

INSTALLATION

THESE INSTALLATION INSTRUCTIONS ARE FOR THE 5GI LOCKING SYSTEM ONLY AND PERTAINS TO THE FOLLOWING COLORS: NATURAL BRIDGE, FRIAR TUCK, POTTERY WHEEL, ANCIENT ROOT, BASKETRY, GRAIN MILL, HARVEST BROWN, THATCH BROWN AND SMOKED TAN.



STOP! READ!

ATTENTION! READ BEFORE INSTALLING! **INSTALLER – HOMEOWNER RESPONSIBILITY**

This product may have very high color/character variation. Work out of several cartons simultaneously during installation. When finished moldings are required for the project, pre-select the plank(s) that best coordinates with the color of the adjacent molding piece(s).

INSTALLER/OWNER RESPONSIBILITIES

Prior to installing the flooring the Installer must confirm all visual aspects of the flooring and approve job site conditions. The installer and/or owner, have the following responsibilities:

- 1) Understanding how the floor will look once installed – the installer and owner must meet prior to installation to review:
 - a. How was the floor chosen? Review the control samples, (the samples from which the floor was chosen), and compare to the actual flooring batch onsite prior to installation making sure it meets the owner's expectations as to:
 - i. Color/Style – Is the flooring the correct color per the owners expectations?
 - ii. Color Variation, Batch to Batch – inspect the carton label production run of flooring you received and make sure it meets your expectations. Layout several cartons of material to confirm lots can be mixed.
 - iii. Finish – Is the gloss correct? Does the look of the finish meet the owner's expectations? Does the owner understand that the finish will scratch and wear and that care must be taken during the installation, move-in and in-use? Congratulations! You have now made sure that the owner will not be disappointed once the flooring is installed and they see it for the first time!! The person installing the floor is responsible for visual issues once the flooring is installed.
- 2) Installer responsibilities during installation:
 - a. Receive the floor & make sure it is as ordered and meets the owner's expectations.
 - b. Test the subfloor and flooring for temperature on site to make sure the flooring will perform satisfactorily on this installation.
 - c. Follow these Installation Instructions.
 - d. Select out any pieces with visible defects and stop the installation should a reoccurring problem be found, (over the 5% allowed by industry practices). **DO NOT INSTALL PIECES WITH VISIBLE DEFECTS.**
- 3) Keep a Permanent Job Record and provide a copy to the owner
- 4) Make sure the owner understands to control the temperature on site and avoid allowing extreme sunlight to overheat the floor.
- 5) Make sure the owner understands how to maintain the floor. Give them a copy of the Maintenance Instructions & Product Warranty.

The final responsibility lies with the installer for approving the condition of the subfloor and its impact on the final look of this product.

DO NOT: DO NOT INSTALL this product over residual asphalt-type (cut back) adhesive.

Cover with underlayment plywood to avoid bleeding through.

DO NOT: DO NOT INSTALL product with visible defect. This product is manufactured to high quality inspection standards but boxes can have occasional defective product contained inside. If you notice excessive defect stop the installation immediately and call your local retailer. The manufacturer is not responsible for visually defective material installed.



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PRE-INSTALLATION JOBSITE REQUIREMENTS

Carefully examine the flooring prior to installation for color, finish and quality. Ensure adequate lighting for proper inspection and make sure you review all different lots of material before beginning. If flooring is not acceptable, contact your distributor immediately and arrange for replacement. We are not responsible for flooring installed with visible defects. Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. We are not responsible for flooring failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least a week before installation of flooring. Room temperature of 65-75°F and a humidity range of 35-65% is recommended. The maximum distance the flooring can be assembled without a transition molding (for additional expansion space) is 65 feet. The temperature should stay between 55 – 100 degrees Fahrenheit at all times. Surface temperatures of 150 degrees Fahrenheit or greater voids the product warranty.

