

TRANQUILITY™

Luxury Vinyl Plank (LVP) Flooring INSTALLATION GUIDE

CAUTION: Do not sand any surfaces containing lead based paints, finishes, or asbestos. For buildings built in 1978 and earlier, contact the EPA for lead based testing prior to any sanding (www.epa.gov).

CAUTION: To obtain installation assistance or product information concerning this flooring, contact the store of original purchase, or call the Lumber Liquidators customer care at 800-366-4204.

IMPORTANT: Save time & avoid frustration! Read these entire instructions before starting your installation! Prior to installing a single board, you and or your installer must determine that the job-site environment and the sub-surfaces meet the requirements set forth in this installation guide. Please refer to our website at www.lumberliquidators.com for updated installation instructions.

RECOMMENDED USE:

- TRANQUILITY Luxury Vinyl Plank (LVP) Flooring can be installed on all grade levels of the home that are temperature controlled.
- This product is recommended for residential or light commercial* interior use only. This floor can be installed on, below or above grade level. *See the product's limited warranty for details.
- This is a floor covering, it is not designed to be used as a structural material.

OWNER/INSTALLER RESPONSIBILITY

- Please inspect the flooring panels carefully for any possible damage or defects before installation. Do not install damaged or defective panels! Warranty claims will not be accepted regarding visual defects after flooring has been installed.
- If any planks are unacceptable due to color, finish, milling or any other reason, it is your responsibility to determine to use them, hide them in areas like closets, trim off the imperfection, or not install them at all.
- Plan on being present during installation to ensure that all required procedures are completed and planks with visible defects are not installed.
- If quality issues are suspected before or during installation, immediately contact the store where your floor was purchased or call Customer Care at 1-800-366-4204.

JOB SITE CONDITIONS

- The building should be enclosed with all doors and windows in place.
- Crawlspaces, basements, and garages should be dry and well ventilated.
- Crawlspaces must be a minimum 18" from the bottom of the floor joist to the ground. Crawlspaces must have a minimum 6 mil thick polyethylene film covering the entire crawlspace ground.
- All gutters should be in place and functioning properly. Yard grading should be sloped to run water away from the home foundation.
- HVAC systems should be operational and have temperature maintained between 65°F to 80°F for at least a week prior to flooring being delivered.
- To avoid damages to the floor's finish, all construction activity should be completed before installing this floor.

ACCLIMATION/STORAGE

- Temperature can affect PVC products. For best product performance, ensure the temperature in the home is between 65° and 80° before, during, and after installation, and for the life of the flooring.
- Lay boxes flat on the subfloor, no more than six cartons high at all times. Improper storage can result in bowing.
- Acclimate the flooring in the boxes for at least 48hrs. Keep away from direct sunlight, heat sources, and in-floor vents during acclimation.

GENERAL INFORMATION:

- It is recommended that you add a 5% waste factor for cutting waste above the actual square footage of the areas to be installed. Diagonal installations may require 10% extra material. It is also recommended you retain an extra box for future repairs if needed.
- Expansion Space: A minimum 1/2" expansion space must be placed between the flooring and all vertical obstructions (walls, door jams, pipes, staircases, posts, fixtures, built-ins, etc.).
- For floating installations: this flooring cannot be glued, nailed, screwed or otherwise fixed or attached (e.g. door stopper, closet track) to the subfloor in any way. It must have room to expand and contract freely. Windows and sliding glass doors should have proper cover to prevent intense sunlight from over-heating the flooring resulting in excessive expansion or shock to the floor. T-Moldings are required for large spaces or connected areas greater than 30 feet in any one direction when being installed as a floating floor, typically these "breaks" are placed at doorways or hallway entrances.
- A glue down installation method works best in areas with direct sunlight exposure to prevent curling and seam peaking. Expansion breaks for 30-foot areas are not required when gluing the flooring planks to the subfloor. (See Glue-Down recommendations on next page)
- Do not install under fixed cabinets or islands of any type when installed as a floating floor. Cabinets may be installed on top of this product only when it is glued down directly to the substrate, double stick (w/pad) applications are not recommended.
- Do not install in wet areas like patios and showers, or exterior areas. Do not install in boats, or other moving vehicles.
- If the room has electric baseboard heaters, leave a minimum of 1/2" between the surface of the flooring and the bottom of the heaters, allowing heat to circulate properly.
- Gapping and buckling can develop if expansion space, t-moldings, and temperature requirements are not followed.
- Tranquility is waterproof. However, in the event of a flood or significant water leaks, the planks should be removed to allow the subfloor to thoroughly dry before reinstalling (floating applications).

