

INSTALLATION INSTRUCTION

ENGINEERED PREFINISHED HARDWOOD FLOORING

IMPORTANT INFORMATION BEFORE YOU BEGIN

It is **EXTREMELY IMPORTANT** that you read and understand this information completely prior to starting, since improper installation can void the warranties

BEFORE YOU START

- Plan your layout and determine the direction of the installation in the room. Planks installed parallel to windows accent the hardwood best.
- Blending of Cartons: To achieve a uniform installation appearance, preselect and set aside hardwood planks that blend best with all trims and moldings. Install these planks next to best blended moldings.
- Remove all wall mounted moldings such as base and quarter round.
- Be attentive to staggering the ends of the boards at least 4" - 6" (10-15 cm) when possible, in adjacent rows.
- The floating floor underlayment already has double-sided tape for ease of taping the precut overlapping seams. If a nonadhesive underlayment is used, tape all seams.
- Do not install in areas of high moisture such as bathrooms and powder rooms.
- Undercut door trim, jambs and casings to the thickness of the flooring plus any adhesives or underlayments you plan to use.
- All wood flooring expands and contracts with changes in humidity. It is essential to install the floor leaving adequate expansion space between ALL sides of the flooring and ALL vertical obstructions, including door trim, jambs, studs, plumbing, cabinets, etc. This space will be covered with base molding. Failure to provide adequate expansion space in any single location can cause damage to the entire floor.
- Minimum expansion space for 9/16" – 3/4" thick flooring is 5/8"

OWNER OR INSTALLER RESPONSIBILITY

Open the boxes and check the products to ensure the material meets the homeowner's expectations. If the material is not acceptable, contact your dealer immediately and arrange for a replacement.

Our warranties DO NOT cover materials that are installed with visible defects, variations from plank to plank, or variations from sample to plank. Accepting or rejecting the material must be done in full quantities only, not carton by carton or plank by plank. Requests for replacement, refund, or compensation made AFTER installation will NOT be honored. A defect/irregular tolerance of up to 5% is allowed according to industry standards.

It is the responsibility of the installer/owner to determine if the job site conditions are environmentally acceptable for wood floor installation. Floor and Decor declines any responsibility for wood floor failure resulting from/connected to job site environmental /construction damage or due to subfloor deficiencies after hardwood flooring has been installed

SITE REQUIREMENT

Engineered Hardwood Floors may be installed over any structurally sound subfloor that is flat, clean and dry on all grade levels. Do not install in full bathrooms or powder rooms. All subfloors should be:

- **CLEAN** – Subfloor must be clean and free of dirt, curing compounds, drywall mud, wax, paint, oil, sealers, adhesives and other debris. These may be removed mechanically.
- **FLAT** – Within 3/16" in 10' radius (5 mm in 3 m) and/or 1/8" in 6' radius (3 mm in 2 m). Sand high areas or joints. Fill low areas with a high compressive strength (min. 3,000 psi) Portland base compound.
- **DRY** – Select the appropriate moisture indicator test specifically designed for use with wood or concrete subfloors. Test and record moisture content results.
- **STRUCTURALLY SOUND** – Nail or screw any areas that are loose or squeak. Wood panels should exhibit an adequate fastening pattern, glued/screwed or nailed as that system requires, using an acceptable nailing pattern. Typical: 6" (15 cm) along bearing edges and 12" (31 cm) along intermediate supports. Flatten edge swell as necessary. Replace any water-damaged, swollen or delaminated subflooring or underlayment.

Building codes establish requirements for structural support components of flooring systems which may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Whenever possible, install flooring perpendicular to the floor joists for maximum stability.

NOTE: Avoid subfloors with excessive vertical movement or deflection because subfloor movement will telegraph through to the finished installation. Indications of excessive deflection are uneven finish wear, fastener release, squeaking, compromised or damaged locking systems, sectional contours such as bowing or dipping in floors and uneven flooring material. Nail or screw subfloor panels to secure boards with excessive

vertical movement or deflection. If the subfloor has excessive vertical movement (deflection) before installation of the flooring, it is likely it will do so after installation of the flooring is complete. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.

