

Engineered Hardwood Flooring Installation Instructions

Attention: Before starting installation, read the installation instructions thoroughly. All installation instructions must be followed for warranties to be effective. Before the delivery of the floor to the job site, pre-inspect the job site to ensure the condition is suitable for hardwood flooring installation.

Homeowner/installer responsibilities:

- Be present when your new floors arrive. Confirm that they are the correct order and color before starting the installation process. Failure to confirm would result in void of the warranty.
- Carefully inspect the hardwood flooring before installation in well lighted conditions to ensure proper identification of any problems. Inspect every plank for inconsistency with the finish, texture, milling, color, graining, tongue integrity, dimensions, and suitability of the flooring to its environment. If you are not satisfied with your product, do not proceed to install. Open boxes exceeding the first 10% or 100 ft² flooring, whichever is less, will not be eligible for return. Warranties do not cover materials with visible defects once installed. Installation represents acceptance. The job site/homeowner is responsible for choosing qualified installers for wood flooring installation.
- Material with visible defects can be returned for replacement through the dealer. The One Floor is not responsible for supplying material for plank replacements unless the defective boards exceed 5% of the total floor installed. Material that is subjectively determined as defective or unacceptable but falls within The One Floor's grading standards will not be replaced.
- Prior to installation of any flooring, the homeowner/installer must ensure the job site and sub-floor conditions meet the requirements specified in the installation instructions.
- Hardwood flooring installation should be one of the last items completed on the construction project. Damages to the flooring due to other construction after the installation of flooring is not covered under the warranty.
- Verify there are enough materials to complete the job with a minimum of 5% extra for future plank replacements.
- Outside doors and windows must be in place prior to the delivery of flooring. Roofing and the exterior shell of the structure and other "wet" work, such as the concrete, must be complete and dry as well. The wall coverings should be in place and all painting finished and dried. Room temperature and humidity should be consistent for at least two weeks prior to installation. IMPORTANT: HVAC must be running with a room temperature of between 60°F to 80°F and relative humidity of between 35% and 55%.

Acclimation & Climate Control

Wood flooring is a hygroscopic material. Its structural property will change depending on the moisture, temperature, and humidity level of its surrounding environment. Acclimation is the process in which the wood flooring moisture content level reach equilibrium with the surrounding environment (moisture level between 35%-55% and air temperature ranging 60°F-80°F). Acclimation allows the wood to properly adjust to the normal living conditions within the job site. Normal environmental conditions must be met to ensure optimal performance of wood flooring. The installation environment is to be maintained: relative humidity between 35%- 55% and air temperature between 60°F-80°F for the duration of the installation and the lifetime of the floor. Installing wood flooring before it has been properly acclimated will greatly increase the

chances of checking, shrinkage, and/or squeaking. Failure to comply with the acclimation requirements will result in void of all warranty.

- All exterior doors, windows, drywall, painting, venting, heating, and cooling systems must be properly installed prior to the delivery of the wood flooring to the job site. Do not store wood in exterior sheds or garages that are not temperature controlled.
- **Always acclimate the wood flooring in the temperature and moisture content level-controlled room where the wood flooring will be installed in.**
- Never cover wood flooring before, during, or after installation with any type of plastic or tar paper. Only use breathable materials like construction paper to protect a wood floor. **Remove plastic packing** from each box of flooring without opening the cardboard box. Leave the flooring to acclimate inside the cardboard box.
- Store flooring in a dry place. Provide at least a 4-inch space (using a dry pallet) under boxes of wood flooring for proper air movement during the acclimation period.
- Keep the stacked boxes/loose planks of wood flooring at least 3-inches apart to allow air circulation.
- To ensure proper acclimation, we ask the homeowner/installer to acclimate the wood flooring in the room the flooring will be installed in for **at least 14 days**.
- Avoid loading wood flooring into the job site/home on raining days. The acclimation length may be extended if the boxes of wood flooring get wet.
- Propane heaters are not an approved source of heat and can give off extreme amounts of moisture. The manufacturer warranty will be void if the job site's heating and cooling system were not fully operational at least two weeks prior to installation.
- In regions with extreme climates, a humidifier and/or dehumidifier will be necessary to avoid excessive expansion or contraction of the wood flooring. Failure to properly maintain the environment will void the warranty.

