CertainTeed

GUÍA DE INSTALACIÓN

Revestimiento de vinilo y polímero



CertainTeed
SAINT-GOBAIN



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 aviation 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 nail hem 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.

YouTube

Watch our latest Vinyl and Polymer Siding Installation videos on our YouTube Channel

youtube.com/c/certainteedsaintgobain



Become a CertainTeed Master Craftsman

The CertainTeed Master Craftsman program is your opportunity to earn valuable rewards while maintaining a leg up on your competition. These rewards are not available to everyone, just to those who have successfully passed the Master Craftsman Education and Development test.

As a Master Craftsman, you are entitled to:

- Receive a personalized Certificate of Completion that you can use to promote your professional services.
- Be listed as a Master Craftsman on our contractor locator website, where potential customers can find you. The listing will include your name, company name, phone number, e-mail address, and a link to your website if you have one.
- Have access to the Master Craftsman website, which includes Building Solutions® program information, industry news and information, and product and installation updates.

For more information about the CertainTeed Master Craftsman program, call

800-233-8990

or log on to

www.certainteed.com/mastercraftsman

Important Information

Warranties

This information contained in this Installation Guide describes and illustrates the steps required to properly install CertainTeed siding, trim, and accessories. The Installation Guide provides detailed information and how-to tips that will support a successful installation. These requirements are provided throughout this Guide. Also, consult local building codes for additional requirements. Should you have questions about installation techniques, you may contact CertainTeed for further information. Any deviations from these requirements described in this Guide must be addressed and approved in writing by CertainTeed. Please be aware that CertainTeed does not accept any liability or responsibility under its written limited warranty for failure caused by an application that does not meet the requirements for proper installation. Improper installation may void coverage under the limited warranty.

In rare instances, intense sunlight reflected from glass or other reflective surfaces may create heat buildup and cause vinyl siding to distort or melt. To help minimize the effects of heat buildup from reflected sunlight, the homeowner may take one or more of the following measures:

- Install a screen in the window causing the reflection.
- Install an awning over the window to break the line of light reflection.
- Use shrubbery to protect the area of siding from reflections.

Distorted or melted siding caused by the reflection of sunlight is not covered under the limited warranty. For more information on the potential damaging effects of concentrated solar reflection, visit the VSI website at https://www.vinylsiding.org/homeowners/resources/understanding-concentrated-solar-reflection/

Building codes and regulations vary throughout the country. Be sure to check with your local code official or governing body for the building requirements in your area.

Lead Renovations

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead-based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly. You can find out about safety measures for lead-based paint by calling 1-800-424-LEAD (5323).

Important Fire Safety Information

Exterior vinyl building materials require little maintenance for many years. Nevertheless, common sense dictates that builders and suppliers of vinyl products store, handle and install vinyl materials in a manner that avoids damage to the product and/or the structure. Owners and installers should take a few simple steps to protect vinyl building materials from fire:

- To Home and Building Owners: Rigid vinyl siding is made from organic materials and will melt or burn when exposed to a significant source of flame or heat. Building owners, occupants and outside maintenance personnel should always take normal precautions to keep sources of fire, such as barbecues, and combustible materials, such as dry leaves, mulch and trash, away from vinyl siding.
- To the Building Trades, Specifiers, Professionals and Do-It-Yourself Installers: When rigid vinyl siding is exposed to significant heat or flame, the vinyl will soften, sag, melt or burn, and may thereby expose material underneath. Care must be exercised when selecting underlayment materials because many underlayment materials are made from organic materials that are combustible. You should ascertain the fire properties of underlayment materials prior to installation. All building materials should be installed in accordance with local, state and federal building codes and fire regulations.

This manual shows the basic guidelines for installation. It is based on ASTM (American Society for Testing and Materials) D4756, the standard practice for installation of vinyl siding and soffit. Additionally, we recommend that local building codes be reviewed

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Section 1 — Introduction

Introduction

Plan your work, then work your plan.

That's the key to success with any project, and it's doubly true when it comes to installing vinyl siding, soffit, trim and accessories.

If you use the right materials and the right tools in the right order, you'll complete remodeling and new home installations in less time, with less effort, and with far greater satisfaction.

Since you're using CertainTeed products, you've already taken the first step toward success. CertainTeed sidings, soffit, trim and accessories provide premium quality, rugged durability and outstanding appearance. Quite simply, they're made to look great—on the day they're installed and for years after.

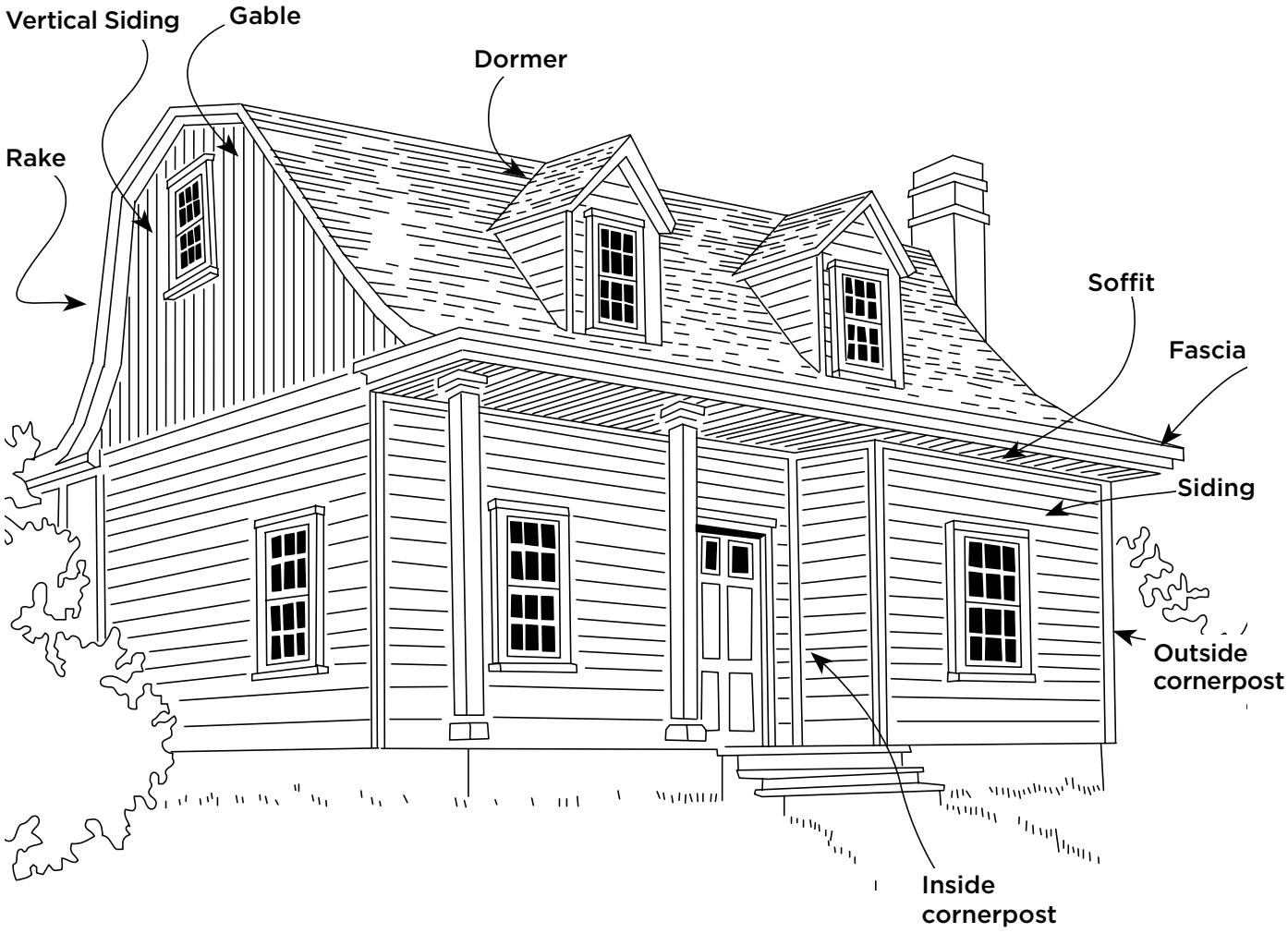
The second ingredient of success —using the proper tools, techniques and procedures—is covered in this book. As you'll see by scanning the table of contents, this book guides you through every step of the installation process, from estimating materials to attaching mailboxes and shutters. Every major installation project is covered: horizontal; vertical, including Board & Batten; soffit and fascia; porch ceilings; and decorative trim. Where various approaches to a particular installation procedure are possible, the book presents practical alternatives. To make the instructions as detailed and complete as possible, hundreds of illustrations accompany the text.

As you're reading—and while you're working—keep in mind the most important rule of thumb for successful vinyl siding installation: **allow for movement**. All vinyl siding, soffit and accessories used in exterior applications must be able to move freely as they expand and contract with temperature changes. You'll see this point emphasized again and again throughout this book; you'll also learn various techniques for measuring, fitting and nailing that will allow this unobstructed movement. These are perhaps the most important lessons in this booklet.

NOTE: No instruction book can anticipate all the questions that might arise during a siding or soffit installation. Recognizing this, we've focused on the tools and techniques used to complete typical installations. Where appropriate, we've also included alternative approaches for specific installation steps. If you encounter a unique installation problem not covered in this book, we suggest you contact our Sales Support Group at 1-800-233-8990.

SECTION 2 — Siding Overview

Home Exterior Terms



Features of Polymer Shake and Shingle Siding

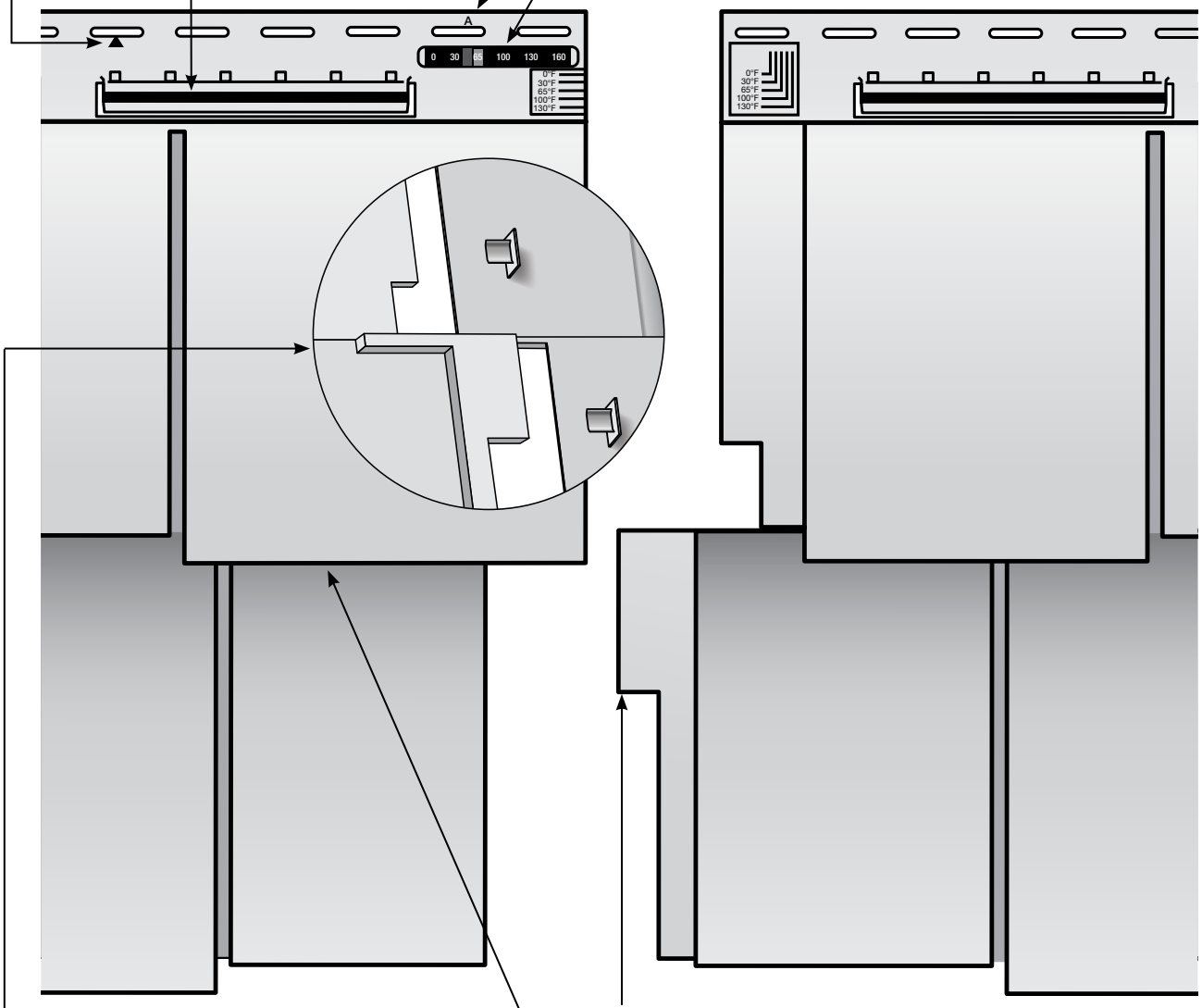
Double 7″ Straight Edge Perfection Shingles, Double 7″,
Double 7″ Staggered Perfection Shingles, Double 7″ Straight Edge Rough-Split Shakes,
Double 9″ Staggered Rough-Split Shakes and Single 6-1/3″ Perfection Shapes

