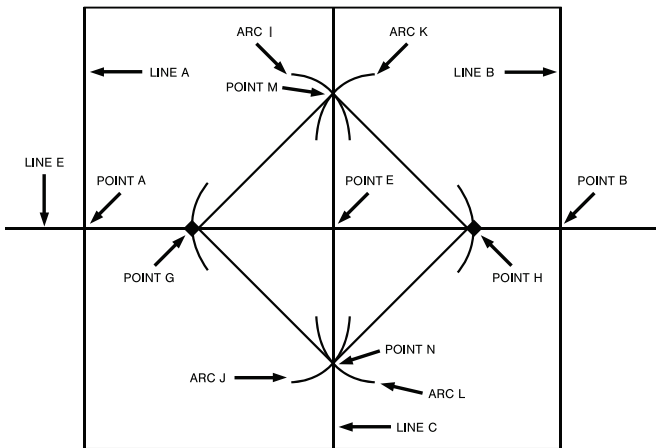
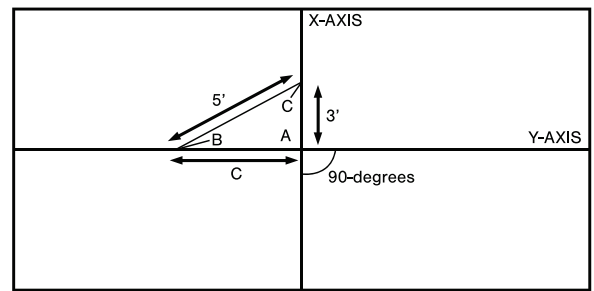


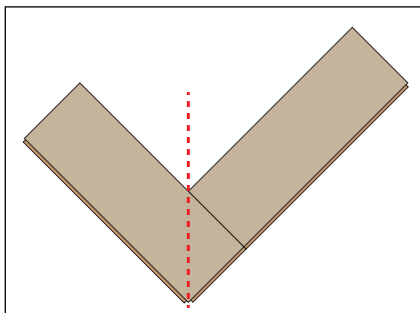
FIGURE (2)



LAYING OUT A HERRINGBONE PATTERN

- 1) Determine the diagonal dimension of the flooring.
- 2) Determine the herringbone pattern orientation in the room.
- 3) Measure for true center on the herringbone pattern to establish working lines as shown in Figure 3.
- 4) Measure the room for center and strike the main control, perpendicular and diagonal reference lines using the trammel point method described previously and shown below in Figures 4.
- 5) Divide the measurement by four and establish the working Lines on both sides of the control line.
- 6) Using the measurement derived above, strike two working lines on either side of the main control line as shown in Figures 4.
- 7) Measure the distance from two working lines. Control line should be half the distance and run parallel to two working lines. The centerline of the room and the center of the pattern is represented by control line..
- 8) Herringbone can be laid out parallel to the room or at a 45-degree angle to the room. Regardless of the direction, herringbone will require a control line and two working lines.

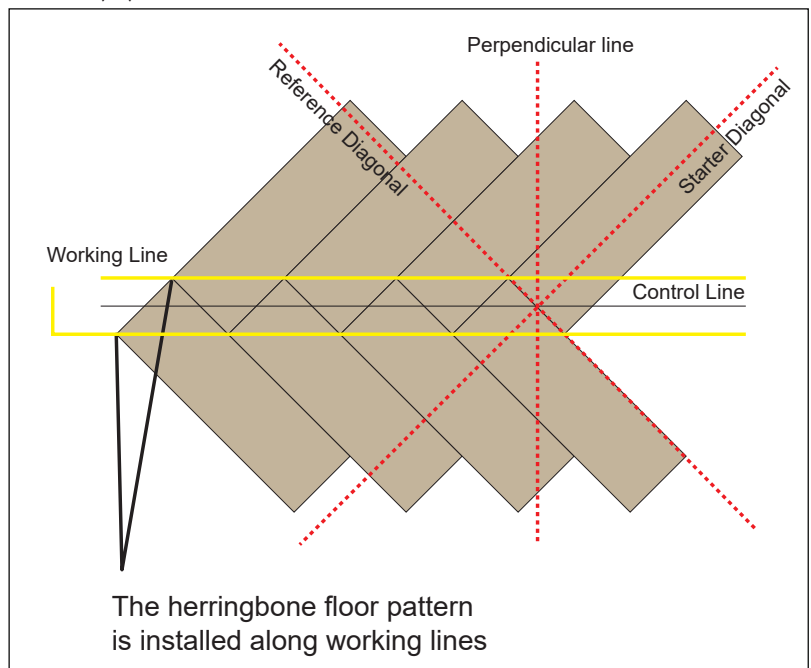
FIGURE (3)



To establish working lines, figure out what the distance will be between the corners of the slats when they are laid out.

Or, an alternate method is to use a framing square to mark 45-degree angles off each corner from the same end of a slat. Measure the distance from one corner to the intersection of the lines.

FIGURE (4)



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INSTALLATION A HERRINGBONE PATTERN

Once the working lines are established, the installation can begin. The starting point must include working lines and diagonal lines as described previously.

- ◆ For direct glue, do not spread adhesive over working lines.
- ◆ Start with the tongue toward the build direction.
- ◆ Install pattern one row at a time.
- ◆ Periodically check alignment.

To keep the installation square, cut a square piece of plywood the size of the herringbone pattern and anchor it at the intersection of the working lines and diagonal lines as shown in Figures 5 and 6 below.

