



## INSTALLATION AND MAINTENANCE OF SOLID PREFINISHED HARDWOOD FLOORING

Please read all instructions carefully before installation. Improper installation will void the warranty.

### HANDLING

Hardwood is a living substance which reacts to changes in relative humidity. Wood gains and loses moisture before and after installation, as surrounding conditions fluctuate. Wood expands in summer when the humidity level is high and contracts in winter when the humidity level is much lower. To minimize the expansion or contraction of your hardwood floor, it is recommended that the building be well ventilated and relative humidity level maintained between 30% and 50% at all times.

Wood is a natural product whose characteristics include minor color variations, grain variations, knots and mineral streaks which are not considered defects. Given that wood is a product of nature, the wood flooring industry accepts a 5% margin for error in the flooring purchased. This 5% margin includes both manufactured and natural imperfections. When estimating the flooring required for a job the purchaser must bear in mind the industry 5% margin as well as the loss due to cutting during the installation.

Before you begin, plastering, painting and cement work must be completely dry and the HVAC system must be installed and operating. Ensure the flooring is delivered to the job site only after all construction work is completely dry and relative humidity is between 30% and 50%. It is strongly recommended that the wood be left to acclimatize at a temperature between 65 and 75 degrees Fahrenheit (18-24 degrees Celsius) for a period of at least 48 hours at the required relative humidity level.

### PREPARATION

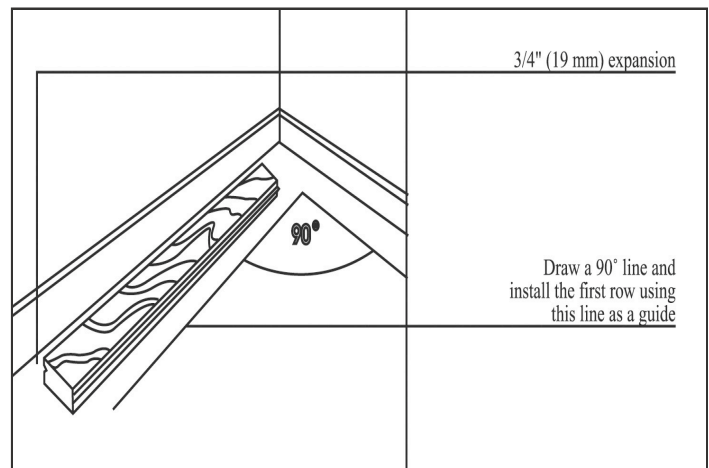
For new construction or renovations:

- Be sure to maintain occupancy-level temperature and humidity for at least five days. The house must be heated to a temperature between 65 and 75 degrees F (18-24 degrees C) and a relative humidity between 30% and 50%.
- The recommended subfloor is 3/4" (19 mm) plywood over 16" (41cm) or less joist spacing.
- Using a moisture meter, verify the subfloor (plywood) and the flooring moisture content (M.C.). For 2 1/4" width flooring the maximum difference between subfloor and flooring is 4% M.C. for 3 1/4" and wider flooring the maximum difference is 2% M.C. If the moisture content difference is too high, do not proceed with the installation. Increase heat, ventilation, dehumidification or humidification until the moisture content difference is less than the maximum listed above.
- Installers must measure, record and retain moisture readings of the room (RH%), flooring (M.C.%) and subfloor (M.C.%) at the time of installation. Failure to do so may void the warranty.

- Remove baseboards and door sills.
- Ensure plywood subfloor is flat; clean; dry; structurally sound; free of squeaks and protruding fasteners. The subfloor must be flat to within 1/4" (6.4mm) over 10' (3m) or 3/16" (4.8mm) over 6' (1.8m).
- Install a vapor barrier over the subfloor. The vapor barrier can be asphalt laminated paper or asphalt-saturated kraft paper or #15 or #30 felt.
- Using a handsaw, slit the bottom of the door frames 3/4" (2cm) in order to slide a hardwood plank beneath the door frame.

### TOOLS AND MATERIALS REQUIRED

- Hardwood floor nailer (with rubber mallet)
- 2" (5cm) 7d or 8d flooring nails
- Electric drill, bits and floor screws
- Tenon-saw, circular saw or handsaw
- Claw hammer and nail punch
- Measuring tape and pencil
- Chalk line
- Moisture meter



Before you begin, it is important to verify the working condition of the hardwood nailer to prevent damage to the planks. The compressor should be set to 75 P.S.I.