SUBFLOOR/ UNDERLAYMENT

The subfloor surface must be clean, free of any wax, dirt, paint, oil, grease, curing compounds, and other debris, and dry, flat, and structurally sound. The subfloor should be flat to within 3/16" in a 10- foot radius. Sand or grind high spots and fill low spots with an approved floor patch compound. The surface temperature of the subfloor, at the time of installation, should be at least 60°F but never exceed 80°F. LW FLOORING will not be responsible for replacing any product failure due to improper subfloor preparation or subfloor conditions.

CONCRETE SUBFLOOR: Test for excessive moisture. A reading of over 3 lbs. /1000 sq. ft. by Calcium Chloride test requires the application of a vapor retarder. **ALWAYS FOLLOW LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS FOR ACCEPTABLE VAPOR RETARDERS.** Ensure concrete has a minimum of 3000 PSI Compression. For installation over lightweight concrete (less than 3000 PSI), use a floating subfloor or flooring installation method. New concrete should be completely cured for at least 60 days. Installers should refer to the ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes.

WOOD SUBFLOOR: When using the floating application, cover wall to wall with an underlayment overlapped at seams (follow underlayment manufacturing instructions). It is recommended to tape overlapped edges with cellophane tape. Re-secure any loose areas to prevent subfloor squeaking. The moisture content (MC) of a wood subfloor should not exceed 11%. In general, the moisture content of hardwood flooring is between 6% and 9%, and the MC difference between the subfloor and flooring should not exceed 2% on a 3/4" or wider flooring.

INSTALLATION OVER RADIANT HEATED FLOOR: Subfloor should never exceed 80°F. Check with radiant heat manufacturer's suggested guidelines to limit the maximum water temperature inside heating pipes. Switch off heating unit one or two days before flooring installation and bring heat up slowly after installation. Note: At this time NOT all engineered wood flooring is WARRANTED for use over radiant heat.

TOOLS AND SUPPLIES

Broom, Terry Cloth Towels, Putty Knife, Coordinating transition strips or molding, Mineral Spirits Coordinating stain, Filler or putty, Chalk line, Hand or Electric Jam Saw, Power Circular saw or Miter Saw, Thick felt or rubber pads, wood / Concrete Moisture meter or both, Safety Glasses, 1/2 inch wood spacers,

Straight Edge, Table Saw, Tape measure, Carpenter's Square, pry Bar or Trim Puller, Utility Knife, Pencil , Pull Bar , 15 Lb. Saturated Felt , Floating Floor Glue (for Floating Installation), Uniclic Tapping Block, 3M Blue #2080EL Tape Plastic Scraper, Urethane Adhesive for (Glue Down and Nail/Staple + Glue Installation) Moisture Membrane, Hardwood Flooring Cleaner or Oil Soap and Oil Refresher

If tape is needed (we recommend avoiding its use if possible), use ONLY 3M Advanced Delicate Surfaces 2080EL Tape, and be sure to remove any tape within 20 minutes of application. Leaving tape on for more than 20 minutes or using the wrong type of tape will damage the finish. Never tape protective covering directly to the floor – only tape it to itself.

For Floating Installation: Use Performance Accessories Underlayments or products that meet or exceed these products' specifications. **The use of accessories other than Performance Accessories might cause damage to the Engineered Hardwood Flooring. Therefore, we recommend products specifically designed and tested for use with Engineered Hardwood Flooring.**

