

General Installation Guide #5

Unfinished Parquet

Read instructions completely before starting installation.

Inspect all products before installing, if there is a concern, contact Oshkosh Designs immediately. By installing the product(s) you are accepting the product(s).

Additional tools needed:

- Adhesive
- Scraper
- Framing square
- Tape measure
- Trowels
- Vacuum cleaner
- Straight edge
- File
- Pry bar
- Miter box
- Table/Circular/Band saw
- Chalk line
- Moisture meter
- Sharp chisel
- Utility knife
- Wood filler
- Broom
- Sharp pencils
- Hammer
- Putty knife
- Roller
- 40-tooth carbide blades
- Extension cords
- Eye and ear protection
- Adhesive cleaner

For nail down installation:

- Nail set
- Finish nails
- Nailer

WOOD DUST WARNING

Note: Drilling, sawing, sanding, or machining wood products generates 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.

CARE AND CLEANING:

Commercial hardwood floor cleaners (with a neutral pH value) will clean the hardwood floor.



Preparing for Installation:

This product must be protected from adverse moisture conditions. It should be stored above ground level and allowed to acclimate for **at least one week** prior to installation. Open the boxes and spread out the product. Avoid laying directly on concrete.

Unfinished parquet in 5/16 in. is a glue-down application only!

Establish working lines. Plan the layout to maximize the effect of the pattern and to avoid problems.

The subfloor must be sound. For subfloor construction specifications, installation over a concrete slab, or installation over radiant heat, consult the National Wood Flooring Association at 800.422.4566.

We recommend a urethane adhesive such as Bostik's Best or Franklin's 811 Plus for best results. **Do not use water-based adhesive.** Follow instructions on the container for proper parquet trowel size. Glue parquet tape-side up.

DO NOT APPLY WATER TO REMOVE THE PAPER TAPE! Moisture will be harmful to your hardwood floor. Sand-off the paper tape with a drum sander.

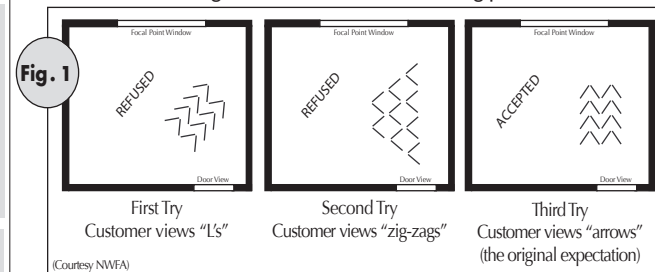
If the subfloor is concrete, follow NWFA guidelines and record moisture readings before installing.

When laying the parquet, a 3/4 in. (19.05 mm) expansion space must be left around the perimeter and all vertical obstructions (1/2 in. [12.7 mm] expansion space for finger block parquet). This space will be covered by the molding or quarter-round. After tape has been sanded off, matching wood filler(s) should be troweled over the entire floor.

Parquet installation requires information from your customer.

Determine the focal point of the room: a picture window, fireplace, stairway, bookcase or some other major feature. Ask yourself, "When I walk into the room, what do I see first, and after the floor is installed, where must the floor look its best and the rows be straightest?" If the room is without any obvious focal point, then you should determine the traffic pattern in the room, or how the room will be used. Ask your customer, "How do you expect the completed floor to look?" Discuss the various options. You can then decide on the viewing point of the floor.

Notice the room in Fig. 1 has both focal and viewing points.



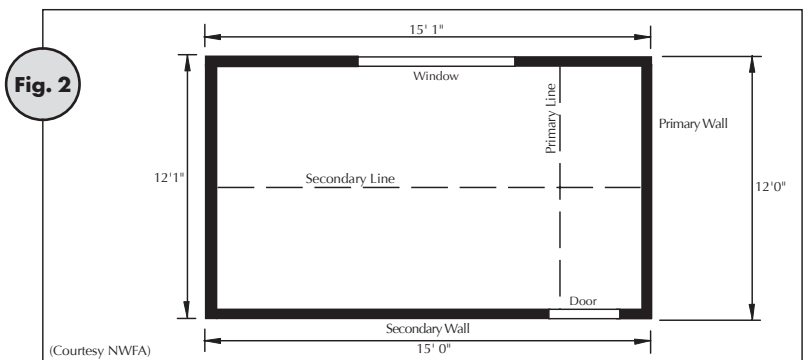
Light coming in from the large window is obvious "grabber" and will shine on the floors. The room has only one door, so the viewing point is equally obvious upon entry, or as you look from down a hallway and into the room. Every room and every customer is different, but develop the practice of deciding upon focal and viewing points. Discuss the options with your customer.

