

Installation Manual

PORTSMOUTH™
SHAKE & SHINGLES
BY ROYAL

General Information

CAUTION: REMEMBER THAT POLYMER UNDERGOES EXPANSION / CONTRACTION DUE TO VARIATIONS IN TEMPERATURE. THE FOLLOWING INSTRUCTIONS WILL ALLOW FOR THE EXPANSION / CONTRACTION OF THE MATERIAL

1- Always begin the installation from left to right at the lowest part of the structure.

2- Always hammer in the middle of the nailing slots. The slots include a polymer film, which allows for precise centering of nail, allowing the expansion and contraction of the material. Each complete panel must be nailed by 5 nails at maximal intervals of 16" or less and one nail in the lateral hole (Figure 1). If panels are installed on a furring wall, a furring strip is required behind each nail.

3- Never hammer the nail in completely. Leave a gap of 1/16". The stoppers located around the holes stop the hammer from driving the nails in too far, and provides the required gap (Figure 2).

4- Make sure that all pieces are properly joined together (Figure 3).

5- When using J-channel, always leave a 1/4" space between the inside wall of the J-channel and the siding (Figure 4). Use standard universal J-channel.

Note:

To cut the material, it is recommended to use a circular saw with fine-tooth (plywood) blade installed backwards.

Figure 1

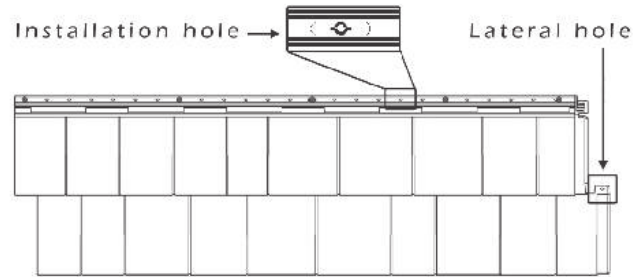


Figure 2

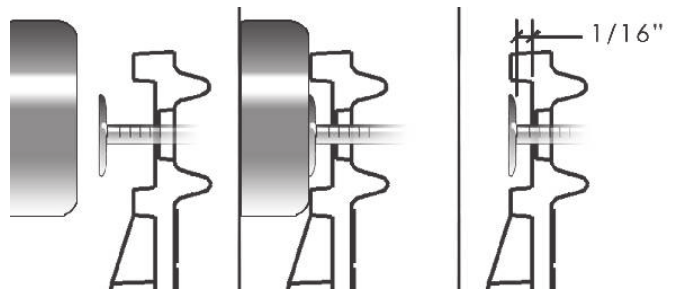


Figure 3

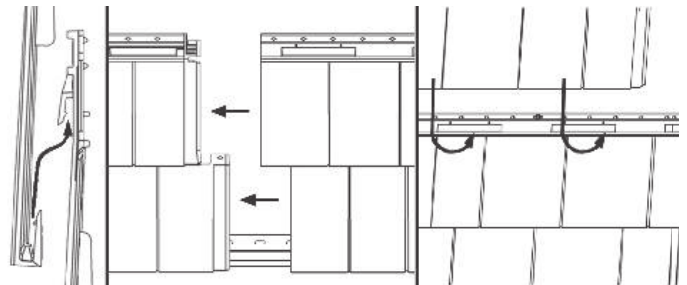
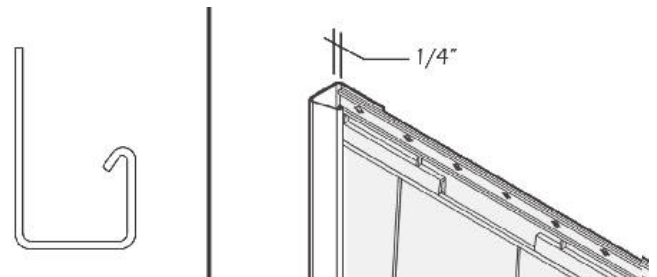


Figure 4



Installation Steps

1- First install the starter strips at the lowest point of the structure. Make sure that the horizontal starting line is perfectly leveled and square with the wall. Leave a 1/2" (1,27cm) gap at each end of the wall when using decorative corners (1). If a floor is against the wall you must leave a gap of 1" (2,54cm) between the starter and the floor (2). If there is no floor, starter strips should be flush with the base of the wall. Nail the starter strips through the nailing holes at maximal intervals of 8" (20,32 cm) or less. Do not forget to nail in the center hole (3). Install the next starter strip by sliding it leftward to the stopper in the previous one and nail it as mentioned above (4)(Figure A).

2- When using decorative corners, cut the left side of a panel in a straight line, insert panel into starter strip and nail the panel at 2-1/2" from the wall edge. When using J-channel corner, cut the left side of a panel in a straight line, insert panel into starter strip and slide it in the J-channel corner. Leave a space of 1/4" between bottom of J-channel and the siding (Figure B). Measure the wall length to determine where to cut your first panel in order to avoid having a very small piece at the right end of the wall. Be sure to align adjacent walls.

3- Install the following panel by hooking it into the starter strip and sliding it to the left over the previous panel. Make sure that the panels are spaced equally according to the outdoor temperature during the installation. See temperature lines on panels (Figure C).

Installation:

95 °F (35 °C) spacing between panels 0.135" / 3,4mm

68 °F (20 °C) spacing between panels 0.205" / 5,2mm

40 °F (5 °C) spacing between panels 0.275" / 7,0mm

4- After positioning each panel at the proper spacing of the installation temperature guideline, first nail in the center hole of the panel (the panel will move evenly in both directions in case of expansion and contraction) and nail in the other holes (also make sure to nail into the last hole on both ends and the lateral hole). Each full panel should use a minimum of 6 nails including the lateral hole. If the panel is installed on a furring wall, a furring strip is required behind these holes (Figure D). N.B. If a piece of a panel does not have the initial center hole directly in the middle, drill a new center hole (diameter 1/8") at the same height as the other installation holes.

Figure A

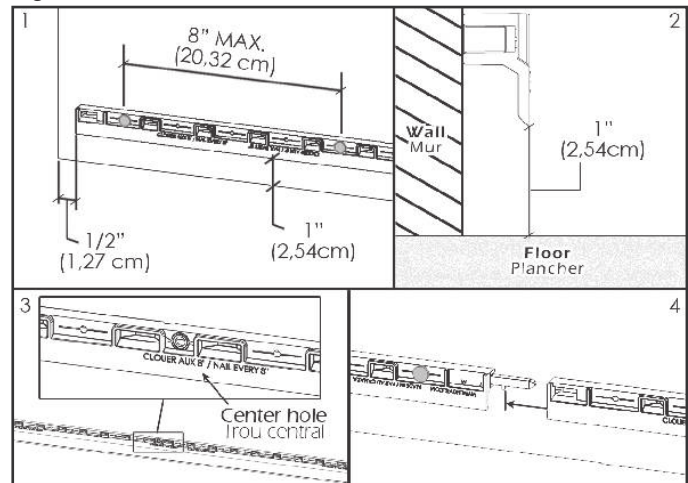


Figure B

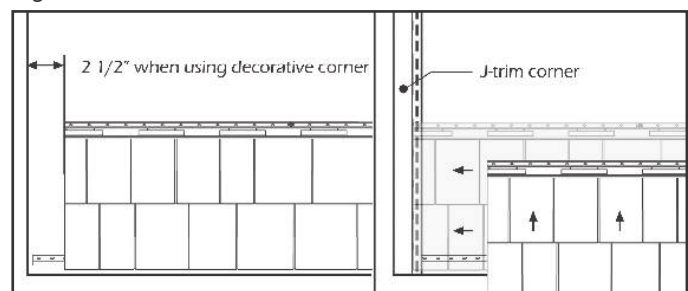


Figure C

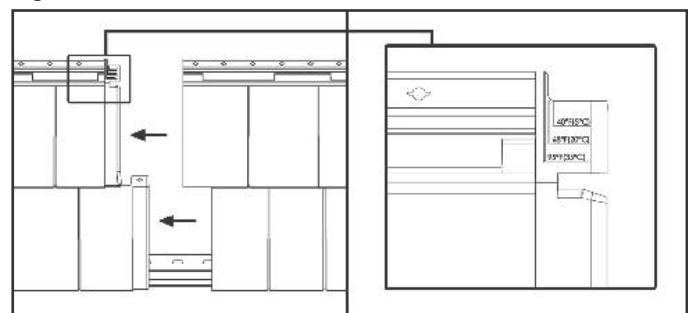
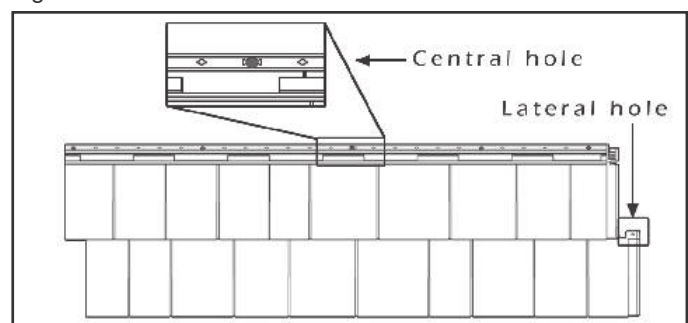


Figure D



Installation Steps (continued)

5- Begin the second row by cutting the first panel with 16" increment from the cutting line of the first row. Hooking the lower panel section with the top hooks of the last installed row. To eliminate stacking seams, alternate the cut positions for the following rows (Figure E).

6- For the last row or places where you may need to attach siding other than in installation holes at a concealed spot on the panel use a knife to create new slots 1"; the slot must be wider than the nail but not as wide as the nail head. Although not set in installation holes, this type of cutting will allow the expansion/contraction movement (Figure F).

- If you need to set accessories on siding, at a concealed spot on the panel, create a new 1" slot larger than the nail body but smaller than the nail head to permit expansion/contraction.

* Do not set accessories directly and only on the siding. The fasteners must be fixed on a solid surface.

