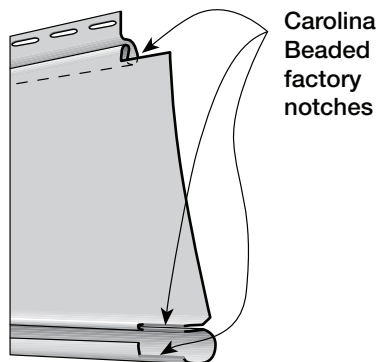
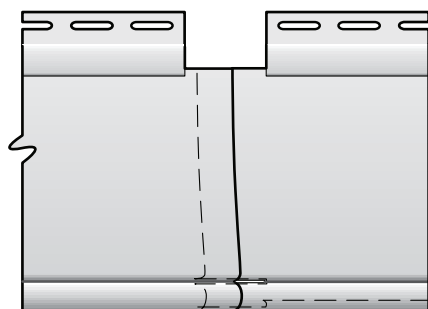
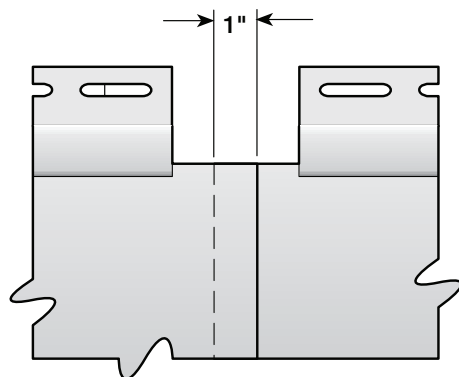
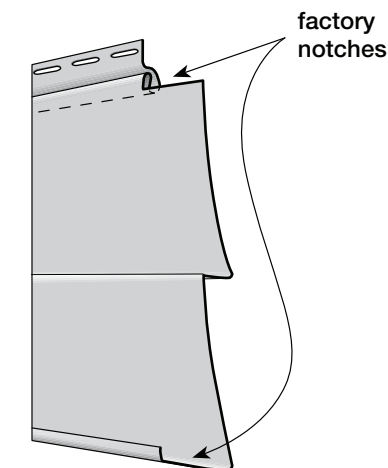

Section 7 — Installing Horizontal Siding

Top Ten Tips for Installing Vinyl Siding

CertainTeed provides quality vinyl siding and accessories that are backed by one of the industry's best warranties. However, even the best products fall short of expectations if they are not installed properly. Following these ten recommendations—the basics of a professional installation—can help ensure a quality installation that fulfills homeowners' expectations and reduces call backs.

1. Install all siding and accessories over a smooth, flat surface. Always install siding over a rigid sheathing, and never install it over open studs.
2. Vinyl siding is not a watertight material. Install a weather-resistant barrier, like CertainTeed CertaWrap, and flash around all windows and doors before installing vinyl siding and trim.
3. There are three recommended ways to cut vinyl siding: For rip cuts, score the panel with a knife or vinyl blade and bend the panel back and forth. Use aviator snips or shears to fit panels around windows and doors. For cross cuts, use a circular saw with a plywood blade in the reverse position.
4. Always leave room for expansion and contraction into receiving channels like outside cornerposts, inside cornerposts, and J-channel. If the temperature is above 40°, leave 1/4"; if the temperature is below 40°, leave 3/8".
5. When installing horizontal vinyl siding panels 12' 6" in length or shorter, overlap the factory notches 1" to 1-1/4" (depending on the temperature).
6. Always nail in the center of the nail slots: 16" on center for siding; 8" to 12" for accessories.
7. DO NOT NAIL TIGHT! Always leave 1/8" to 1/16" between the nail head and the wall surface to allow for movement when the panel expands and contracts.
8. Hang vertical accessories from the top of the top nail slot. If the accessory is longer than 12', hang it from the top two nail slots.
9. Lap away from the highest traffic pattern, typically the front of the house. Keep laps at least 3' apart from course to course, and install three courses between laps above each other.
10. Finish the last piece of siding into utility trim or dual utility trim.