Effects of Environmental Change and the Role of HVAC

The relative humidity level in your job site/home is affected by seasonal changes. When the relative humidity is low (below 35%), wood shrinks and splits, resulting thin cracks on the surface and in between planks. When the relative humidity is high (above 55%), wood swells and expands giving the floor a crowned look. Too much moisture inside your job site/home can promote the growth of mold, mildew, fungi, bacteria, and viruses that can impact your health. It is very important to maintain proper humidity levels and air temperature in the job site. Humidity control is usually provided by HVAC systems. In some scenarios, a whole house dehumidifier can help the HVAC system operate more efficiently. The amount of humidity needed for the average household in dry climate regions cannot be satisfied by using portable humidifiers.

In-Floor Radiant Heating Systems (NOT COVERED UNDER WARRANTY)

Engineered wood flooring CANNOT be installed over in-floor radiant heat unless it is clearly marked as approved for in-floor radiant heat. It is the homeowner/installer's responsibility to check with the manufacturer for a current list of approved wood products for in-floor radiant heat installations. Each type of engineered wood flooring has unique installation requirements. It is the homeowner/installer's responsibility to verify the approved installation methods for each type of flooring. The in-floor radiant heat systems CANNOT be installed directly below the wood flooring. It must be embedded in the concrete, gypcrete, or installed under the wood sub-floor. This will ensure the radiant heat is evenly distributed across the substrate before the heat comes into contact with the wood flooring. When installing flooring planks longer than 6 ft (72 in) over radiant heat, it is recommended to glue all end seams together on that row to reduce end joint gapping.

Operate the in-floor radiant heat systems for at least 14 days prior to the installation of wood flooring to ensure all systems are in good running condition. **IMPORTANT:** At no time during the life of the floor should the boiler exceed 110°F, or the substrate surface temperature ever exceed 80°F. Surface temperature stickers or heat sensors must be installed under the wood floor directly over the in-floor radiant heat source for every 300 ft² installed.

A humidifier system must be installed and properly functioning at least 14 days prior to, during, and after the installation for the life of the floor. Relative humidity should be maintained at between 35%-55%. The humidistat control system helps prevent checking or shrinkage caused by the loss of moisture from the in-floor radiant heating system.

IMPORTANT: Radiant Heat is **NOT** covered under the warranty. The One Floor is not responsible for any damages to the wood flooring as a result of installation of in-floor radiant heat systems. The purchaser/homeowner is fully responsible for all damages to the wood flooring caused by radiant heat.

Warning

California Prop 65

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.

CA HEALTH AND SAFETY CODE 14808-60-7: Wear appropriate NIOSH designated dust mask to reduce risk of dust inhalation. Wear proper eye protection and avoid prolonged contact with eyes and skin. In the event of eye irritation, flush with water for 15 minutes and seek medical attention!

Source: [www.https://www.p65warnings.ca.gov/products/wood-dust](https://www.p65warnings.ca.gov/products/wood-dust)

Pre-Installation Inspection

1. **Visual inspection:** Carefully and closely examine the job site condition.
2. **Climate control:** Check if the job site climate condition meets the requirement: relative humidity level between 35%-55% and air temperature ranging 60-80°F). Turn on the HVAC system if possible. If not possible, a temporary system that provides proper humidity and temperature controls must be installed and remain operational until a permanent climate control is installed and turned on.
3. **Install Floor Last:** Hardwood flooring should be the last item to be installed in the job site/home. All concrete, masonry, texturing, painting and others should be completed prior to the installation of wood flooring. Performing these tasks after the installation of the flooring may increase moisture in the job site. Even when the flooring is covered by paper or other protective layers, moisture can pull into or be trapped under the surface of materials used to cover the floor. Built-in cabinets and built-in furniture should be installed before installation the floor to prevent damage to the flooring. All damage to the flooring as a result of other projects inside the job site after the installation of flooring is not covered by the warranty.
4. **Exterior inspection:** Inspect the exterior of the house for proper drainage to ensure proper environmental control. It is the homeowner/installer's responsibility to check and make sure that all actions are taken prior to the installation of the flooring to remove moisture from the exterior and prevent it from coming in contact with the foundation.
5. **Basement Moisture and Humidity Control:** Basement should be free of all moisture and be weather tight. Humidity control of the basement (drains at basement windows) must be in place to help control mold and prevent damage to the structure of flooring. The relative humidity of basements should not be more than 10% higher than the upper

floors. Examine the basement walls for cracks and excessive moisture content. See the moisture testing below for more information.