1. Mark on the subfloor along the 20 ft. (6096.0 mm) walls at the middle or 10 ft. (3048.0 mm) point of the room. Snap a chalk line between these two points to establish a primary line.
2. Mark on the subfloor along the 12 ft. (3657.6 mm) at the middle of 6 ft. (1828.8 mm) point of the room. Snap a chalk line between these two points at center of room to establish the secondary or perpendicular line. Adjust secondary line using the 3-4-5 Pythagorean Theorem. Fig. 4. The two lines you have just drawn are the most important. All other lines will be measured from these lines.
3. To establish two 45° lines, measure out 5 ft. (1524.0 mm) from the center of the room and place a mark on each line in both directions as shown. Use trammel points or beam compass to make this step easy and accurate.
4. Using the same 5 ft. (1524.0 mm) measurement, draw an arc from each of the points established in Step 3 on the subfloor where 45° line will cross, showing four bisected arcs. Snap chalk lines between these points. These new lines should go directly through the center of the room as shown.
5. Dotted line shows first four parquets meeting at the dead center of the room.

Getting Started:

1. **Read the adhesive label!** Is it flammable? How much "open" time do you have (delay before you start), and "working" time (before the adhesive is too dry to bond). We recommend you use either Bostik's Best or Franklin's 811 Plus or a good urethane adhesive.
 2. Is your trowel correct? Extensive research and testing develops the proper spread rate and "shape" or "bed," of adhesive left by the trowel for each type of floor. There is a direct relationship between product, adhesive and trowel notch that must be maintained for proper bonding. **Read the adhesive label!**
 3. Spread the adhesive evenly, without piles or puddles, at the intersection of the working lines and in an area no larger than you can cover with wood within the time limits for the adhesive. Some heavy body adhesives will obliterate your lines, so carefully trowel up to 1/4 in. (6.35 mm) from the lines. Some installers will trowel the room and snap lines on top of certain mastics. By using a chalk line of sharply contrasting color to the subfloor, many mastics can be pulled across the lines and the "flats" on the trowel will leave the lines visible. **NOTE:** You can also spray your colored lines with a clear enamel or lacquer for more permanent lines on your subfloor.
 4. After allowing the proper "flash" time for the solvent, install the unit at the intersection of the working lines.
 5. Install using a pyramid or stair-step pattern. Wood parquet "squares" are not always square. They are not "die cut" or stamped out. They are cut on saws and the wood is affected by moisture changes. They will not be perfect and therefore must be installed in the pyramid pattern — not row by row. Place the parquet unit carefully at the intersection of your two lines. Lay the next units ahead and to the right of the one, along the lines. Then continue the stair-step sequence, watching carefully the corner alignment of new units with those already in place. Each unit, as it is placed, should be adjusted to keep the corners true, or "on point" and if necessary, give up a tight fit along the sides. Install in a quadrant of the room, leaving trimming at the walls until later. Then return to the base lines and lay another quadrant, repeating the stair-step sequence. Install the last quadrant from the base line to the door. A reducer strip may be required at the doorway, if transitioning to another floor. To lay row-by-row and tight guarantees that after five or six rows the variations continue to compound themselves and will produce disaster. Most wood mastics will allow the tiles to slip or skid when sideways pressure is applied for some period after the open time has elapsed. Avoid this sideways pressure by working from "knee boards" or plywood panels laid on top of the installed area of flooring.
 6. Build the field by maintaining the pyramid and enlarging it, with constant reference to the working lines. Be sure to "seat" each unit in the adhesive. Adjust the units as you go and stay within the limits of the adhesive. If the product requires rolling, do so within the time frame of the adhesive.
 7. Add transition strips in doorways, if necessary.
 8. Cut and fit the final row at wall lines, being certain to allow the required expansion for solid floors. The mastics we recommend are soft and the wood floats. Our solid parquets must have expansion.
 9. Sand off the face paper.
 10. To achieve the most uniform look to your parquet floor pattern, trowel the entire floor with a matching wood filler to fill all the little gaps and any open wood grain.
 11. Sand, clean, and apply the finish to the floor.
 12. Add moldings as required. Molding to cover the expansion space around the outside of the room should be attached to the wall and not to the floor.
- NOTE: Ask yourself, "What does the customer expect the floor to look like?" Take precautions to avoid mastic, sawdust, or bootprints.

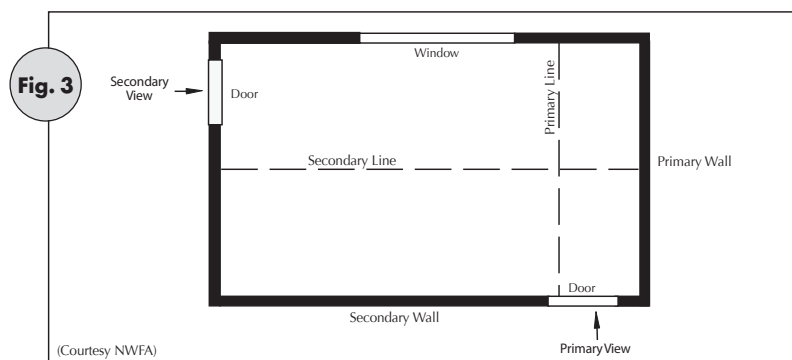
Now let's locate our primary working line that will govern the appearance of the completed floor in the focal and viewing areas. Fig. 2 shows a typical out-of-square room.



The appearance of the floor at the wall line on the right is critical. If you make all measurements for the primary working line from the right wall, the floor pattern will taper the 1 in. (25.4 mm) along the 12 ft. (3657.6 mm) primary viewing wall, and your customer will complain that "you put my floor in crooked."