Cutting Panels

To cut panels to size, follow these procedures:

Cross cuts

For a precise cut, use a power circular saw equipped with a sharp, fine-tooth plywood blade. For best results, reverse blade direction.

Cut one or two panels at a time, carefully advancing the saw through the vinyl. A rule of thumb: The lower the temperature, the slower the feed rate.

Panels can also be cut with snips. Use a square to mark the cut line. Start the cut at the top lock and continue to the bottom of the panel.

Rip cuts

Use a utility knife to score the panel along the cut line. Bend the panel back and forth along the score line until it snaps apart cleanly.

Use a combination of tin snips and utility knife to cut panels to fit around windows and doors.

Overlapping Panels

Refer to the chart on page 35/36 for required overlap spacing.

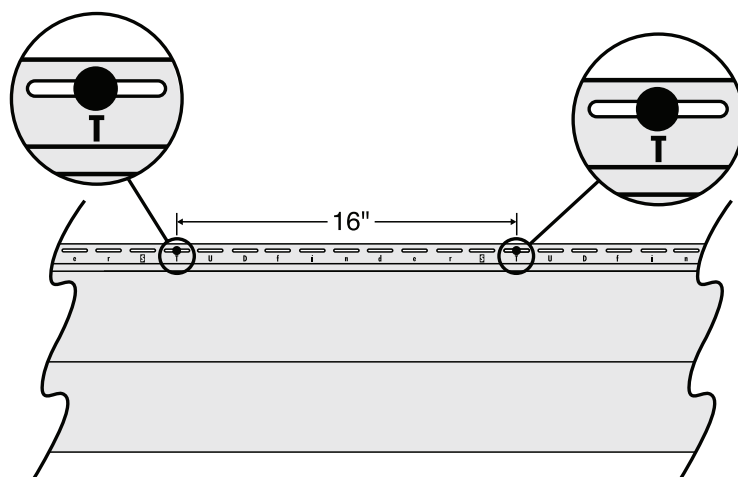
NOTE: Whenever you cut a panel to be used in an overlap area, you also have to duplicate the factory notch at both the top and bottom of the cut end.

NOTE: The Carolina Beaded panel is factory-notched in three places. For best results, overlap panels using factory notched ends only. If a panel must be cut on site, insert cut ends into receiving channels in cornerposts or J-channel. If this isn't possible, create an exact duplicate of notches using aviation or tin snips.

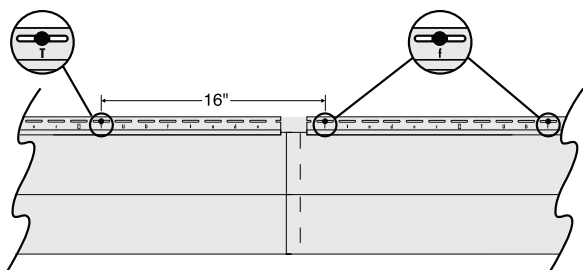
STUDfinder Installation System for 12' Panels

The STUDfinder™ Installation System combines precisely engineered nail slot locations with graphics to help ensure quick, accurate and secure installation of CertainTeed siding panels on homes with standard 16" or 24" o.c. frame construction.

NOTE: In areas without special wind-load requirements, some vinyl siding may be used in 24" o.c. construction. Check with your local building code official for special requirements and ICC-ES Evaluation Report ESR-1066 for special wind-load requirements.



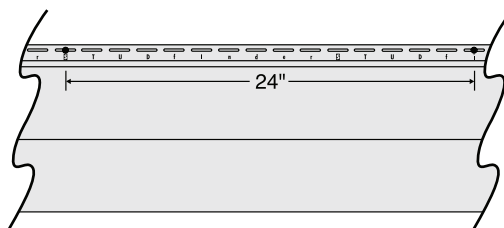
Standard 12' panels feature 10 nail slots every 16", with one of the 10 letters in the word "STUDfinder" centered directly under each slot. Locate the first stud and fasten the siding to it in the center of the nail slot. Ensure that nail/staple penetration is at least 3/4" to comply with ASTM D4756 (specification for vinyl siding installation). Notice which STUDfinder letter appears below the slot.