Figure E

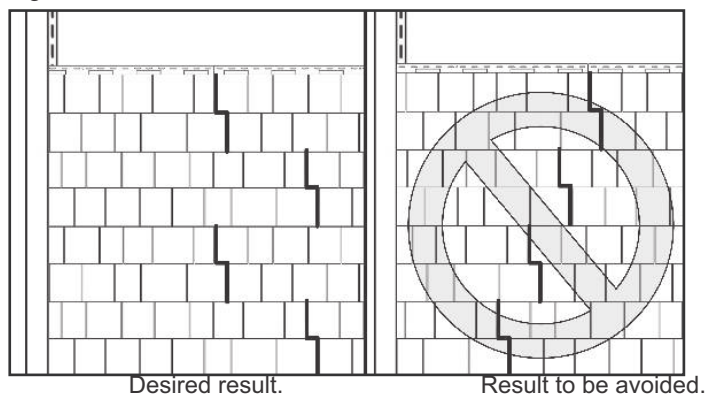


Figure F

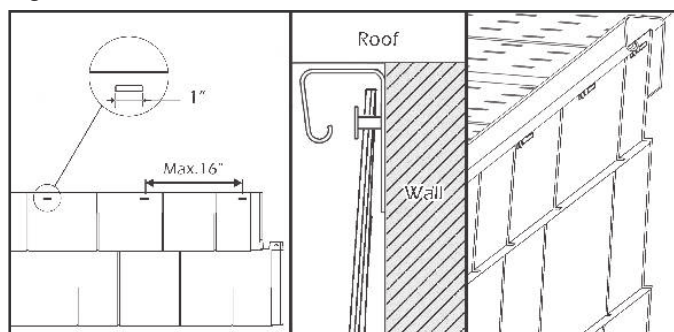
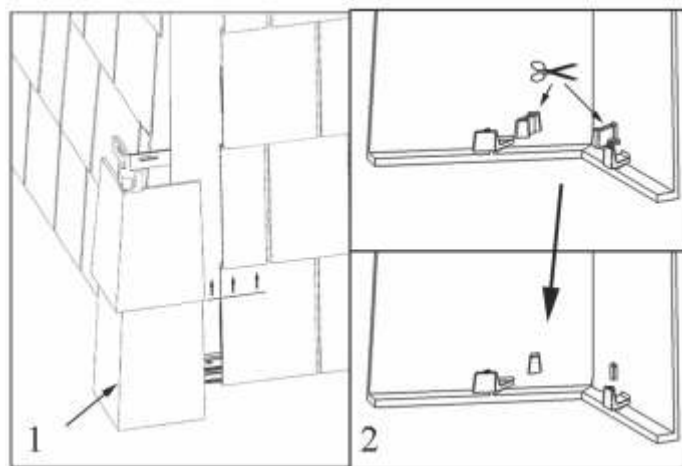


Figure G



Decorative Corners Installation

1- The installation of corners begins once you have completed two adjacent walls.

NOTE: For proper installation & optimal corner appearance, make sure that rows of adjacent walls are at equivalent height.

For the first row only, you may have to cut the two internal hooks

2- The corner is adjustable as the height of the siding shingles varies. While installing, slip the two external hooks (at rear of part) under the starter strip. Push the corner upwards on siding shingles until proper fit. Nail into slots at the top (1).

to avoid interference with the starter strip (2) (Figure G).

3- For all the other corners, insert the two internal hooks into the two openings of the previous corner(1). Ensure they are locked in place. Push corner upwards on siding shingles until proper fit (2). Nail into slots at the top (Figure H).

4- For the last corner only, cut excess from part. On each side of the corner, make a hole wider than the shaft of the nail, but smaller than the head. Affix a nailing strip behind these locations to fasten corners firmly. Insert the two internal hooks into the two openings of the previous corner and nail down the top of the corner (Figure I).

Figure H

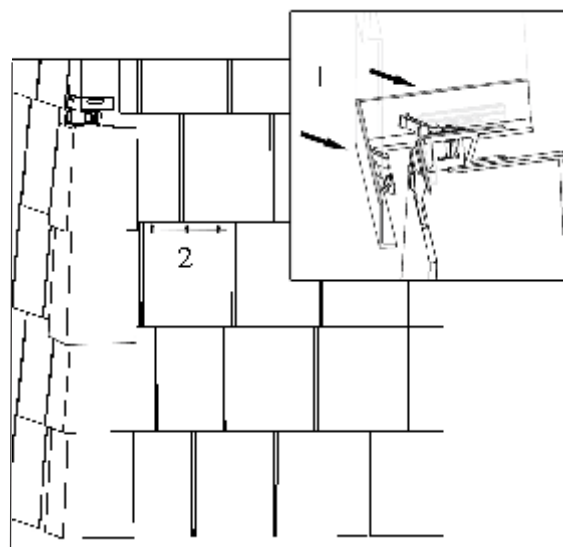
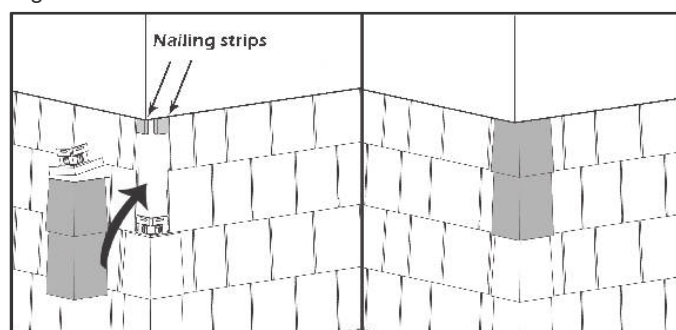


Figure I



General Information

CAUTION: REMEMBER THAT POLYMERS UNDERGO EXPANSION AND CONTRACTION WITH VARIATIONS OF TEMPERATURE. THE FOLLOWING INSTRUCTIONS WILL ALLOW FOR THIS EXPANSION AND CONTRACTION OF THE MATERIAL

1- Always begin the installation from left to right at the lowest part of the structure.

2- Always nail in the middle of the installation holes. The holes include a polymer film, which allows for precise centering of the nail, allowing the expansion and contraction of the material. Each complete panel must be nailed with 7 nails at maximal intervals of 16" or less (Figure 1). If the panels are installed on a wall with furrings, a furring strip is required behind each nail.

3- Never hammer the nail in completely. Leave a gap of 1/16 ". The stoppers located around the holes stop the hammer from driving the nails in too far, and provides the required gap (Figure 2).

4- Make sure that all pieces are properly joined together (Figure 3).

5- When using a J-channel trim, always leave a 1/4" space between the inside wall of the J-channel trim and the siding (Figure 4). Use universal J-channel trim.

Note:

To cut the material, it is recommended to use a circular saw with a finishing blade. Keep the R-E-L number of your products (ex: REL-123456) for future reference and any warranty issues.

Figure 1

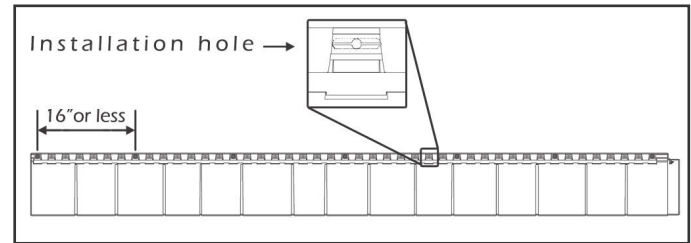


Figure 2

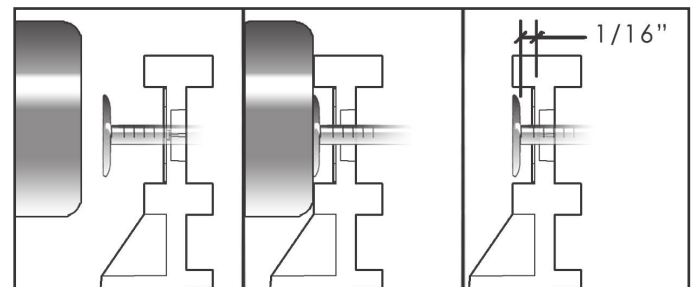


Figure 3

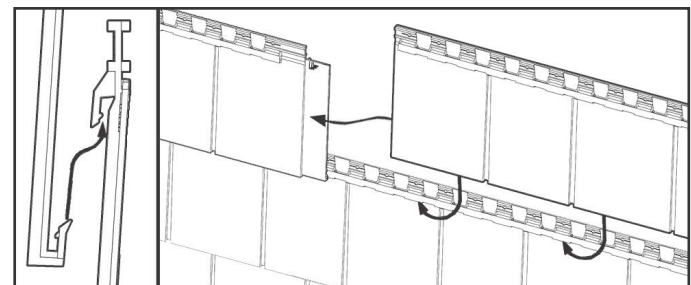
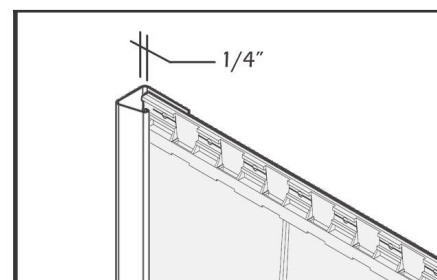


Figure 4



Installation Steps

1- First install the starter strips at the lowest point of the structure. Make sure that the horizontal starting line is perfectly leveled and square with the wall. Leave a 1/2" (1,27cm) gap at each end of the wall when using decorative corners (1). If a floor is against the wall you must leave a gap of 3/4" (1,91cm) between the starter and the floor (2). If there is no floor, starter strips should be flush with the base of the wall. Nail the starter strips through the nailing holes at maximal intervals of 8" (20,32 cm) or less. Do not forget to nail the center hole (3). Install the next starter strip by sliding it leftward to the stopper in the previous one and nail it as mentioned above (4) (Figure A).

2- When using decorative corners, cut the left side of a panel in a straight line, insert panel into the starter strip and nail the panel at 2-1/2" from the wall edge. When using a outside corner trim, cut the left side of a panel in a straight line, insert panel into starter strip and slide it in the outside corner trim. Leave a space of 1/4" between bottom of outside corner trim and the siding (Figure B). Measure the wall length to determine where to cut your first panel in order to avoid having a very small piece at the right end of the wall. Be sure to align adjacent walls.

3- Install the following panel by hooking it into the starter strip and sliding it to the left over the previous panel. Make sure that the panels are spaced equally according to the outdoor temperature during the installation. See temperature lines on panels (Figure C).

Installation:

90 °F (32 °C) spacing between panels 0.290" / 7,4mm
60 °F (15 °C) spacing between panels 0.445" / 11,3mm
30 °F (-1 °C) spacing between panels 0.555" / 14,1mm

4- After positioning each panel at the proper installation temperature guide line, first nail in the center hole of the panel (this will allow even expansion and contraction at both ends of the panel) and nail the installation holes (also make sure to nail the last hole on both ends). Each full panel should use a minimum of 7 nails including the center hole (Figure D). If the panel is installed on a furring wall, a furring strip is required behind these holes. N.B. If a piece of a panel does not have the initial center hole directly in the middle, drill a new center hole (diameter 1/8") at the same height as the other installation holes.