FIGURE (5)

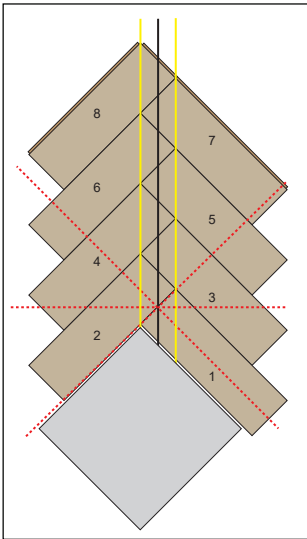
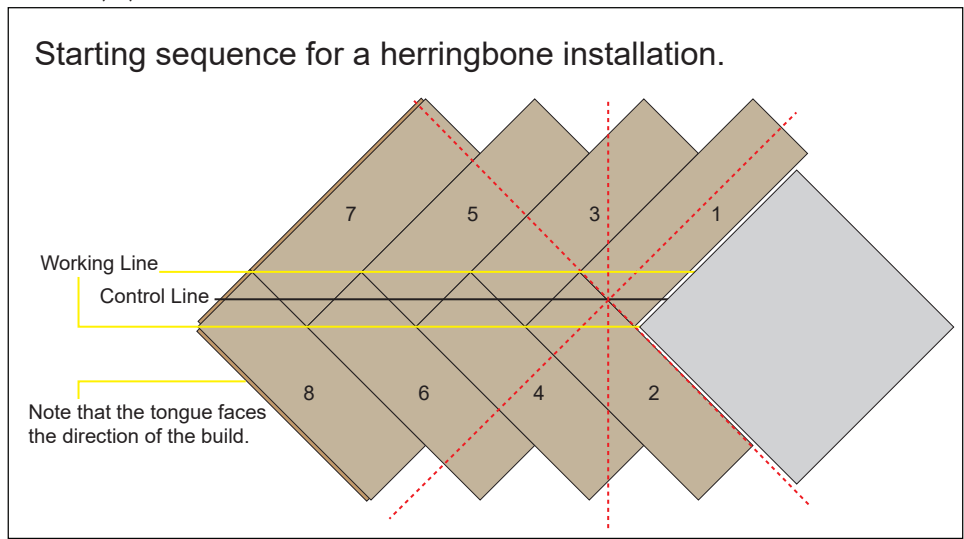


FIGURE (6)



TO CONTINUE THE PATTERN

- ◆ Dry lay eight boards.
- ◆ Lay a framing square from the points on the working line to the outermost point.
- ◆ Record measurement A, this becomes your working line for the next course.
- ◆ Once measurement A has been established the working lines can be repeated throughout the installation as shown below Figures.

FIGURE (7)

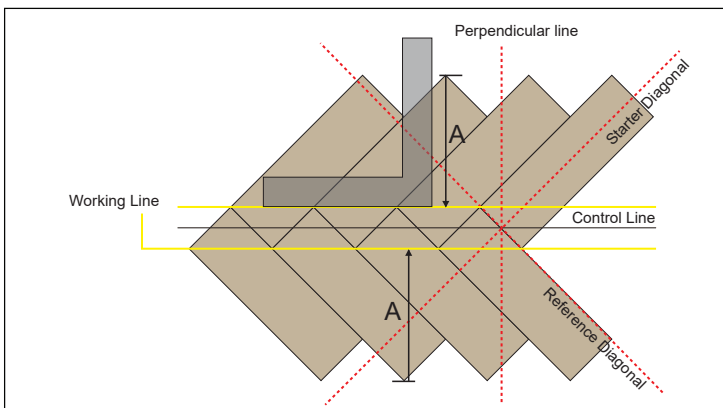
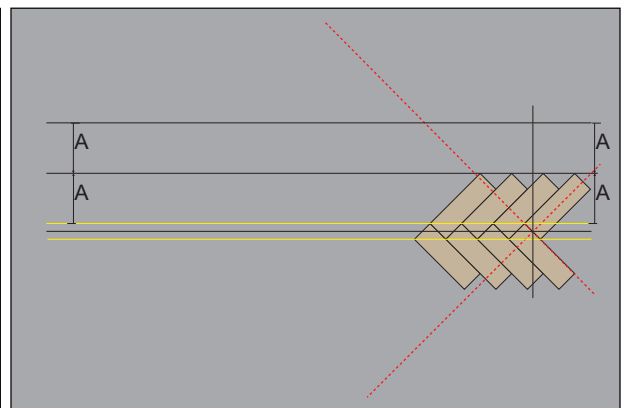


FIGURE (8)



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AFTER INSTALLATION

- ◆ If nailed, the newly installed floor is complete and can be walked on immediately.
- ◆ If glued, allow the newly installed floor to fully cure based on adhesive recommendations before allowing foot traffic or moving furniture on the floor.
- ◆ Remove any adhesive from the surface of the flooring (smudges, fingerprints, etc.) before it dries.
- ◆ Use wood filler or putty to correct minor flooring damage that might occur during installation.
- ◆ Retain excess planks for future repairs.

General Installation Instructions (see NWFA at www.nwfa.org for more details)

- ◆ Flooring should be laid at right angles to the floor joists and, if possible, in the direction of the longest dimension of the room.
- ◆ All products have a UV-cured factory finish. It is important to make sure that the nail gun face plate will not damage the surface finish.
- ◆ Keep face plate clean - scratching caused by abrasive material on nailer face are not warranted.
- ◆ End joints of plank : These should be staggered to achieve the best appearance in the finished floor. (minimum 6")
- ◆ Nailing schedule for flooring: Nail on 6" to 8" centers in the tongue, also nail within 2" of each end joint. The last few rows might require hand nailing and/or face nailing, countersinking, and filling with putty.

Important Notes

- ◆ Baseboards should be installed so that their lower edge is slightly above the level of the finished floor but not nailed into the floor.
- ◆ DO NOT install any product with visible defects.
- ◆ To avoid movement in hardwood floor, relative humidity should be maintained year round at 40%~60% Relative Humidity.