Store the flooring, in the UNOPENED boxes, at installation area for several days before installation to allow flooring to adjust to room temperature. Do not store the boxes of flooring directly on concrete. Test each box of flooring to confirm the plank is in the required temperature range prior to installation.

PRE-INSTALLATION SUBFLOOR REQUIREMENTS

All patch work and preparation to the subfloor must be done and allowed to DRY prior to starting the installation.

The subfloor must be FLAT, SECURE, and DRY. Subfloors with high moisture trapped underneath the flooring can create pressure at the seams resulting in cupping. It can take several months for the cupping to become apparent after high moisture in the subfloor exists or flooding occurs, and such conditions are NOT covered under this products warranty.

Check cartons and leave one or two box labels with the end user. Mix different batch or lot numbers from several boxes, to blend shade variation. **If the product looks incorrect stop the installation immediately and call your local retailer. Do not Install!**

All Subfloors must be:

- Structurally sound
- Clean: Thoroughly swept and free of all debris
- Level: Flat to 3/16" per 10-foot radius
- Dry and will remain dry: Subfloor must remain dry year-round. Moisture content of wood sub floors must not exceed 11%, concrete must not exceed 85% rh (in-situ), 3.5 as measured with a Commercial Concrete Moisture Meter

Proper subfloor preparation and suitable underlayment installation are essential for a trouble-free job. Uneven or rough subfloor surfaces could show through (or telegraph) to the surface of this product resulting in an unsightly surface and can make high spots more susceptible to excessive wear. Correct the subfloor imperfections before you begin installing this product. For installation on top of concrete subfloors we strongly recommend a moisture barrier to protect the plank from future moisture and vapor pressure under the flooring. Concrete subfloors must be tested and confirmed dry prior to installation. 6 mil polyfilm is a suitable moisture barrier. Sounds produced between the subfloor and moisture barrier are considered a subfloor issue and are not covered under the product warranty.

For installation on top of concrete subfloors we strongly recommend a moisture barrier to protect the plank from future moisture and vapor pressure under the flooring. Concrete subfloors must be tested and confirmed dry prior to installation. 6 mil polyfilm is a suitable moisture barrier. Sounds produced between the subfloor and moisture barrier are considered a subfloor issue and are not covered under the product warranty.

Wood Sub Floors - Wood subfloors must be rigid and suspended at least 18" above the ground with adequate cross ventilation. Crawl space ground must be covered with suitable vapor barrier. Do not install this product over a wood subfloor which is directly on top of a concrete substrate or sleeper system. Wood subfloors must be covered with a minimum ¼" or heavier underlayment rated panel to assure a successful installation.

If an existing wood subfloor is damaged or not of underlayment grade one must be put in place prior to beginning the installation of this product. The approved underlayment should provide a smooth, sturdy, and even surface for this product.

Wood underlayment panels should be dimensionally stable. Wood underlayment panels should be smooth and fully sanded so the graining or texturing will not show through. Wood underlayment panels should be resistant to both static and impact indentation. Wood underlayment panels should be free from any surface components that may cause staining such as plastic fillers, marking inks, sealers, etc. Wood panels should be uniform density, porosity and thickness. Wood underlayment panels must have a written warranty for suitability and performance from the panel manufacturer or have a history of proven performance.

Underlayment panels should be installed with the face grain running across the joists. Panels should be lightly butted against each other, not forced tight. End joints of the panels should be offset at least 16". Start the installation in one corner and work diagonally across the floor. Use only non-staining fasteners.

Do not use common steel, cement coated or some nails that are resin/rosin coated. It is not recommended to glue and screw down underlayment panels as some solvent based adhesives are known to stain vinyl flooring coverings. Fasteners should be staggered and no more than 4" apart around the perimeter and no more than 3/8" from the edges (6" apart across the middle of the panel). Fasteners must set flush or slightly below the surface of the underlayment. Any unevenness must be sanded level. Gaps, hammer indentations, and all other surface irregularities must be patched with a non-shrinking, water resistant Portland cementitious based patching underlayment compound.