Figure A

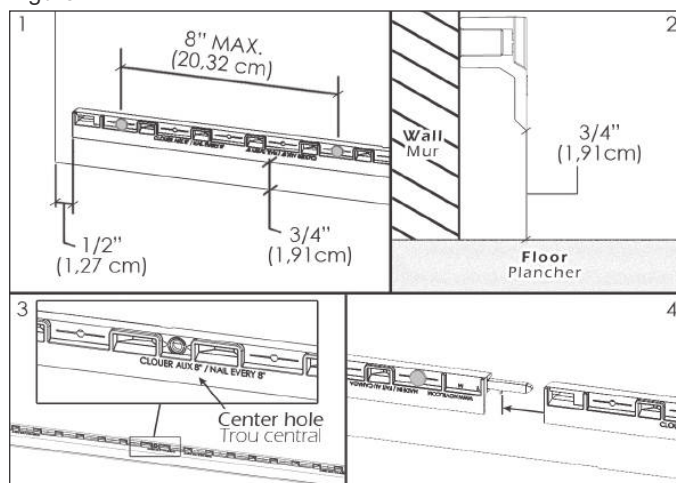


Figure B

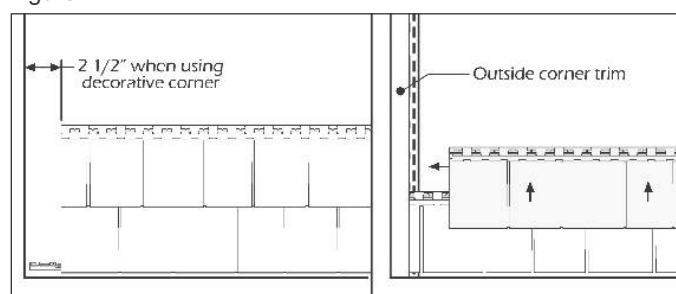


Figure C

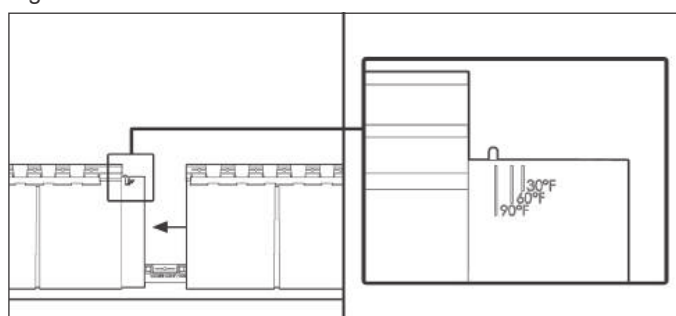
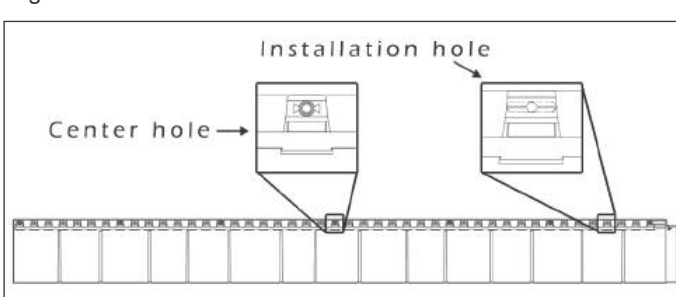


Figure D



Installation Steps (continued)

5- Begin the second row by cutting the first panel with 16" increment from the cut line of the first row. Hooking the lower panel section with the top hooks of the last installed row. To eliminate stacking seams, alternate the cut positions for the following rows between 0", 16" or 32" increment (Figure E).

6- For the last row or places where you may need to attach siding without using the installation holes, use a knife to create new slots in a concealed spot on the panel; the slot must be 1" long, wider than the nail but smaller than the nail head. Although the installation holes are not used, this type of cutting will allow the expansion and contraction movement of the panel (Figure F).

- If you need to attach accessories on a wall with siding, in a concealed spot on the panel, create new 1" slots larger than the nail body but smaller than the nail head. By doing so, you will be able to attach the accessories through the slots and permit expansion and contraction of the siding.

* Do not fasten accessories directly, and only on, the siding. The accessories must be fixed to a solid surface and still allow the natural expansion and contraction of the siding panel.

Figure E

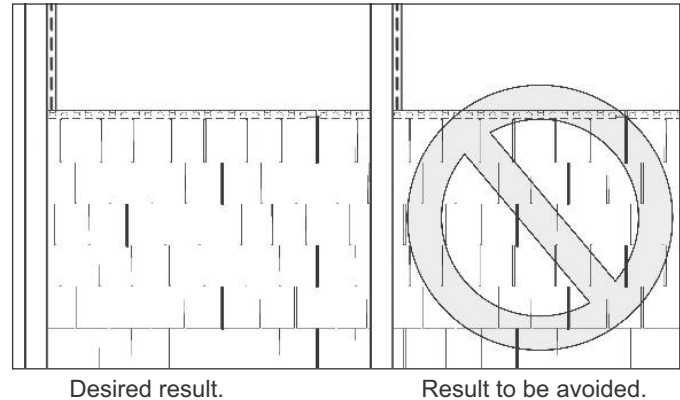
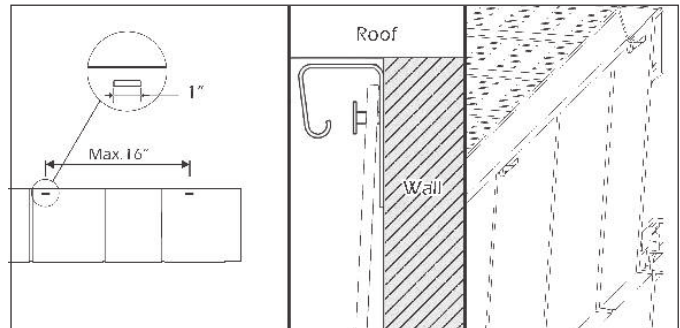


Figure F



Decorative Corners Installation

1- The installation of corners begins once you have completed two adjacent walls.

NOTE: For proper installation & optimal corner appearance, make sure that rows of adjacent walls are at the same height.

2- The corner is adjustable as the height of the siding shingles varies. While installing, slip the two external hooks (at rear of part) under the starter strip. Push the corner upwards on siding shingles until proper fit. Use the nail holes at the top of the corner to fasten the corner in place (1).

For the first row only, you may have to cut the two internal hooks to avoid interference with the starter strip (2) (Figure G).

3- For all the other corners, insert the two internal hooks into the two openings of the previous corner (1). Ensure they are locked in place. Push corner upwards on siding shingles until proper fit (2), nailing into place using the nail holes at the top of the corner (Figure H).

4- For the last corner only, cut excess from the corner. On each side of the corner, make a new slot (wider than the shaft of the nail, but smaller than the head) and affix a nailing strip behind these locations to fasten corners firmly. Insert the two internal hooks into the two openings of the previous corner and nail down the top of the corner (Figure I).

Figure G

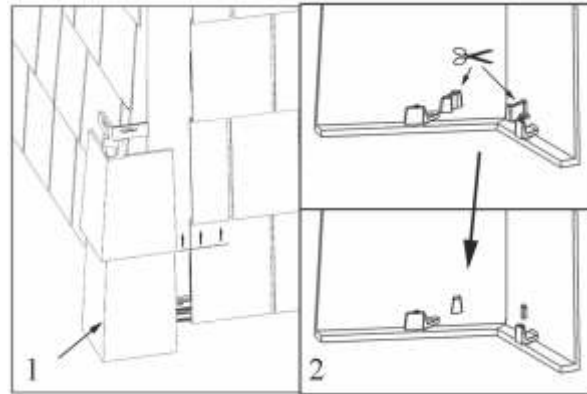


Figure H

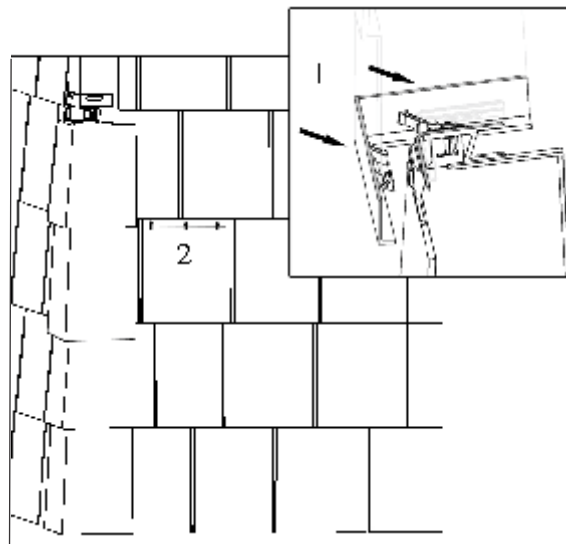
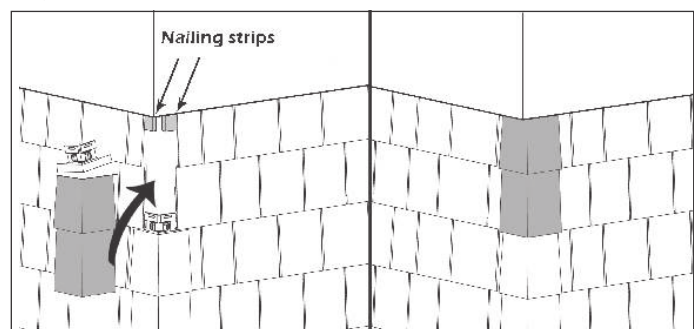


Figure I



Installation Steps

1- To begin, install the starter strips. Make sure that the horizontal starting line is perfectly level and square with the wall. Leave a 2 1/2" (6,35cm) gap at each extremity of the wall when using decorative corners (Figure A).

2- Cut the left side of the panel in a straight line. Insert pane into starter strip and slide it in the J-trim corner. When using decorative corners, place the panel at 2 1/2" (6,35cm) from the wall edge. Measure the wall length to determine where to cut your first panel in order to avoid having a very small piece at the right end of the wall (Figure B).

3- Install the following panel by hooking it into the starter strip and sliding over the previous panel. Make sure that the tabs on both sides are locked together and spaced equally (Figure C).