QuickReference™ Nail Mark Indicators
- Industry exclusive easy-to-use nailing guide
- No measuring needed for correct panel nailing

Extra Long Top Locking Tabs
- Create an easier locking panel

QuickReference™ Panel Cut Indicators
- Improves speed and ease of installation

Patented PanelThermometer™
- Displays panel temperature!
- Easy-to-use temperature gauge
- The brightest cell indicates panel temperature
- Increases installation accuracy, decreases call backs



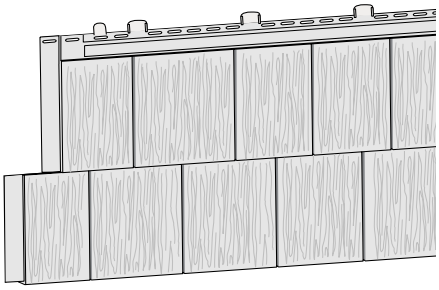
Oversized Perimeter Side Locking Tabs
- Helps create seamless appearance
- Allow for fast and easy panel engagement
- Offer greater tab strength and less breakage
- Extended lead-in allows for ease of installaton

Straight-Up Installation
- Notched side laps allow you to push in and straight-up to lock the panel securely — just like traditional vinyl siding!

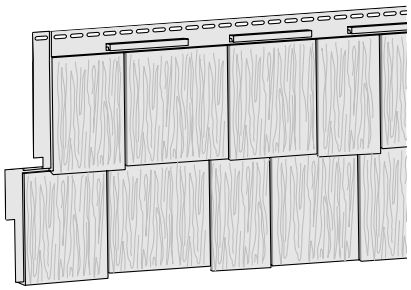
Deep Panel Projection
- Created distinctive shadow lines and shingle definition
- Perfection Shingles and Shapes: 3/4″ projection
- Rough-Split Shakes: 1″ projection

Polymer Shake and Shingle Siding Styles

Double 7" Straight Edge Perfection Shingles

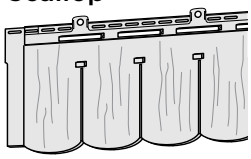


Double 7" Staggered Perfection Shingles

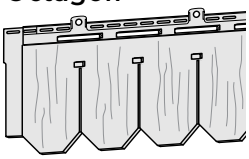


Single 6-1/3" Perfection Shapes:

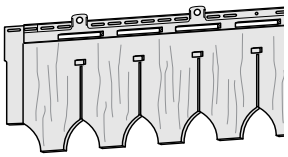
Scallop



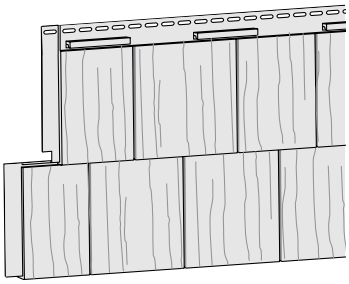
Octagon



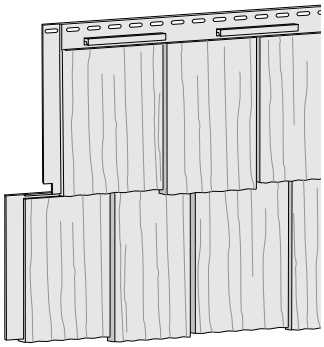
Half-Cove



Double 7" Straight Edge Rough-Split Shakes



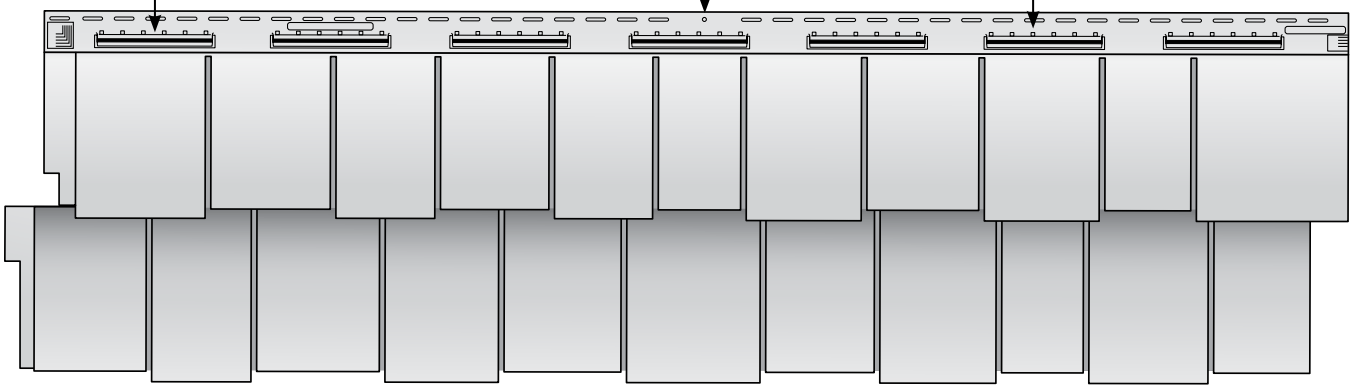
Double 9" Staggered Rough-Split Shakes



Exclusive Positive Lock
- Self-supporting, friction lock
- No need to hold panel while nailing
- Lead-in guide ensures engagement
- Allows for band board shrinkage

Center Pin Hole
Allows for even expansion and contraction of the panel.

Reinforced Ribs on Nail Slots and Lock Tabs
- Provide improved lock strength and holding power



Features of Polymer Shake and Shingle Siding

Triple 5″ Straight Edge Sawmill Shingles, Single 7″ Straight Edge Perfection Shingles and Individual 5″ Sawmill Shingles

QuickReference™ Nail Mark Indicators
- Industry exclusive easy-to-use nailing guide
- No measuring needed for correct panel nailing

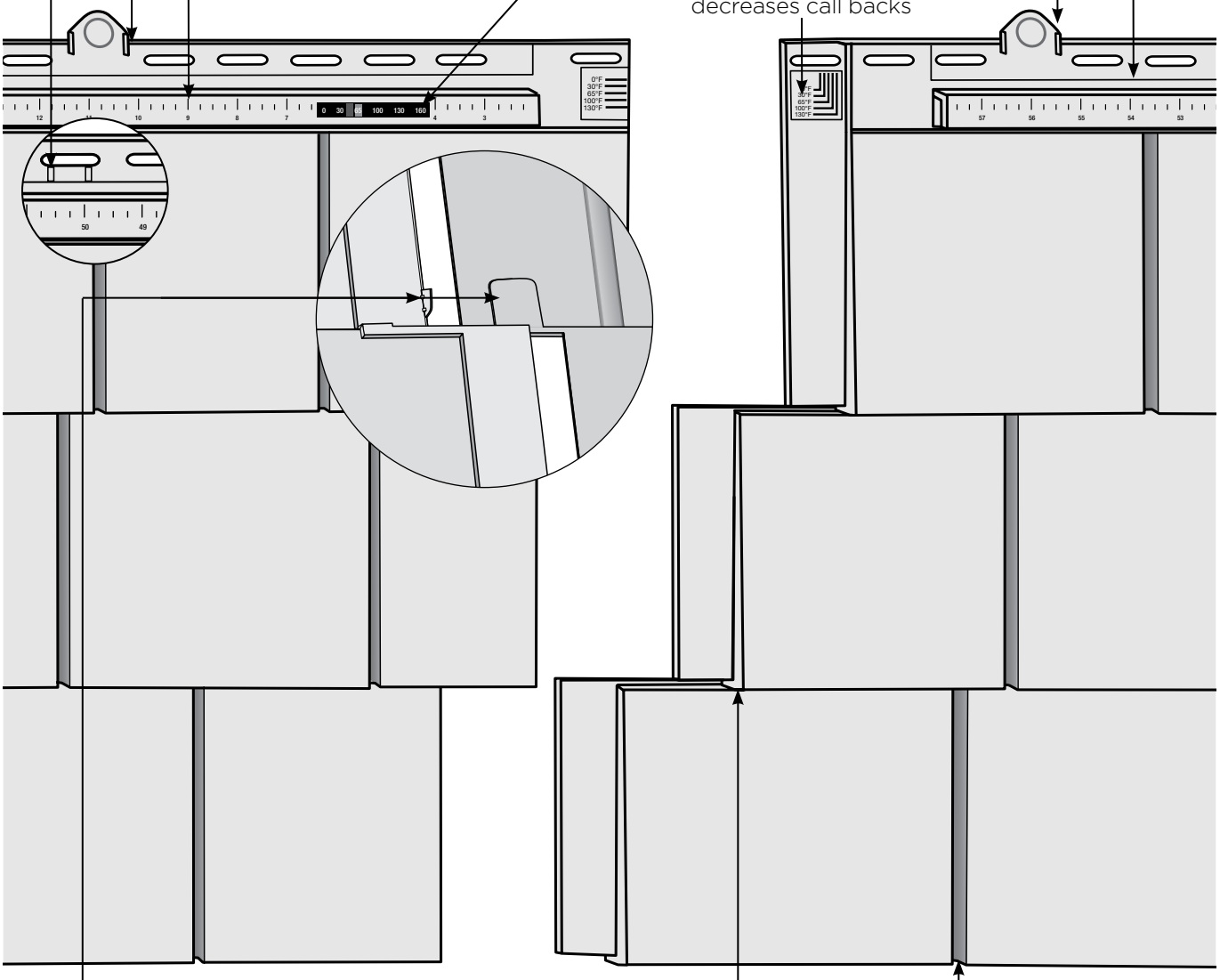
EasyMeasure™ Tape Measure
- Improves speed and ease of installation

CertiLock™ Continuous Hanger
- Creates a seamless look and holds panels securely together.

SureStop™ Recessed Nailing Area
- To minimize hard nailing

HammerTapper™ Assist Pads
- Help fine tune precise alignment

Patented PanelThermometer™
- Displays panel temperature!
- Easy-to-use temperature gauge
- The brightest cell indicates panel temperature
- Increases installation accuracy, decreases call backs



Engineered Side Tabs
- Helps create seamless appearance
- Allow for fast and easy panel engagement
- Offer greater tab strength and less breakage
- Extended lead-in allows for ease of installaton
- Notched side laps allow you to push in and straight-up to lock the panel securely — just like traditional vinyl siding!

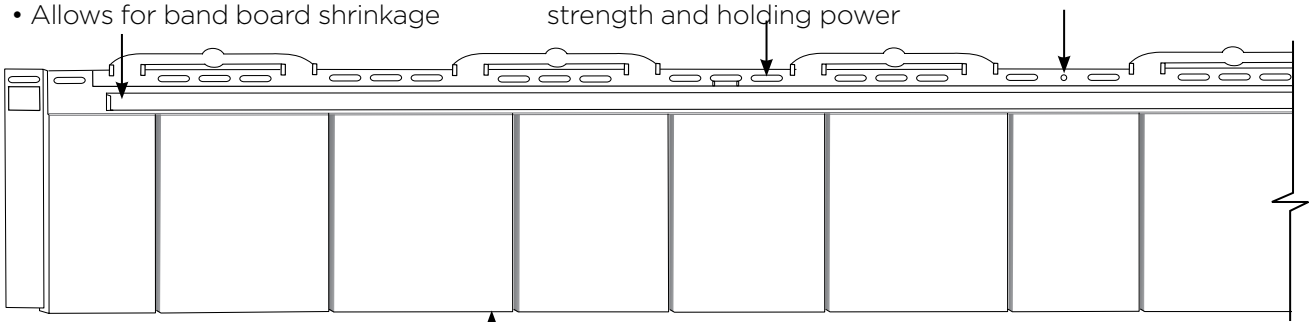
Deep Panel Projection
- Created distinctive shadow lines and shingle definition
- Triple 5″ Sawmill and Single 7″ Perfection Straight Edge Shingles: 3/4″ projection
- Tapered gaps for deeper shadows
- Realistic woodgrain butt edges

Polymer Shake and Shingle Siding Styles

CertiLock™ Continous Hanger
- Self-supporting, friction lock
- Lead-in guide ensures engagement
- Allows for band board shrinkage

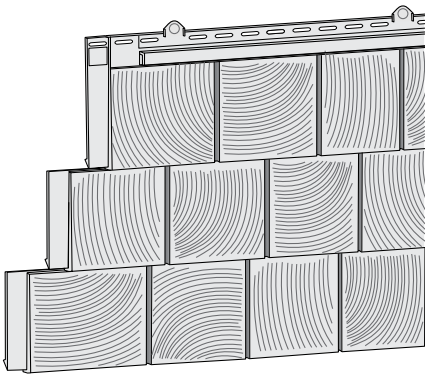
Reinforced Ribs on Nail Slots and Lock Tabs
- Provide improved lock strength and holding power

Center Pin Hole
Allows for even expansion and contraction of the panel.

