



INSTALLATION GUIDE

Our instructions are in line with those of the National Wood Flooring Association (NWFA) Installation methods. Please refer to the NWFA website for additional information: www.nwfa.org. Installation using the methods shown here and on the NWFA website protect your LifeScape Warranty.

IMPORTANT INFORMATION REGARDING THE NATURE OF WOOD FLOORING: Hardwood flooring is crafted of natural woods, which are uniquely characterized by variations in grain and color. These variations are not flaws, but part of the beauty of real wood floors. Real wood will also experience change in color over a period of time. The degree of change depends on the species and the amount of UV exposure. This is not a flaw but a distinct characteristic of real wood floors.

1. Responsibilities of the Installer:

- Inspect the product to ensure (a) Grade, (b) Species, (c) Quantity, (d) Size, (e) Color as ordered.
- Inspect packages for any damage in transit. (Call your carrier and LifeScape if a claim must be filed.)
- Installer should have a defined method of installation based on the following:
 - a. Result of testing of the slab or sub floor.
 - b. Result of the testing of the atmosphere for relative humidity
 - c. The Installer or an independent agent must document all site tests.
 - d. All site test records must be available if the homeowner files a claim.**
- Installer must be aware of the buyer's expectations and inform the homeowner of wood related issues such as the following: (a) Color ranges, (b) Graining ranges, (c) Changes to be expected, (d) The effect of moisture on wood flooring, (e) The effect of UV light on exotic wood flooring.
- It is the Installer's responsibility to establish that the site is suitable and ready for the chosen method of installation, and to correct all defects prior to installation.
- The homeowner must be advised that any existing potential problems that cause product failure will not be covered under the manufacturer's warranty.
- Following the installation instruction, the Installer will do the following:
 - a. Use an approved moisture barrier or underlayment.
 - b. Use the appropriate nails, staples, cleats, mastic and glue.
 - c. Match planks for a uniform color/grain installation.
 - d. Get the homeowner's approval before proceeding with any odd matches.
 - e. Remove debris and extra glue or mastic from the finish floor before the drying time indicated on the container.
 - f. Floor must be protected from construction traffic during and after installation.
 - g. In new construction, wood flooring should be one of the last items installed. All work involving water (plumbing, acoustical ceilings, dry wall tapings, etc.) should be completed prior to the flooring installation.
- Installer will immediately stop the installation and contact the place of purchase to report any abnormalities that are found in the delivered products. **(Installer will be responsible for sections installed despite obvious defects.)**
- The homeowner must be informed and instructed in proper floor maintenance as well as the need to maintain adequate relative humidity levels in the home at all times. (The home may require a mechanical humidity control device.)
- Jobsite checklist can be obtained from LifeScape or can be found in the NWFA's technical manual #A400.

Failure to follow these instructions will immediately invalidate our warranty.

2. SUB-FLOOR PREPARATION:

The sub-floor must be completely dry.

- Per the NWFA's recommendation's, the maximum generally allowable amount of moisture emissions as expressed by the calcium chloride test is 3.0 pounds per 1,000 sq. ft. per 24 hours at the time of installation.
- Another method to determine the presence of moisture in the slab is the use of an 18" x 18" 6 mil poly film taped securely to the concrete for a period of no less than 48 hours. No change should occur in the color of the concrete. Finally, the use of a heavy rubber mat lying flat to the concrete will accomplish the same results. The latter 2 methods are not accurate.
- The concrete slab will usually take from 90 to 150 days to dry thoroughly depending on the size of the slab and weather conditions.
- **Do not install Solid wood flooring if wood subfloor is reading over 12%.**
- For 3" and wider planks the floor moisture content should be within 2% of the moisture in the wood subfloor. Installation should not start until these requirements are met.
- The sub floor must be free from any type of paint, oil, greases, dust, and all other types of residues.
- The sub floor should be level in general; however, it **MUST** be level with-in 1/4" over a 10 foot radius, any direction.
- If plywood is used as a sub floor, the moisture content difference should be **NO MORE** than a 2% difference between the solid wood and the plywood.
- All plywood must be EXTERIOR grade CDX, and plywood size for sub floor is suggested to be no larger than 3/4" by 48" x 48" and an expansion gap of no less than 1/8" between sheets, and installed in an alternate pattern. (Not straight rows.)
- A suggested moisture barrier is a layer of floor tar adhesive, 15# felt, another layer of floor tar adhesive, and then the plywood. IF the plywood is being installed over a concrete sub floor, then nail the plywood to the sub floor every 1- foot along the outside edge, and the same throughout the interior. For more information, please refer to the NWFA Technical Service Manual "Installing Hardwood Flooring" or visit www.nwfa.org or call 1-800-422-4556.