Installation:

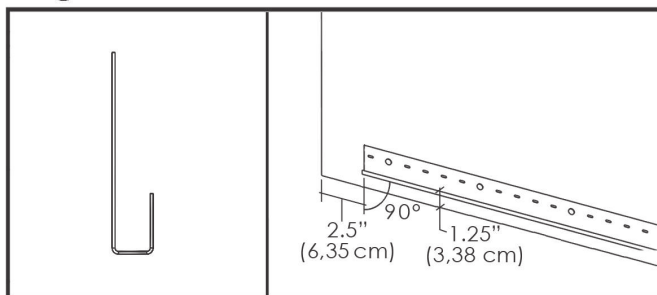
35 °C (95 °F) spacing between panels 0.125" (3,2mm)

20 °C (68 °F) spacing between panels 0.200" (5,1mm)

5 °C (41 °F) spacing between panels 0.300" (7,6mm)

4- After positioning each panel at the proper spacing of the installation temperature guideline, nail in the center hole (the panel will move evenly in both directions in case of retraction or expansion). If the panel is installed on a furring wall, a furring strip is required behind this hole. (Figure D) N.B. If a piece of a panel does not have the initial center hole directly in the middle, drill a new center hole of 1/8" (0,32cm) diameter at the same height as the other installation holes. Each full panel should use a minimum of 6 nails.

Figure A



***Various models exist and can be different from the illustration.**

***Différents modèles existent et peuvent être différents de l'illustration.**

Figure B

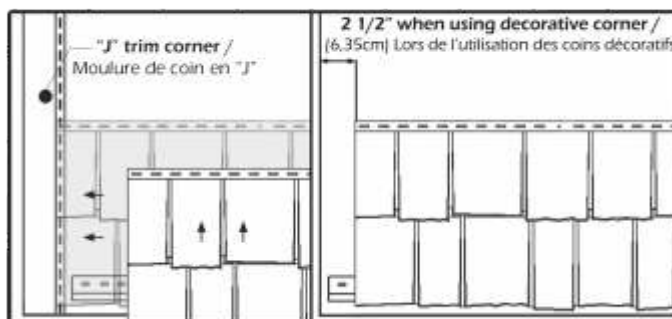


Figure C

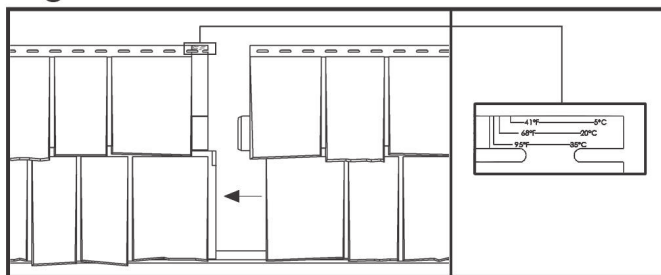
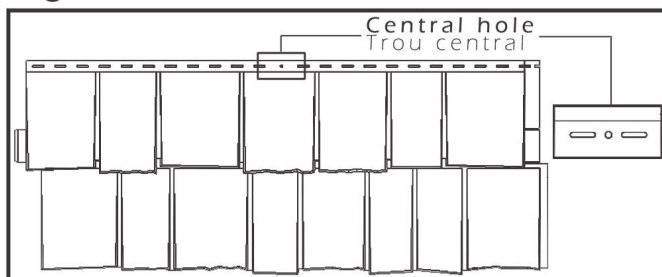


Figure D

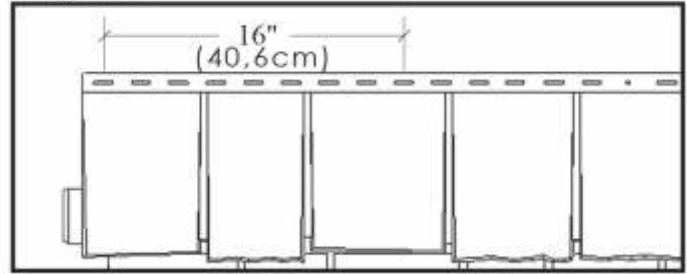


General information: The following instructions will allow for the expansion and contraction of the material.

1- Always begin the installation from left to right and make sure that a wall is completed before beginning a new one. Always begin at the lowest part of the structure.

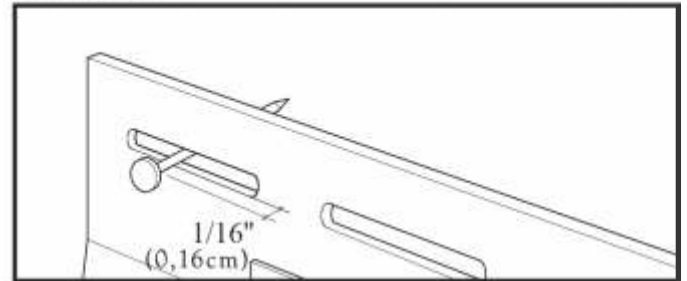
2- Always nail in the center of the slot at intervals of 16"(40,6cm) (Figure 1).

Figure 1



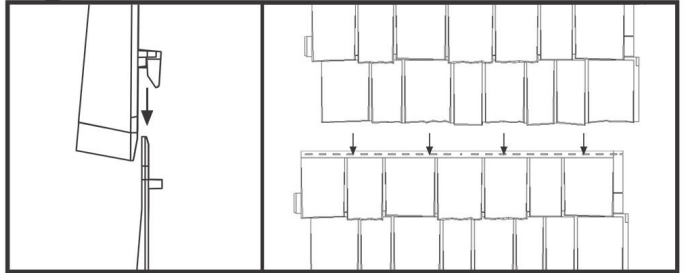
3- Never hammer the nail in completely. Leave a gap of 1/16"(0,16cm) (Figure 2).

Figure 2



4- Make sure that all pieces are properly joined together (Figure 3).

Figure 3



Note:

To cut the material, it is recommended to use a saw blade with 12 to 16 teeth per inch and to use it in reversed position for a better finish.

5- When using j-trim, leave a space of 3/16"(0,48cm) between the trim and the siding (Figure 4).

Figure 4

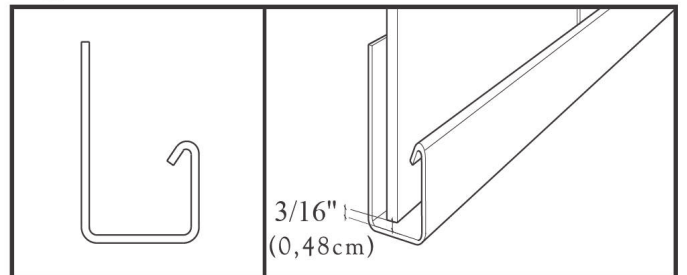
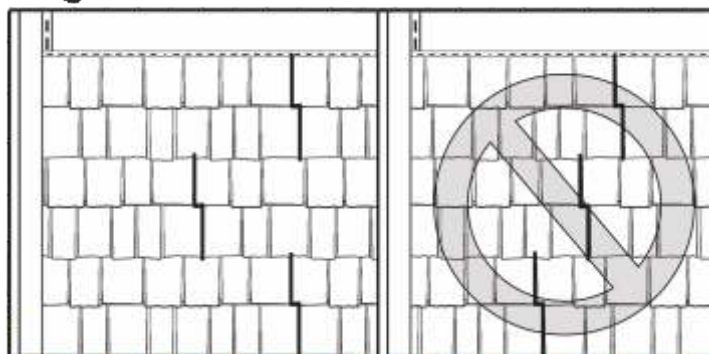


Figure E

5- Begin the second row by cutting the first panel with 16 " (40,6cm) increment from the cutting line of the first row. Hooking the lower panel section with the top hooks of the last installed row. To eliminate stacking seams, alternate the cut positions for the following rows. (Figure E)



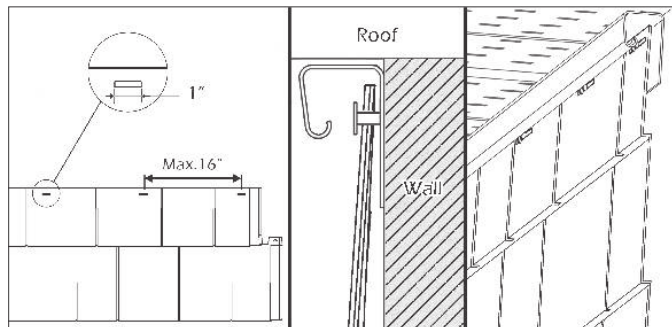
Desired result. Résultat souhaité. Result to be avoided. Résultat à éviter.

6- For the last row or places where you may need to attach siding other than in installation holes at a concealed spot on the panel use a knife to create new slots 1"; the slot must be wider than the nail but not as wide as the nail head. Although not set in installation holes, this type of cutting will allow the expansion/contraction movement (Figure F).

- If you need to set accessories on siding, at a concealed spot on the panel, create a new 1" slot larger than the nail body but smaller than the nail head to permit expansion/contraction.

* Do not set accessories directly and only on the siding. The fasteners must be fixed on a solid surface.

Figure F



Decorative Corners Installation

1- When using decorative corners, the ends of the starter strips and siding panels must finish at 2 1/2" (6.35cm) from the corner of the wall. To allow corner installation, nail the siding panels with a distance of 4" (10.2cm) between the corner of the wall and the first nail.

2- For the bottom corner only, cut horizontally at 9" (22.9cm) from the bottom (Fig 1A). Cut the strip at the bottom of the piece that might interfere with the starter strip (Fig.1B). Slide the piece on the starter strips (Fig.1C) then nail it at the top and bottom ("X" marks, Fig.1B).

* Keep the remaining inferior part of the corner. It will be useful to finish the top edge of the wall.