Caution: Moisture intrusions from concrete hydrostatic pressure, flooding, or plumbing leaks, along with high levels of alkalinity, can affect floor coverings over time. Moisture can also be trapped below the flooring and create mildew or mold.

The installer – not the manufacturer – is responsible for making sure that the site conditions are appropriate prior to the installation of flooring materials.

When moving furniture and heavy equipment on the flooring, use luan board, plywood, or other similar covering to protect the floor.

SUBFLOORS NEED TO BE: CLEAN – FLAT – DRY.

- All substrates must be structurally sound and free from movement or deflection.
- Important: Subfloors must be flat within 1/8" over 6', and 3/16" over a 10' span.
- Differences in floor flatness must either be sanded or ground down, or built-up with a suitable floor leveling material.
- Improper substrate or flatness can result in gaps, squeaks and poor plank fitting during assembly.

WOOD SUBFLOOR:

- Screw down loose or squeaky sections of plywood and replace areas that are damaged.
- Wood subfloors should be moisture tested with an appropriate wood moisture meter, and the results must be no more than 12% on average.

Test the subfloor moisture in several locations. Higher readings indicate a moisture concern that needs to be corrected before installation can begin.

- Allow wood subfloors to breathe! Never apply sheet plastic over wood subfloors.
- Wood subfloors must be constructed according to local building codes, be structurally sound and deflection free.
- 30 lb. roofing felt or vinyl tile can be used to build up (in layers) low areas on wood subfloors.

CONCRETE SUBFLOOR:

- New concrete subflooring should be cured for at least 60 days prior to installation.
- Grind down high spots and fill in low spots with an appropriate Portland cement based patch (allow to cure fully).

A moisture test is strongly recommended. Acceptable tests are ASTM F1869 Calcium Chloride test, or ASTM F2170 using in situ probes, to test the humidity of the slab. Slabs with moisture levels exceeding 3lbs per 1000sqft using the Calcium Chloride test, or over 75% when using the RH test, must have an appropriate moisture barrier installed between the concrete and flooring.

- Moisture protection for floating floor installations should be a minimum 6mil virgin polyethylene. Seams should be OVERLAPPED 8" and taped using a waterproof adhesive tape (duct tape). This vapor barrier should be installed up the wall at least 1".
- Slabs on or below grade must be free of hydrostatic pressure.

EXISTING FLOORS

- This flooring can be floated over existing clean, flat, dry, and well bonded/secured tile flooring, vinyl flooring, and hardwood flooring that have a "wood" subfloor underneath. *Any existing wood flooring glued to concrete substrates must be removed prior to installation of this flooring.
- Do not install this flooring over cushioned vinyl flooring, or any existing floating floor products.
- All carpeting and padding must be removed before laying LVP flooring.
- Existing sheet vinyl, VCT, LVT, ceramic tile, and terrazzo installed must meet flatness requirements.

This flooring can only be glued down to existing flooring that is properly prepped and approved by the adhesive manufacturer.

RADIANT HEAT

- This flooring is suitable for installation over Hydronic Radiant heating systems provided that the heating element is not in direct contact with the product.
- New heating systems should be running two weeks before installation to remove residual moisture from the subfloor.
- Lower temperature of heating system to 60°F for one week prior to installation.
- Gradually increase temperature in increments of 10° per day to avoid "shock" to resilient flooring.
- Surface temperature should not exceed or sustain 80°F

If gluing down be sure that adhesives are compatible with radiant heat systems, and follow adhesive manufacture recommendations for proper application over radiant heat systems. Because of the wide array of systems on the market each with its own features and applications it is recommended that the user consult with the heating provider for best practices and installation methods.

It is the user's responsibility to confirm the suitability of any selected or existing radiant-heating system that will be used in conjunction with this flooring.

Rugs placed over radiant heated flooring can increase the surface temperature in that area by 3°- 5°F degrees.

UNDERLAYMENT

- Underlayment padding is not required for the installation of this product. However, our Tranquility underlayments may be used to help smooth out minor subfloor imperfections, while offering insulating and sound control properties. Tranquility Ultra and Tranquility LVT underlayments are recommended for this product. Please call Tech support @ 1-800-366-4204 for any additional underlayment recommendations.