6. **Crawl Space Ventilation:** Crawl space floor area must be covered 100% by an approved vapor retarder (see below for detail). Size of available vents should equal to 1.5% of the square footage within the crawl space. Relative humidity should be consistent with interior of job site/home. It may be necessary to install air-circulating device between the upper conditioned area of job site/home and crawl space. Uncontrolled humidity and moisture in crawl space will lead to mold and damage to the structure. In high humidity regions, we recommend contacting a professional contractors specialized in dehumidifier systems to keep crawl space humidity within proper conditions.

Moisture Testing

One of leading causes of wood flooring damage is moisture level inconsistencies and/or rapid changes in temperatures on the job site. Wood flooring is a nature product that performs best in job site/home with relative humidity levels between 35%-55% and temperatures ranging between 60-80°F in the air. The humidity level and temperature of the air will also affect the performance life of other wood furniture, cabinets, doors, and trim work.

Due to woods unique grain structure and density, some moisture meters will not properly test all types of wood flooring. It is essential to use approved moisture meters that have been correctly calibrated for your specific wood flooring and environment. We recommend you contact a professional flooring installer to verify that your moisture meter is approved for testing for the most accurate results. Follow the moisture meter manufacturer's instructions on how to properly calibrate and use the meter. It is highly recommended to document and keep all moisture testing as photographs.

How to test moisture content of engineered wood flooring and wood sub-floors: Using an approved pin or electromagnetic (pin-less) moisture meter, test both the wood sub-floor and wood flooring for moisture content labels in percentages. Moisture content of sub-floor should not vary more than 2% from the top of the sub-floor to the bottom. The wood flooring and the sub-floor should test within the same ranges, under 10%. It is recommended to test multiple boards inside every box of wood flooring and every 100 ft² of the wood sub-floor. Pay extra attention to exterior walls and areas near plumbing fixtures. Never install wood flooring on any wood sub-floor that tests above 12% when using an approved moisture meter. Engineered wood flooring moisture content must be dried down to 3% of sub-floor moisture content before installation process begins. If the moisture difference between the sub-floor and wood flooring is above 3%, check for possible sources of moisture from things like leaking plumbing fixtures or improper venting from the crawl space.

How to test concrete substrates for moisture content: There are two widely accepted methods: use a Tramex Concrete Meter or a Calcium Chloride test. Check and follow the manufacturer's instruction manual on how to properly use these methods. Concrete substrates must cure for at least 60 days before installation of flooring. When using the Tramex Concrete moisture meter, the maximum acceptable moisture content is 4.5 using the upper scale. When using the Calcium Chloride test, the maximum acceptable moisture content of 3 lbs per 1000 ft² for a 24-hour period. A Calcium Chloride test must be completed and documented for every 250 ft² being covered with wood flooring.

How to test gypcrete substrates for moisture content: Gypcrete substrates must cure for at least 60 days before installation of flooring. A relative humidity test is the only acceptable way to

measure moisture content. The ASTM F2170-11 standard must be followed. Visit RHSPEC.com for more information.

If the concrete or gypcrete substrates test above the maximum moisture content or relative humidity level, please contact a flooring professional or visit NWFA.com for methods on how to reduce or manage the moisture in the substrate.

Approved Substrates for Engineered Wood Flooring: 3000 PSI Concrete/Gypcrete, OSB (oriented strand board)/Chip Boards, ANSI-rated Plywood, and Plank Sub-Flooring 3-1/4" and under.

- Both cured concrete (minimum 3000 PSI) or cured gypcrete (over 2500 PSI) must be free of any type of top coating, plaster, non-approved sealers, paints, or curing compounds.
- Acceptable minimum wood sub-floor thickness is determined by the distance between the joists/trusses.
 - 16" o/c or less: minimum acceptable thickness is 5/8" CDX plywood or nominal 3/4", OSB 40 lb. Minimum density, T&G, with a TECO or APA certification stamp.
 - 16" o/c up to 19.2" o/c: minimum acceptable thickness is 3/4" CDX plywood or nominal 3/4", OSB 40 lb. Minimum density, T&G, with a TECO or APA certification stamp.
 - 19.2" o/c up to 24" o/c: minimum acceptable thickness is 7/8" CDX plywood or nominal 1", OSB 40 lb. Minimum density, T&G, with a TECO or APA certification stamp.
- Wood plank sub-flooring under 3-1/4" wide must be properly installed with vertical deflection under 1/4" over a 6' span. DO NOT GLUE ANY WOOD FLOORING DOWN OVER A WOOD PLANK SUB-FLOOR. If the wood planking has lippage or any type of crowning or buckling, it must be sanded smooth and CANNOT have nail clips or rises exceeding 3/16" over 10' or 1/8" over 6'. If there is and it was not corrected prior to the installation of wood flooring, the warranty will be void.
- IMPORTANT: never fasten or glue wood flooring down over particle board sub-floors. Either remove the particle board or install new 5/8" thick plywood over the particle board. Install the new wood floor over the new plywood. The only install method can be used directly over particle board is the engineered floating method when there are no current or future moisture concerns from below or above.
- Note: Some adhesive systems have primers and adhesive that are suitable for use over gypcrete or lightweight concrete, and may have different PSI compressive strength requirements. Adhesive manufacturer is fully responsible for the performance of their systems over gypcrete or lightweight concrete.

