

INSTALLATION INSTRUCTIONS FOR INTERLOCKING SYSTEM

This engineered hardwood flooring installs quickly and easily using a patented interlocking joint system. This system allows the individual planks to be clicked together with no gluing required and allows for a much quicker installation than traditional glued floating floors. Please read the complete installation instructions before commencing installation.

This flooring must be installed with floating, glueless installation only. This flooring should NOT be installed using fasteners or adhesives of any kind. Use of adhesives or fasteners may result in damage to the floor and may void the product warranty.

This product may be installed:

- in rooms on, above or below ground level
- over plywood, OSB or concrete subfloors, or directly over existing hard surface flooring

This product may be installed over a radiant heating system if:

- the floor is NOT made with Jatoba or Maple hardwood. These wood species must not be used with radiant heating systems.

NOTE: SPECIAL INSTRUCTIONS FOR INSTALLATION OVER RADIANT HEAT APPEAR THROUGHOUT THIS BROCHURE. THESE INSTRUCTIONS APPLY ONLY TO STYLES OF FLOORING THAT ARE SPECIFICALLY APPROVED FOR USE OVER RADIANT HEAT AND MEET THE CONDITIONS GIVEN ABOVE. INSTALLATION OF NONAPPROVED PRODUCTS OR INSTALLATION OF APPROVED PRODUCTS IN A NONAPPROVED MANNER OVER RADIANT HEATING SYSTEMS WILL VOID THE PRODUCT WARRANTY.

This product should NOT be installed in bathrooms or laundry rooms.

INSTALLER'S / OWNER'S RESPONSIBILITY

As a natural product, wood contains inherent variations in color, grain and appearance and other visual imperfections. Engineered hardwood floors are manufactured in accordance with accepted industry standards which permit a defect tolerance not to exceed 5%. These defects may be the result of manufacturing or naturally occurring characteristics of the material. It is recommended that a 5% cutting or grading allowance be added to the total square footage when calculating the quantity of flooring required. It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all pieces of this flooring **before** installation. Any pieces of flooring that appear to contain a manufacturing defect **should not be installed**. Flooring that has been installed will be deemed to have been inspected and accepted by the installer and owner, even if the owner is not present at the time of installation. If defects are found, please contact your dealer. It is the sole responsibility of the flooring installer to ensure that the job site, subfloor and installation tools and materials meet or exceed all applicable industry standards. Seller accepts no responsibility for problems arising from incorrect or improper site preparation or installation procedures.

Check local building codes and bylaws before commencing installation to ensure compliance with local requirements. In the event of a discrepancy between local codes and manufacturer's guidelines, local codes should be followed.

Very important: hardwood floors are made from wood and wood-based products, and like any wood product they will react to changes in the environment. Please pay special attention to instructions site conditions, expansion space, and temperature and humidity levels.

SITE PREPARATION:

Installation in newly-constructed home

Installation of flooring is one of the last jobs of a new home construction. Prior to installing your floor, ensure that:

- the building is completely enclosed with all outside doors and windows in place and securable, including a door from an attached garage to house interior
- all concrete, masonry, plastering, drywall, texturing, painting and other wet work is complete and thoroughly cured and dry
- basements and crawlspaces are dry.

Crawlspaces must have no standing water; crawlspaces must also have a vapor barrier and adequate ventilation in accordance with local building codes.

- gutters and downspouts are in place, directing water away from the building
- HVAC systems are fully operational, enabling heat and humidity levels to be controlled and maintained throughout the home
- subfloor is properly prepared for installation
- if installing over radiant heat, ensure that the system is in full working order and has been fully tested and running for a minimum of two weeks prior to installation. The system should be turned off for 24 hours prior to installation in the install zone. *

Installation in existing home (Renovation)

Installation in an existing home must meet the same conditions as a new home. If part of a larger remodeling project, ensure that all wet work (painting, wallpapering, texturing, etc) is completed and thoroughly dry before commencing flooring installation. In addition:

- remove all furniture, artwork and other valuables from installation area
- remove baseboards and moldings
- undercut door casings (use a piece of the flooring as a depth gauge)
- remove existing flooring, if necessary (Carpets and underlay must be removed, but most styles of hardwood floors with locking joint systems can be installed directly over most other flooring types, including sheet or tile vinyl, parquet, etc. Ask your dealer if you're in doubt.)
- if installing over radiant heat, it is strongly recommended that a radiant heat technician be consulted prior to installation to ensure that the heating system can be operated effectively at temperatures acceptable to this flooring. The system should be turned off in the install zone for 24 hours prior to installation.*

Climate control

Conditions at the job site must be maintained with the temperature between 10-25°C and humidity at 45-55% before, during and after the installation. Flooring material should not be delivered to job site until these conditions have been met and maintained for one week prior to installation if installing over a wood subfloor, two weeks if installing over concrete. Following installation, these conditions should be maintained at all times to ensure proper performance of the floor.

