



INSTALLATION INSTRUCTIONS OF YOUR NEW WOOD FLOORS

Step 1. Gather the Appropriate Tools to Install Your Wood Floors

If you're installing a prefinished solid hardwood floor, or unfinished solid wood flooring you should have it already in the building, acclimating to its new environment. Now that it has acclimated, you are ready to begin your installation. As with any type of remodeling, having the right tools is going to save you a lot of headaches. This list of tools needed to install your new wood floors is going to be very helpful:

Tools & Supplies Needed to Install a Nail-Down Hardwood Floor:

- A pneumatic flooring stapler (there are other ways, but this is highly recommended)
- Air compressor with at least a 15 foot hose
- 6 lb rubber mallet (for setting boards and operating the stapler)
- Claw hammer
- Brad nailer (for the first and last few rows, where the flooring stapler cannot reach)
- Tape measurer
- Miter saw - 10" or larger
- Table saw
- Jig saw (technically not required but very helpful when making cuts around doorways etc.)
- Straight edge
- Chalk line
- Speed square
- Angle finder
- Pencil
- Visqueen / 6mil Sheet Plastic
- Moisture retarder paper
- Hand stapler (for tacking down the visqueen and moisture retarder paper)
- Utility knife
- Wood glue
- Matching wood putty
- Nail punch

Tools & Supplies Needed to Install a Glue-Down Wood Floor:

All of the above, minus the hardwood flooring stapler and mallet, plus these additional items:

- Hardwood flooring adhesive
- Trowel (for spreading the adhesive, buy the trowel recommended by the adhesive manufacturer)
- Concrete moisture vapor barrier (this is not always necessary, so test the moisture content of your concrete slab before choosing whether or not you can skip this step)

- Tapping blocks - count on using 1 for about every 100 sq. ft.
- Adhesive remover / Mineral spirits / paint thinner (for cleaning up urethane type adhesives)
- Plenty of rags
- **Tools & Supplies Needed to Install a Floating Hardwood Floor:**

Same as Glue-Down tools list, except for the trowel, adhesive, adhesive remover & rags

- Floating floor underlayment
- Pull Bar
- Tapping Block

Step 2. Prepare the Subfloor for Wood Flooring Installation

Now that you've gathered your tools and supplies, you'll need to get your subfloor clean and flat before you can begin installing your new wood flooring. This is a very important step, as it can save you a lot of trouble later on if you take the time to eliminate low spots and/or high spots in your subfloor.

For concrete subfloors, high spots can be grinded down using an angle grinder. Before grinding concrete, open all windows and doors in the room and always wear protective eyewear and respiratory protection, since concrete dust is hazardous when inhaled. For low spots in concrete, fill the low area with a quick-drying, self-leveling concrete patch.

For wooden subfloors, high spots may be able to be tightened down by tightening the old screws in the wood, or by adding new screws of your own. If that is unsuccessful, you will have to sand down the high spot using a sanding edger. If that is still unsuccessful, you may need to do some work on the floor joists underneath the subfloor if you believe that is the source of the problem. Low spots may need to be supported from underneath, or if they are minimal, perhaps 1/8" or less over a 3' radius, some extra moisture retarder paper in that area may do the trick. **KEEP DRY** – Check and document moisture content of the subfloor using the appropriate moisture test. Concrete subfloors must be a minimum of 30 days old before testing begins.

Concrete Moisture Tests: All concrete subfloors should be tested, and results documented, for moisture content. Visual checks may not be reliable. Test several areas, especially near exterior walls and walls containing plumbing. Acceptable test methods for subfloor moisture content include:

- Tramex Concrete Moisture Encounter Meter: (Figure 3) Moisture readings should not exceed 4.5 on the upper scale. (Figure 3 shows an unacceptable reading of over 4.5.)
- Polyfilm Test: Apply 3' x 3' (1 m x 1 m) pieces of polyethylene film to the subfloor and leave in place for 24 hours. Assure all edges are completely sealed with water resistant tape. Darkened concrete or condensation on film indicates presence of moisture and requires additional measurements with a Calcium Chloride or RH test. **NOTE:** The following tests are required in commercial applications. Either or both tests are acceptable. If both tests are conducted, then both tests must pass.
- Calcium Chloride Test (ASTM F 1869): The maximum moisture transfer must not exceed 3 lbs./1000 ft.² in 24 hrs. with this test.
- RH Levels in Concrete Using In-situ Probes (ASTM F 2170) should not exceed 75%.

Step 3. Lay Your Underlayment

The last thing you need to do before laying down the hardwood panels is put down a vapor barrier and/or padding. Requirements for these materials vary depending on whether you are doing a nail-down, glue-down, or floating installation, and based on requirements of your specific flooring product's manufacturer.

Generally, for nail-down wood floors, you should first install a 6mil visqueen, simply by laying it out over the floor and stapling it in place with a hand stapler. Overlap each piece by about 6 to 8 inches. Next, many people use 15# roofing felt (tar paper) or red rosin paper, but we recommend using moisture retarder paper. You should cover the entire floor with this paper, making sure that the edges of the barrier overlap by about 4 inches, and staple it down into the subfloor. Once you have this done, you are ready to start installation.

Step 4. Installing Your Hardwood Floors!

Each floor plan is unique, so it is hard to say exactly where you should start the first row of your installation. Find a long, uninterrupted run that can be used as a base off of which the rest of the floor will be installed. Using your chalk line, snap a line that is perfectly parallel to the nearest wall, using your tape measurer to check before you snap the line, and then again after to be sure your line is straight.

For nail-down installations, you will install your first row using your brad-nailer (or by pre-drilling and nailing if you prefer). While some people will nail these first few rows through the face of the board and then putty the nail wholes later, we recommend you nail at a 45 degree angle through the top of the tongue, and also through the bottom part of the groove on the opposite site (this may take some tinkering before you get it right).

For glue-down installations, you will install your first row pretty much the same as any other, in fact, you'll start by spreading enough adhesive for 2 or 3 full rows. Once they are laid, and the final pieces are cut and fit, you can get it all tight, and tape perpendicularly every 10" or so across the planks using blue painters tape to keep the boards from separating as you continue working. Some installers will fasten the first row in place using headless nails (for use over concrete) or a brad nailer when installing over a wood subfloor.

Undercut door casings and jambs. Remove any existing base, shoe molding or doorway thresholds. These items can be replaced after installation. All door casings and jambs should be undercut to avoid difficult scribe cuts

Step 5. Finishing the Installation of Your New Hardwood Floors

Once you've installed the first row, you will continue installing your boards across each room to completion. It is important to stagger the butt ends of the planks so that the butt-joints of one row are never less than 6 inches from a butt-joint in the next row, or less than 4 inches the next row over. This will keep the floor looking natural and give it that professional appearance.

Remove all tape and clean the floor with the recommended hardwood flooring cleaner.

- Trim all underlayment (floating only) and install or re-install any transition pieces, reducer strips, T-moldings, thresholds, bases and/or quarter round moldings that may be needed. These products are available pre-finished to blend with your flooring (see below). Nail moldings into the wall, not the floor.
- Inspect the floor, filling all minor gaps with the appropriate blended filler.
- If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic.
- Leave warranty and floor care information with the owner. Advise them of the product name and code number of the flooring they purchased.
- To prevent surface damage, avoid rolling heavy furniture and appliances on the floor. Use plywood, hardboard or appliance lifts if necessary. Use protective casters/caster cups or felt pads on the legs of furniture to prevent damage to the flooring.