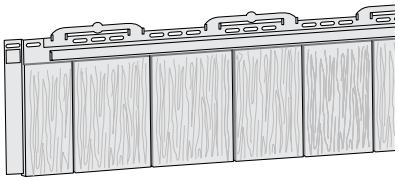


Engineered Drainage Holes

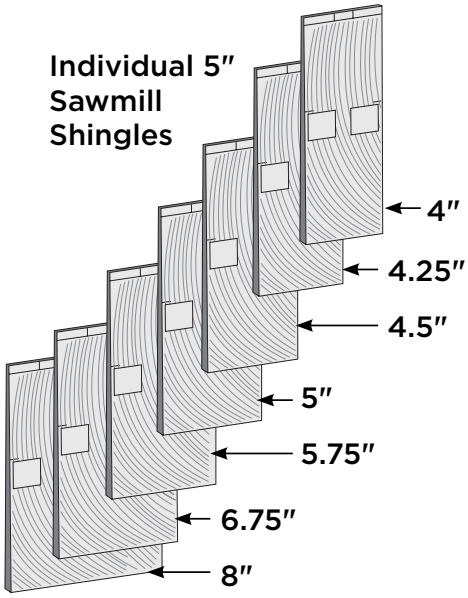
Triple 5" Straight Edge Sawmill Shingles



Single 7" Straight Edge Perfection Shingles



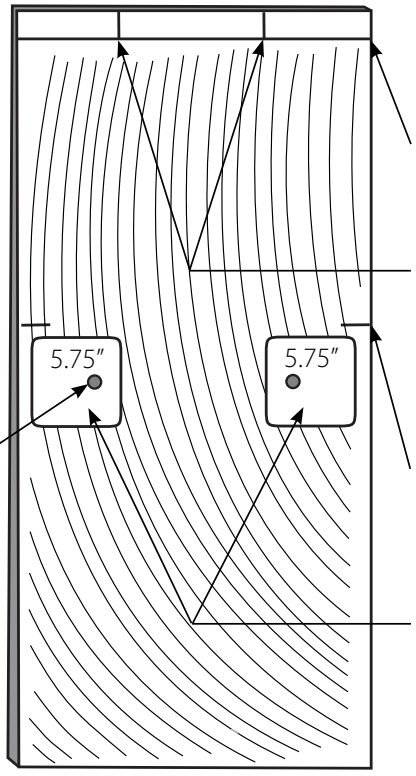
Individual 5" Sawmill Shingles



Features of Cedar Impressions Individual Shingle Siding

There are seven different shingle widths that vary from 4" to 8" (widths are engraved within the staple zone). Shingles are 12" long and required exposure is 5" (+/- 1/4"). Installation is made simpler with these easily identifiable features marked on the front the shingles.

Pre-formed Holes
For hand nailing application



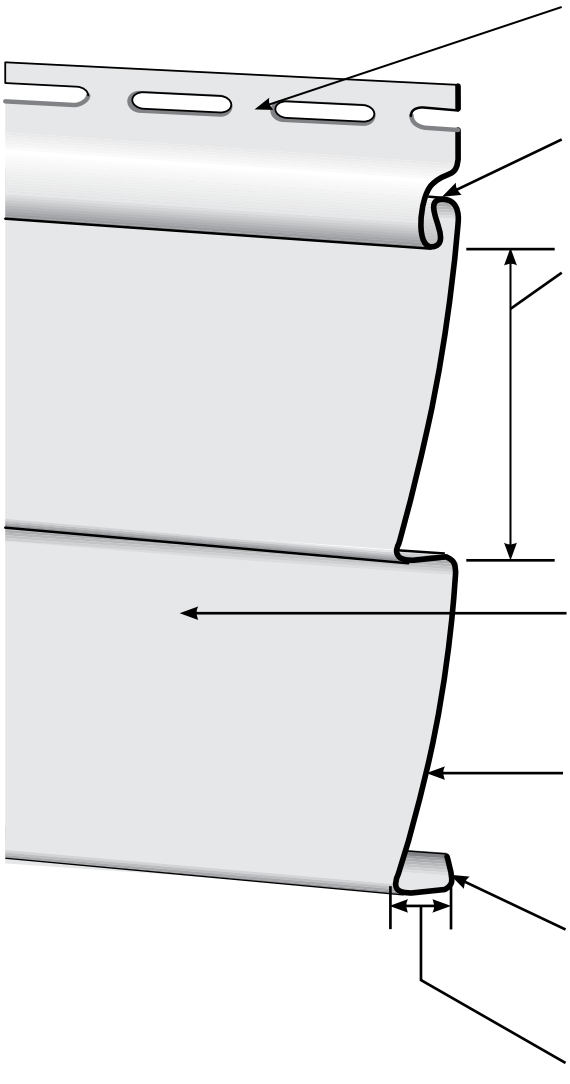
Starter 1/2" Offset
Align with top of first course shingles

Shingle Gap Zone
Overlapping shingle gap must fall between upper vertical marks and Fastener Target Zones (1-1/2" minimum from shingle edge)

Course Hash Marks
Align marks to top of prior course to assure 5" exposure

Fastener Target Zone
Fastener must be applied within the recessed area. 2 fasteners per shingle are required

Traditional Vinyl Siding Terms

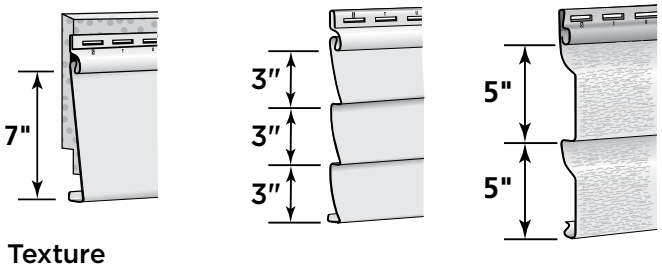


Profile
The contour or outline of a siding panel as viewed from the side.

Nail flange
Flat area along top of panel with slots for nailing; slots allow for expansion and contraction.

Lock
Molded area just under nailing flange into which butt leg/locking leg of next panel above is secured.

Exposure
The width of the exposed face of each panel of siding; also referred to as reveal.

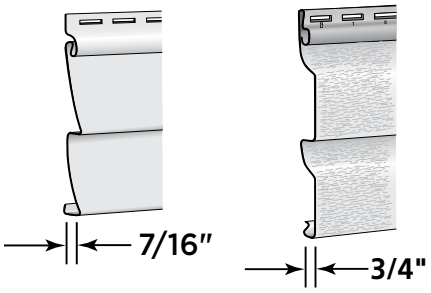


Texture
Visual and tactile characteristics of the siding panel; designed to recreate the authentic look of natural wood grain, stucco, smooth painted clapboard, etc.

Panel Thickness
An important element of siding quality. Thicker panels are more durable, stand up to impacts and high winds, and look straighter on the wall.

Butt leg/locking leg
The bottom part of a siding profile that connects or locks into the panel below.

Panel projection
Common to products with multiple faces (i.e. Double 4″ or Triple 3″). It is the dimension required for the proper selection of receiving channels (e.g., J-Channels and corner pieces).



Vinyl Siding Styles

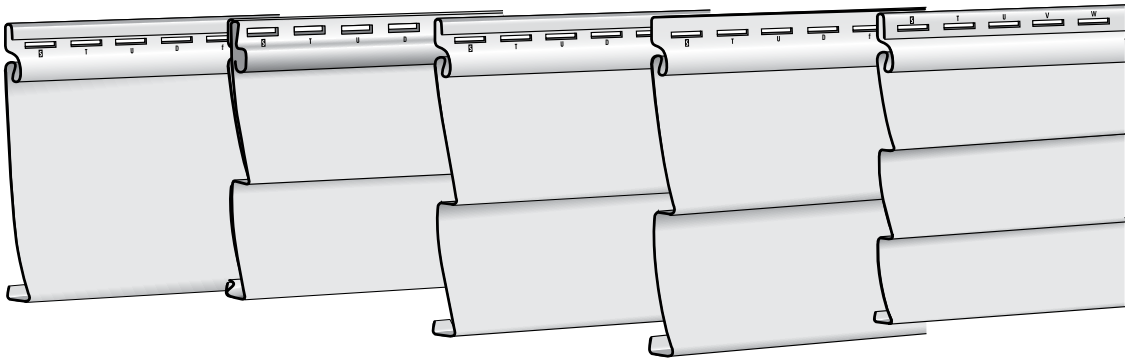
Single 8″ Clapboard

Double 4″ Clapboard

Double 4-1/2″ Clapboard

Double 5″ Clapboard

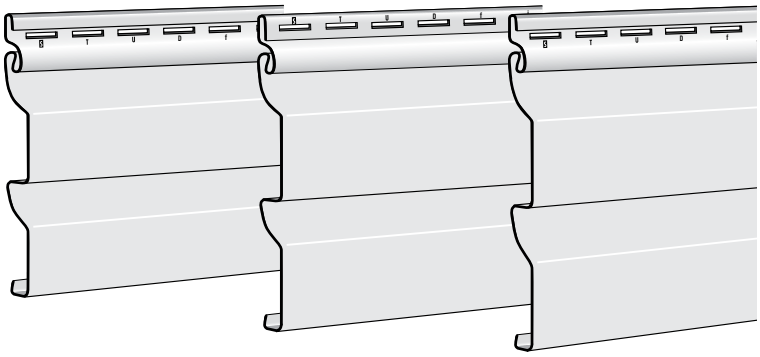
Triple 3″ Clapboard



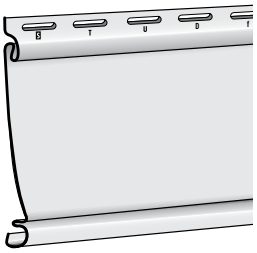
Double 4″ Dutchlap

Double 4-1/2″ Dutchlap

Double 5″ Dutchlap



Single 6-1/2″ Beaded



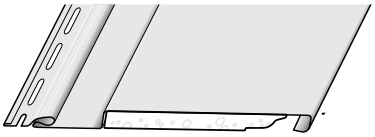
Single 7″ Vertical Board & Batten



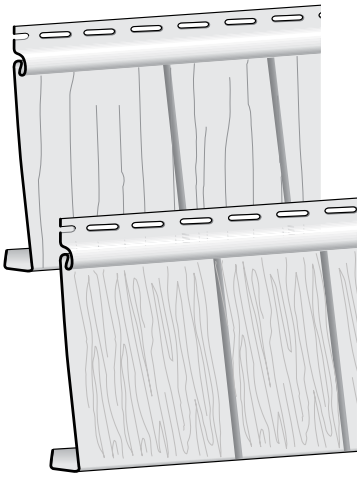
Single 8″ Vertical Board & Batten



Single 7″ Reverse Board & Batten Reinforced Siding



Single 7″ Straight Edge Rough-Split Shakes



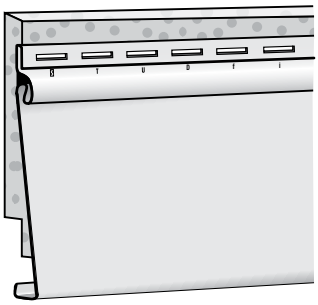
Single 7″ Straight Edge Perfection Shingles