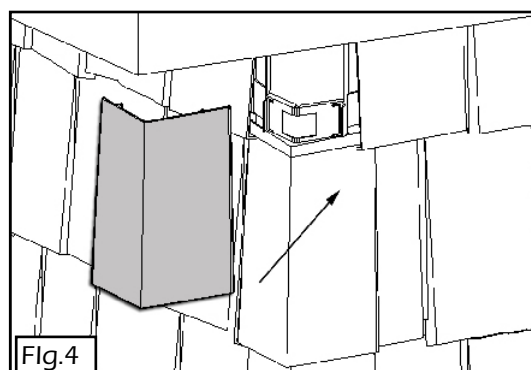
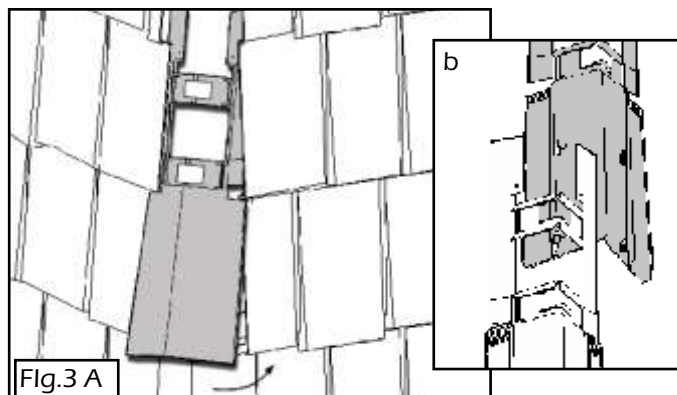
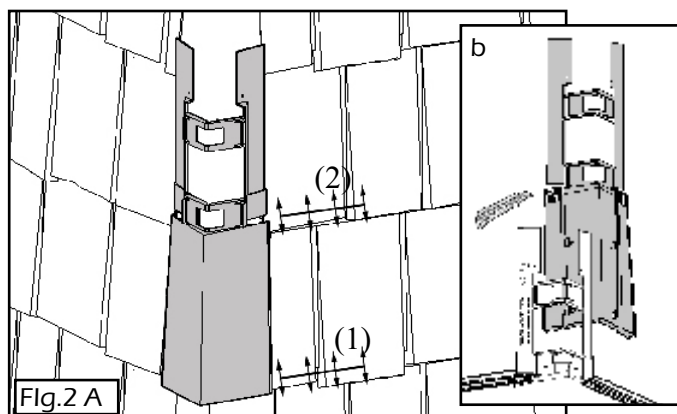
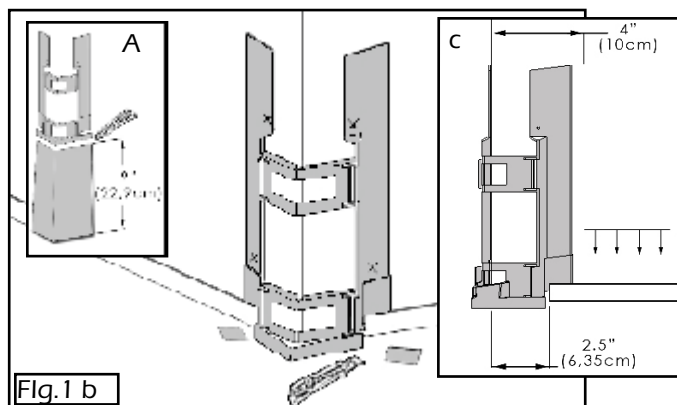
3- The next steps of the decorative corner installation begins when two adjacent walls are completed.

4-A. The corner is adjustable as the height of the siding shingles varies. Without definitely fixing the corner, validate and adjust it's position (Fig. 2A). Align the bottom end of the corner (1) with the bottom of the tiles. If the top of the corner (2) interferes with the tiles of the panels, then reference the guide on the back of the corner and cut off the access needed (Fig. 2B).

4-B. Insert the top of the corner under the siding panels (Fig. 3A). Fit the lower part of the corner and insert the bottom hooks into the upper holes of the previous corner (Fig. 3B). Adjust the height and secure it.

5- Repeat step 4 to the top of the wall.

6- When the top of the wall is reached, use the lower part of the decorative corner you cut during step 1. (Fig.4).



GENERAL INFORMATION

CAUTION: REMEMBER THAT POLYMER UNDERGOES EXPANSION/CONTRACTION DUE TO VARIATIONS IN TEMPERATURE.

1- Always begin the installation at the lowest part of the structure, from left to right.

2- Always hammer in the installation holes. These holes include a polymer film, which permits for precise centering of nail, allowing the expansion and contraction of the material. Each complete panel must be nailed by 5 nails at maximal intervals of 16" (40,64cm) or less (Figure 1). If panels are installed on a furring wall, a furring strip is required behind each nail. Always use non corrosive nails or screws that must be able to penetrate a minimum of 3/4" (1,91cm) into a solid surface.

3- Never hammer the nails in completely. Leave a gap of 1/16" (0.16cm). The stoppers located around the holes stop the hammer from driving the nails in too far, and provide the required gap (Figure 2).

4- Make sure that all pieces are properly joined together (Figure 3).

5- When using a J-trim, leave a space of 1/4" (0.64cm) between the inside wall of the J-trim and the siding (Figure 4). Use standard universal J-trim.

Note: To cut the material, it is recommended to use a circular saw with a finishing blade.

Figure 1

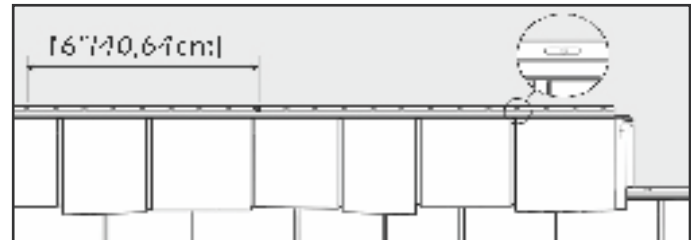


Figure 2

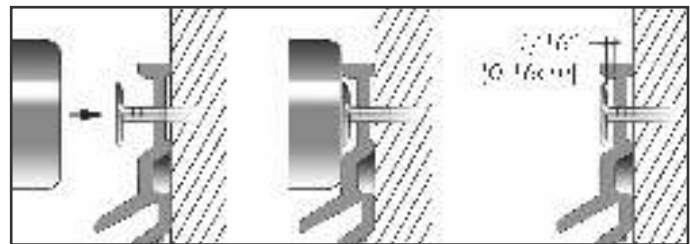


Figure 3

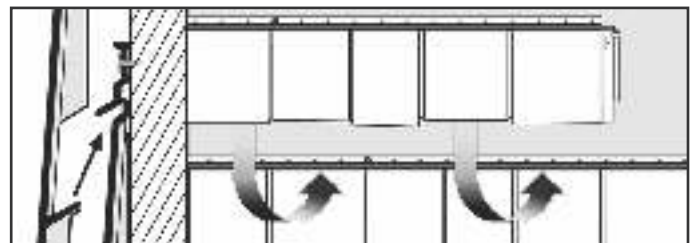
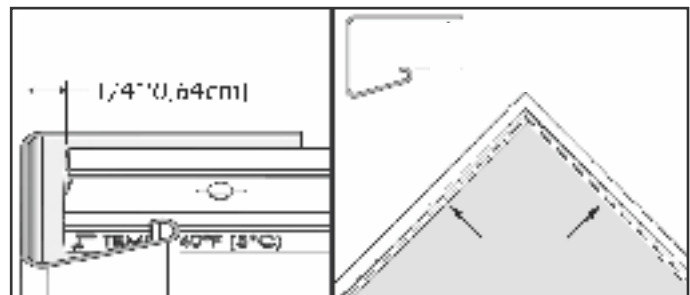


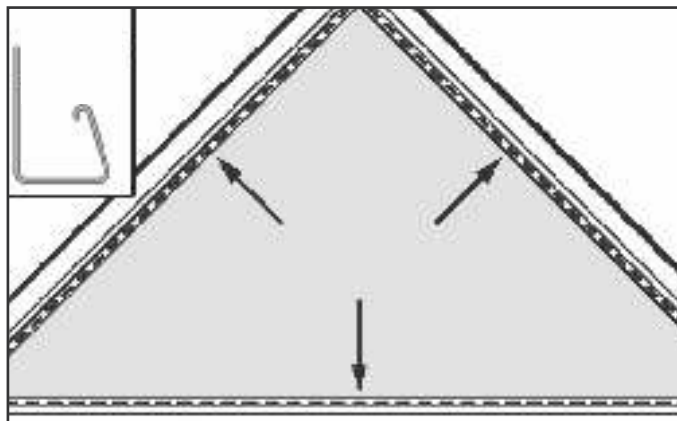
Figure 4



INSTALLATION STEPS WITH J-TRIM AS STARTER STRIP

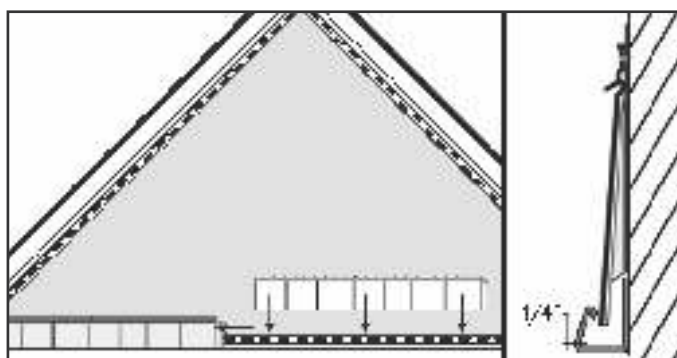
1- Attach a universal J-trim on the perimeter. Make sure that the horizontal starting line is perfectly level (Figure A).

Figure A



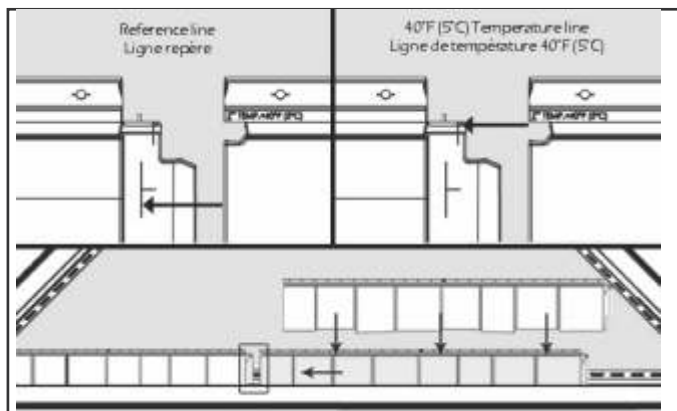
2- Install the first panel in the J-trim. Leave a gap of 1/4" (0,64cm) between the strip and the siding. Make sure that the row is firmly in place and will not come out of the J-trim. For a better installation, only cut the bottom of the first row in straight edge (Figure B).

Figure B



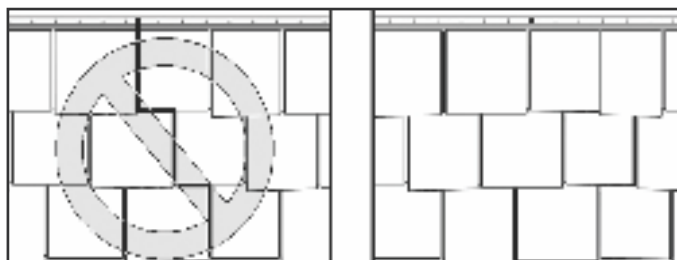
3- Insert the following panel into the J-trim and slide it over the previous panel. Make sure to space equally each panel from one to another. If installed at outdoor temperature over 40 °F (5 °C), slide panel to the stopper (located to the right of panel). When resistance is felt, do not force insertion of part. Use the reference line to confirm the position. If installed at outdoor temperature under 40 °F (5 °C), adjust the panel to the temperature line indicated (Figure C).