Go to the next repeat of the letter to find the next stud. For example, if your first stud is at "T," succeeding studs in 16" o.c. applications will also be at "T" (every 10th slot).

When you apply the next panel, adjust the overlap as necessary to line up with studs and repeat the steps above, but be aware that the overlapping panels may not use the same letter as your initial panel.

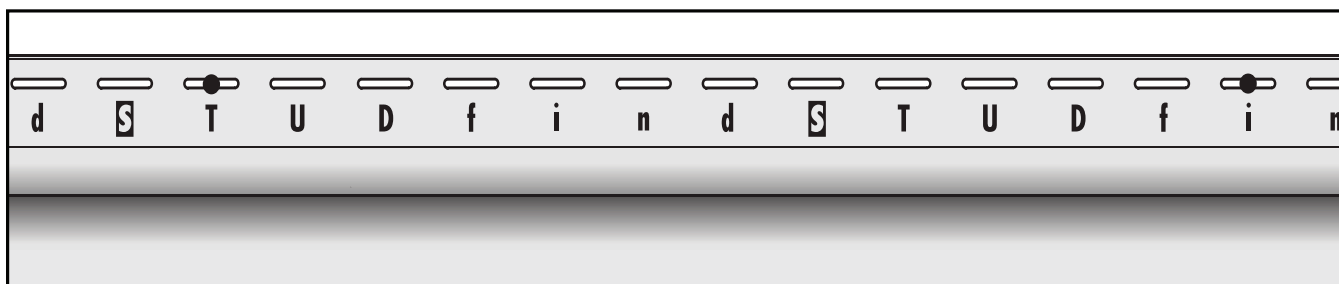
In 24" o.c. applications with standard size siding panels, 2 letters will repeat every other stud (every 15th slot). For example, if the first stud is located at "S," then the next will be at "i," then "S," then "i," etc.



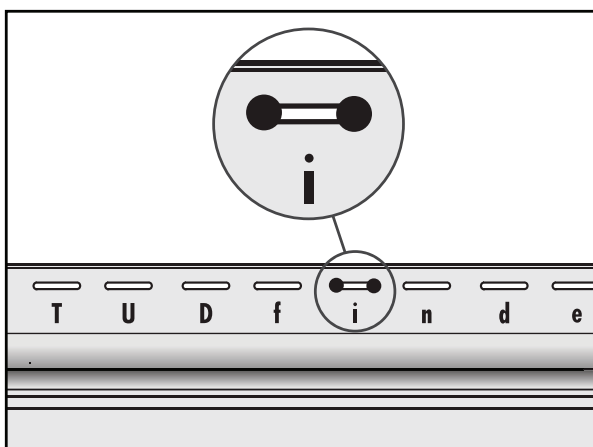
STUDfinder Installation System for Oversized (16', 16' 8", 20' and 25') Panels

CertainTeed's longer siding panels – 16'8" CedarBoards XL, 16' and 20' Monogram 46L and 25' Monogram 46XL – feature 8 nail slots every 16", with one of the 8 letters of the word "STUDfind" centered directly under each slot. In 16" o.c. applications, locate the first stud and follow the same basic procedure described for standard size panels: note which STUDfind letter appears below the first nail slot and go to the repeat of that letter to find the next succeeding stud (every 8th slot).

When installing longer Monogram or CedarBoard panels on 24" centers, the succeeding studs are at every 12th slot; for example, if you start at "T," then the next will be at "i," then "T," then "i," etc.



NOTE: Monogram XL 25' panels must be "center pinned" to control expansion and contraction. To do so, locate the center nailing slot of the panel and drive nails into both ends of the slot (see illustration). This is only done for one nail slot per panel.