Single 9″ Staggered Rough-Split Shakes

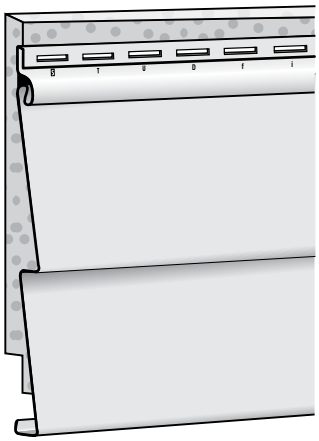


Insulated Siding Styles

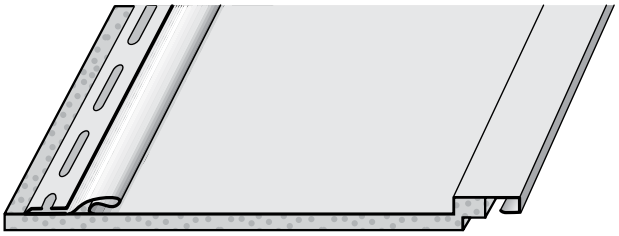
Single 7"
Clapboard



Double 6"
Clapboard



Single 12" Vertical
Board and Batten

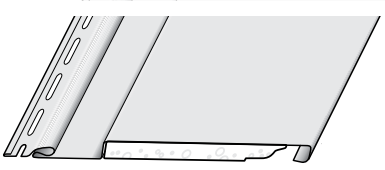


Reinforced Siding Styles

Single 7" Clapboard

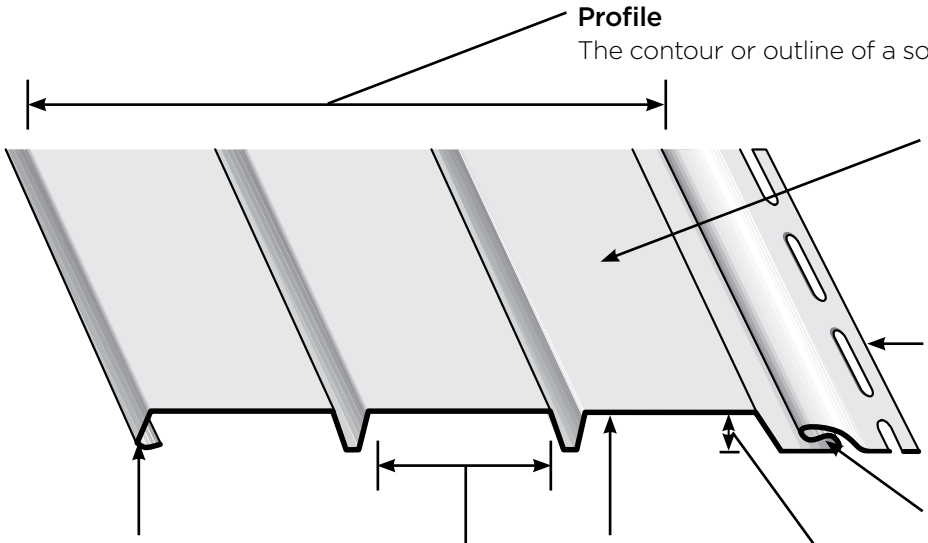


Single 7" Reverse
Board & Batten
Reinforced Siding



SECTION 3 — Vinyl Soffit and Ventilation

Features of Vinyl Soffit



Profile
The contour or outline of a soffit panel as viewed from the side.

Texture
Visual and tactile characteristics of the soffit panel; designed to recreate the authentic look of natural wood grain, stucco, smooth, etc.

Nailing Flange
Flat area along top of panel with slots for nailing; slots allow for expansion and contraction.

Lock
Molded area just under nailing flange into which butt leg/locking leg of adjacent panel is secured.

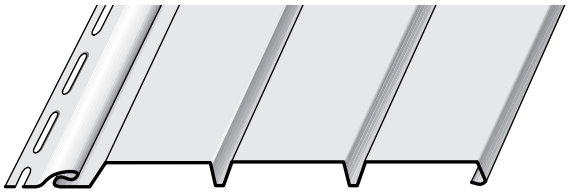
Panel Projection
Common to products with multiple faces (i.e. Triple 3). It is the dimension required for the proper selection of receiving channels (e.g., J-Channels and corner pieces).

Butt Leg / Locking Leg
Molded area at bottom of panel that is snapped into lock on adjacent panel for secure connection.

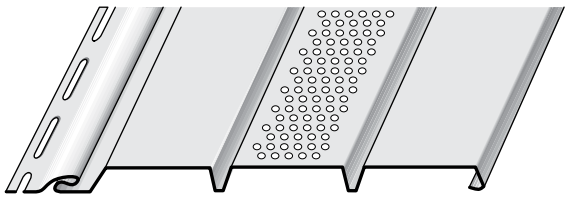
Panel Thickness
An important element of soffit quality. Thicker panels are more durable and are less prone to sagging.

Exposure
The width of the exposed face of each panel of soffit; also referred to as reveal.

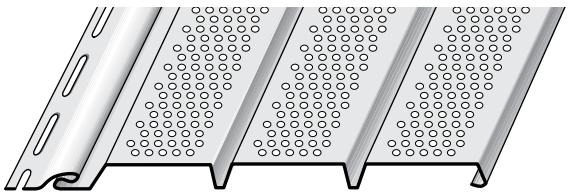
Solid Soffit



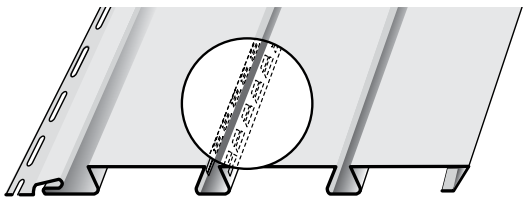
Center Vented Soffit



Fully Vented Soffit

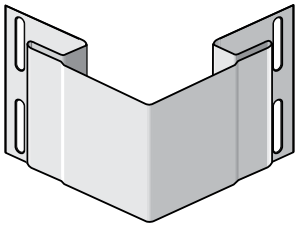


Invisibly Vented Soffit



SECTION 4 — Accessories and Tools

Corner Systems

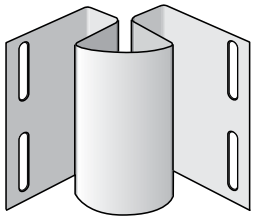


Outside cornerposts

3/4" Outside cornerpost—woodgrain and matte.
Use with all sidings except Cedar Impressions D9 Rough-Split Shakes, Northwoods S9 Rough-Split Shakes and CedarBoards.

1" Outside cornerpost—woodgrain.
Use with Cedar Impressions D9 Rough-Split Shakes and Northwoods Shakes.

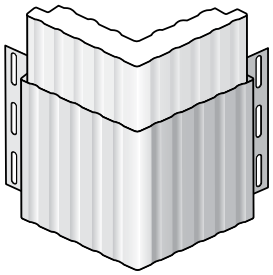
1-1/4" Outside cornerpost with foam insert—woodgrain.
Use with Cedar Impressions Rough-Split Shakes, Northwoods Shakes and CedarBoards.



Inside cornerposts

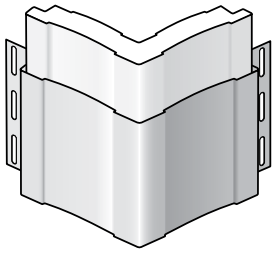
3/4" Inside cornerpost—matte.
Use where siding meets at inside corners; provides a finished look.

1-1/4" Inside cornerpost—matte.
Use with Cedar Impressions Rough-Split Shakes, Northwoods Shakes and CedarBoards.



Fluted SuperCorner™—matte

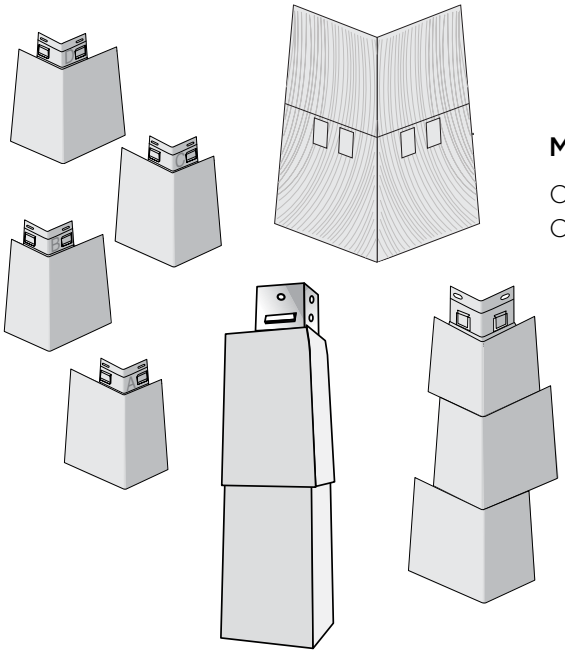
3/4" Fluted corner design with foam backing.



Traditional SuperCorner™—matte

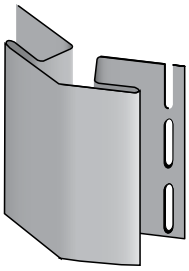
3/4" and 1-1/4" wide decorative traditional corner treatment with foam backing. The 1-1/4" is used with Cedar Impressions Rough-Split Shakes, Northwoods Shakes, and CedarBoards.

Corner Systems (continued)



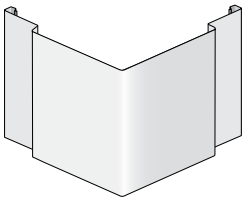
Mitered and offset cornerposts

Outside corner treatment for use with Cedar Impressions.



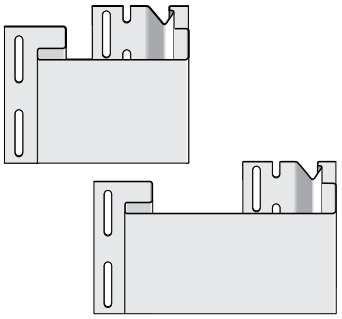
Bay window cornerpost—matte

Adapts to odd angles of bay windows.



5″ Corner cap—matte

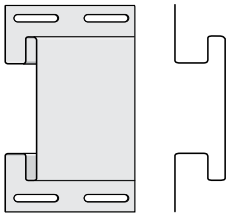
Used to create corner systems.



Lineals

3-1/2″ Lineal
5″ Lineal
3-1/2″ Lineal with foam insert

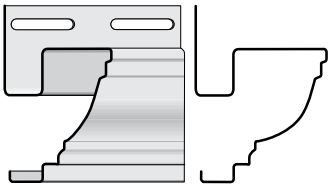
For use with a Window and Door Starter around windows and doors as a casing. The 3/4″ channel receives siding panels. Lineals with foam inserts are available for use with insulated siding.



5″ Double channel lineal

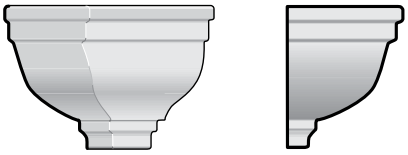
For use with horizontal or vertical siding transitions. Exposure matches 3-1/2″ window and door surround lineals.

Decorative Trim



Crown molding

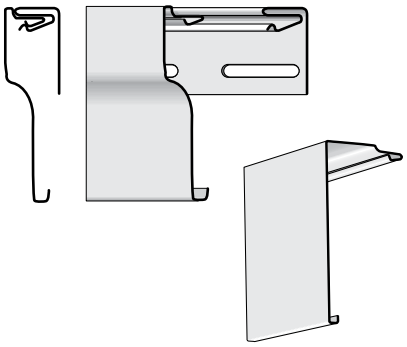
Used in conjunction with 5″ lineals to create a custom molded window or door header. Can also be used with 3-1/2″ lineals and 3/4″ pocket J-Channels. Crown has a 2-1/4″ top exposed edge.



Crown molding cap

Caps the ends of a crown molding with minimal cutting.

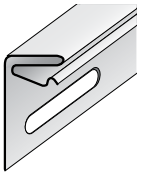
NOTE: Shown already cut in half—one piece makes a left and right-end cap.



Decorative Trim (continued)

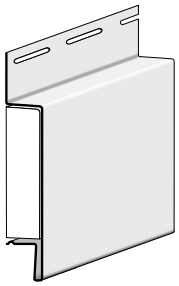
Cornice molding
Finish board

Held in place by the F-Channel or Cornice Molding Receiver, this accessory hides the installation of the topmost siding panels. With the help of a nail slot punch, topmost siding panels can be installed with nails every time. Can also be used under windows.



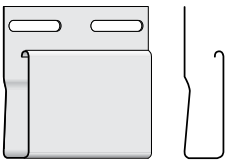
Cornice molding receiver

Installed under eaves to hold the Cornice Molding or Finish Board in place. Does not receive soffit panels.



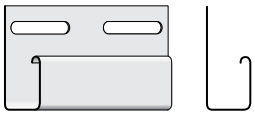
Band board

7-1/4" foam backed, decorative trim used with Cedar Impressions Rough-Split Shakes, Northwoods Rough Split Shake, and CedarBoards.



2-1/2" Window and door casing

A 2-1/2" wide-face J-Channel that accentuates windows and doors. Designed to accommodate new construction window flanges and fit snugly against window and door frames. This accessory is also ideal for gable trim applications.



J-Channels

J-Channel

3/8" J-Channel
1/2" J-Channel
5/8" J-Channel
3/4" J-Channel
1" J-Channel
1-1/4" J-Channel

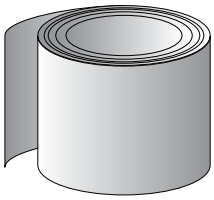
Universal siding and soffit receiving channel for use around utility openings, under eaves, etc.