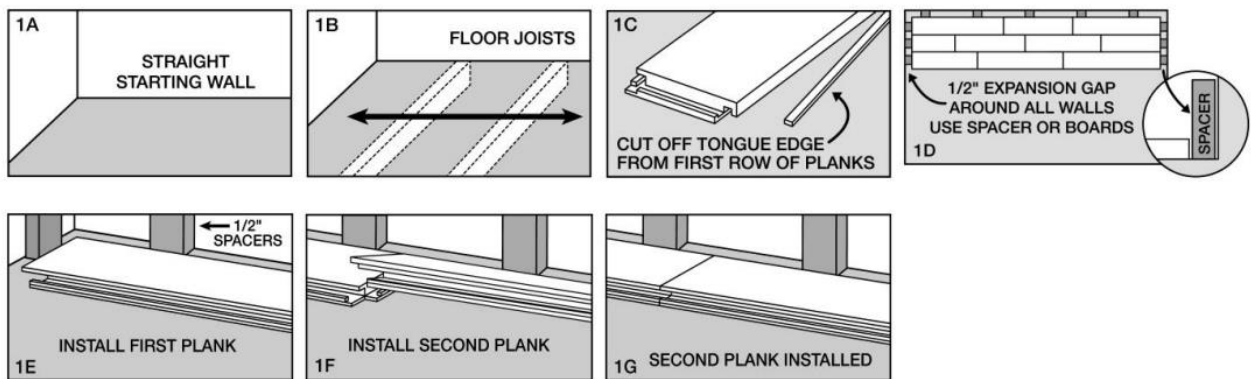
For Direct Glue Installation: It's important to check Adhesive Manufacture for correct Adhesive and Trowel according the subfloor and flooring products. When installing on concrete subfloors, trowels should be replaced every 3000 ft. Never use a water based adhesive to install Engineered Hardwood Flooring.

INSTALLATION PROCEDURE

FLOATING INSTALLATION INSTRUCTION

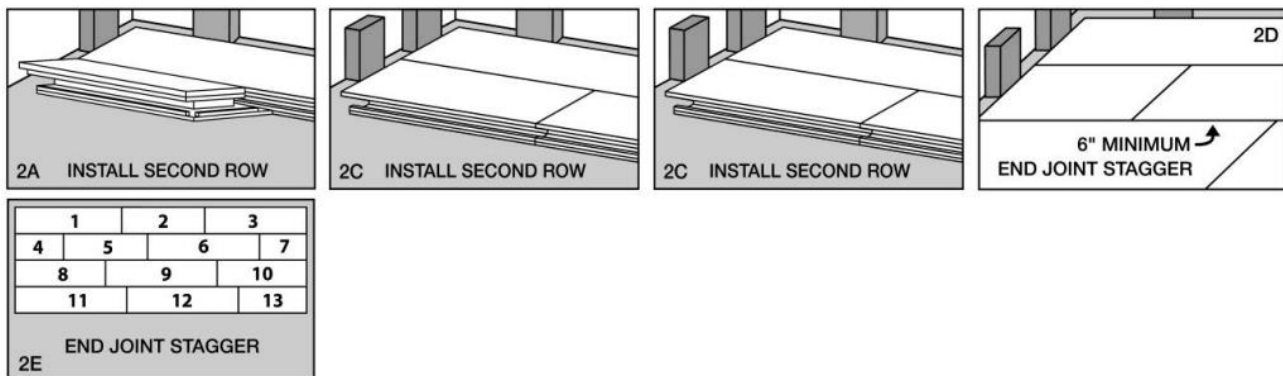
Step 1 – Install the First Row

- When possible, begin installation from the straightest wall. If possible, install the flooring perpendicular to the joists.
- Cut off the tongue from the first-row planks.
- Allow 1/2" expansion gap between plank and the walls. Use spacers or board.
- Place the first plank with the groove side facing away from the walls.
- Place the upper drop-lock end of the second plank on the lower drop-lock end of the first plank. The ends do not click lock. Maintain straight edge along the rows.
- Continue placing the succeeding planks to complete the row



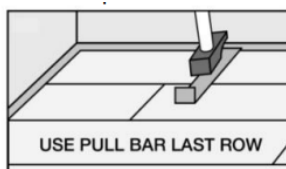
Step 2 – Install the Second and Remaining Rows