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PRE-INSTALLATION SUBFLOOR REQUIREMENTS (continued)

Concrete Sub Floors - Concrete subfloors must be dry, smooth and free from dust, dirt, solvent, paint, wax, grease, oil, asphalt sealing compounds and other extraneous materials. The surface must be hard and dense and free from powder or flaking. We strongly recommend the use of a moisture barrier vapor protection against future water from floods and ground swell. 6 mil polyfilm is a suitable moisture barrier which should be overlapped six inches and taped at the seams. Sounds produced between the subfloor and moisture barrier are considered a subfloor issue and are not covered under the product warranty.

New concrete slabs must be allowed to dry and completely prior to beginning the installation of this product, which take at least 60 days. Curing agents, surface hardeners and other additives may cause adhesive bond failure in the case adhesives are used. Concrete subfloors must be tested and confirmed dry prior to installation. All concrete subfloors must be checked for moisture and alkalinity before installing this product. Do not install over any subfloor with moisture emissions higher than 5 lbs. per 1000 sq. ft. per 24 hours per a calcium chloride test. If using ASTM 2170 In Situ Relative Humidity Test, relative humidity should not exceed 85%. In addition, excessive moisture levels can cause the ends and/or sides of the product to lift/flare due to the vapor pressure from underneath. Such damage from excessive moisture levels are not covered by the product warranty. We will not assume responsibility for flooring covering failure due to excessive vapor pressure or moisture vapor emissions. New concrete slabs should be clean, dry, flat, and sound. Although this product is not susceptible to damage from moisture, excessive subfloor moisture is an ideal ground for mold, mildew and fungus.

As in wood subfloor systems, all holes, grooves, expansion joints, and other depressions must be filled with a latex underlayment compound and troweled smooth and feathered even with the surrounding surface.

Ceramic tile, resilient tile and sheet vinyl covered Subfloors must be well-bonded to subfloor, in good condition, clean and level. Ceramic tile unevenness should be made smooth by applying an overlay such as cementitious patching or leveling compound. Do not sand existing vinyl floors, as they may contain asbestos. **WARNING: Do not sand, dry scrape, bead blast or mechanically pulverize existing resilient flooring, backing or lining felt. These products may contain asbestos fibers that are not readily identifiable. Using the above non-recommended procedures on asbestos containing material can create asbestos dust. The inhalation of asbestos dust may cause cancer or other serious bodily harm.**

The final responsibility lies with the installer for approving the condition of the subfloor and its impact on the final look of this product.

Installing Cabinets on top (Residential only): When cabinets are installed on top of Rigid Core Flooring the subfloor must be perfectly flat and secure. If cabinets are to be secured one cannot do so using nails or screws through the flooring product. Cabinets are to be secured to the wall but not through the flooring. Expansion space is required around pipes and other fixed objects.

Radiant heat: When a product is approved for radiant heat, use only floating installation over radiant heat. Subfloor should not exceed 80°F. A data logger may be required for this product over radiant heat. Check with radiant heat manufacturer suggested guidelines to limit the maximum water temperature inside heating pipes. Switch off heating unit one or two days before flooring installation and bring heat up slowly after installation.

RECOMMENDED - FLOATING INSTALLATION

For Floating installation, the planks are not to be secured to the subfloor. Always undercut wood door jambs. Avoid "pinch points" on any fixed home materials with a 1/4" expansion space.

LAYOUT – It is important to balance the layout of the plank format. Proper planning and layout will prevent narrow plank widths at walls. Determine layout to prevent having less than half a plank width or very short pieces.