INSTALLATION TOOLS

- Tape Measure, Metal Framing Square, Utility Knife, Chalk line, Safety Glasses, broom/vacuum, 1/2" Spacers. **IMPORTANT:** Never use a tapping block or tools designed for other types of laminate floors. Using these tools can damage your floor!

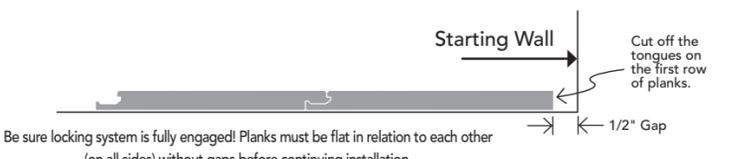
GETTING STARTED:

- Determine which direction the planks will be installed.
- Generally, plank flooring is run parallel with the longest straight exterior wall.
- Contractors: It is advisable to determine the installation direction (North/South vs East/West) with the end user.
- IMPORTANT:** Carefully measure the room to determine the width of the first and last row of planks. To avoid too-narrow pieces at the finish wall, measure the distance between the starting wall and the finish wall, then divide this number by the width of the flooring planks. If the width of the last row of planks will be less than 2-1/2" excluding the tongue, cut and adjust the width of first row of planks accordingly. **NOTE:** If a narrow strip is unavoidable for the last row, the final two rows can be glued together at the seams to avoid board separation. Apply a thin-even bead of flexible (Gel Control) super glue or hot-melt glue (for plastics)
- To achieve the best look, mix planks, and pull from several boxes at a time when installing.
- When your starting wall has raised baseboards, or drywall that is more than 1/2" off the floor, you may need to temporarily secure the spacers to the wall with painters tape to prevent movement of starting row.
- Always install in good lighting so visual defects can clearly be seen.
- If the starting wall is irregular, scribe or trace the contour of the wall on the first row of planks. Lift the planks and cut along scribe mark. Reinstall first row of planks.

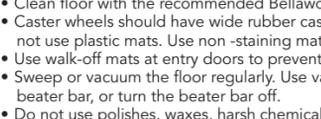
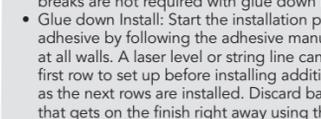
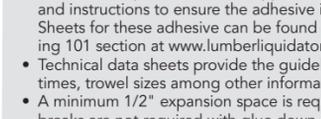
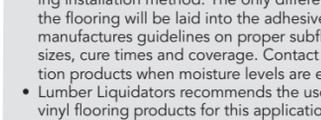
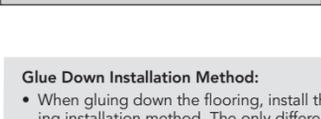
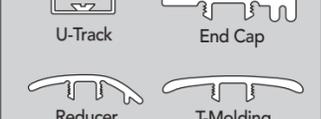
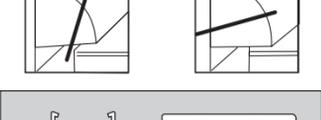
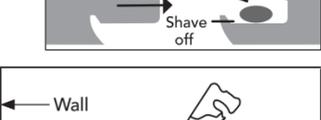
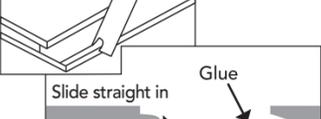
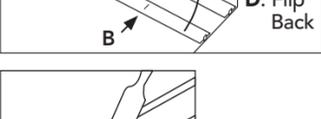
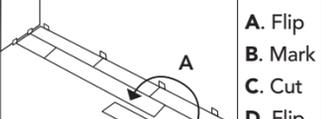
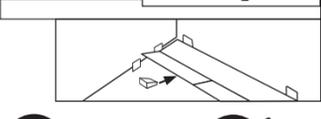
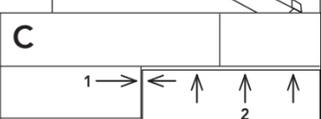
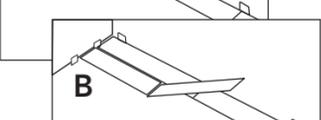
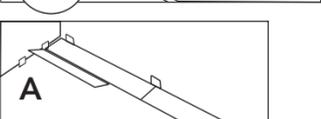
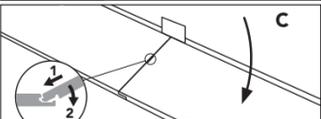
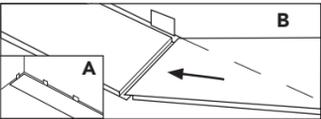
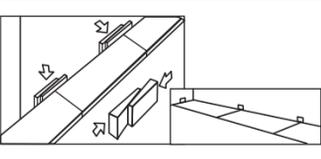
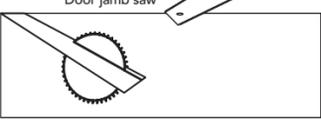
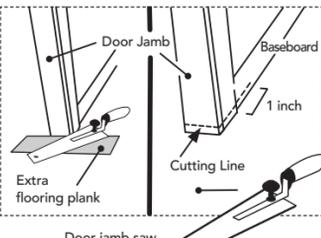
How to Assemble Tongue and Groove Planks