- Cut off a section the first plank lengthwise to ensure 6" joints staggering.
- Hold the plank with the tongue facing the previous row. Keep it at about 30° angle.
- Insert the tongue into the groove.
- Make sure the tongue are snugly and securely engaged in the groove by exerting a constant pressure in the direction of the groove.
- Maintain the pressure while pressing the plank flat to lock the edge joints.
- If there is a slight gap along the edge joints, it can be eliminated with the help of a tapping block and a plastic mallet. Use caution to prevent impact damage



Step 3 - Install the Last Row

- Use the pull bar to draw the last row to fit tightly to the previous row



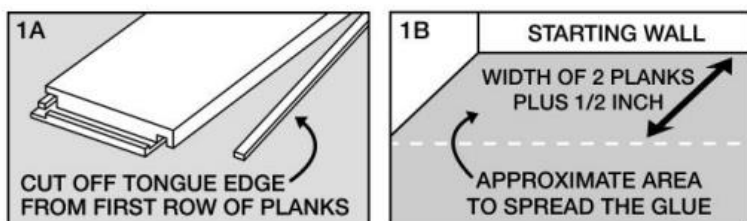
GLUE DOWN INSTALLATION INSTRUCTION

PLEASE NOTE: ANY GLUE WHICH GETS ONTO THE SURFACE OF THE FLOOR MUST BE REMOVED IMMEDIATELY WITH ADHESIVE REMOVER

The steps in glue down method are very similar to the floating installation method. The only difference is the application of the glue to the subfloor prior to installation. For more detail instruction, see the floating installation section above.

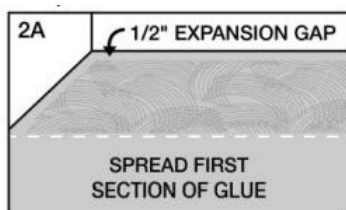
Step 1 – Set up

- Cut off the tongue from the long edge of the boards for the first rows.
- Ensure expansion gap by marking off a starting line 1/2" away from the starting wall. Mark off approximately 2 planks width area to spread glue.



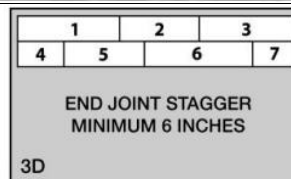
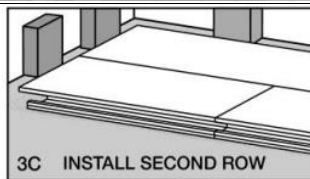
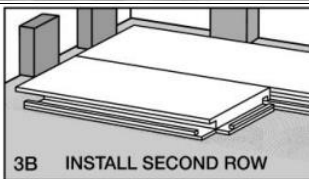
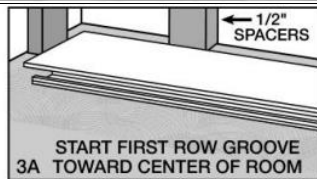
Step 2 – Spreading the glue

- Spread the glue from the starting line out in the direction of the center of the room, the width of two planks. Or spread only enough glue to install what can be set within 45 minutes (15 minutes of OPEN TIME and an additional 30 minutes for actual installation. Usually about two rows width coverage). Different manufacturer may require different open time and set time. Use spacers or boards to maintain expansion gap during installation.
- Repeat with the next two rows, etc.



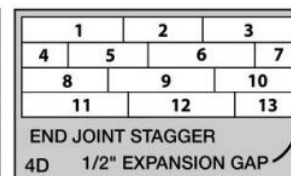
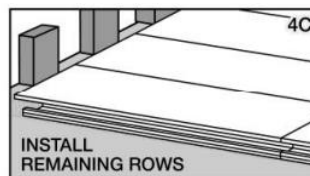
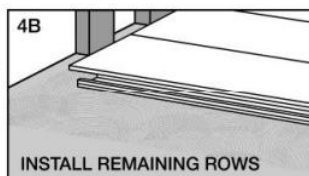
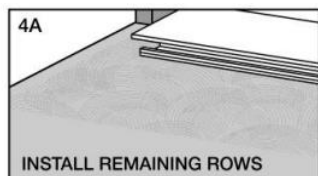
Step 3 – Install the first two rows