As with all plank products, lay the long dimension of the plank parallel to the long dimension of the work area. Accurately measure the room to determine the centerline, adjust this established line to accommodate a balanced layout and then transpose this line to a comfortable width away from the starting wall (approximately 2' to 3' wide). Determine if the starter row will need to be cut. If the first row of planks does not need to be trimmed in width, it may be necessary to cut off the unsupported tongue so a clean, solid edge is toward the wall.



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RECOMMENDED - FLOATING INSTALLATION (continued)

Position the first plank so that both the head and side seam groove are exposed.

NOTE: The groove is the longer side of the locking profile and is approximately $\frac{1}{4}$ ".

Install the second plank in the row by angling the end tongue into the end groove of the first plank. Be careful not to bend the corner of the plank. **WARNING:** If you do lift the tile at the head seam the locking system will no longer lock and you must use cyanoacrylate adhesive to make sure the end seam is held together. It is important to know that all structures expand and contract, for this reason it is recommended to maintain an expansion gap of approximately $\frac{1}{4}$ " from the wall. For longer runs, a larger expansion space is required. Then cut a plank to length to start the second row. Stagger the end seam at least 6" to 8" from the first plank. Also avoid "stair stepping" end joints of adjacent boards as well as "H" configurations.

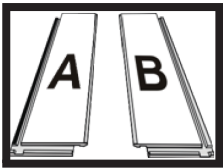
Install the first plank in the second row by inserting the long side tongue into the groove of the plank in the first row. This is best done with a low angle of the plank.

Install the second plank in the second row by inserting the short end tongue tightly into the previously installed plank end groove. Align the plank so the long side tongue tip is positioned just over the groove lip of the plank in the first row. Working from the end seam, with a low angle, slide the long tongue into the groove of the adjoining plank. Finesse and slight pressure is required to seat the tongue into the groove. You will feel the tongue lock into the groove. Some may also choose to engage several end tongues of several planks in the same row before engaging the side profile.

Work across the length of the room installing planks along the wall in the first row and then aligning the planks in the second row. It is critical to keep these two rows straight and square, as they are the foundation for the rest of the installation. Check "squareness" and straightness often. Cut the last plank in the first row to fit approximately $\frac{1}{4}$ " short of the end wall. Often times the remainder of this plank may be used to start the next row.

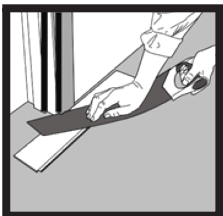
Continue installing planks, being certain to maintain a random appearance, working out of several cartons/lots, and offset end seams by at least 6" to 8". Maintain a $\frac{1}{4}$ " expansion space at all fixed vertical surfaces (for example; posts, fireplaces, cabinets and any stationary vertical surface). Please note the size of the expansion space might need to be increased for larger areas. Check to be certain all planks are fully engaged, if slight gapping is noticed, the gap can be tapped closed by using a scrap of flooring and a tapping block.

Cut the final row of planks to fit along the wall with the required expansion space. Use a pull bar to lock the long edges together. Do not use the pull bar on the short edges. Remove the spaces and cover the expansion space with quarter round or other trim. **DO NOT** trap or pin down the flooring with the molding by pressing down too hard. This creates a pinch point and voids the warranty.



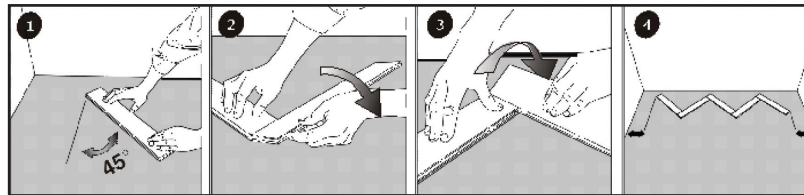
A and B Panels

Two different types of panels are used to install the herringbone pattern. Identify the sort the A and B panels to make installation easier. Always work with the groove underside going away from the wall.



Door mouldings and skirtings: Put a panel (with the decorative side down) next to the door moulding and saw as shown in the figure. Then slide the panel under the moulding.