General Substrate Conditions for Engineered Wood Flooring

- Engineered wood flooring can be installed over wood sub-floors that are ON or ABOVE GRADE and over concrete or gypcrete substrates that are ON, ABOVE, or BELOW GRADE, as long as the installation method is approved.
- Do not fasten wood flooring directly over an ACQ grade plywood sub-floor due to the corrosive properties. When preparing sub-floor construction for nail/staple down installations, verify the plywood or OSB sub-floor is exterior grade with a TECO or APA certification stamp.
- Wood sub-floors must not exceed 1/4" deflection over a 6' span when stepped on. If exceeded, correct the condition before the installation begins. The floor will not stiffen up after the wood flooring is installed.
- DO NOT nail/staple or glue down new wood flooring over any existing wood plank flooring wider than 3-1/4". If wider, properly fasten a new 5/8" thick plywood layer over

the top, then install the wood floor directly over the new plywood. If the existing wood plank flooring meets the requirement, ensure that the existing floor is sound and firmly attached to sub floor. Install material at a 90-degree right angle or 45-degrees (across grain) of existing hardwood floor.

- For panel type sub-flooring, examine for loose panels and re-nail or screw down loose panels securely. Nails and screws must be countersunk.
- Fix all squeaks coming from the wood sub-floor prior to installation using wood screws, minimum of 2-1/2" lengths, fastened every 6" through the wood sub-floor into the joist. Squeaks in the sub-floor will not go away after the installation, and the homeowner/installer will be fully responsible.
- All substrates must be flat and free of dust, loose particles, paint, drywall compound, and structurally sound. Dust and dirt can affect the adhesive or vapor barrier's ability to adhere to the slab. If leveling of the substrate is needed, use only cement-based leveling compounds. Be sure to follow the leveling compound manufacturer's installation instructions.
- Ensure the sub-floor is free of delamination or damaged areas, repair as needed.
- Sand and/or flatten the substrate to within 3/16" dip or rise over 10' radius or 1/8" dip or rise over 6' radius for all nailed/stapled, floated, and glued down installations. NOTE: Hand held angle grinders with special cupped diamond grinding wheels and vacuum attachments can be rented or purchased from your local rental or home building center. This system is suitable to any type of substrate. Use precautions when sanding any surface and look out for any health hazards.

Approved Vapor Retarders for Engineered Wood Flooring

Floated engineered wood floors: two systems available

1. Underlayment padding referred to as 2-in-1 or the upgraded 3-in-1 underlayment with moisture retarder built in. Follow underlayment installation instruction.
2. 6 MIL plastic stretched over the entire substrate with seams overlapped a minimum of 6-inches and all seams fully taped with moisture proof tape, then a basic underlayment pad is installed over the top of the plastic.

Glued down engineered wood floors: Use an approved, troweled-on, sealant or tw-part epoxy coating that is compatible with the adhesive. Some brands of wood adhesive have a moisture retarder built in, such as Taylor MS-Plus Advance adhesive. Follow the sealant and adhesive manufacturer application instructions. All moisture protection and bond warranties come solely from the adhesive and sealant manufacturers.

Nailed down wood floors: two systems available.

1. Use AQUA BAR "B" underlayment paper (easiest method). This system is the easiest to install and will not mark up the walls. Follow AQUA BAR "B" installation instructions.
2. 15-30 lbs roofing felt. Some restrictions may apply with this system. Be sure to follow all local building codes. Tape all seams with moisture proof tape.

Approved Installation Methods for Engineered Hardwood Flooring

Most engineered wood floors can be installed using one of the three installation methods: nail/staple, glue down, or float. Make sure to select the method most suitable for your job site/home condition.