3. SOLID WOOD PRODUCTS: Nail-Down Installation

- Solid wood floors must be properly acclimated to the environment they are going to live in. Please refer to exhibit A for proper acclimation method. Acclimation is established by proper testing, rather than an exact time frame.
- Per the NWFA Installation Instruction, the structure should be fully enclosed and interior climate control operating for at least 48 hours to stabilize the moisture conditions of the interior. (Figure 3.1)
- Wood delivered to the jobsite should be removed from the packaging, set in the room and spread over the sub floor before installation. Moisture content of both the flooring and sub floor should be **checked** and **recorded** before any work begins. (Figure 3.2)
- Wood flooring performs best with a relative humidity range of between 30 to 50 percent and a temperature range of 60 to 80 degrees. (Humidity and Temperature control systems is needed.)
- **A near occupied environment should be established for at least five days before any moisture tests are performed.**
- These environmental conditions associated with occupancy must be maintained throughout testing, installation of flooring, and post installation until actual occupancy.
- Snap a working line parallel to the starting wall, in multiples of our solid wood flooring width, **PLUS** an expansion space of 3/4" minimum, to set up the baseline of installation. (Be careful to assure you do NOT end up with a width of less than 2 inches at the final opposing wall. If so, adjust by ripping down the length of the first row.) Install the first row with the groove side towards the wall using top nails as necessary to hold the first row firm and in place. Adjust as necessary. If any nails are visible, counter sink, and fill accordingly. (Figure 3.3)
- Use adjustable pneumatic power hammer or nailing machine with 1-1/2" or 2" nails as required by the tool. Nailing pattern should be no less than 1" from the end, and every 8"- 10" thereafter. Each row **MUST** be nailed. Staples with a minimum of 3/4" crown and 1-1/2" in length, or more, and coated or are authorized.
- Add and adjust each additional row of wood planks, to offset or stagger the end joints at least 6" to prevent repeating the pattern. (Figure 3.4)
- A separation of no less than 6" is required for end joints in adjoining rows. A minimum 3/4" expansion space is required at all vertical obstructions.
- For more information, please refer to the NWFA Technical Service Manual "Installing Hardwood Flooring" or visit www.nwfa.org or call 1-800-422-4556.