HERRINGBONE FLOORING - For DROP LOCK



1. Getting started.

Choose a wall to start at and begin installing at the left corner. Start with an A-panel and place it with its long side marking facing the left wall at an angle of 45°. Make sure that the distance between the left wall and the panel is less than the length of one panel.

2. Connect next panel

Continue with a B-panel. Press the long side of the B-Panel at an angle against the short side of the previous installed A- panel. Fold down the B-panel flat to the floor to lock the panels tightly together. Check that the grooves on the two panels form a continuous line.

3. Connect additional panels

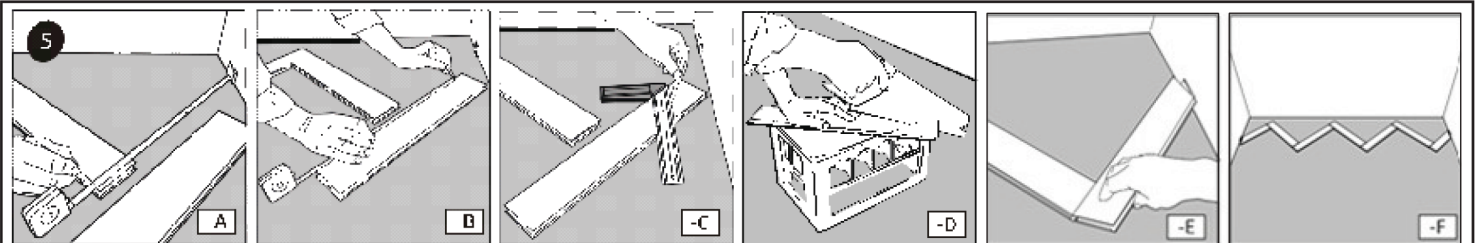
Next panel is an A-panel. Again, press the long side of the new A-panel at an angle against the short side of the previous B-panel and fold down. Continue like this with as many panels as may fit along the starting wall.

4. Center the first row

Check that the first row of panels is centered along the starting wall. Make sure that the distance to the walls on both sides are less than the length of one panel. If not, add a panel at the right side.

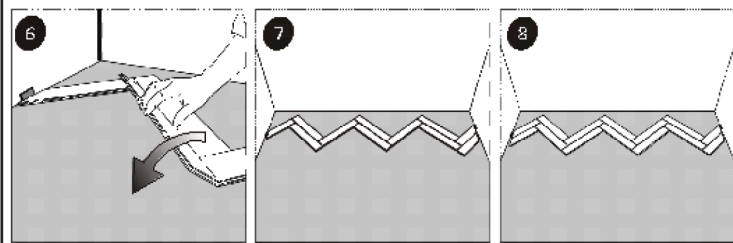
INSTALLATION

HERRINGBONE FLOORING - For DROP LOCK (continued)



5. Cut the end panels to size

Measure and cut the end panels to size using a fine-toothed saw. Finish the first row with the cut end panels. Make sure that you leave a gap of 1/4" to each wall.



6. Start the second row

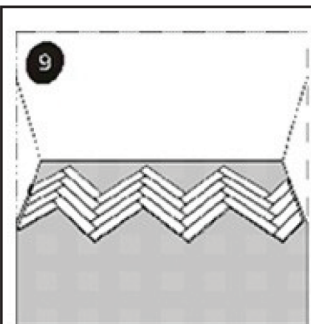
Start the next row with an A-panel. Place the new panel against the previous row and fold down.

7. Install the A-panels

Continue from the left to the right and install all the A-panels in the second row. Finish with a piece of panel cut to size (step 5).

8. Continue with the B-panels

Now work in the opposite direction, from the right to the left and install all the B-panels in the second row. Finish with a piece of panel cut to size (step 5).