There are several other factors to consider in primary line location. If your room has a stairway, it is important the stair nosing line up with the parquet pattern. How will the floor fit along a long uninterrupted wall? Precise fitting is essential in entries and small rooms.

Now let's mess things up in the room shown in Fig. 2 by adding a door opening to an adjoining room.



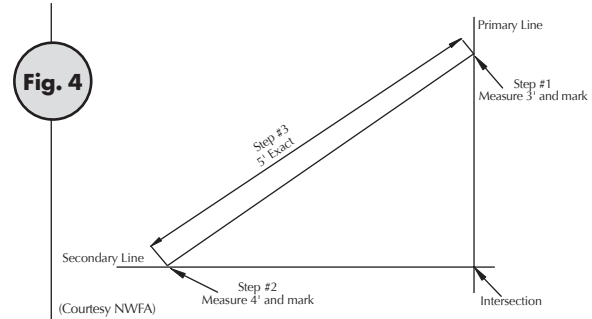
The first door, because of location and use, remains the primary viewing point. Hence the same primary wall and primary working line is unchanged. The new doorway, however, gives the completed floor a secondary viewing point. The secondary working line must run through the viewing area to insure straight rows. Considering the appearance of the joints between tiles along the window wall when viewed from the new doorway, adjust tiles to split the 1 in. (25.4 mm) out of parallel and have a 6-1/2 in. (165.1 mm) of trim showing (rather than 6 in. [152.4 mm] if the room were square). Don't change the primary line - it is still primary. At the opposite end of the room, there is a doorway that breaks up the wall and helps blind out the growth of the crooked wall!

Parquet installation requires two intersecting working lines:

Measurements and marks for the primary line are made as near to opposite ends of the wall as possible. Measure out trim size plus as many full units as it takes to reach the primary viewing area and mark the subfloor. Snap a chalk line through the two marks. Repeat this exact same process to establish the intersecting secondary line (measuring from secondary wall). These two lines must intersect, forming a perfect 90° angle. If they don't and you do not correct the lines, you are in for a l-o-n-g difficult afternoon!

How do you check for square? Not by eye or with a framing square! Use the Pythagorean Theorem (3-4-5 method).

Measure three of anything: feet, yards, or any unit. Use feet-yards (meters) in big rooms. Measure 36 in. (914.4 mm or three units) on one line. Mark 48 in. (1219.2 mm or four units) on the other and measure the distance between marks. It should be 60 in. (1524.0 mm or five units) exactly. If not exactly 60 in. (1524.0 mm or five units), adjust the secondary line by pivoting on the intersection point until the diagonal reads 60 in. (1524.2 mm or five units). Be sure you are reading on the same side you rule.



Recheck all measurements and the pattern fall at wall lines, nosing, fireplace, etc., and adjust lines, if needed. If you have any doubt at this time, open a couple of boxes and, without adhesive, dry lay a row along both lines to the walls to confirm balance and planning. Dry lay will give you peace of mind as you start an expensive floor, and it takes just a few extra minutes. The desired end result of all this exercise of line locations is that when your customer and guests enter the room, they will admire a perfectly fit floor along the primary and secondary viewing walls, and never notice that way over in the corner, the walls were not square and not parallel.

Balance or centering the pattern involves just one rule: Always have half a parquet or more as the wall trim. Example, when working with a 12 in. x 12 in. (304.8 mm x 304.8 mm) parquet, and the opening distance to cover is:

| Opening | Wall | Plan to Use Field | Wall |
|---------------------------|-------------------|-------------------|-------------------|
| 12 ft. 0 in. (3657.6 mm) | 6 in. (152.4 mm) | 11 full tiles | 6 in. (152.4 mm) |
| 12 ft. 2 in. (3708.4 mm) | 7 in. (177.8 mm) | 11 full tiles | 7 in. (177.8 mm) |
| 12 ft. 6 in. (3810.0 mm) | 9 in. (228.6 mm) | 11 full tiles | 9 in. (228.6 mm) |
| 12 ft. 10 in. (3911.6 mm) | 11 in. (279.4 mm) | 11 full tiles | 11 in. (279.4 mm) |

If 12 in. x 12 in. (304.8 mm x 304.8 mm) full parquets are placed along the primary wall in Fig. 2, the joint between parquets would begin to crawl out from under the wall, and show 1 in. (25.4 mm) at the far corner, and be obvious to all. Start with 6 in. (152.4 mm) along the entire length of the primary wall, and the room looks great, while along the far wall the joint grows from 6 in. (152.4 mm) out to 7 in. (177.8 mm) and will probably never be noticed.

Diagonal Pattern:

Certain patterns require an offset from the dead center to produce balance at the walls as shown in Fig. 5. A diagonal pattern is recommended in corridors and in rooms where the length is more than one and half times the width. This diagonal placement minimizes expansion under high humidity conditions but does not change the requirements for expansion at the wall lines. It takes a bit longer to fit trim, but gives your customer diamonds instead of squares, and is worthy of a labor up-charge.