## STEP BY STEP INSTALLATION

- Install only on or above grade. A basement installation will void the warranty.
- Using the chalk line, draw a parallel line, 3/4" (19mm) larger than the plank width, from the wall. Example:  $2\ 1/4 + 3/4 = 3$ ". This chalk line should be at 90 degrees from the adjacent wall. It is very important to start the planks square.
- Inspect the flooring for defects/flaws prior to installation. Those with defects/flaws must be recut or discarded. Once the boards have been nailed down, they are deemed to have been accepted by the installer and/or the owner.
- Lay the planks out on the floor in the general pattern in which they will be installed. The straightest planks should be used for the first and second rows and the last two rows. Pull flooring planks alternating from at least 2-3 different boxes. This will help in providing a more even distribution of color and character. Please note that minor differences between color samples and the color of the installed floors are normal and are not considered to be defects.
- Lay the tongue edge of the plank on the guide line, leaving a 3/4" (19mm) expansion space between the groove edge and the starting wall for movement.
- The first two rows must be secured to the floor using screw shank flooring nails, minimum two nails per strip/plank. For the first row, drill 2 holes on the top surface of the planks at 1" (2.5cm) from the edges, then continue at approximately 10" (25.4cm) to 12" (30.4cm) apart. Next, secure using a claw hammer and a punch.
- Lay out 7 or 8 rows of flooring end to end in a staggered pattern with end joints at least 6" (15cm) apart. Find or cut pieces to fit within 1/2" (12.5mm) of the end wall. Watch your pattern for even distribution of long and short pieces and avoid clusters of short boards.
- Start the second row with a plank at least 6" (15.2cm) shorter or longer than the plank used in the first row; this will avoid aligning the joints. For the second row, drill a hole on the tongue edge at a 45 degree angle, repeat every 8" (20.3cm) to 10" (25.4cm). Secure using screw shank flooring nails.
- The subsequent rows must be installed in the same manner, but using a hardwood floor nailer. Try a few hammering tests on a piece of scrap wood to determine the pressure needed to properly drive a nail. Never nail closer than 2" (5 cm) from the end of the board/plank. Nail every 8" - 10" (20-25 cm) for 2 1/4" width flooring and every 6"- 8" (15-20 cm) for 3 1/4" and wider flooring. A minimum of 2 nails per plank is required regardless of flooring width.
- For best appearance, leave enough distance between joints by alternating with planks of different lengths to avoid aligning joints.
- The last four or five rows must be installed in the same manner as the first two rows. The use of the hardwood nailer is impossible since the last rows are too close to the wall.
- Leave 3/4" (19mm) expansion space between the last row and the adjacent wall.
- Conceal the nail holes using a special wax.
- Finish trim is nailed only to the wall and never to the planks.

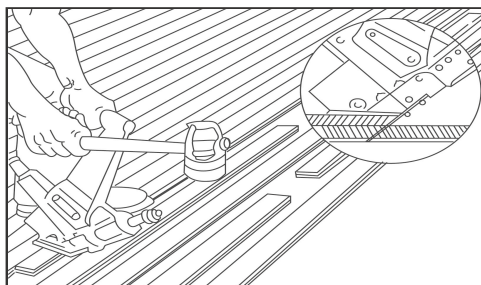
## MAINTENANCE (PREVENTION TIPS)

Although your prefinished hardwood floor offers high durability and easy maintenance, it is not indestructible. In order to maintain and preserve the beauty of your floor, the following are tips which should save you time and worry:

- Regularly sweep or vacuum the floor to prevent sand or abrasive dust from accumulating and scratching the finish.
- Use only products designed specifically for cleaning prefinished hardwood floors.
- Place doormats outside and rugs inside at every entrance to prevent sand or abrasive dust from accumulating.
- Place a mat in front of the dishwasher, the kitchen sink and other work areas to protect the floor from water, spills and fallen objects.
- Use protectors under all narrow casters or replace them with wider rubber casters. Avoid plastic casters.
- Protect the floor when moving heavy pieces of furniture. Carry them or place them on a rug, wrong side up, and slide the rug. Refrigerators should never be moved without adequate floor protection.
- Glue felt pads to the legs of furniture and chairs to avoid scratching the flooring.
- Avoid wearing high-heeled shoes on hardwood floors.
- Protect wood surfaces from sunlight and other sources of bright artificial light.
- The relative humidity level in your home must be maintained between 30% and 50% at all times. Problems related to humidity level variation can be minimized by proper ventilation, dehumidifying/humidifying or heating. The use of humidifier(s) and dehumidifier(s) will most likely be necessary to maintain the required relative humidity level.

## THINGS TO AVOID

- Do not pour any floor cleaner directly on the floor.
- Never allow any liquid to remain on the floor. Wipe up any liquids immediately.
- Never use a dripping mop which may leave excess water on the floor.
- Never use wax, oil-based detergent or any household cleaners. These may dull or damage the finish, leaving a greasy film, making the floor slippery and more difficult to clean.
- Do not use steam cleaners on your hardwood floor as steam can damage the wood.



Please refer to the warranty pamphlet available at your dealer or on the web at [www.seasonsflooring.com](http://www.seasonsflooring.com) for more information.