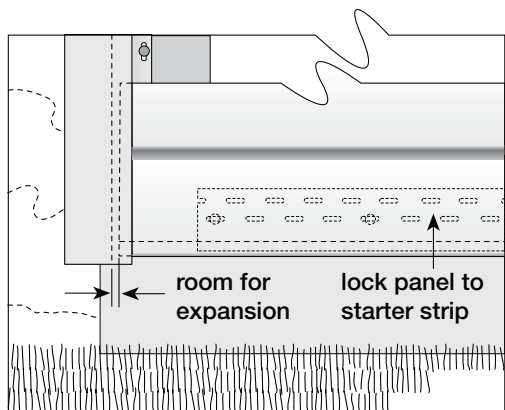


NOTE: Ensure that nail/staple penetration is at least 3/4" to comply with ASTM D4756 (specification for vinyl siding installation). Also be sure to allow 3/8" for expansion and contraction between panel ends and trim when install temperature is greater than 40° F, and 1/2" for expansion and contraction between panel ends and trim when install temperature is less than 40° F.

Preparing Wall Surfaces

The key to successful vinyl siding application is proper preparation of the nailing surface. It is essential that you work over a smooth nailing surface. The more level and even the wall surface, the better the finished installation will look.

The steps involved in preparation differ for new homes and old, so choose the instructions (page 28 to 33) that pertain to your project.



Installing the first course

It's important to work with care and planning as you install siding panels. This is especially true when you're installing the first course of siding. (See pages 33 to 35 for fastening methods.)

For best results, follow these guidelines:

The key to creating a visually attractive installation is to lap away from areas where people normally walk or gather. For example, on the front wall, work from the corners to the entrance door (so overlaps face away from door).

On side walls, work from the rear corners toward the front. This approach minimizes the effect of lapping and produces the best appearance. Keep lap appearance in mind throughout installation.

NOTE: Lap appearance is also improved when you avoid using panels less than 3' long.

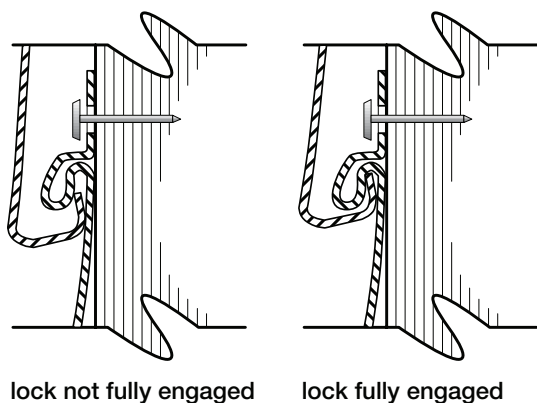
Slide the first panel into the cornerpost recess. Leave room for expansion (see page 35-36 for spacing requirements).

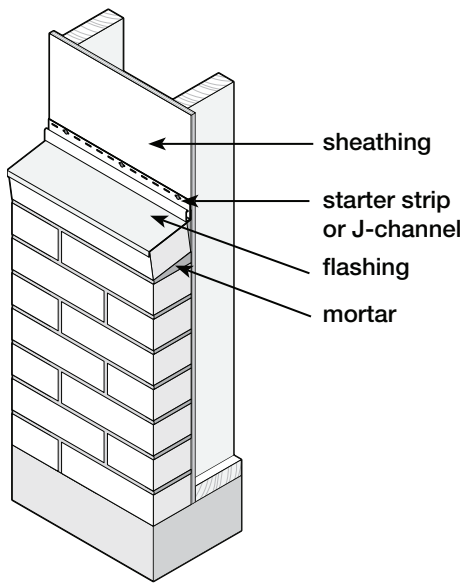
Hook the bottom lock of the panel into the interlock bead of the starter strip by applying upward pressure.

Before nailing, double check to make certain you've locked the panel along its entire length. A slight upward pressure may be required to snap the interlock securely. Don't force the lock too tightly, however. You may distort your laps. Nail properly. Also, make certain the panel can slide freely. Start at the center of the panel and work out.