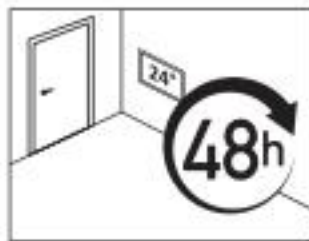


Figure 4.1



Figure 4.2



Figure 4.3

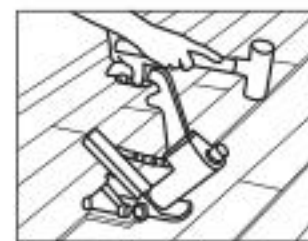


Figure 4.4

4. SOLID WOOD PRODUCTS: Glue-Down Installation

- Solid wood floors must be properly acclimated to the environment they are going to live in. Please refer to exhibit A for proper acclimation method. Acclimation is established by proper testing, rather than an exact time frame.
- Per the NWFA Installation Instruction, the structure should be fully enclosed and interior climate control operating for at least 48 hours to stabilize the moisture conditions of the interior. (Figure 4.1)
- Wood delivered to the jobsite should be removed from the packaging, set in the room and spread over the sub floor before installation. Moisture content of both the flooring and sub floor should be **checked** and **recorded** before any work begins. (Figure 4.2)
- Wood flooring performs best with a relative humidity range of between 30 to 50 percent and a temperature range of 60 to 80 degrees. (Humidity and Temperature control systems is needed.)
- **A near occupied environment should be established for at least five days before any moisture tests are performed.**
- These environmental conditions associated with occupancy must be maintained throughout testing, installation of flooring, and post installation until actual occupancy.
- Choose the correct trowel. The trowel is held at an angle of 45°, it firmly against the subfloor to obtain a 50-60 ft.2. (4-5.5 m2) per gallon spread rate (30-35 ft. 2 per gallon for Summit spread with the included Summit All-In-One trowel). The trowel will leave ridges of adhesive and very little adhesive between the ridges. This method will allow you to still see the chalk lines between the ridges and provide the recommended spread rate. (Figure 4.3)
- Lay one row along the entire length of the work line. Use temporary spacers or wedges between the wall and the floorboards to form the expansion gap. Add each additional row of flooring, watching the pattern repeat and offsetting or staggering the joints at least 6 inches. (Figure 4.4)
- Complete the installation using this same technique for the remainder of the floor. Avoid heavy foot traffic on the floor for at least 24 hours. Lift the furniture or fixtures back into place after 24 hours. (Figure 4.5)
- Further, the following recommendations are outlined by the wood flooring manufacturer's association, NOFMA (www.nofma.org).



Figure 4.1



Figure 4.2

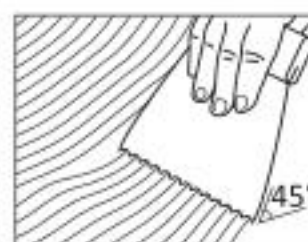


Figure 4.3



Figure 4.4



Figure 4.5

Exhibit A – ACCLIMATION INFORMATION

Wood flooring needs to reach a moisture content level in equilibrium with the surrounding environment in which it will be installed, at or near normal living conditions. Always account for time of year and geographic location. NOTE: Not properly acclimating wood flooring may cause excessive expansion, shrinkage, dimensional distortion or structural damage. The point of acclimating wood flooring before installation is to allow the moisture content of the wood to adjust to the installation site's "normal living conditions" — that is, the temperature, humidity conditions and moisture content that will typically be experienced once the structure is occupied.

For proper acclimation, all materials need to be removed from the box and stacked in a waffle pattern to allow airflow. In addition, it is recommended that the plywood to be acclimated, if it is used as a subfloor. The materials should be acclimated at the specific location where it will be installed. Hardwood flooring must acclimate for as long as necessary to meet minimum installation requirement for moisture content. To determine the proper moisture content for installation, please use the equilibrium moisture chart provided below. Please refer to the National Wood Flooring Association's guideline for additional instructions on the required moisture content for your specific region.

5. MAINTENANCE FOR HARDWOOD FLOORING

The key to enjoying hardwood flooring is proper maintenance.

- Wood flooring performs best with a relative humidity range of between 30 to 50 percent and a temperature range of 60 to 80 degrees. (Humidity and Temperature control systems is needed). Failure to maintain the above recommended humidity and temperature range will void LifeScape's warranty.
- Install proper floor protectors on furniture used on hardwood floors. Protectors will allow chairs to move easily over the floor without scuffing. Clean the protectors on a regular basis to remove any grit that may have become embedded.
- Vacuum regularly. When the household carpets are vacuumed, vacuum the hardwood floors - a brush attachment works beautifully. Sweep on a daily basis or as needed, but do not use a household dust treatment (i.e.
- To protect floors from dirt or water, place rugs at entry points to help trap grit and absorb moisture that may damage the finish. However, note that rugs with rubber bottoms or non-skid pads may leave an imprint on the floor. Natural fiber rugs are a safer choice.
- Don't Damp Mop: Use only the cleaning products designed specifically for hardwood floors.
- Pet's nails can scratch and mar wood floors. Keep dog and cat nails properly trimmed to protect your floor.
- Protect your floor against direct sunlight or any intense source of artificial lighting. Over time, intense natural and artificial light will discolor hardwood floors.
- Wipe spills immediately. Be especially attentive around sink, dishwasher, stove tops and dining rooms, which are more prone to harmful spills.