Figure C



4- Begin the second row by cutting the first panel with 16" (40,6cm) increment from the cutting line of the first row. Hooking the lower panel section with the top hooks of the last installed row. To eliminate stacking seams, alternate the cut positions for the following rows and continue up to the summit (Figure D).

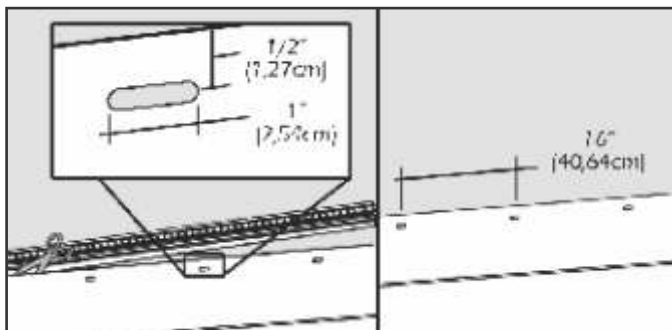
Figure D



TRANSITIONING DIRECTLY FROM SIDING

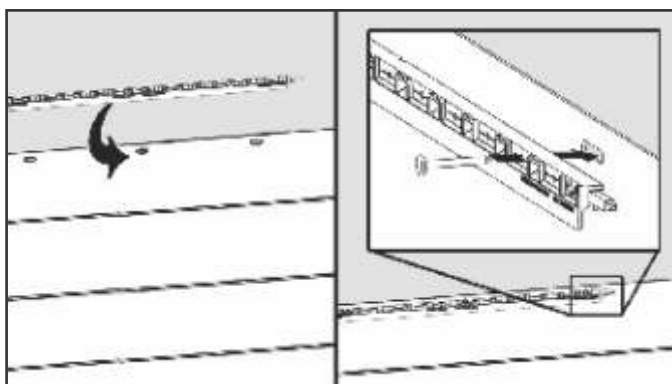
1- On the last siding row already installed, remove the nailing channel and with a knife, create 1" (2,54 cm) long slits, these must be wider than the body of the nail, but smaller than its head at 1/2" (1,27 cm) from the cutting line. Space the slits at an interval of 16" (40,64cm) (Figure A1).

Figure A1



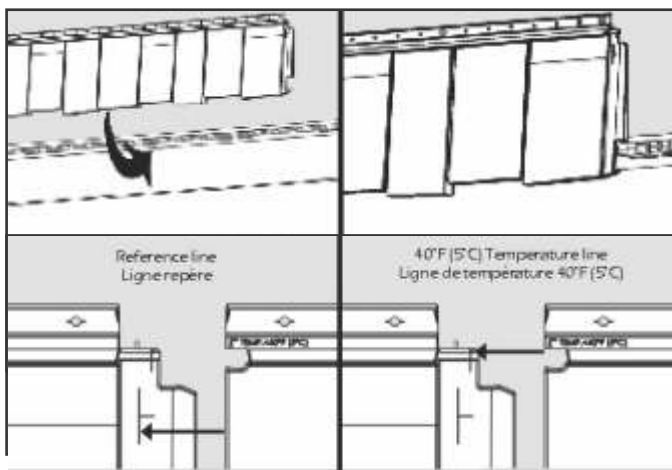
2- Install the specific Staggered Edge Shake starter strip over the siding. Align the nailing holes of the starter strip onto the slits created on siding and nail down both parts (Figure B1).

Figure B1



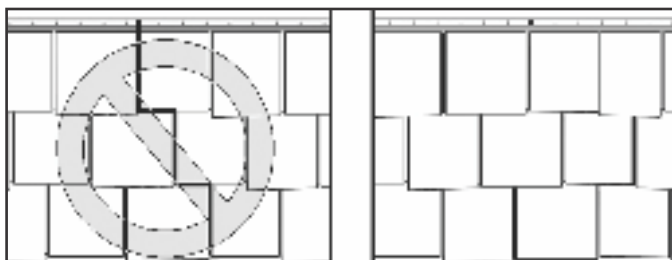
3- Insert the first row in the starter strip. Make sure to space equally each panel from one to another. If installed at outdoor temperature over 40 °F (5 °C), slide panel to the stopper (located to the right of panel). When resistance is felt, do not force insertion of part. Use the reference line to confirm the position. If installed at outdoor temperature under 40 °F (5 °C), adjust the panel to the temperature line indicated (Figure C1).

Figure C1



4- Begin the second row by cutting the first panel with 16" (40,6cm) increment from the cutting line of the first row. Hooking the lower panel section with the top hooks of the last installed row. To eliminate stacking seams, alternate the cut positions for the following rows and continue up to the summit (Figure D1).

Figure D1



Setting the panel gap for temperature.

It is important to have the proper amount of gap because the siding panels will expand and contract with a change in temperature. Each siding panel has temperature markings indicating the proper panel spacing during installation.

Air Temperature Range in °F	Position on temperature marking gauge
91°F and above	On the 100° F line
90°F – 76°F	Between 65°F and the 100°F lines
75°F – 56°F	On the 65°F line
55°F – 41°F	Between the 30°F and the 65°F lines
40° and below	On the 30°F line.

Installing the initial course.

Starter strip

Install starter strips at the lowest point of the structure making sure they are level.

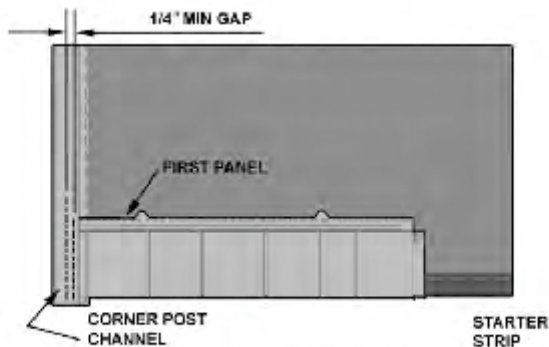
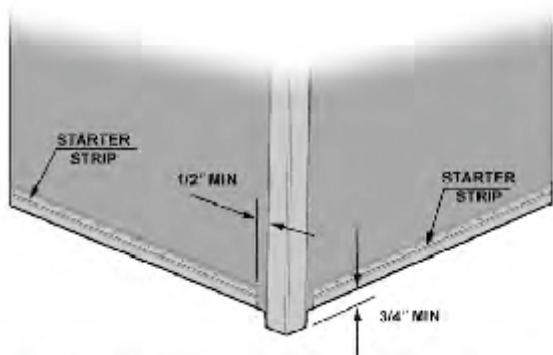
Leave a minimum of ½" gap between the starter strips and any type of trim components (J-channel, inside or outside corner post.)

Inside and outside corner posts

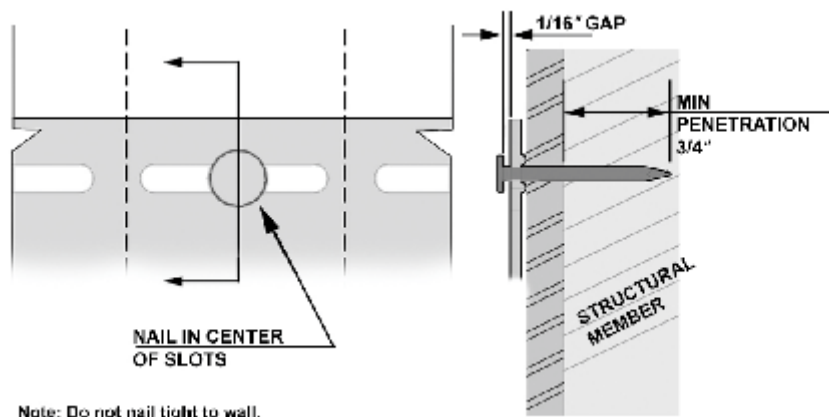
Corner post and corner trim (J-channel) must be installed before any panels are nailed into position. Corner posts must extend a minimum of ¾" below the starter strip.

Starting the first course

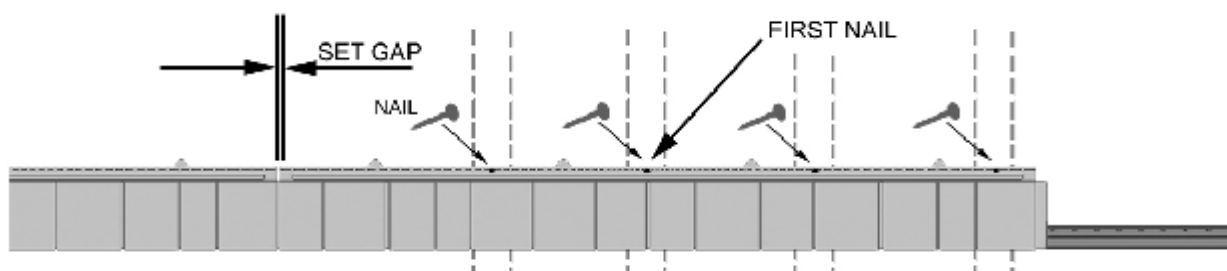
To install the first siding panel cut a straight edge on the side that is to be inserted into the corner trim channel. Hook the bottom lock into the starter strip and slide the panel into the corner trim channel. Keep the siding panel a minimum of ¼" away from the inside edge of the corner trim channel. This allows for expansion of the siding panel.



Nail the siding panel to the structural member (stud or nail base), closest to the center of the panel, and working out to the ends. Nail spacing cannot exceed 16". All nails located in the nailing hem must be driven until there is a 1/16" gap between the nail head and the siding panel. This allows for expansion and contraction of the siding panel. Nails must be located in the center of nailing slots.



Siding panels must be nailed at a minimum frequency of 16". A 3/4" minimum nail penetration into a structural member stud or nail base) is required. Install the second panel by hooking onto the starter strip and overlapping the male side lock. (See Temperature marking page 17)
Position the second panel to the required gap for expansion and nail into location. Start by nailing the panel in the center area and working out.

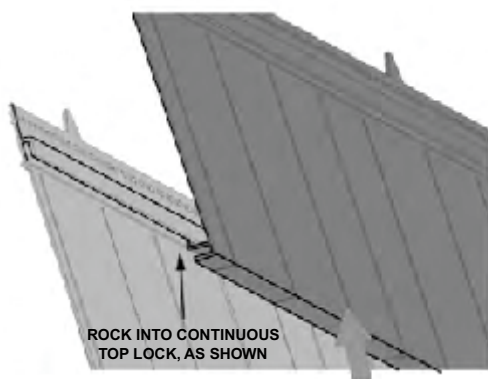


Continue with this process until the first course is completed remembering to leave a minimum 1/4" gap for the last panel into the corner trim channel.