Install the remaining starter course panels, overlapping panel ends (see pages 35-36 for overlapping requirements). The last nail should be at least 4" from the end of the panel to allow for a neat lap.

Remember to leave room for expansion when fitting panels into remaining inside and outside cornerposts.





Transitioning from brick, stone, or stucco to vinyl siding

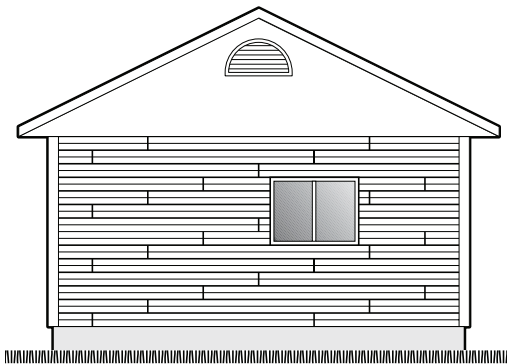
To transition from brick, stone, or stucco to vinyl siding:

- Caulk where the sheathing meets the brick, stone, or stucco. Caulk the flashing, and make sure a drip cap is in place.
- Use J-channel or starter strip to receive the siding when installing horizontal siding. If you use starter strip, leave 3/8" clearance so that the siding can engage securely.
- When installing vertical siding, use J-channel to receive the siding.

Installing remaining courses

To ensure best appearance, position the laps to avoid unsightly joint patterns. The illustration at left shows a well-planned staggering of panel joints. Follow these guidelines:

- Separate joints by at least two courses.
- Avoid joints above and below windows.
- Leave at least 3' separating joints on successive courses.
- Use short cutoff lengths for fitting at narrow openings between windows.
- Follow the planned pattern when applying the next courses of siding.



Fitting under windows

You'll probably have to cut panels to fit under windows.

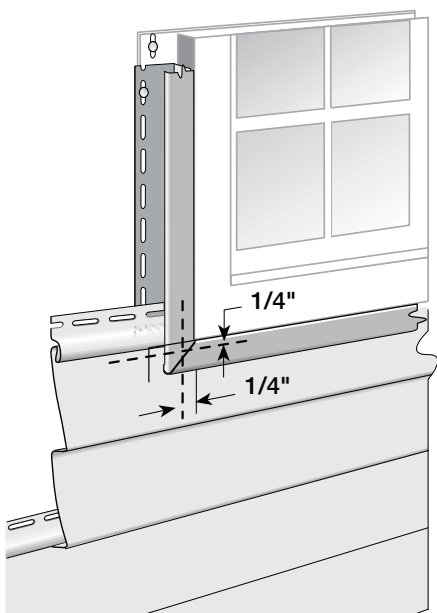
To make this task easier, plan panel positioning as shown at left so a single panel extends beyond both sides of window opening. Follow these steps to measure and cut panels:

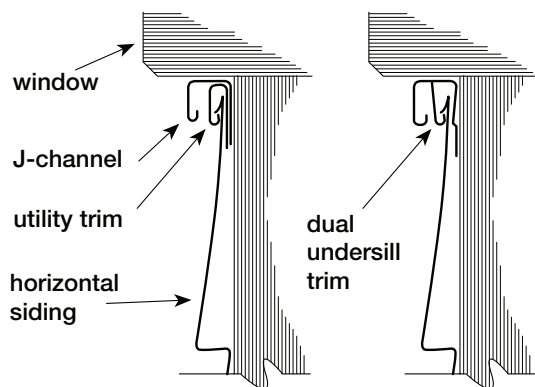
Hold the panel in place and mark the width of the window opening. Add 1/4"–3/8" to both ends to allow for expansion. The resulting marks show the location of vertical cuts. Extend the marks onto the panel using a square.

Create a template for the horizontal cut using a small piece of scrap siding. Lock this piece into the lower panel and mark 1/4" below the sill height. This provides clearance for undersill trim. Repeat the procedure on the opposite side of the window. (You can't assume windows will be perfectly level.)