3/4" Flexible J-Channel

Specialized 3/4" siding receiving trim; particularly useful around curved windows and ventilation treatments.

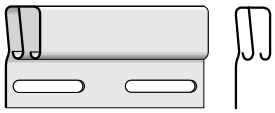
Functional Trim



Aluminum trim coil

24"-wide PVC-coated aluminum.

NOTE: Do not use trim coil over treated lumber.



Dual undersill trim

Secures trimmed siding panels under windows and eaves regardless of the profile or where in the panel face the panel has been trimmed.



Undersill trim
Shake / Shingle undersill trim

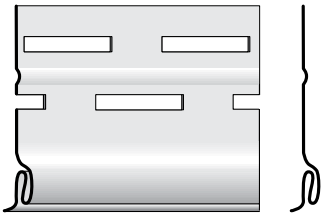
Helps secure trimmed siding panels under windows and eaves.



Drip cap

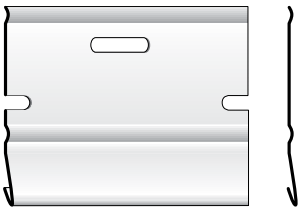
Acts as a flash over windows and doors.

Starter Strips



2-1/4" Vinyl starter strip

Secures the first course of siding to the home.
For use with all sidings except Monogram®, Monogram® XL, CedarBoards, CedarBoards XL, and Cedar Impressions®.



2-1/2" Metal starter strip

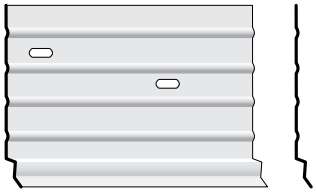
For use with all sidings except CedarBoards and Cedar Impressions.

Starter Strips (continued)



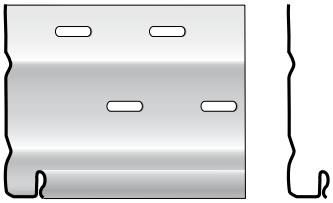
5″ Metal starter strip

Designed to be used on remodeling jobs to help level the first course and span areas that cannot be nailed. For use with all sidings except CedarBoards and Cedar Impressions.



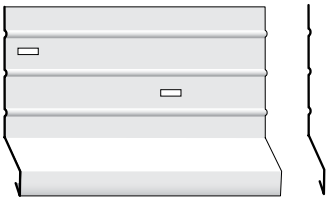
4″ Metal shingle starter strip

4″ metal starter to be used with Cedar Impressions.



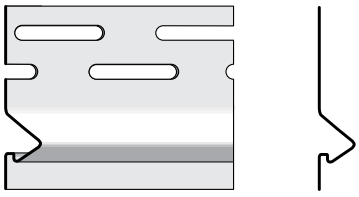
Starter strip for Insulated Siding

Vinyl starter strip that accommodates 1-1/4″ thickness of CedarBoards insulated siding.



Metal starter strip for Reinforced Siding

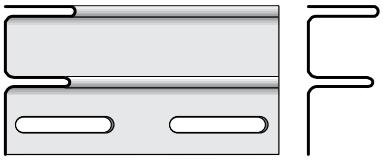
Metal starter strip to be used for CERTAplank reinforced siding.



Window and door starter

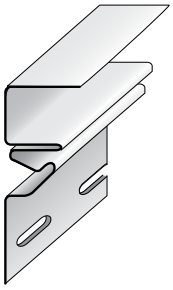
Butts up against protruding window and door jambs and overhangs for installation of 3-1/2″ and 5″ lineals.

Soffit Trim



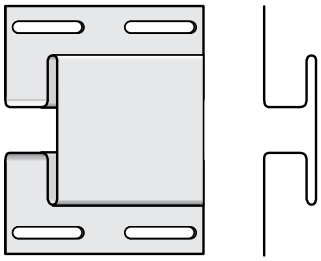
5/8″ and 3/4″ F-Channel

Receives soffit panels.



Deluxe F-Channel

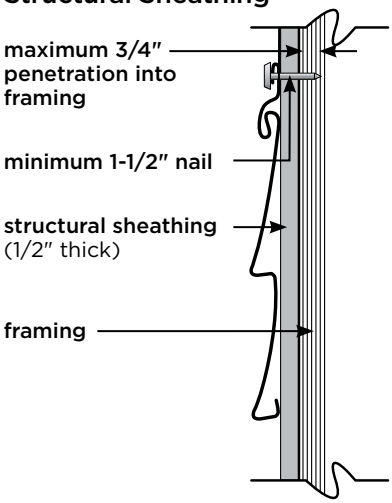
Receives soffit panels and cornice molding or finish board.



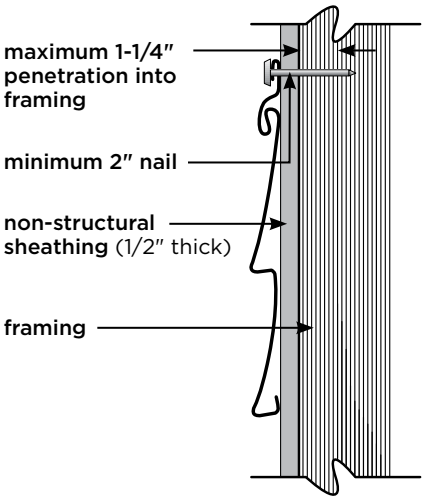
3/8″ H-Bar
1/2″ H-Bar
3/4″ H-Bar

Joins soffit panels. Particularly useful on porch ceilings and hip roof applications.

Wood Framing with Structural Sheathing



Wood Framing with Non-structural Sheathing



Equipment and Tools

Fasteners

Use only corrosion-resistant nails (aluminum, stainless or galvanized roofing.) Nails should have a minimum head diameter of 5/16". CertainTeed recommends the use of stainless steel nails or other corrosion-resistant fasteners when installing siding in coastal areas. Be sure to check with your local code official or governing body for the building requirements in your area. Staples should be a minimum of 16 gauge.

If screws are used, use non-corrosive, self-tapping, pan head or washer head screws or oval head with countersunk washer screws with at least 5/16" diameter head, 1/8" (3mm) diameter shaft, and at least 1-1/8" (29mm) long.

To determine the length of nail required, measure the thickness of the sheathing material. Fasteners must penetrate a total of at least 1-1/4" (32mm) into a nailable material such as wood sheathing and framing. The minimum nail size should be 1-1/2". Example: If you're applying siding over 1/2" structural sheathing, use a nail at least 1-1/2" long (1/2" sheathing + 3/4" stud penetration + nailing hem thickness + minimum 1/16" between nailing hem and fastener head).

To determine the quantity of nails required, complete the following:

Total square feet of siding required:		_____
(If using aluminum nails)	x	.005
(If using galvanized roofing nails)	x	.01
Pounds of nails required:	=	_____

Tools required

Hammer	Tin snips	Tape measure	Square
Chalk line	Level	Utility knife	Shears
Snaplock punch	Three-hole punch		

Power circular saw with sharp, fine-tooth plywood blade mounted in reverse direction. (Irwin® Tools Vinyl siding blade is not reversed—tooth design is symmetric 60°.)

Ladders and Scaffolds

NOTE: If you will be using an extension ladder during installation, be sure to cushion the upper side rails to help prevent damage to installed siding.

Cutting table

Portable brake

Essential for bending aluminum trim coil to fit around fascia boards, window sills, window and door casings, etc.

Please refer to the brake manufacturer's instructions for metal bending techniques.

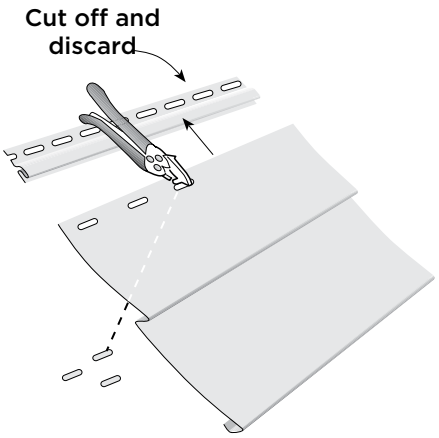
Transporting and Storing Vinyl Siding and Polymer Shakes and Shingles

CertainTeed's standard shipment method incorporates palletizing and stretch wrapping all products.

- The pallet is a double-faced, reversible, Grade M, SPEQ®-certified pallet constructed of quality materials that meet NWPCA Uniform Voluntary Standards (Sec. 5.1, Table 1).
- Customer racking should be at least 46″ deep x 157″ long to accommodate CertainTeed pallets.
- Vinyl and polymer siding should be stored indoors and away from direct sources of heat and sunlight. Storing products outside may result in damage.
- Cedar Impressions polymer shake and shingle panels must be stored vertically.
- If you are transporting vinyl siding to a job site, make certain to keep cartons flat and supported along their entire length.

At the job site, take the following precautions when storing panels:

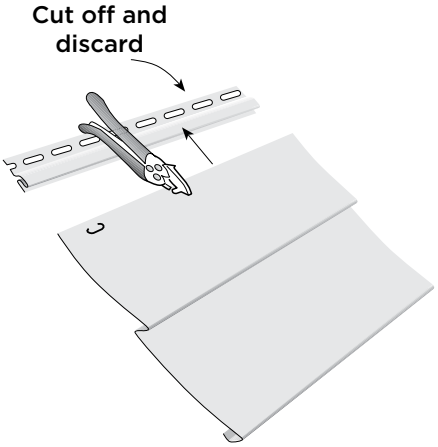
- Store on a flat surface and support the entire length of the carton.
- Keep cartons dry.
- Store away from areas where falling objects or other construction activity may cause damage.
- Do not store in any location where temperatures may exceed 130° F (e.g., on black top pavement during unusually hot weather, under dark tarps or plastic wraps without air circulation, or in unventilated storage trailers).



Special Tools

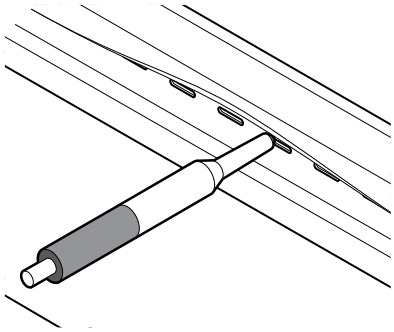
Nail slot punch*

Punches elongated holes to allow nailing the cut edge of a panel. Also used to enlarge an existing hole to allow proper nailing.



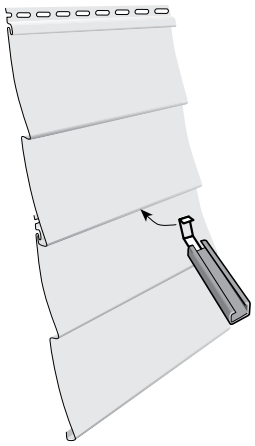
Snaplock punch*

Punches tabs in the cut edge of a panel used as a finishing course at the top of a wall or underneath a window. The tabs lock into undersill trim. For best results, we recommend using item 57995 Snaplock Punch, which is designed specifically for vinyl applications.



Trim nail punch*

Punches trim nail holes into soffit, fascia, and other finishing trim without denting or marring the material.



Monogram Zip tool (CertainTeed Item #57999)

Locks and unlocks panels. Panel remove tool for Monogram siding.

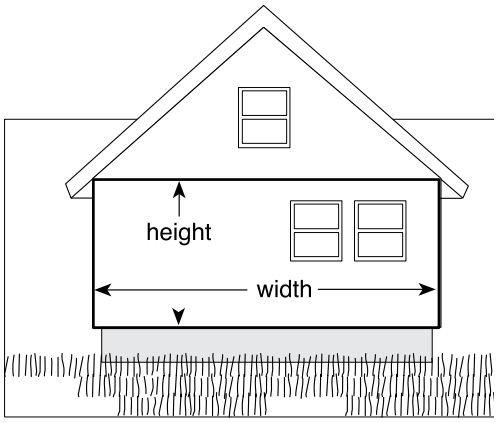
*Available from Malco Products, Granger, ProSidingTools.com

Section 5 — Estimating

Siding

Use the illustrations and formulas below and enter totals on the estimating form on page 29. These formulas apply for both horizontal and vertical installations.

NOTE: When estimating for a large project, you may want to add a waste allowance of 10 percent to the totals for siding, soffit and accessories.