- Below grade (concrete slab below ground level such as the basement): Glue with vapor abatement system following adhesive manufacturers instructions for below grade installation; or float following underlayment pad manufacturer's instructions for below grade installation. No solid floor installation in basements.

- Above grade wood sub-floor: any of the three methods.
- Wood sub floor with crawl space/basement: any of the three methods.
- On/above-grade concrete: Glue or float only.
- Above grade lightweight concrete/gypcrete: Float or glue-follow adhesive manufacturers installation instructions for lightweight concrete/gypcrete installations

Prior to the installation of the wood floor, cabinets and built-in appliances should be installed as they CANNOT be installed on top of the floor, especially the floating wood floor. If there's any repair needed due to installation of cabinets and other built-in appliances on top of wood floor, The One Floor will not be responsible for any damage or costs to remove and replace any appliances.

General Installation Instruction

1. Remove all shoe and base molding to ensure adequate expansion space. Use scrap piece of flooring to measure height of cut for all door jambs and moldings. Be sure to reserve enough space for adhesive or underlayment thickness.
2. Visually inspect every board for any defects prior to installation. Confirm that the homeowner has viewed the product and approves proceeding with the installation.
3. Always work from multiple boxes at the same time and blend the boards thoroughly. This is especially important when working with product with different production dates. This allows better blend of color.
4. Before beginning installation, open multiple boxes and examine how the boards blend with the moldings. Set aside the ones best blend to the transition moldings.
5. It is suggested to start the installation along an exterior and/or the longest straight wall. If starting in the center of room, make sure to establish a straight line.
6. Snap a chalk line parallel with the wall that is equal to the width of the wood flooring plus enough room for the expansion gap. Use blocks of the flooring to maintain the proper expansion gap (1/2") around all vertical objects coming off the floor, including the walls. May need to use adjustable spacers to maintain a straight line.
7. Each box of flooring contains equal or random length boards depending on the product. Use these boards or make some random cuts to establish a random pattern. Maintain a minimum distance/stagger between end joints of 6-8".

IMPORTANT: Do not use rubber mallets or hammers on the finished edge of the floors. Do not kick the floor into place. These actions may damage the finished edge and scratch the floor.

Nail/Staple Down Method

IMPORTANT: Never nail/staple down, or fasten flooring over the top of any underlayment pad, cushion, or foam. Follow general installation instruction 1-7 and instructions listed below.

8. Choose underlayment: AQUABAR "B" or 15-30 lbs roofing felt (See Approved Vapor Retarder section).
9. Starting at the wall, trim groove off the back of the boards being used for the starting row. Keeping the tongue facing out, nail/staple down the first row while using the snapped line as a guide to keep the next rows straight. Face nail the back edge of the board with 18-gauge nails, then blind nail into the pocket above the tongue. Face nailing the boards as far back as possible can help hide the face nailing under the base and quarter round/base shoe.
10. Nail/staple spacing needs to be 4" to 6" apart and within 2" of board ends. Ensure the bottom of the plank is firmly seated on the sub floor. Make sure the plank is snug to the sub-floor. Any gap in between could result in squeaking. NOTE: Nailing too close to end could fracture the corner of the plank.

11. Cut the last row and snug into place using a pull tool. Face nail the remaining rows with 18-gauge nails.

Additional instructions:

- Use approved fasteners to nail/staple down engineered wood floors up to 9/16" thick:
 - Staples: ¼" crown, 18 Gauge, minimum 1-1/2" long
 - Cleats: "T" or "L", 18 Gauge, minimum 1-1/2" long
- The fastener spacing needs to be 1-1/2" from the ends of the plank and every 3"-4" along the tongue. Fasten a minimum of two fasteners into every plank shorter than 10.
- Adjust the head of fastener tool and/or air pressure to make sure the fastener is not set too deep or too high in the tongue. This could prevent loose, squeaky floor. Careful not to break the tongue. Replace the plank if the tongue is broken during installation.
- If the groove side exhibits excessive up/down movement, it will be necessary to use the glue down method. If the floor is installed using the nail/staple method, the warranty may be void.
- Once the wood floor installation is complete, remove all spacers or blocks that were used to maintain the expansion gap.
- Clean the nailer/stapler base plate regularly to ensure it does not damage the finish of the flooring.