Transfer the marks from the template to the panel. Connect marks using a straightedge.

Cut the panel, using tin snips to make vertical cuts and a utility knife to make the horizontal cut.





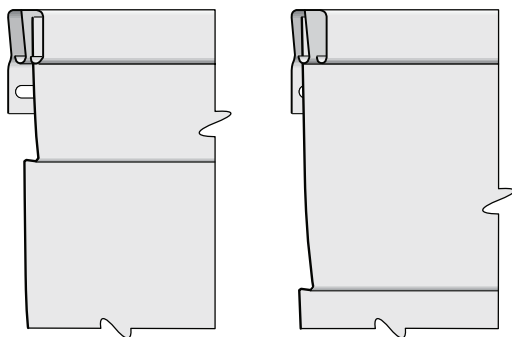
Install panel

If necessary to maintain the slope angle, install furring under the sill as described on pages 31 to 32.

NOTE: You can eliminate this step by using dual undersill trim. This trim has two receiving channels. Use the inner channel if you've cut the siding panel near the locking edge. Use the outer channel if the cut has been made near the butt edge.

Use a snap lock punch to raise tab faces on the outside of the panel. Punch out a tab every 6".

Push the horizontal edge of the cut into utility trim. Slide vertical edges of cut into J-channels at window sides. Make certain the installed panel locks into the panel below.



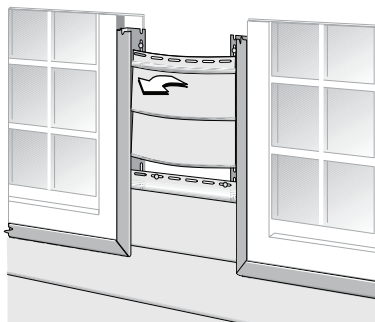
installing trimmed panels with dual undersill trim

Fitting over windows and doors

The procedure for cutting panels for installation over windows and doors is similar to that explained earlier.

If necessary to maintain the slope angle, install furring above the window or door as explained on pages 31 to 32.

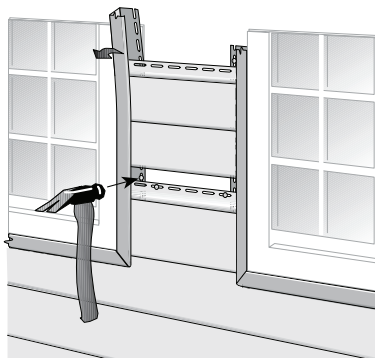
Drop the panel into position, making certain it fits into the undersill trim and J-channel at the top and J-channel at the sides. Interlock the panel with the siding panels below.



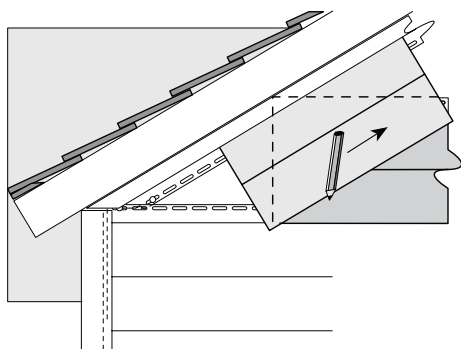
Fitting at narrow openings between windows

To simplify installation in areas such as that shown in the illustration, install J-channel on both sides of opening.

Bow the panel toward you and slip it into the channel.



If the area is very narrow, leave one J-channel unnailed except at the lowest point (as shown). Bend this channel out slightly to insert panel. When the panel is in place and nailed, nail the J-channel immediately above the panel and repeat the procedure. Be sure to leave adequate tolerances for expansion and contraction.



Fitting at gable ends

Make a pattern duplicating the gable slope. Use this pattern to guide the cutting of panels to fit gable ends.

To make pattern:

Lock a short piece of siding into the panel gable starter course as shown in the illustration.

Hold a second piece of siding against the J-channel at the slope.

Run a pencil along edge of this piece, transferring the slope angle to the first piece of siding.