PRODUCT LIMITED WARRANTY & FLOOR CARE INFORMATION

WARRANTY

Who is Covered? All warranties in this Limited Warranty Guide are given only to the original retail (end user) purchaser of our product. Our warranties are not transferable.

What is Covered and For How Long? The limited warranties are subject to the product applications, limitations, disclaimers and exclusions described below and are effective for floors purchased after June 2019. All warranties begin from the date of retail purchase.

We warrant to the original retail purchaser that the wood flooring in its original manufactured condition will be free from defects in lamination and assembly for as long as you own the product.

We warrant to the original retail purchaser that the finish on the covered product will not wear through, and that the finish will not separate from the wood flooring under normal household use when maintained in accordance with our recommended maintenance guidelines for a period of 20 years.

We warrant that the covered products meet our quality standards. You or your installer should carefully inspect the products before installation for any milling, dimension or visual defects. Any uncut pieces that appear to have defects should be returned to the original place of purchase; those pieces that do not meet our specifications will be replaced. Since wood is a natural product, there will be natural variations in color, tone and grain that are not covered by this warranty. This pre-installation warranty expires upon installation.

What Are You Responsible For Under Our Warranties? To be covered under our warranties you need to retain your sales slip and all documents related to the flooring purchase. Flooring must be properly installed in accordance with our installation instructions. LifeScape Flooring strongly advocates the use of a licensed, experienced installer for best results. If using a professional wood flooring licensed installer, you may be asked for the name and license number. You must also keep your proof of pre-installation moisture test results and sales slip confirming use of our recommended adhesives, as we may request this information from you when submitting a claim under this warranty. You must also properly care for your new floor using our easy-to-follow maintenance instructions.

What Will We Do if Any Of The Covered Events Occur? If any of the covered events occur within the warranty period, LifeScape will recoat, refinish, fill or furnish comparable flooring (of LifeScape manufacture and of similar color, pattern, and quality), for either the repair of the defective area or the replacement of the floor, at LifeScape's sole option. In such event, and on the condition that your floor was professionally installed, LifeScape will also hire an installer/repairman of LifeScape's choice and pay all reasonable labor costs for the direct repairs or replacement within the first five years of the warranty period or the length of the warranty period, whichever is less. If you did not use a professional, licensed installer, LifeScape assumes no responsibility for any labor cost associated with such repairs or replacement. In the event that we are unable to correct the problem after a reasonable number of attempts, or if the replacement or repairs fails in the same manner a second time, we will refund the portion of the purchase price for the section of failed flooring. These warranties do not include removal or replacement of cabinets and other fixtures or furniture. These are the exclusive remedies under this warranty if a defect or other warranted condition occurs. We reserve the right to verify any claims or defect by inspection and have samples removed for technical analysis.

What Is Not Covered By These Warranties?