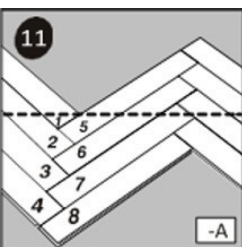
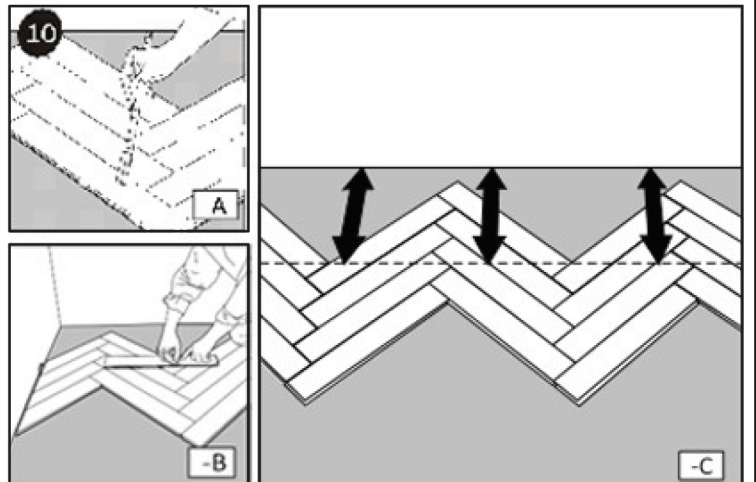


9. Complete four rows

Install additional rows to complete four full rows.

10. Adjust the starting rows

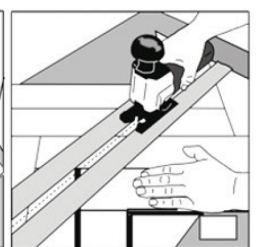
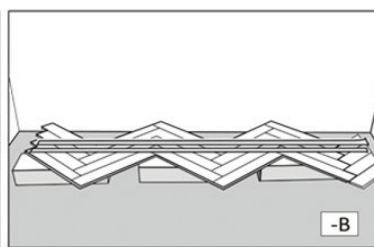
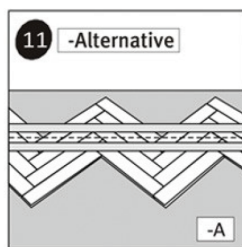
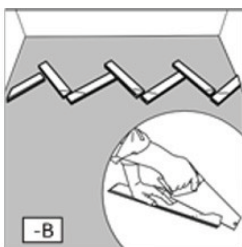
The first four rows have to be cut parallel to the wall. Measure and mark where to cut the floor panels at a fixed / parallel distance to the wall.



11. Dismantle and cut

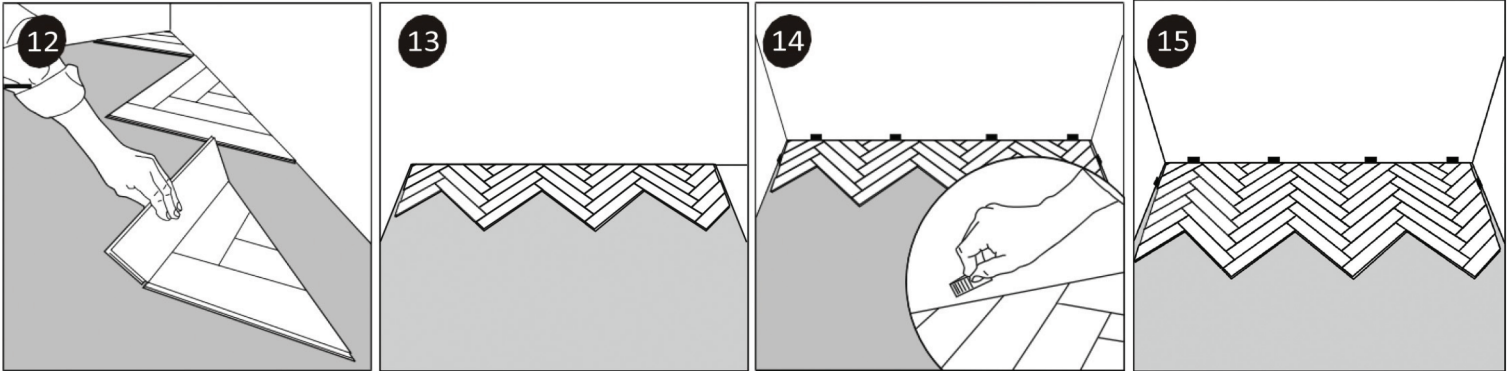
Number the panels from 1 to...