Cut along the line using a power saw or tin snips. Use the resulting pattern to mark siding panels before cutting.

NOTE: Double-check the angle on the pattern at every course. If necessary, cut a new pattern.

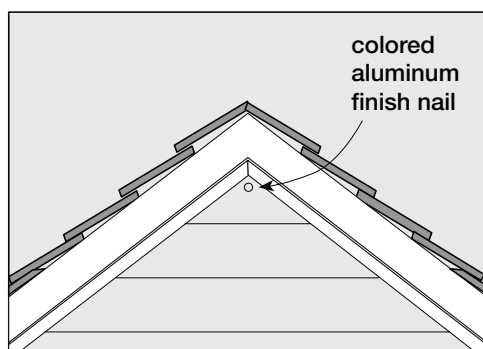
To install cut panels:

Slip the angled end of the panel into J-channel along the gable edge. Leave space for expansion.

Interlock with the siding panel below.

If necessary to securely fasten the last panel at the gable peak, face nail as shown in illustration. This is the only place you will face nail. Use a 1-1/4" to 1-1/2" aluminum nail with painted head.

NOTE: Do not cover louvers in gables.



Fitting under soffit

When you reach the last course of siding, you will probably have to rip cut panels lengthwise to fit under soffit.

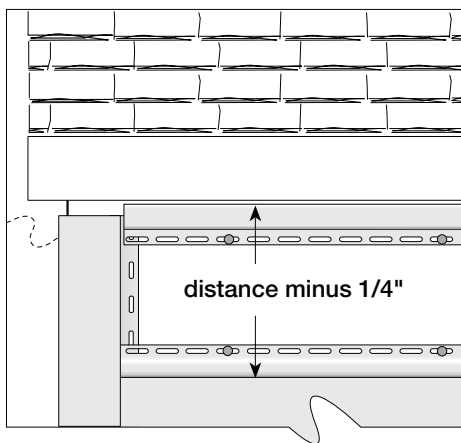
NOTE: If necessary to ensure proper panel slope angle, make certain to furr out this area.

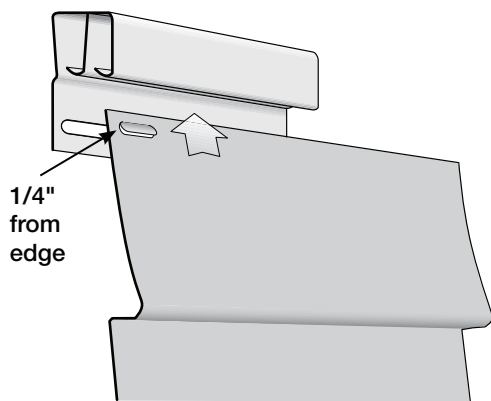
To cut and install this last course:

Install J-channel and undersill trim or dual undersill trim.

Measure from the soffit to the base of upper lock on the previous course of panels. Subtract 1/4". Mark this dimension on the panel to be cut, taking the measurement from the bottom edge of panel. For a more precise cut, repeat this procedure at several other points along the span to be covered by the panel.

Using a square or straightedge, draw a pencil line connecting these points. Then score along the line with a utility knife. Bend the panel back and forth until it snaps. Use a snap lock punch to create tabs on the outside face of the panel, 1/4" below the cut edge. Space tabs every 6".



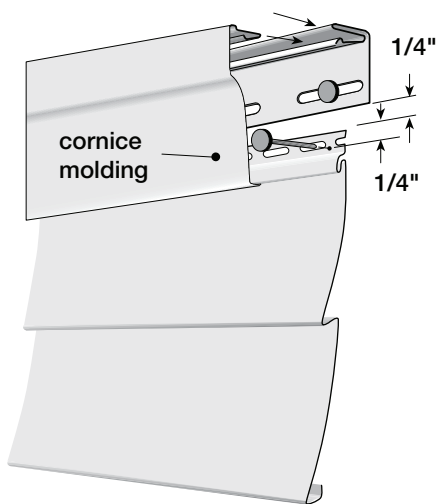


To install, lock the bottom of the cut panel into the panel below. Push the top edge into J-channel or undersill trim. Tabs will catch in the trim and hold the panel firmly in place.