Rectangular wall surfaces

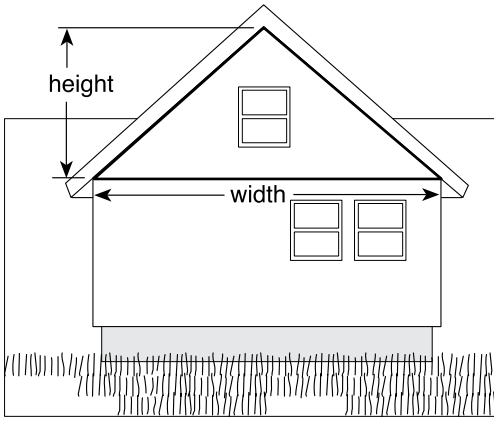
Measure height (excluding gables). Measure width

(including doors and windows).

_____ x _____ = _____

(height) (width) (surface area)

Repeat for remaining walls.



Triangular gable end surfaces

Measure height at center (add 1′ to allow for waste).

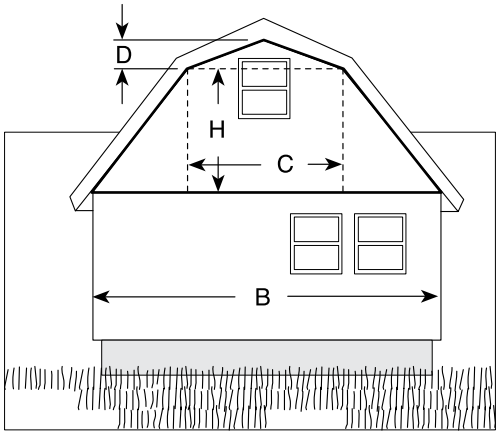
Measure width and divide by half.

_____ x _____ = _____

(height) (1/2 width) (surface area)

Repeat for remaining gables.

NOTE: Lower pitch roofs will produce more waste than higher pitch roofs.



Upper wall of gambrel house

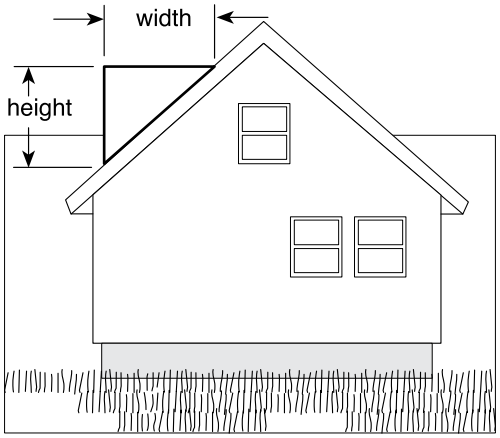
Divide the upper wall of a gambrel house as shown in the illustration. Then use the following formulas:

1/2 (B + C) x H = _____

1/2 C x D = _____

Add these figures to get total area: _____

Repeat for remaining gambrel surfaces.



Dormer sides

Measure height of dormer (add 1′ to allow for waste).
Use the following formula:

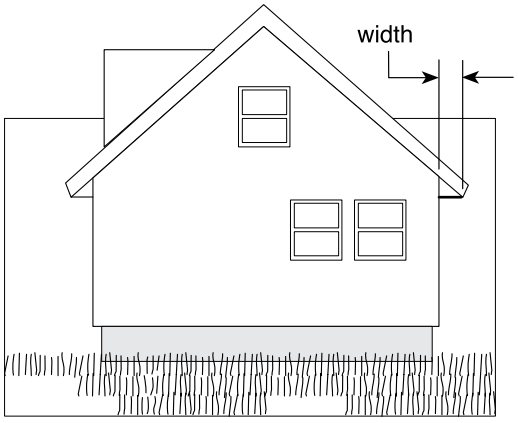
_____ x _____ =_____

(1/2 height) (1/2 width) (surface area, 1 side)

_____ x 2 = _____

(surface area, 1 side) (total dormer surface area)

Repeat for all dormers.



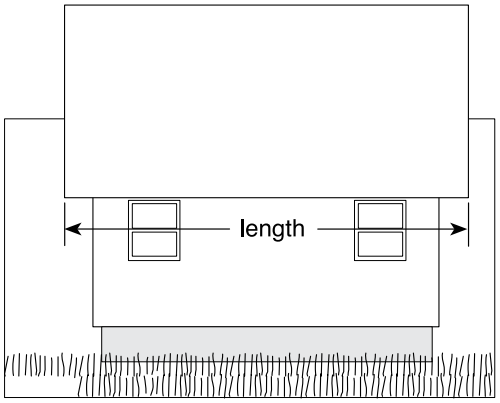
Soffit

Measure width of eave to be covered. Measure length of eave.

_____ x _____ = _____

(width) (length) (surface area)

Repeat for remaining eaves.



Porch Ceiling

Measure length of porch area to be covered.
Measure width of porch.

_____ x _____ = _____

(width) (length) (surface area)

Measuring

Before ordering accessories, you also have to determine the width of the J-Channel into which you will fit the vinyl siding. To do this, you must first determine which of two methods you will use to apply sheathings or underlayments. This is covered in more detail under "Sheathings."

NOTE: Refer to product catalog for product accessory recommendations and availability.

Starter strip: Measure along base of building.

J-Channel: For siding installations, measure around doors and windows, under eaves, at rake edges of gables where dormer meets roofline, and anywhere else required to provide a finished appearance.

For soffit, measure along wall under eave and along fascia board.

For porch ceilings, measure along perimeter of the porch area.

F-Channel: For soffit, measure along wall under eve.

For porch ceilings, measure along perimeter of the porch area.

3-1/2" and 5" Lineals: For casing, measure along perimeter of doors and windows. For gables, measure at rake edges of gables where dormer meets roof line.

Undersill trim: Measure above and below windows and above doors and top course of siding below soffit.

Soffit H-bar: Measure diagonals at all eave corners.

Outside cornerpost: Measure length of outside corners.

Inside cornerpost: Measure length of inside corners.

NOTE: If you plan to use J-Channel instead of inside corner-posts, remember to double this measurement and add the total to your entry for J-Channel.

Dual undersill trim: Measure along top of wall where siding will meet eaves.

Estimating Form

Siding	Walls	_____	sq feet
	Gable ends	_____	sq feet
	Dormer sides	_____	sq feet
	Upper gambrel walls	_____	sq feet
	Total wall surface area	_____	sq feet (A)
	Large areas not to be covered: (garage doors/sliding glass doors)	_____	sq feet x .50
	Uncovered area	_____	sq feet (B)
	Subtract B from A for Total net surface area	_____	sq feet
Soffit		_____	
Porch ceiling		_____	sq feet
Accessories		_____	sq feet
	Starter strip	_____	lineal feet
	Window & door lineal starter	_____	lineal feet
	Utility trim	_____	lineal feet
Receiving channel	J-Channel	_____	lineal feet
	2-1/2" window & door casing	_____	lineal feet
	Flexible J-Channel	_____	lineal feet
	F-Channel: 5/8" or 3/4"	_____	lineal feet
	Deluxe F-Channel	_____	lineal feet
	3-1/2" or 5" lineals	_____	lineal feet
	Window starter	_____	lineal feet
	Dual undersill trim	_____	lineal feet
Outside corner	Outside cornerpost	_____	lineal feet
	Fluted SuperCorner	_____	lineal feet
	Traditional SuperCorner	_____	lineal feet
	Cedar Impressions/ CedarBoards cornerpost	_____	lineal feet
Inside corners	Inside cornerpost	_____	lineal feet
	J-Channel	_____	lineal feet
	H-Bar		lineal feet
	Cornice molding receiver		lineal feet
	Cornice molding	_____	lineal feet
	Width of accessory recess opening: (circle one) 1/2" 3/4" 1-1/4"		
Nails	Pounds required (1-1/2" minimum)		

SECTION 6 — Preparing for Horizontal Siding

Preparing Wall Surfaces

Sheathings

In new construction, apply sheathing first, then nail accessories over it.

The application method you choose determines the width of the recess opening required. For example, use:

- 1/2″ opening when applying accessories over sheathing and installing siding with a panel projection of 1/2″ or less.
- 3/4″ opening when applying accessories over sheathing and installing siding with a panel projection of 3/4″ or less.
- 1-1/4″ opening when applying accessories first and using sheathing that's less than 3/4″ thick for sidings with a panel projection of 1/2″ or less. For sidings with a panel projection of 5/8″ or 3/4″, use a sheathing that is 1/2″ thick or less.

New construction

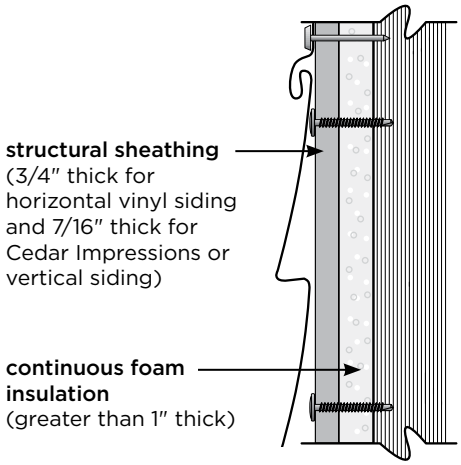
Make sure all studs are straight and true. Correct any bowed studs.

NOTE: Vinyl siding must be applied over a rigid sheathing that provides a smooth, flat surface or an underlayment (such as wood, wood composition, rigid foam or fiber sheathing) that is no more than 1″ thick. Vinyl siding cannot be applied over open studs. See the instructions on page 31 for installation over continuous insulation systems thicker than 1″.

If you're planning to use a conventional house wrap or building felt, apply according to the manufacturer's recommendations. In all cases, however, install the products so they are secured firmly to the substrate so that they provide a smooth, even surface for the final siding installation. Make sure sheathing is fastened securely to studs.

Vinyl siding is an exterior cladding; it is not a complete weather resistant barrier. Before applying siding, make certain the substrate is watertight. In order to be protected from precipitation, the substrate may need to be properly flashed around areas such as windows, doors, other openings and corners so as to shed water to the exterior. See page 47 for proper flashing around windows. The siding alone is not meant to be a watertight barrier.

Vinyl siding cannot be installed on a radius wall.



Continuous foam insulation systems

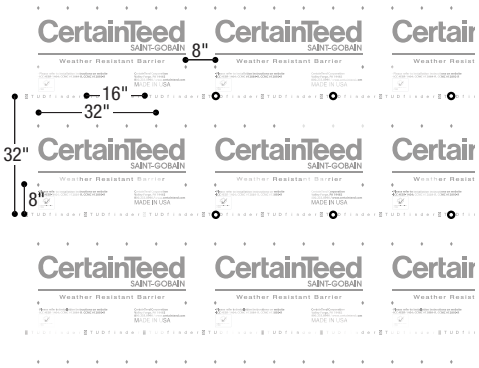
Continuous foam insulation systems (e.g. rigid insulation, structural insulation products) thicker than 1" create a condition where CertainTeed vinyl siding and polymer shakes and shingles cannot be properly attached to the existing framing members, steel studs, or structural sheathing.

The easiest way to meet the fastening requirements for CertainTeed siding is to install 3/4" structural sheathing for horizontal vinyl siding installation; 7/16" structural sheathing for Cedar Impressions or vertical siding installation over the continuous foam insulation. However, the wall assembly must be designed in such a way that the structural fastening surface that is re-established on the exterior of the insulating products is sufficient to meet the requirements of ICC-ES Evaluation Report ESR-1066 for vinyl siding or ICC-ES Evaluation Report ESR-3085 for polymer shakes and shingles.

CertainTeed does not provide instructions for wall design or assembly that specifically relates to the fastening requirements for re-establishing a structural fastening surface for CertainTeed vinyl and polymer siding. However, FastenMaster® provides two documents to assist in successfully re-establishing a structural fastening system on the exterior of a continuous foam insulation system:

- Technical Evaluation Report (TER No. 1009-01): Use of FastenMaster HeadLok™ Fasteners to Attach Cladding and/or Furring to Wood Framing through Foam Sheathing
- Technical Bulletin: Attaching Exterior Wall Covering Assemblies with Foam Sheathing to Steel Wall Framing

The Fasten Master reports must be used in combination with ICC-ES Evaluation Report ESR-1066 for vinyl siding or ICC-ES Evaluation Report ESR-3085 for polymer shakes and shingles to determine attachment requirements. In addition, all the installation methods included in this manual must be met.



Fastening CertaWrap™

Weather-Resistant Barrier

To secure the Weather-Resistant Barrier, use the appropriate recommended fasteners and fastening schedule for your application.

Wood-based sheathing

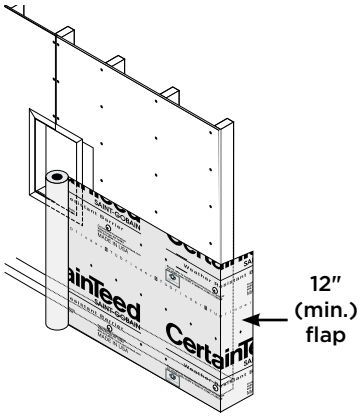
When attaching CertaWrap Weather-Resistant Barrier on wood-base sheathing, such as 7/16" OSB or 15/32" plywood, apply plastic-capped staples or plastic-capped nails every 32" vertically and horizontally.