- Install the first row of starter planks.
- The last plank of the first row may have to be cut to size. Discard remainder because the tongue has been removed.
- Install the second row. Make sure there is a random staggering at the end joints of at least 6" apart.
- Be attentive to staggering the ends of the boards correctly in adjacent rows to avoid clustering end joints.
- Any glue that comes in contact with the face of the board should be removed immediately using adhesive remover formulated for the glue being used. Follow adhesive manufacturer's instruction on adhesive removal.



Step 4 – Install the remaining Rows

- Spread another section of glue. Never spread more that can be covered before the adhesive is set. If adhesive is set and will not transfer to the back of the plank, scrape off the adhesive and apply fresh adhesive.
- Continue to install the next rows. Make sure there is a random staggering at the end joints of at least 6" apart.
- Maintain 1/2" expansion gap between floor and the walls.
- Repeat the process for additional rows.
- Make sure that there is 100% contact between the wood floor and the adhesive.



Finishing Touches

- Clean the floor.
- Use matching putty where necessary
- Install or reinstall all wall trim pieces. Nail them through the wall, but not to the subfloor to avoid restricting the expansion gap.
- Install transition trim pieces. Nail them to the subfloor, not the flooring.
- At doorways, transitions should be used to protect the edges of the floor and to provide a decorative transition from one floor type to another.
- • If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic.

WALL MOLDING/ TRANSITION

Install the proper trim molding at the doorways to achieve the transition and along the walls to cover the edges of any gaps along the wall due to irregularity. Complete the job by using the wood filler that coordinates with the installed engineered flooring for minor corrections or areas where brad nails were used in the trim or the flooring. Clean with hardwood floor cleaners for floors coated with Urethane finish and clean the floor with Woca Oil Cleaning system for floors coated with UV Oil or Natural Oil.

Trim excess underlayment (floating installation only) and install or reinstall any transition pieces, reducer strips, T-moldings, thresholds, bases and/or quarter round moldings. Trims and moldings should be nailed into the wall, not the floor.

To prevent surface damage, avoid rolling heavy furniture and appliances on the floor. Use plywood, hardboard or appliance lifts if necessary. Use protective castors/castor cups or felt pads on the legs of furniture to prevent damage to the flooring. **If the floor is to be covered, the floor should be thoroughly cleaned prior to covering to prevent grit damage to the finish. Do not cover with plastic, red rosin, felt or wax paper or previously used cardboard. Instead use a breathable material such as clean, dry, plain uncoated cardboard or Kraft paper. Inks from printed cardboard could damage the hardwood floor.** A common reinforced builder's paper is a good choice. Any covering should be taped, using a low-adhesion tape to base or shoe moldings. Avoid taping to finished flooring. When taping paper or sheets together, tape them to each other, not to the floor. The floor must be completely covered to eliminate uneven ambering from exposure to UV light.

MAINTENANCE/ AFTER CARE

- Maintain room temperatures of 60°F - 80°F and a humidity range of 35% - 60% year-round
- NEVER use wax or oil-based cleaning products on a urethane finish. All-purpose cleaners are not recommended; they can dull your floor finish or leave a hazy residue
- Floor and Decor recommends Bona cleaning products, which are widely regarded as the best cleaning solution for urethane-finished flooring.
- Floor and Decor recommends Woca brand products for the maintenance of oil-finished floors.
- Sweep, vacuum, or dust mop regularly
- Use walk-off mats at entrance doors and in high-traffic areas
- Install proper felt protectors under the chair and furniture legs to prevent scratching.
- Close curtains or blinds to limit direct sun exposure and protect from possible fading
- Wipe up spills immediately. Never let water stand on the wood floor for any length of time
- **Do not use steam cleaners or a wet mop to clean wood floors.** "wet mop" is defined as "well submersed with fluid."