NOTE: Since you will not nail this last course, it is important that the tabs fit properly in the trim to provide support while allowing movement for expansion.

Finishing the top course

To finish the top course of siding, attach cornice receiver to the top of the wall under the eave or soffit. Trim the top panel to within 1/4" of the cornice receiver. Using a nail slot punch, punch nail slots 1/4" from the trimmed edge of the siding panel, 16" apart. Nail off the top course, and snap the cornice molding into the cornice receiver. An alternate method is to use J-channel and furring strips.



Completion

Attaching objects to siding

All external products (downspouts, shutters, and lights, for example) are attached to walls after you've applied the vinyl siding.

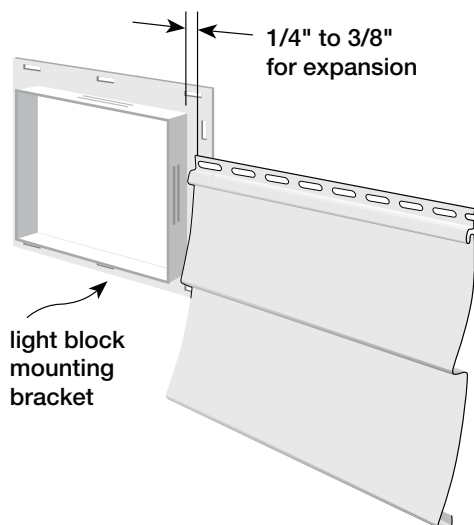
NOTE: All external fixtures must be attached to a solid backing (such as 3/4" exterior grade plywood) to provide a secure mounting surface. Never attach a fixture directly to vinyl siding.

When installing external products, you must allow for expansion and contraction of siding.

You can allow for this movement in two ways:

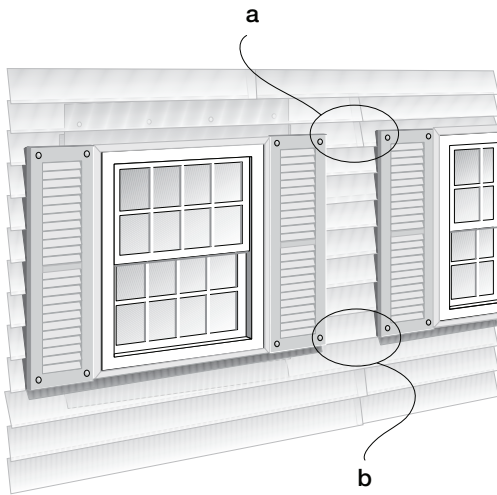
The most convenient way to attach light fixtures is with light blocks. Because they contain receiving channels to hold siding panels, light blocks provide a simple way to allow for expansion.

When attaching other fixtures, drill holes in the siding 1/4" larger than the diameter of screws, bolts, or nails being used to fasten objects. This provides adequate clearance so the siding can move freely underneath attached objects. When attaching objects, do not fasten tightly. It is also recommended that you apply caulk around the screws.



Fitting at light blocks

When cutting panels to fit at a light block, be sure to allow for expansion.



Shutter Installation

The ideal application (a) has a joint between the two shutters where the shutters are secured to the home. In this way, the siding panel is not “hard nailed” between the two shutters and the siding is allowed free movement.

When there is no joint between the shutters and when the shutters are secured to the home (b), the shutters’ fasteners do not allow the siding panel to move. The siding panel then fails to perform because it cannot expand or contract with the temperature changes.

To prevent this, enlarge the holes in the siding for securing the shutter—the hole should be 1/4" larger than the shank of the fastener.

If possible, stagger the screws securing the shutter so that they do not line up on the same panel. It is also a good idea to apply caulk around the screws.

NOTE: See page 76 for fitting siding into narrow openings.