Non-structural sheathing

When attaching CertaWrap Weather-Resistant Barrier on non-structural sheathing, apply plastic-capped staples or plastic-capped nails long enough to penetrate the stud a minimum of 5/8" every 32" vertically and horizontally.

Steel framing

When installing CertaWrap Weather-Resistant Barrier over steel framed wall construction, use screws with minimum 1″ diameter washers every 32″ vertically and horizontally.



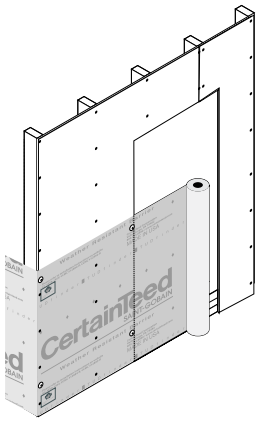
STUDfinder™ installation instructions

1. The STUDfinder Installation System combines precisely engineered fastening locations with graphics that help ensure quick, accurate, and secure installation. Install CertaWrap horizontally to exterior walls prior to the application of exterior cladding. Vertically position the CertaWrap roll at the corner of the structure with the printed side out.



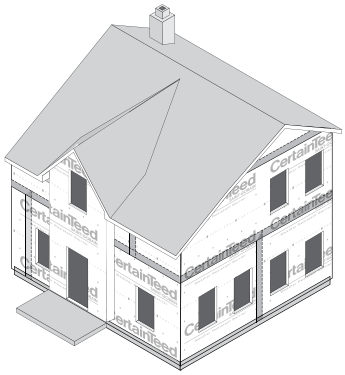
2. Locate the first stud and verify that it is plumb. Align the first stud with the nearest vertical STUDfinder line, allowing for a minimum 12″ flap to wrap the corner for attachment to the adjoining wall. Extend the bottom edge of the CertaWrap 2″–4″ over the sill plate. Apply plastic-capped staples or plastic-capped nails every 32″ vertically along the first stud to secure the Weather-Resistant Barrier into position.

3. Unroll the CertaWrap along the exterior wall. Wrap CertaWrap completely around the building, covering window and door openings, plates, sills and corners.



4. To secure the Weather-Resistant Barrier, use the fasteners and fastening schedule that is appropriate for your application. The STUDfinder marks will quickly guide you to your desired fastening location without the need for chalk lines. Each letter is spaced 1.6″ apart, and each series spans 16″. To achieve 32″ spacing between fasteners, first locate the letter that the first row of fasteners covers. The second repeat of that letter is at 32″.

5. Pull the CertaWrap snug and fasten it to the studs or sheathing and to the top and bottom plates.



6. When starting a new roll in the middle of a wall, overlap vertical and horizontal laps in the field a minimum of 6″. When starting a new roll at an inside or outside corner, overlap vertical and horizontal seams a minimum of 12″. All vertical and horizontal seams are to be installed in a weatherboard fashion. Lap CertaWrap over all existing flashings (e.g. z-flashing, roof-to-wall flashing, drip cap).

7. Flash or tape all vertical and horizontal seams and penetrations.

Drop-in foam backer boards

Some drop-in foam backers can restrict the movement of vinyl siding. Therefore, CertainTeed vinyl siding may not be applied over any drop-in foam backer other than a contoured drop-in foam backer designed specifically for each profile.

IMPORTANT: CertainTeed will not accept any responsibility or liability in the event the drop-in foam backer impacts the performance of the vinyl siding. The use, fit, and performance of the siding backer board is the responsibility of the installer and the backer board manufacturer.

NOTE: Contoured drop-in foam inserts are not a substitute for rigid foam sheathing.

Home improvement projects

You can prepare your current siding surface to receive vinyl siding in one of three ways:

Option 1: Strip off old siding and level the wall, if necessary. If felt paper covers the wall, you have two alternatives: either strip it off completely or staple or nail it to create a smooth surface. If there is no solid sheathing under the old siding, you must apply it as described in the instructions for New Construction.

Option 2: Apply rigid sheathing to existing wood siding to provide a smooth surface. Nail securely to old siding. Nail evenly to bridge low spots.

NOTE: Failure to establish a smooth, solid surface constitutes misapplication under the terms of the warranty.

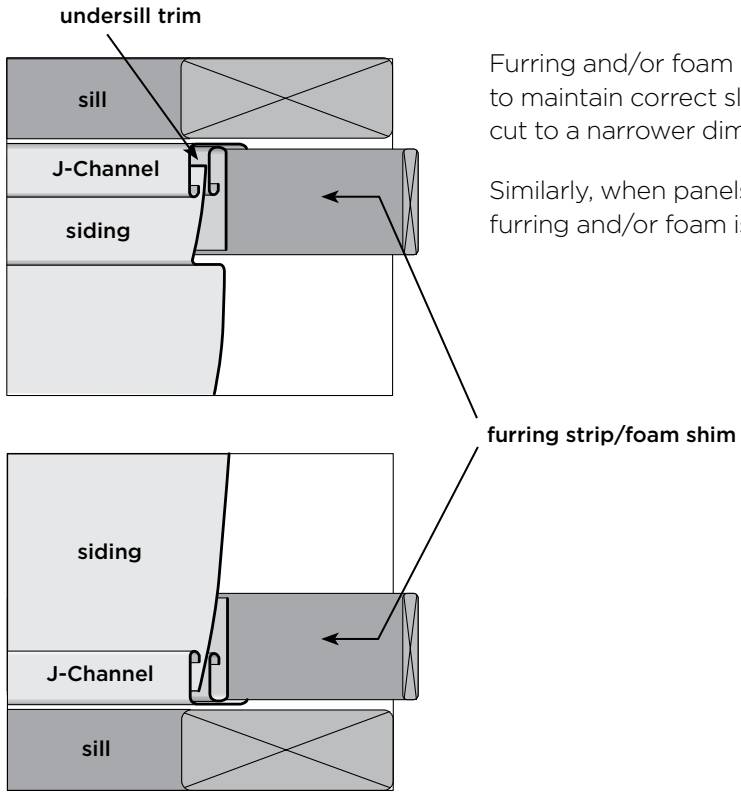
Option 3: Apply vertical furring to old siding to straighten noticeable surface unevenness. (See below "Tips for applying wood furring.") Then apply rigid sheathing, following the instructions presented under New Construction.

NOTE: For information on installing siding over asbestos and for historic applications, see page 151.

Tips for applying wood furring over uneven surfaces

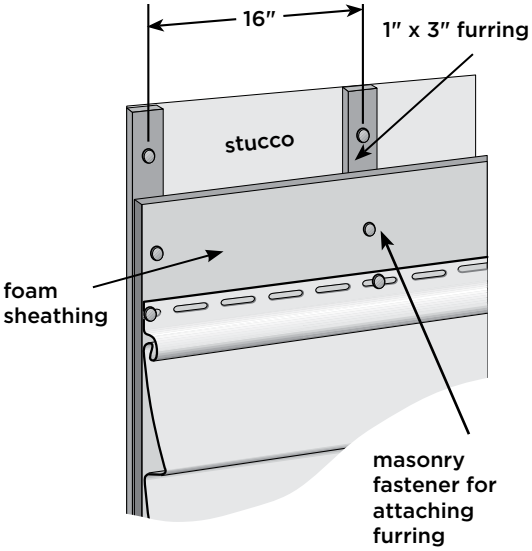
If you are working on an older home with noticeably uneven walls, you must correct this condition before proceeding. If not corrected during preparation, this uneven surface will produce a wavy appearance in siding applied over it.

For best results, space vertical furring strips 16″ over studs. Do not exceed 16″. To correct an uneven wall, use furring strips (and wood shims if necessary) to eliminate low spots.



Furring and/or foam is also used below eaves and windowsills to maintain correct slope angles when siding panels must be cut to a narrower dimension to fit.

Similarly, when panels are cut to fit over doors or windows, furring and/or foam is used to establish the correct slope angle.



Applying over stucco or masonry

When applying vinyl siding over stucco or masonry, you first have to be sure you're working on an even surface. To create that surface, you may have to knock down high spots where furring strips will be applied. Use caution when chipping off these spots — you don't want to crack or damage the remaining stucco or masonry.

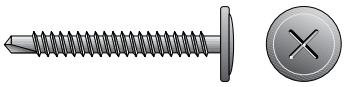
Apply 1″ x 3″ furring over the stucco or masonry using power-actuated fasteners or other appropriate masonry fasteners.

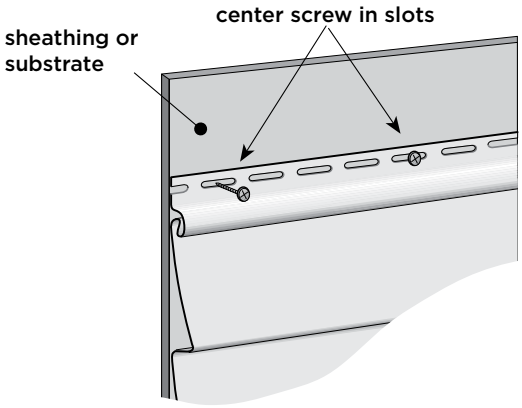
Stucco will not hold fasteners tightly, so be sure nails or screws are anchored securely to studs. Furring strips should be spaced 16″ on center.

Applying rigid foam sheathing to furring

For best thermal performance, install a minimum of 1/4″ foam sheathing over furring strips. Install sheathing according to manufacturer's instruction.

Do not apply siding directly to furring.





Applying over steel studs

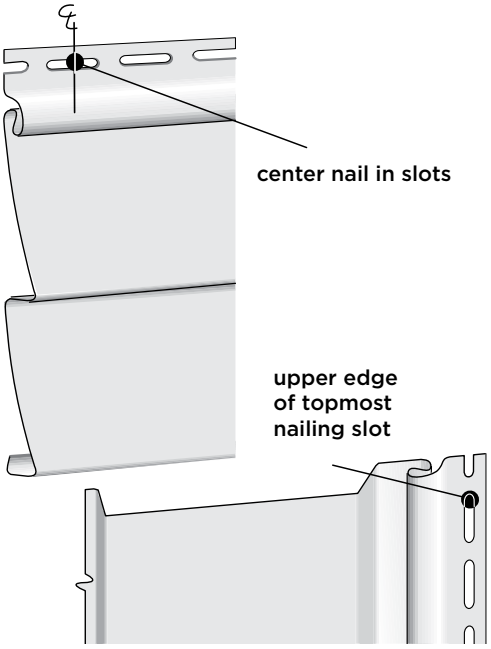
Pre-planning is the key when installing vinyl siding and accessories over steel studs. Pre-planning includes the selection of siding style and the types of accessories. Pre-planning proper stud placement will eliminate many of the problems that could surface once the job has been started, such as at corners, windows, and transitional areas.

Follow the same guidelines as in a wood surface—except for the type of fasteners used. Wall sheathing must be installed over the studs. This will provide a straighter, smoother and more rigid wall surface and help prevent studs from twisting. Siding must be secured into metal studs if the substrate is not a nailable surface such as GlasRoc® exterior gypsum board, rigid foam sheathing, etc.

The application of vinyl siding, soffits and accessories over steel stud framing rather than typical wood framing is straightforward. The main difference is the use of screws to hang components that make up a completed siding job.

Use noncorrosive, self-tapping screws with at least 5/16" diameter head, 1/8" diameter shaft, and at least 1-1/8" long.

Although the fastening method for steel studs differs from wood construction, all other procedures still apply, including fastening in the center of the nail slot and not overtightening the fasteners.



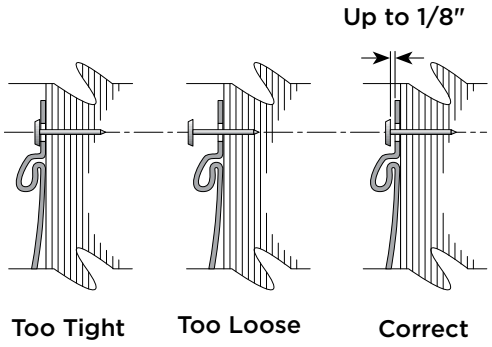
Nailing, Stapling and Other Fastening Methods

If you want to ensure a quality vinyl siding installation, focus your attention on nailing techniques. Unfortunately, a lot of installers don't. They feel nailing is a routine task, something everyone knows how to do. But that's not the case. **At CertainTeed, we analyzed reported installation problems, and we found that more than half of them can be traced back to improper nailing.** So if you want to save yourself lost time and frustration, carefully observe the following guidelines when installing accessories, siding panels, soffit, or porch ceilings.