Installing the second and subsequent courses

Start each subsequent course with random length siding panels to prevent a repetitive joint or grain pattern. When connecting the panels, make sure the continuous bottom lock is fully engaged with the continuous top lock of the previous course.

Where the seams of upper course panels come together, it is advised that a nail be put in the lower courses nailing hem directly below the seam.



Make sure a minimum of 8" of the continuous top lock is remaining exposed for the next panel to lock onto.

Locking Mechanism

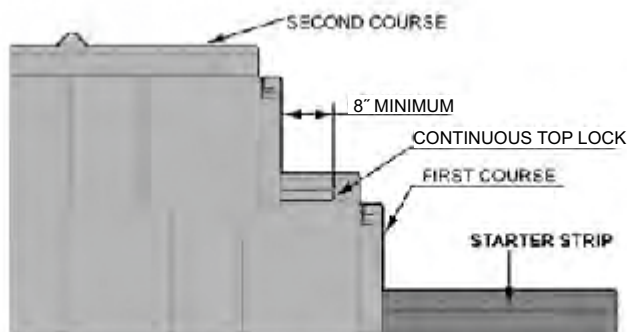
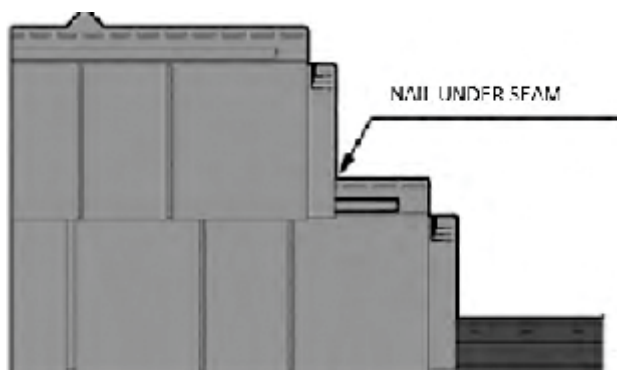


Illustration of two courses installed



Where two panels are joined, install a nail in the lower courses nailing hem directly underneath the seam

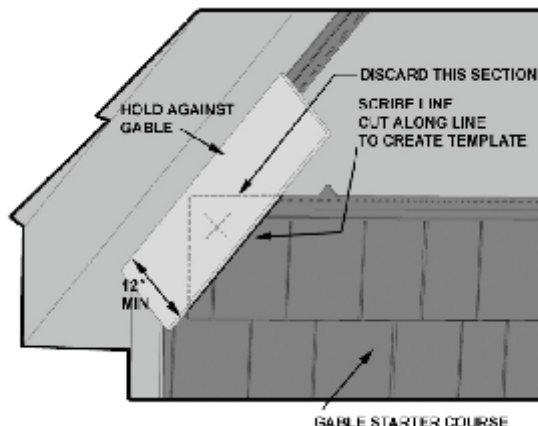
Each next course should have the center of the scallop aligned with the groove between scallops of the course below. Panels must overhang more than 8" than the course below it.

Trimming around openings

Measure and cut panels around openings allowing $\frac{1}{4}$ " for expansion. Use J Channel or other channeled products. Follow the same instructions as in section 6 for measuring and installing a top course under openings.

Trimming gables

It is recommended that a template be made for a guide when fitting and cutting panels for gables. Any scrap wood or material at least 12" wide can be utilized to make the guide. Snap into location any scrap piece of panel into the gable starter course. With the 12" wide scrap material placed against the bottom of the gable, scribe a line onto the scrap panel.



Cut along the line and now you have a gable template. Use the template to cut all gable mating panels remembering to maintain a 1/4" gap for expansion inside all trim channels.

Trimming fixtures

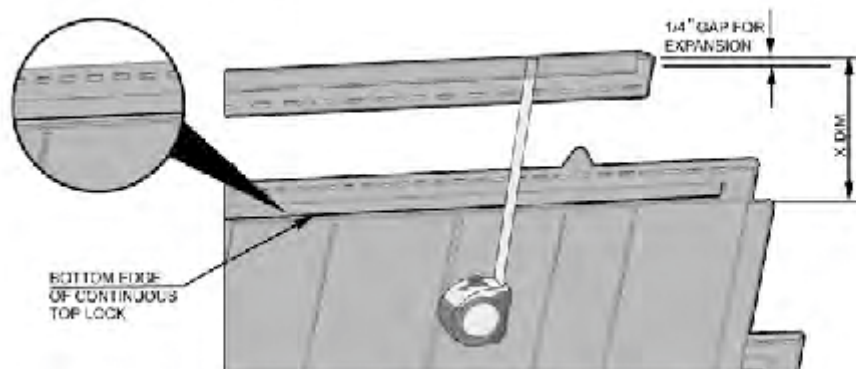
Cut along the line and now you have a gable template. Use the template to cut all gable mating panels remembering to maintain a 1/4" gap for expansion inside all trim channels.

Installing final course

Use J-channel, dual undersill trim, or 2 piece molding. Measure from the inside of the trim channel down to the bottom edge of the continuous top lock minus 1/4". This is the height dimension for the final course.

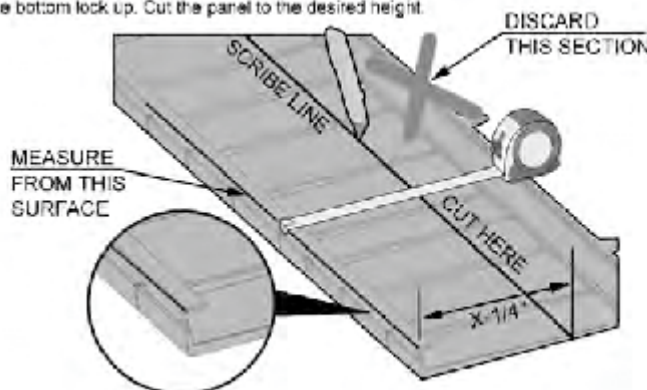
Lay the panel face down and measure from the bottom lock up. Cut the panel to the desired height.

Measuring the Final Course



Lay the panel face down and measure from the bottom lock up. Cut the panel to the desired height.

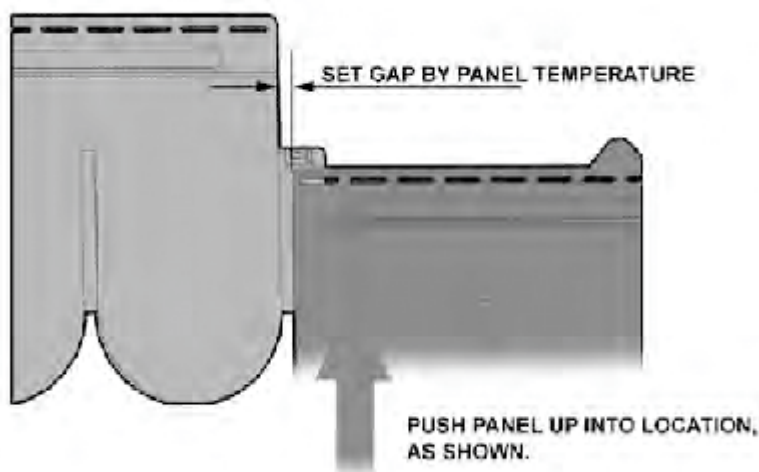
Cutting the Final Course



Setting the panel gap for temperature.

It is important to have the proper amount of gap because the siding panels will expand and contract with a change in temperature. Each siding panel has temperature markings indicating the proper panel spacing during installation. It is important to set the panel gap based on panel temperature and not air temperature.

Air Temperature Range in °F	Position on temperature marking gauge
91°F and above	On the 100° F line
90°F – 76°F	Between 65°F and the 100°F lines
75°F – 56°F	On the 65°F line
55°F – 41°F	Between the 30°F and the 65°F lines
40° and below	On the 30°F line.



Installing the initial course.

Starter strip

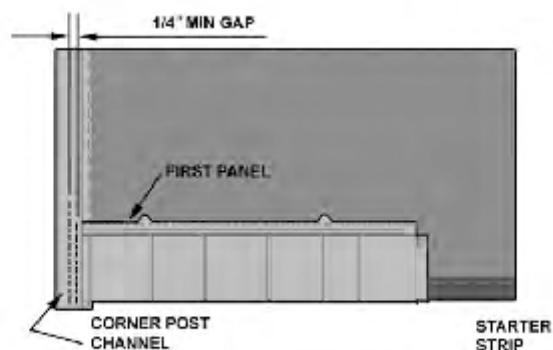
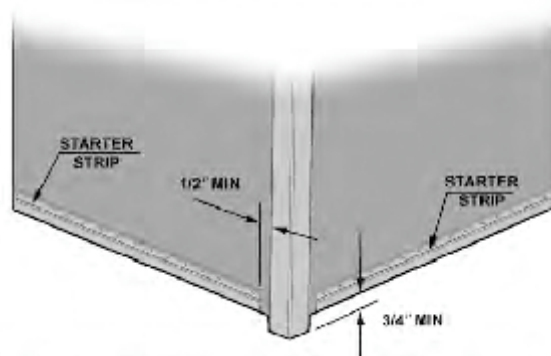
Install starter strips at the lowest point of the structure making sure they are level. Leave a minimum of 1/2" gap between the starter strips and any type of trim components (J-channel, inside or outside corner post.)