When temperature and humidity have met the conditions detailed above, material may be delivered to the job site. If stacking the boxes, cross-stack to ensure good air flow between layers. Do not lay boxes directly on concrete subfloors; elevate them on blocks. Do not open the boxes; leave closed until ready to commence the installation, and then open only as needed.

Subfloor preparation

Like many home improvement projects, one of the most critical parts of installing hardwood flooring is proper preparation of the surface before installing the product. So take the time to do this step completely and thoroughly.

The installer and customer are jointly and solely responsible for ensuring that the subfloor is suitable for the flooring application and properly prepared for installation.

All subfloors must be clean, dry, structurally sound and flat to within 1/8" in 8' (or 3mm in 1m). Plywood subfloors must meet local building code requirements

(US: minimum 3/4" T&G plywood or 23/32" T&G OSB. Canada: minimum 5/8" T&G plywood or 3/4" T&G OSB). They must be secure to the joists, free of squeaks and protruding fasteners.

Moisture content

All subfloors must be tested for moisture content according to NWFA guidelines, and the moisture content of both subfloor and flooring must be within allowable limits before commencing installation. The moisture content of plywood or OSB subfloor must not exceed 12%. The moisture content of the flooring must be within 4 percentage points of the subfloor. Concrete subfloors must be fully cured (60 days) prior to installation. Moisture content of the slab should not exceed 3 lb / 1000 sq/ft / 24 hours.

If the flooring is being installed over a radiant heating system, moisture content of the slab should not exceed 2 lb / 1000 sq/ft / 24 hours. The system should be turned off in the installation zone for 24 hours before installation begins and left off for the duration of the installation period. *

Color racking

Real wood, cork and bamboo flooring contains natural variations in color and grain pattern. In order to prevent color "grouping" or repetitive grain patterns in the finished floor, it is recommended that boards be racked (visually sorted) before installation to create a satisfactory and pleasing color arrangement. Immediately prior to installation, unpack 1 or 2 cartons to get a sense of the range of color variation and arrange boards to achieve a satisfactory appearance. When racking, inspect all boards for visible manufacturing defects. Boards with manufacturing defects in excess of industry standards (5% of total quantity) may be replaced by the dealer under the terms of the product warranty. Once installed, boards will not be considered to have been accepted by the customer and will not be eligible for replacement. (See Warranty for details.)

Tradex® flooring board can be used in areas with underfloor heating systems, however, they must be the source of radiant heat. The flooring board cannot be in direct contact with the heat source.

Expansion space

Hardwood flooring will expand and contract with changes in ambient temperature and humidity. To allow for this, during installation leave a 3/8" (10mm) expansion space around the entire perimeter of the floor between the flooring and the walls. Also leave expansion space where the flooring will meet any vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets etc. NOTE: In climates with extreme variations in humidity (beyond the range of 45 to 55%), or in large installations (800+ feet), a larger expansion space may be required.

If installing the floor in a room measuring more than 30 ft (10m) by floorboard width, or more than 30 ft (10m) measured by board length, leave an expansion gap in the center of the space and cover it with a T-cap molding. The gap should be wide enough to allow 3/8" (10mm) expansion space on each side of the T-cap base. An expansion gap and T-cap should be used in any door threshold where the flooring is being carried through into an adjoining room.

Special Instructions for Installation over Radiant Heat*

If installing over radiant heat, place approved heat sensors on the subfloor in accordance with this Special Instructions.

For Installation over Radiant Heat, a minimum of 5 sensors must be placed for every 1000 square feet of flooring installed. Sensors and complete Special Instructions for Installation over Radiant Heat are available from your dealer.

Vapor Barrier & Underlay

If the flooring is being installed on a concrete sub-floor, or over a crawlspace, or below ground level, a vapor barrier must be installed. Using polyethylene sheeting, lay a single layer of sheeting over the entire subfloor. Allow an 8" overlap between seams, and seal the seams with duct tape along their entire length. Leave an excess of 4" of sheeting extending up the wall at all outer edges and hold in place with masking tape. (This excess will be trimmed away later.) Next, install an appropriate underlay over the entire subfloor surface. There are various types of underlay available. Consult your dealer to decide on a suitable choice for your situation. Install the underlay according to the manufacturer's instructions. NOTE: If using an underlay with integral vapor barrier, a separate vapor barrier does not need to be installed.

NOTE: Some hardwood floors have underlayment built in to the board construction. These floors do not require any additional underlay during installation; however they will still require the installation of a vapor barrier if conditions are as described below. If you are unsure of the underlay and vapor barrier requirements for your flooring installation, consult your dealer.