- Insert tongue into groove at approx. 20° angle.
- Push down while applying forward pressure to fully engage planks.



NEVER USE A TAPPING BLOCK OR TOOLS DESIGNED FOR OTHER TYPES OF LAMINATE FLOORS. USING THESE TOOLS MAY DAMAGE YOUR FLOOR AND WILL VOID YOUR WARRANTY



- Remove any existing quarter round, shoe moldings and doorway transitions. Check that all doors will swing open with adequate clearance over the new flooring. Undercut all door casings and door jams with a jamb saw to allow the flooring planks to slide under the doorjamb. If a baseboard is still in place, extend the undercut about 1" beyond the door frame casing. If no baseboard, just cut the door casing. **Important:** Do not cut metal door frames! To find the height to cut the jamb, lay a scrap piece of flooring (and underlayment, if used) next to the doorframe, and lay the saw blade on top.

- Preparation of planks for the starting row when needed: To avoid too-narrow of plank pieces at the finish wall; using a saw, Rip-down the first row of planks along the length that will butt against the starting wall. (See details on previous page under **GETTING STARTED**)

- Use wedged spacers for a 1/2" expansion gap between the flooring and the walls. Place spacers adjacent to each plank joint, and at the beginning and end of each row as well. Be sure to keep a 1/2" gap around other fixed objects as well, including upright pipes or other fixtures.

4. THE FIRST ROW

- Lay the first plank in the left-hand corner, up against the spacers, with the groove side facing toward you.
- Install the second plank in the first row by inserting the short side tongue at a slight angle into the first planks short side groove.
- Press the second plank down flat. Ensure that the end-to-end joint is firm. Continue installing the first row in the same way. **NOTE:** See step 7 for how to cut the last plank in row.

5. SECOND & CONSECUTIVE ROWS

- Note: Confirm the first row is straight. Start the second row with the remainder of the last plank in the first row, ensuring this piece is at least 8" long. If not, cut a new starter plank for this row. (Do not use a full plank!)
- Angle the first plank at a 20° angle and insert the long side tongue into the groove edge of the first row. Lower the plank down until the joint closes.
 - Insert the short end of the second plank into the short end of the first plank as shown – offset the planks by about 1/2". Elevate both planks slightly. Then, gently slide the second plank down into the long groove in the first row. Finally, press both planks down to the floor together.
 - Join the ends, offset by 1/8"
 - Slide plank #2 into first row groove
 - Press both planks to floor

INSTALLERS TIP: When installing use a shim to keep the previous board at a slight angle off the subfloor. This makes it easier to install the next plank in a row. To reduce friction apply beeswax or similar to the "end-joint" locking systems. Repeat this process with each plank until you reach the end of the row.

- IMPORTANT:** When laying planks, stagger the end joints from row to row by at least 12" to ensure the structural integrity of your floor and a pleasing appearance. Pay close attention to avoid "stair step" or "H-patterns" appearing in the flooring.

7. CUTTING END-OF-ROW BOARDS

- The last board in each row must be cut to fit, while still maintaining a 1/2" expansion gap at the walls. Here's how:
- Flip the plank over, end-to-end.
 - Lay the flipped board next to the row of planks, and mark it.
 - Cut the plank at the mark.
 - Flip the plank back over and install as normal.