This will allow you to keep the panels in order. Dismantle the panels and cut them to size along the previous marked line.



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HERRINGBONE FLOORING - For DROP LOCK



12. Install the starting triangles Connect the cut starting panels to form triangular shapes, one by one. Start installing the triangles from the left corner. It is recommended to use glue to fix the smallest parts of the triangles into place by applying a small quantity of glue inside the groove.

13. Install a few more rows

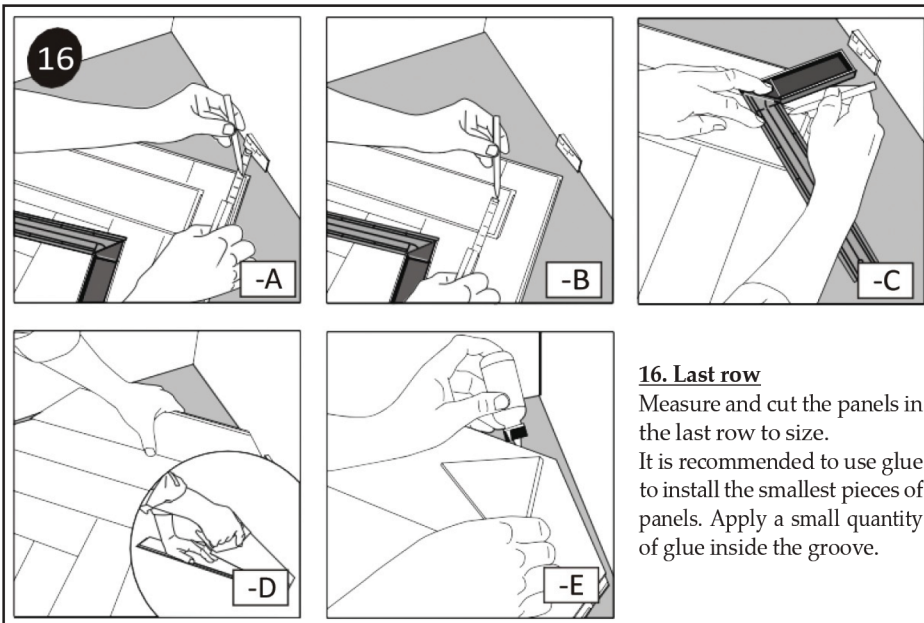
Connect the triangles by installing a few additional rows of panels. Start each row from the left to the right with the A-panels, finish with the cut piece of panel (step 5) and then install all the B-panels in the row. Finish with the left end panel, cut to size.

14. Put in spacers

Put in spacers between the flooring and the wall to ensure an expansion gap of 1/4".

15. Subsequent rows

Start each subsequent row by installing the A-panels from the left to the right and complete the row by laying the B-panels from the right to the left.



16. Last row

Measure and cut the panels in the last row to size. It is recommended to use glue to install the smallest pieces of panels. Apply a small quantity of glue inside the groove.

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17. Spacers and skirting

Remove the spacers and cover the expansion gap with wall base and/or quarter round mouldings.

NOTE: When installing Cortona Plus herringbone planks as an inset with a Cortona Plus straight plank border, glue the border planks surrounding the inset pattern and glue the herringbone planks that butt up against the Cortona plank border.