Starting Wall

For best results, hardwood flooring should be installed with the boards running parallel to incoming sunlight. When you have determined the direction that the flooring will run, decide which will be your starting wall - usually the longest wall adjacent to the wall with the windows. It is important that the flooring be installed in perfectly straight rows parallel to the starting wall. To verify that the starting wall itself is straight, measure out 12 inches from each end of the wall and snap a chalkline parallel to it. Measure the distance from the line to the wall every 2 or 3 feet. If it is consistent, the wall is straight. If there is a variance anywhere of more than a quarter inch, you may need to trim the edge of the first row of floor boards to match the shape of the wall.

INSTALLATION

Open 1 or 2 packages of flooring and inspect boards to ensure there are no manufacturing defects. Remember, boards that have been installed will be deemed to have been inspected and accepted by the customer. Select your starting wall and check for straightness as described above. Decide in which direction you want to install (the flooring can be installed left to right, or right to left). This manual will describe a left-to-right installation. Begin at the left hand end of the starting wall. Have a quantity of 3/8" (10mm) spacers handy. Begin with a full board. Saw off the tongue on both the long and short sides of the board, and place the board with the sawn butt end against the wall on the left, and the sawn long side facing the starting wall, but set out about two feet from the starting wall. Insert a spacer at the left end of the board and nudge the board against the wall.

Starting Wall

Board1	Board4	Board6
Board2	Board3	Board5

Fig 1: Correct order for installation of first boards

Take a shorter board to begin the second row, and angle in to position against board 1, fitting together the long side joint. Place a spacer at the left hand end of the second board. NOTE: Lay a heavy object like a full box of the flooring on the end of the first two boards to help keep them in position while you continue the installation.

Install board 3. Hold it at angle and fit the butt end joint into the end of board 2. Drop board 3 slightly to engage the butt joint, then lift board 2 & 3 together and move gently up and down while pressing forward until the long side joint of board 3 locks into board 1. NOTE: Ensure that all butt joints are staggered by a minimum of 6".

Take board 4 and saw off the tongue joint on the long side only. Hold it at angle and fit the butt end joint into the end of board 1. Drop board 4 slightly to engage the butt joint with board 1, then lift board 1 & 4 together and move gently up and down while pressing forward until the long side joint of board 4 locks into board 3. (Kneeling on board 3 while you do this will help hold everything in place.)

Install board 5 in the same fashion as board 3.

Install board 6 in the same fashion as board 4.

Continue until you have completed two full rows. At the end of the row, cut boards to fit, but remember to leave expansion space at the end of the row as well.

NOTE: Start rows with a variety of different lengths of boards. You can also use off cuts from previous row ends to begin new rows, as long as they are minimum 6" (15cm) in length. Remember to stagger butt joints by a minimum of 6" (15cm).

Continue installing in this manner until you have completed three or four full rows. Insert a series of expansion spacers along the starting wall and slide the assembled flooring against the starting wall.

If a board cannot be angled into place - if it is under a door jamb or other obstacle, for example - use the flat installation method.

Starting Wall

Board1	Board4	Board6
Board2	Board3	Board5

Fig 2: After 3 or 4 rows are complete, slide the entire assembly against the starting wall.

Lay the board flat on the floor and, using a special tapping block and hammer, gently tap along the edge until the joint is closed. Tap gently and repeatedly; do not use excessive force. To close a butt joint, use a series of light taps. To close a long side joint, tap gently and repeatedly along the entire length of the joint.

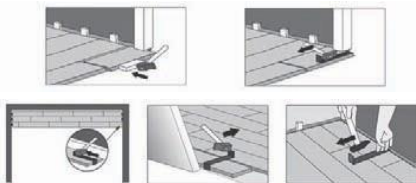


Fig 3: Use tapping block and pull bar to work under door frames and other obstacles.

Continue with the installation throughout the rest of the room. When you get to the final row, measure the distance to the far wall and 'rip' a row of boards to fit the gap - remember to leave 3/8" (10mm) expansion space against the far wall.

To finish the job, trim away the excess vapor barrier around the perimeter of the floor and remove the expansion spacers. Install moldings, trim and transitions. Moldings and transitions must be affixed either to the subfloor or to the wall - never to the flooring itself.

Before you move furniture onto the floor, take a moment to protect your new floor by putting felt pads on all furniture and accessories. For complete care and maintenance instructions, consult the product warranty. Please read thoroughly before you begin using hardwood floor.

If the flooring was installed over a radiant heating system, when you turn the system back on bring the temperature of the system up gradually, in 5° increments. Never allow the surface temperature of the floor to exceed 82°F (28°C) and avoid dramatic temperature changes; always adjust the system gradually in 5o increments. It is recommended that a dedicated quick recovery thermostat be installed to control the temperature of the radiant heating system to be accurately controlled.*