Inside and outside corner posts

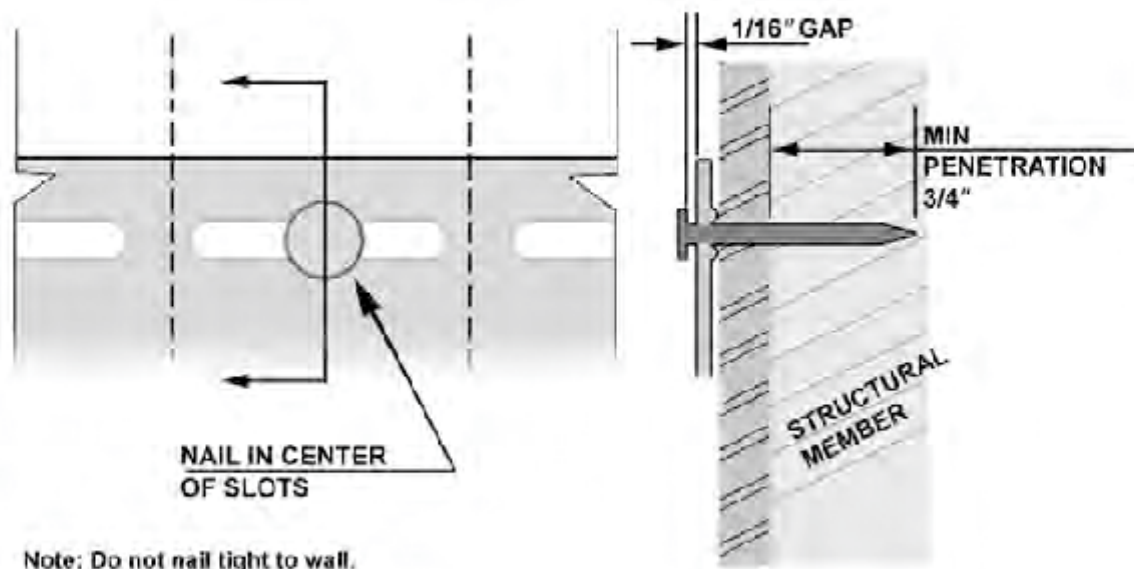
Corner post and corner trim (J-channel) must be installed before any panels are nailed into position. Corner posts must extend a minimum of 3/4" below the starter strip.

Starting the first course

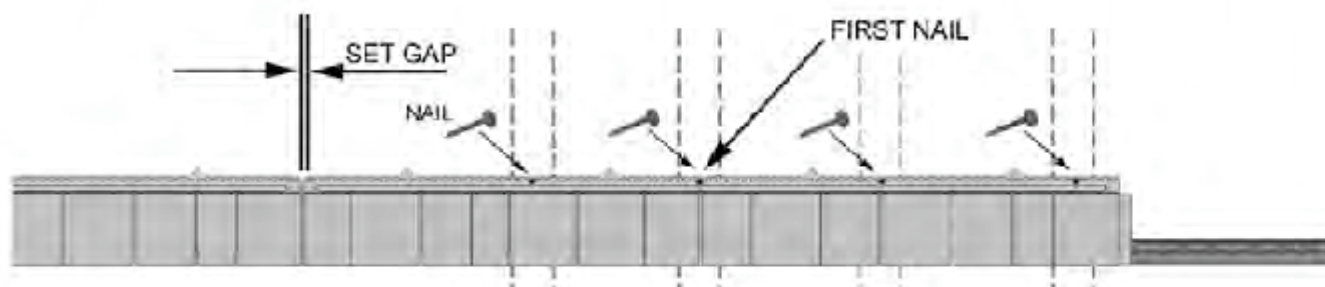
To install the first siding panel cut a straight edge on the side that is to be inserted into the corner trim channel. Hook the bottom lock into the starter strip and slide the panel into the corner trim channel. Keep the siding panel a minimum of 1/4" away from the inside edge of the corner trim channel. This allows for expansion of the siding panel.



Nail the siding panel to the structural member (stud or nail base), closest to the center of the panel, and working out to the ends. Nail spacing cannot exceed 16". All nails located in the nailing hem must be driven until there is a 1/16" gap between the nail head and the siding panel. This allows for expansion and contraction of the siding panel. Nails must be located in the center of nailing slots.



Siding panels must be nailed at a minimum frequency of 16". A 3/4" minimum nail penetration into a structural member stud or nail base) is required. Install the second panel by hooking onto the starter strip and overlapping the male side lock (Temperature markings section 4.4). Position the second panel to the required gap for expansion and nail into location. Start by nailing the panel in the center area and working out.

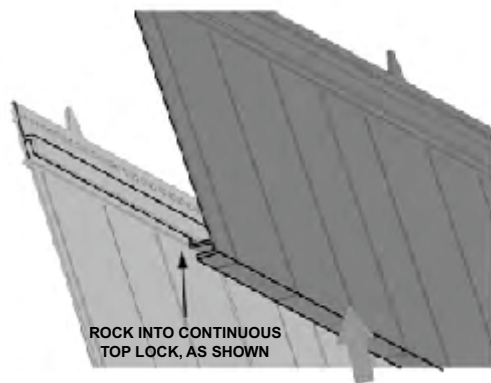


Continue with this process until the first course is completed remembering to leave a minimum 1/4" gap for the last panel into the corner trim channel.

Installing the second and subsequent courses

Start each subsequent course with random length siding panels to prevent a repetitive joint or grain pattern. When connecting the panels, make sure the continuous bottom lock is fully engaged with the continuous top lock of the previous course.

Where the seams of upper course panels come together, it is advised that a nail be put in the lower courses nailing hem directly below the seam.



Make sure a minimum of 8" of the continuous top lock is remaining exposed for the next panel to lock onto.

Locking Mechanism

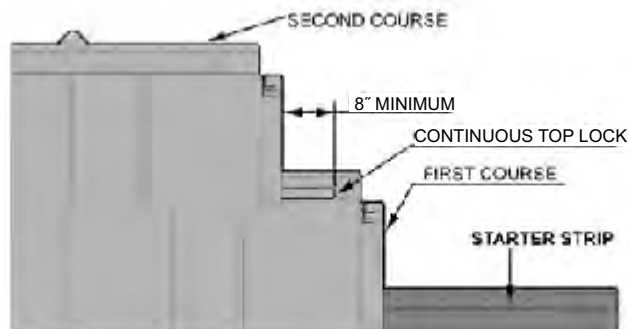
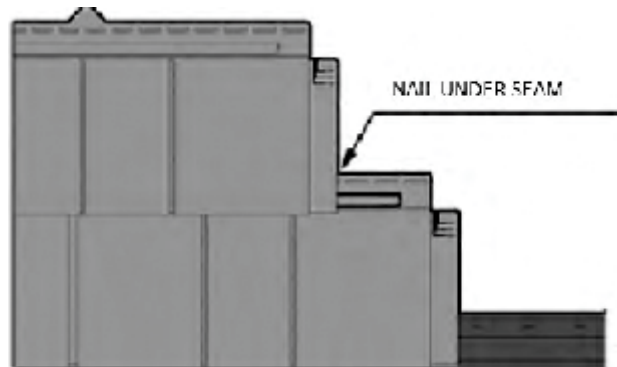


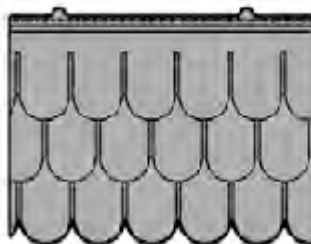
Illustration of two courses installed



Where two panels are joined, install a nail in the lower courses nailing hem directly underneath the seam

Each next course should have the center of the scallop aligned with the groove between scallops of the course below. Panels must overhang more than 8" than the course below it.

Scallop Alignment



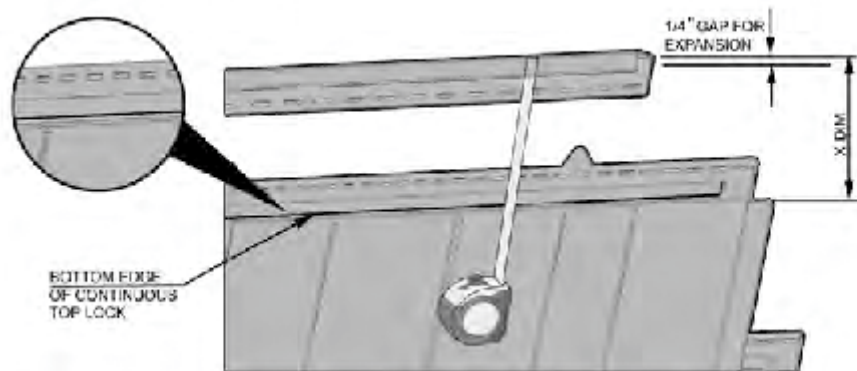
TRIMMING

Installing final course

Use J-channel, dual undersill trim, or 2 piece molding. Measure from the inside of the trim channel down to the bottom edge of the continuous top lock minus $\frac{1}{4}$ ". This is the height dimension for the final course.

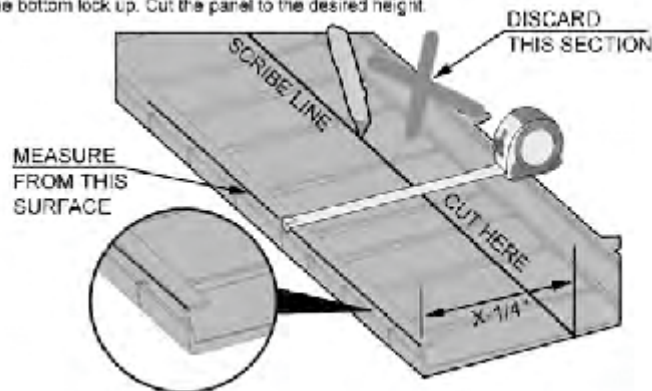
Lay the panel face down and measure from the bottom lock up. Cut the panel to the desired height.

Measuring the Final Course



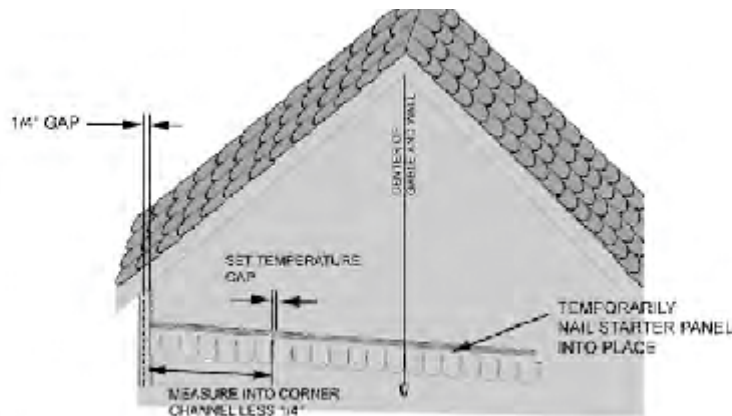
Lay the panel face down and measure from the bottom lock up. Cut the panel to the desired height.

Cutting the Final Course



FOR A SYMMETRICAL APPEARANCE ON GABLE WALLS:

1. Locate the center of the wall prior to beginning installation.
2. Temporarily install the center panel.
3. Temporarily install the left most panel remembering to set the temperature gap
4. Measure and cut your starting panel from the space left between the left most temporary panel and the gable edge.
5. Once starting panel is established, remove the temporary panels and begin laying your first course for this wall (remember to allow a $\frac{1}{4}$ " gap between your first panel



Scallop Installation