- Wood flooring installed in full bathrooms with a shower or tub.
- Damage caused by fire, flooding, and other natural disasters.
- Damage caused by negligence, accidents, misuse or abuse.
- Damage caused by vacuum cleaner beater bar or hard heads (see Care and Maintenance Guidelines).
- Damage caused by appliances, furniture and casters (see Care and Maintenance Guidelines).
- Damage caused by cutting from sharp objects (see Care and Maintenance Guidelines).
- Reduction in gloss, scratches or indentation due to sand, pebbles or other abrasives, pets, insects, construction traffic, or failure to maintain the floor as required (see Care and Maintenance Guidelines).
- Color, shade or texture variations between samples, printed color photography or replacement flooring and the actual material.
- Color variations between flooring and/or samples and other flooring or wood products, which you wish to match (e.g., cabinets, stair railings, trim, etc.).
- Deficiencies related to subfloor/floor joist assemblies, subfloor preparation materials, and fasteners including, but not limited to, uneven subfloor surfaces, floor deflection or voids in the subfloor.
- Noises (squeaks, etc.) associated with anything other than the mis-manufacture of the flooring.
- Naturally occurring wood characteristics such as variations in grain, color, mineral streaks and knots.
- Changes in color due to exposure to sunlight and age.
- Natural expansion and contraction resulting in separation between boards or damage caused by low or excessive humidity.
- PRODUCTS DESIGNATED AS "BARGAIN," "CABIN GRADE," "SECONDS," "CLOSE-OUT," "DISCONTINUED" OR "NON-STANDARD." SUCH PRODUCTS ARE SOLD "AS IS."
- Floors that are installed in other than owner-occupied or tenant-occupied residences.
- Commercial installations.
- Construction or installation-related damage.
- Floors damaged or adhesive breakdown caused by subfloor moisture or water damage, including without limitation, due to broken or leaking water pipes,

flooding, wet-mopping spills or weather conditions.

- Installation defects, including but not limited to, installations made: (i) upon improper acclimation; (ii) in violation of applicable state or local housing or building codes, or (iii) by non-licensed installers, (iv) contrary to written instructions furnished with the product.

NOTE: YOU AND YOUR INSTALLER ARE RESPONSIBLE TO INSPECT THE FLOORING PRIOR TO INSTALLATION. WE ACCEPT NO RESPONSIBILITY FOR LIABILITIES, CLAIMS OR EXPENSES, INCLUDING LABOR COSTS, WHERE FLOORING WITH VISIBLE DEFECTS HAS BEEN INSTALLED.

What Is Excluded From These Warranties? NO RETAILER, DISTRIBUTOR OR LIFESCAPE EMPLOYEE OR SALES AGENT/REPRESENTATIVE HAS THE AUTHORITY TO ALTER THE OBLIGATIONS, LIMITATIONS, DISCLAIMER OR EXCLUSIONS UNDER ANY OF OUR WARRANTIES.

WE EXCLUDE AND WILL NOT BE LIABLE FOR OR PAY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES UNDER OUR WARRANTIES. By this we mean any loss, expense, or damage other than to the flooring itself that may result from a defect in the flooring. Our limited warranties constitute the only express warranties for the product purchased.

YOUR EXCLUSIVE REMEDY AND LIFESCAPE'S SOLE LIABILITY OF ANY CLAIM, WHETHER IN TORT, CONTRACT, OR BREACH OF WARRANTY, SHALL BE LIMITED TO THE REPAIR, REPLACEMENT, OR REFUND OF THE APPLICABLE PURCHASE PRICE OF THE DEFECTIVE GOODS AS SPECIFIED HEREIN. IN NO EVENT AND FOR NO CAUSE WHATSOEVER, INCLUDING ANY BREACH OR DEFAULT BY LIFESCAPE, SHALL LIFESCAPE HAVE ANY OTHER LIABILITY (INCLUDING WITHOUT LIMITATION INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES) OR ANY MONETARY LIABILITY TO YOU IN EXCESS OF THE CONTRACT PRICE OR PRICES OF THE PERTINENT PRODUCTS IN QUESTION

TO THE EXTENT PERMITTED BY LAW AND FOR ALL NON-CONSUMER PRODUCT, ALL WARRANTIES OTHER THAN OUR LIMITED WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. IF ANY IMPLIED WARRANTY ARISES UNDER STATE LAW, ANY AND ALL IMPLIED WARRANTIES (INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY TO THE EXTENT ALLOWED BY LAW.