- When you are unable to angle panels to install them (under door jams, toe kicks, radiators etc.), shave off the locking edge lip in the groove by using a sharp chisel or razor knife. Apply a thin-even bead of flexible (Gel Control) super glue or hot-melt glue (for plastics) along the modified groove as shown. *These adhesives dry quickly so pre-fit and position plank prior to applying glue.

- The last row will need to be cut lengthwise to fit properly. Here's how to get it just right:
 - Lay a plank right on top of the last full row in place.
 - Then lay another plank of flooring on top of that plank, with the tongue side touching the wall.
 - Use plank B as a straight-edge guide, and mark a line lengthwise on plank A.
 - Cut plank A lengthwise on line.
 - Plank A can now be installed as the last row. We recommend you use edge glue for this last row.

- To ensure the floor is able to "float" freely, be sure to affix baseboards or moldings to the walls, not to the floors. This way, the floor can expand & contract within the gap. Also, never nail the first or last rows directly down to the subfloor! This option is not appropriate for floating floors!

- In areas where your new floor meets other types of flooring, such as carpet or tile, select an appropriate molding to get a professional looking and safe transition.
 - U-Track** is attached to the substrate to secure the End Cap, T-Molding and Reducer transitions.
 - End Cap** moldings transition from LVP floor to carpet, sliding doors, raised hearths, etc.
 - Reducer** moldings transition from LVP floors to hard surfaces that are lower than the floor, such as vinyl or tile.
 - Stair Nose** moldings are used when the LVP floor edge is at a step-down; Example: when the flooring meets at the top of a stairway "going down".
 - T-Moldings** cover expansion spaces at doorways, and they transition from your new floor to other hard surfaces of similar height.
 - Quarter Round** moldings are used to cover expansion spaces between the baseboards and the flooring.

Glue Down Installation Method:

- When gluing down the flooring, install the flooring the same way as you would using the floating installation method. The only difference is that adhesive will be applied to the subfloor, and the flooring will be laid into the adhesive bonding it to the subfloor. Always check the adhesive manufactures guidelines on proper subfloor prep, moisture testing, approved substrates, trowel sizes, cure times and coverage. Contact the adhesive manufacturer for proper moisture protection products when moisture levels are elevated.
- Lumber Liquidators recommends the use of Bostik™ adhesives that are approved for use with vinyl flooring products for this application. Please check the manufacturers technical data sheets and instructions to ensure the adhesive is approved for this type of installation. Technical Data Sheets for these adhesive can be found on the adhesive manufactures website, or in the Flooring 101 section at www.lumberliquidators.com.
- Technical data sheets provide the guidelines for approved floors, subfloors, subfloor prep, cure times, trowel sizes among other information.
- A minimum 1/2" expansion space is required around all fixed objects and walls. T-molding breaks are not required with glue down installations.
- Glue down Install: Start the installation parallel to the longest exterior wall in the room. Apply adhesive by following the adhesive manufactures guidelines, leaving a min. 1/2" expansion gap at all walls. A laser level or string line can be used to make sure the first row is straight. Allow the first row to set up before installing additional rows. This helps prevent the first row from moving as the next rows are installed. Discard badly bowed or warped planks. Clean up any glue residue that gets on the finish right away using the adhesive manufactures recommended remover. Avoid walking on the flooring and placing furniture onto the flooring until the adhesive has time to cure.
- For "Double Stick" applications; please contact our Tech & Install Department for the proper application methods.

AFTER INSTALLATION & MAINTENANCE

- Sweep up all trash and debris
- Save extra material and store it in a climate controlled space.
- Save one box label in case future product is needed for repairs.
- Install trim and transitions. Visit lumberliquidators.com for available trim and instructions.
- When moving furniture back on the flooring make sure to properly protect the flooring. It's best not to slide furniture in place.
- Use felt protectors on furniture legs
- Clean floor with the recommended Bellawood floor cleaners.
- Caster wheels should have wide rubber casters. Protective mats are required under rolling chairs. Do not use plastic mats. Use non-staining mats.
- Use walk-off mats at entry doors to prevent grit & dirt from being tracked on the floor.
- Sweep or vacuum the floor regularly. Use vacuum designed for hard surface floors that do not have beater bar, or turn the beater bar off.
- Do not use polishes, waxes, harsh chemicals or abrasive cleaners on this floor.
- Wipe up spills immediately with a damp cloth.