Glue Down Method

Use only urethane-based adhesives approved for wood flooring/substrate (Taylor MS-Plus, Bostik's Best, Dri-Tac 7600, Parabond 4002, and Sika Bond T55). Never use any water-based adhesives. All adhesive bond warranties come solely from the adhesive manufacturer. Follow all adhesive guidelines, trowel sizes, and suggestions. Make sure the adhesive is adhered to 100% of the bottom of the wood flooring. Check regularly to make sure the trowels notches are clean and not worn out. Follow general installation instruction 1-7 and instructions listed below.

12. Remove tongue on very first row to be installed and lead with the groove.
13. Measure the equivalent of four to five rows, mark sub-floor at both ends and snap a chalk line. Spread adhesive to chalk line. Allow the first rows to dry for a minimum of one hour before installing successive rows. This helps ensure a solid and straight platform to install up against for the next rows. Repeat this process on all subsequent rows throughout the installation.
14. Once starter rows are installed, strap across the grain. Use the flat side of the trowel to flatten any adhesive at edge of the leading board. Once the boards are firmly seated, proceed to work across the floor in a straight line.
15. Once completed, cut the last row and snug into place using a pull tool. Face nail with 18-gauge nails at edge of last row.
16. Lastly, install moldings using adhesive. It may be needed to place weight on edges to ensure molding level is flush with flooring.

Additional instructions:

- When gluing over concrete or gypcrete substrates, remove any concrete sealers, paint, dust, or drywall compound. Follow adhesive manufacturer guidelines on alkalinity levels.
- During the installation, roll the new floor with a soft 100-150 lbs roller while the adhesive is still active and roll again within 45-60 minutes.
- Use only green/blue 3M/Scotch tape model# 2080, or a flooring clamp system to hold the engineered wood floor together while the adhesive is drying for a minimum of one hour. Remove tape within 6 hours to avoid damage to the finish. Allow the adhesive to dry 24 hours before heavy traffic begins. Never apply duct tape or packing tape directly to the surface of the wood finish. These tapes can damage the finish.

- When the wood floor installation is completed, remove all spacers or blocks that were used to maintain the expansion gap.
- Clean all adhesive residues off the wood floor before it dries. Removing dried adhesive from the surface of the wood floor may damage the finish. Be sure to follow the manufacturer guidelines on adhesive removers.

Floating (T&G Glue) Method

For click together floated engineered flooring, transition strips/breaks are required every 30 feet (lengthwise), every 28 feet (widthwise), and at each doorway. During the installation, make sure all seams are fully engaged before moving on to the next row. This may require additional measures beyond the initial click of the locking system. Follow general installation instruction 1-7 and instructions listed below.

IMPORTANT: Never install cabinets, islands, or other built-in appliances on top of a floated floor. Never use nails to secure anything to the floor. The floor must be allowed to float.

8. Choose underlayment: See Approved Vapor Retarder section.
9. Cut off tongue on very first row to be installed and lead with the groove.
10. Place a bead of white PVA/D3 rated tongue and groove glue (SKU# 72 PWA) to glue upper inside portion of the grooves. Always apply glue to the groove, not the tongue. To avoid plank separation do not over apply glue. Pull boards apart at random intervals to check there is a minimum 98% glue coverage on the tongue. Stagger seams 12"-15".
11. Keep the planks tight with a green/blue 3M/Scotch tape model #2080. Clean all glue residue off the wood floor before it dries. Allow the first rows to dry for at least one hour before installing rows against.
12. When tapping boards together with a block, start from the lead end and work back towards where the two joints are coming together. Tapping in the opposite way tightens the end-joint. Check the leading edge to make sure floor is on a straight line.
13. Trim last row to fit and pull into place with pull tool. Tape last several rows in place to prevent unexpected movement.
14. Fasten transition lip/over moldings to the sub-floor only. Do not attach lip/over moldings directly to the edge of the floor.
15. Once the wood floor installation is completed, remove all spacers or blocks used to maintain the expansion gap.

Additional instructions:

- Remove any excess glue throughout the installation process with warm soapy water on a clean terry cloth rag, and dry immediately. DO NOT let glue dry on the surface of the wood flooring. Removing dried glue may damage the wood's finish.
- Use only green/blue 3M/Scotch tape model #2080 to hold the wood flooring together while the glue is drying. Remove tape within 6 hours to avoid damage to the finish. Never apply duct tape or packing tape directly to the surface of the finish.
- Allow the glue to dry 24 hours before heavy traffic begins.