DISASSEMBLE/ FLOOR REPAIR

DISASSEMBLING ENGINEERED HARDWOOD FLOORING:

1. Remove Baseboards/Trim:

- Use a crowbar or pry bar to carefully remove baseboards or trim around the perimeter of the room.

- Protect the wall and trim by using a shim or piece of wood under the pry bar.
- 2. Lift the First Board:**
 - Begin at the edge of the room or a corner, where the boards may be easier to lift.
 - Use a flat pry bar to gently lift the first plank from the groove side, being careful not to damage the tongue or groove.
 - 3. Remove Subsequent Boards:**
 - Continue lifting the boards by sliding a pry bar underneath each subsequent plank.
 - If using glue, you may need to use a putty knife to carefully separate the glued edges.
 - 4. Remove Nails or Staples (if applicable):**
 - If the boards are stapled, use pliers or a staple remover to extract any fasteners.

FLOOR REPAIR INSTRUCTIONS:

- 1. Assess the Damage:**
 - Inspect the floor for scratches, dents, or boards that may need replacing.
- 2. Repair Minor Scratches and Dents:**
 - For small scratches, use a touch-up marker or wood filler to fill in the area.
 - For deeper dents, apply wood filler, smooth it out, and let it dry before sanding and finishing.
- 3. Replace Damaged Planks:**
 - For severely damaged planks, you may need to remove the affected board by following the disassembly steps.
 - Ensure the new board matches in size, finish, and texture before installation.
- 4. Reassemble the Floor:**
 - Once repairs are completed, re-install the planks by aligning the tongue and groove connections.
 - Use a tapping block and mallet to lock the planks into place, ensuring a snug fit.
- 5. Finishing Touches:**
 - Reinstall baseboards or trim.
 - Clean and polish the floor if necessary.

IMPORTANT HEALTH NOTICE FOR MINNESOTA RESIDENTS:

SOME OF THE BUILDING MATERIALS USED IN THIS HOME (OR THESE BUILDING MATERIALS) EMIT FORMALDEHYDE. EYE, NOSE, AND THROAT IRRITATION, HEADACHE, NAUSEA AND A VARIETY OF ASTHMA-LIKE SYMPTOMS, INCLUDING SHORTNESS OF BREATH, HAVE BEEN REPORTED AS A RESULT OF FORMALDEHYDE EXPOSURE. ELDERLY PERSONS AND YOUNG CHILDREN, AS WELL AS ANYONE WITH A HISTORY OF ASTHMA, ALLERGIES, OR LUNG PROBLEMS, MAY BE AT GREATER RISK. RESEARCH IS CONTINUING ON THE POSSIBLE LONG-TERM EFFECTS OF EXPOSURE TO FORMALDEHYDE.

REDUCED VENTILATION MAY ALLOW FORMALDEHYDE AND OTHER CONTAMINANTS TO ACCUMULATE IN THE INDOOR AIR. HIGH INDOOR TEMPERATURES AND HUMIDITY RAISE FORMALDEHYDE LEVELS. WHEN A HOME IS TO BE LOCATED IN AREAS SUBJECT TO EXTREME SUMMER TEMPERATURES, AN AIR-CONDITIONING SYSTEM CAN BE USED TO CONTROL INDOOR TEMPERATURE LEVELS. OTHER MEANS OF CONTROLLED MECHANICAL VENTILATION CAN BE USED TO REDUCE LEVELS OF FORMALDEHYDE AND OTHER INDOOR AIR CONTAMINANTS.

IF YOU HAVE ANY QUESTIONS REGARDING THE HEALTH EFFECTS OF FORMALDEHYDE, CONSULT YOUR DOCTOR OR LOCAL HEALTH DEPARTMENT.

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to www.P65Warnings.ca.gov/wood

COMPLIES WITH EPA TSCA Title VI and CARB ATCM PHASE 2 COMPLIANT for FORMALDEHYDE