THIS WARRANTY DOES NOT APPLY TO DISCONTINUED ITEMS, CLOSE OUT ITEMS, OR ITEMS SOLD "AS IS." ALL SUCH PRODUCTS ARE SOLD "AS IS" AND SHALL NOT HAVE ANY WARRANTY OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY EXPRESS WARRANTIES, IMPLIED WARRANTIES, WARRANTIES OF MERCHANTABILITY (EXPRESS OR IMPLIED), WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE (EXPRESS OR IMPLIED), OR ANY OTHER WARRANTIES REQUIRED BY LAW OR FACT.

SOME JURISDICTIONS DO NOT ALLOW EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.

What Should You Do If You Have A Problem? We want you to be happy with your floor purchase. If you are not, call your retail store first. They can answer your questions and, if necessary, start to process a claim. If you have further questions, please contact us at:

PLEASE KEEP ALL YOUR PRE-INSTALLATION AND POST-INSTALLATION RECEIPTS INCLUDING BUT NOT LIMITED TO YOUR SALES RECEIPT, PRE-INSTALLATION MOISTURE TESTS, INSTALLER NAME, PHONE & LICENSE NUMBER. INFORMATION REGARDING THE CLAIMED DEFECT AND DATE AND PROOF OF PURCHASE MUST BE PROVIDED.

CARE AND MAINTENANCE

Proper care and maintenance will help ensure your floor always looks its best. Simply follow our maintenance and prevention steps outlined below to protect your investment and safeguard your warranty:

Initial Care: Following installation, clean with a cleaner designed for real wood floors with an aluminum oxide finish. If the floor was glued down, remove any residual adhesive with the appropriate adhesive remover.

Ongoing Routine Care and Maintenance:

- Vacuum, sweep or dust mop your floor once a week, or more if needed. The vacuum head must be brush or felt, and a wand attachment is preferable. Do not use vacuums with beater bars or hard heads. A swivel-head mop with terry cloth cover is also recommended to eliminate finer particles of grit and dirt that can act like sandpaper on hardwood floors.
- Spills and tracked-in dirt should be wiped up immediately.
- Never apply wax treatments to your urethane-coated floor.
- Regularly clean the floor with swivel-head mop with cloth cover. Spray a wood floor cleaner directly onto the floor or on the mop cover. DO NOT allow excess cleaner to remain on the floor's surface. Excess liquid may damage the fiber of the wood.
- NEVER CLEAN OR WET MOP WITH WATER. Water may permanently damage the floor.
- Area rugs are recommended in front of kitchen sinks, at all pivot points and within high-traffic areas. Do not use rugs with solid rubber or vinyl backings. The rugs must be made of a breathable material to prevent moisture entrapment.
- Use interior and exterior doormats at all entrances to collect dirt and moisture and prevent it from being tracked onto the floor.
- NEVER USE ANY OF THE FOLLOWING PRODUCTS (OR PRODUCTS SIMILAR IN NATURE) ON YOUR FLOOR: ammonia-based cleaners, acrylic finishes, wax-based products, detergents, bleach, polishes, oil soap, abrasive cleaning soaps, or acidic materials such as vinegar. Many of these products can pit or etch the finish of your flooring or prevent the proper use of recommended maintenance materials.
- Keep animal nails trimmed to minimize finish scratches.
- Do not damage your floor with shoes having heel taps or sharp objects protruding from the sole such as rocks, exposed nails and gravel.
- Avoid walking on wood floors with spike- or stiletto-heeled shoes. Spike or stiletto high-heels must be properly maintained to prevent damage from the steel heel support.
- Do not roll or slide heavy objects directly upon the floor. When moving appliances or heavy furniture, consider laying a solid protective covering on your floor and gently "walk" the item across it. Carpet or cardboard is not adequate to prevent surface compression scratches.
- Use furniture leg protector pads under all furniture and make certain to keep them clean and well maintained.
- Replace hard, narrow furniture rollers with wide rubber rollers.
- Keep the relative humidity in your home between 35% and 55%.
- Protect your floor from direct sunlight. Use curtains and UV resistant film on large glass doors and windows.
- Real wood will expand and contract with change in humidity, this affect can be minimized with the use of humidity control in the home, as well as proper acclimation prior to installation.