Lock the panel and begin nailing at the center of the panel, working toward the ends. This helps maintain a level line.

With horizontal accessories and panels, position the nails in the center of the elongated nailing slots to allow for expansion and contraction. Never nail through the panel surface.

With vertical accessories and panels, position the **first nail** at the **upper edge of the topmost nailing slot. This allows a panel to hang from the nail. Position the remaining nails in the center of the nailing slots.** Allow for 1/3 of the total expansion at the top and 2/3 of the total expansion at the bottom.



NOTE: Do not nail too tightly. To permit expansion and contraction, panels should hang freely from nails. This allows the panels to move as the temperature changes. Drive the nails until there is between 1/8" to 1/16" of space between the nail head and the nailing flange.

Drive the nails straight in. Do not angle nails.

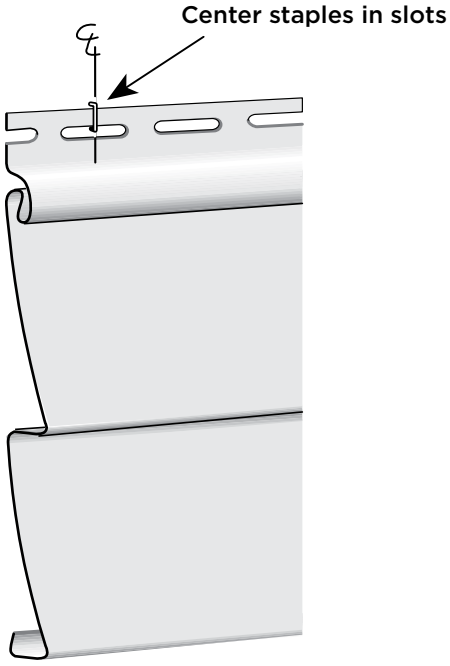
Per the ASTM specification for vinyl siding installation (D4756), proper nail penetration is at least 1-1/4" penetration into a solid framing material such as wood sheathing and studs.

Fastener spacing

Fasteners are typically spaced a maximum of 16" apart. In new construction, fasten to studs on 16" centers. Do not skip studs. Some vinyl siding may be used in 24" on center construction in areas without special wind-load requirements (fasteners spaced a maximum of 24" apart). Check with your local building code official for special requirements and ICC-ES Evaluation Report ESR-1066 for specific wind-load requirements.

Other fastening techniques:

Manual nailing is the most common way of fastening vinyl siding to a wall. That's because it offers greater control, making it easier to learn how to fasten panels securely, but not tightly. You also can use power screwdrivers or pneumatic staplers/nailers to attach vinyl siding to a wall, but you must take the time to develop the proper skills. If you choose to use one of these alternate techniques, follow all the recommendations above for nail positioning and spacing and the recommendations for substrate preparation on pages 30 to 35 for horizontal applications and page 80 for vertical, including Board & Batten. In addition, be sure to observe the following guidelines:



Power screwdrivers

Use noncorrosive, self-tapping truss head screws. Screws must have at least 5/16" diameter head and 1/8" diameter shaft. Screws must be at least 1-1/8" long. If underlayment is less than 3/4" thick and is not considered a nailable surface (for example, foam or exterior grade gypsum), be sure screws are long enough to penetrate at least 3/4" into wood studs or substrate, 1/4" through a steel stud. Be sure screws are centered in the nail slot. ***Leave 1/16" to 1/8" space between the screw head and the panel nailing flange.***

Pneumatic staplers/nailers

Use corrosion-resistant fasteners only. Fasteners must be centered in the nail slot, no more than 16" on center.

NOTE: Some power staplers/nailers use an attachment that helps position the fastener in the nail slot. If your unit does not have that feature, you must carefully position the fastener by sight.

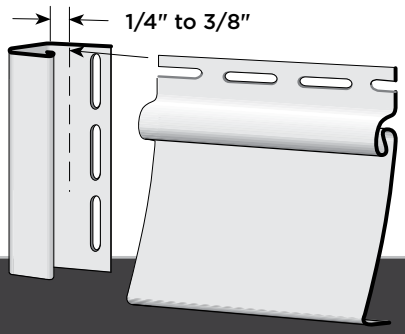
Fasteners must penetrate a nailable surface at least 1-1/4". Be sure to leave up to 1/16" between the fastener and the panel nailing flange. If you're using a power stapler, drive the staple perpendicular to the nailing slot with one leg of the staple centered in the slot and the other leg above the panel.

NOTE: Check with local building codes to verify fastener requirements for your area.

Nail Spacing and Product Expansion and Contraction

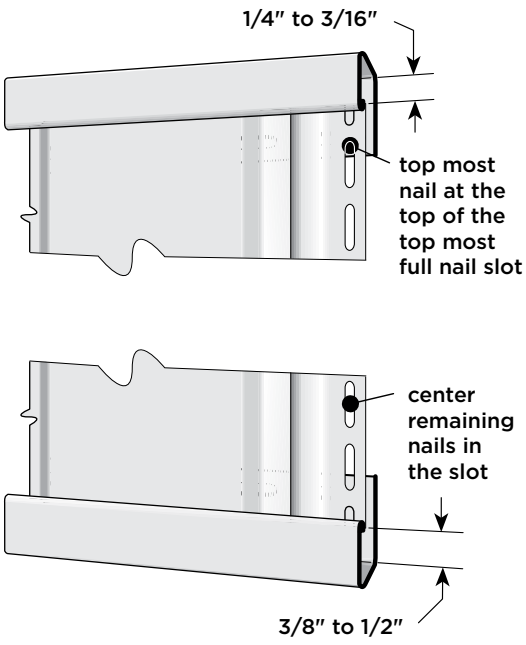
It's normal for vinyl building products to expand and contract with temperature changes. To ensure a successful siding installation, you must allow for this movement during application.

See the following charts for more information.



Product Category	Max. Nail Spacing	Gaps to Accessories		Overlap	
		40°F or Greater	Less than 40° F	40° F or Greater	Less than 40° F
Horizontal Lap Siding (12′ 6″)	16″–24″*	1/4″	3/8″	1-1/4″	1″
Horizontal Lap Siding (16′)	16″–24″*	3/8″	1/2″	1-1/2″	1-1/4″
Horizontal Lap Siding (20′)	16″–24″*	3/8″	1/2″	1-1/2″	1-1/4″
Horizontal Lap Siding (25′)	16″–24″*	3/8″	1/2″	1-1/2″	1-1/4″

**Depends on profile, fastener and geographic area.*

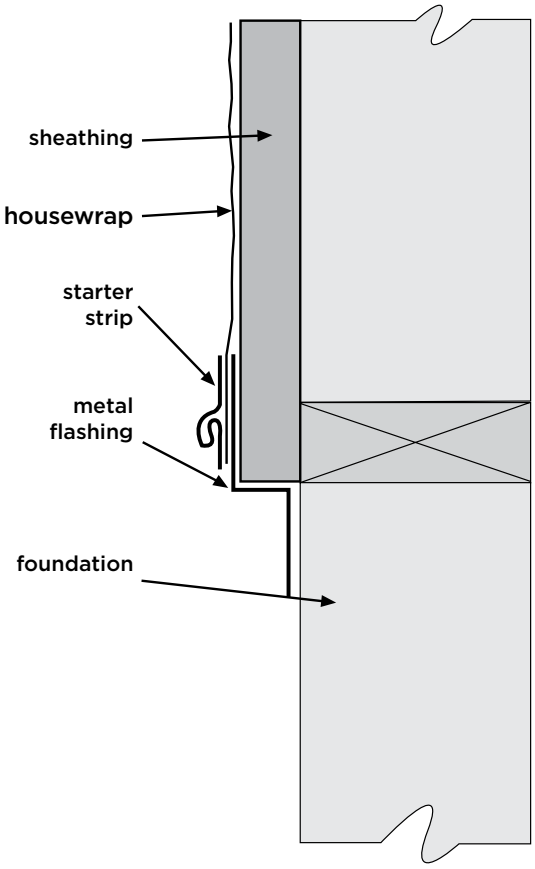


Product Category	Max. Nail Spacing	Gaps to Accessories	
		40°F or Greater	Less than 40° F
Vertical Siding	12"	3/16" top 3/8" bottom	1/4" top 1/2" bottom

Hang off of top nail slot (see page 82 for more details).

Product Category	Max. Nail Spacing	Gaps to Accessories		Overlap		Notes Specific to Product
		40°F or Greater	Less than 40° F	40°F or Greater	Less than 40° F	
Cedar Impressions	Fasten at Delta Indicators	1/4"	3/8"	Use Temp. Marks/ Gauge	Use Temp. Marks/ Gauge	All panels must be center pinned (see page 98 for more details)
Northwoods	16"	1/4"	3/8"	Use Temp. Marks	Use Temp. Marks	All panels must be center pinned (see page 133 for more details)
CedarBoards	16"	1/4"	3/8"	1-1/2" Butt Foam	1-1/2" Gap Foam 1/4"	
CedarBoards XL	16"	3/16"	1/2"	1-1/4" to 1-1/2" Butt Foam	1" to 1-1/2" Gap Foam 1/4"	
CertaPlank	16"	1/4"	3/8"	1"	3/4"	All panels must be center pinned (see page 141 for more details)

Section 7 – Installing Accessories



Snapping a chalk line

To ensure proper installation, you must establish a straight reference line to guide the positioning of the starter strip and the first course of siding.

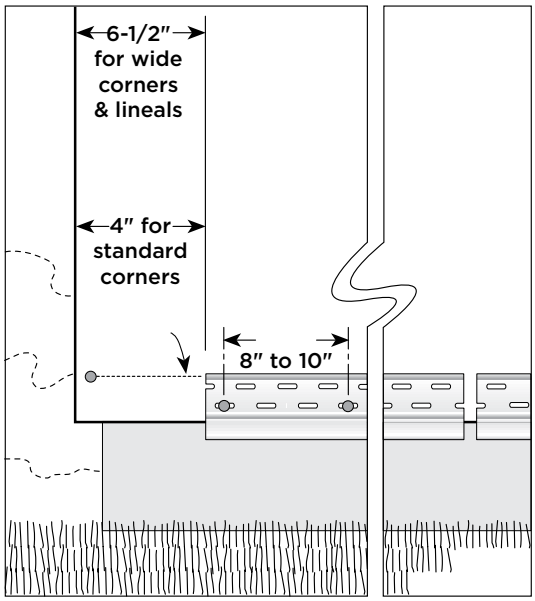
If the house is reasonably level, find the lowest point of the old siding (or sheathing if working on new construction). Partially drive a nail at one corner, starter height minus 1/4" above the lowest corner. Attach chalk line. Go to other corner and pull the chalk line taut. Stretch the chalk line from this nail to the opposite corner of the house. Make sure the line is level, using a line level or 4' (minimum) level. Snap chalk line and repeat the procedure around the entire house.

A water level, a long clear plastic tube 90% filled with water, is useful in marking level points around the house and on opposite sides of openings such as doors. Water will always seek a level state, ensuring the markings will always be at the same level.

NOTE: If after establishing a chalk line you find that your starter strip will be positioned below an easily nailed surface, you may have to apply a nailable base.

If you have added sheathing, you may want to bend trim coil to act as flashing and help prevent entry of insects. Bend the coil in a "Z" shape so the top edge of the coil is on the chalk line and the bottom edge extends down over the foundation. (See illustration.)

NOTE: The general guidelines for cutting and nailing vinyl panels and for allowing for expansion and contraction also apply to vinyl accessory items.



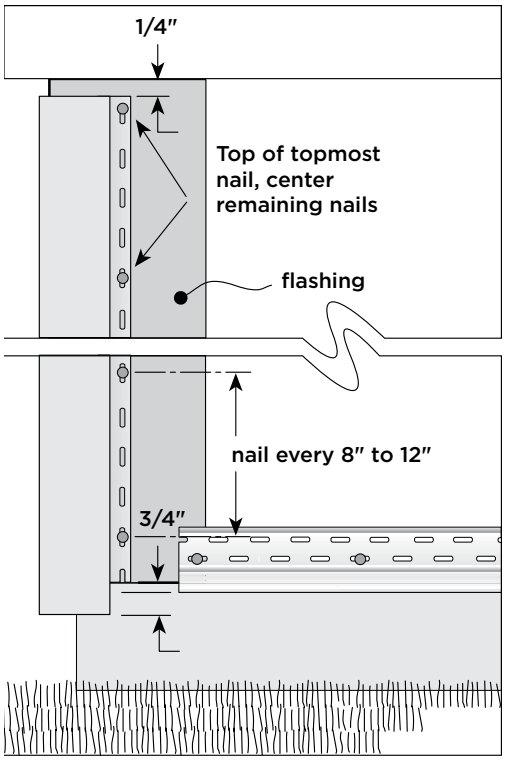
Installing the starter strip

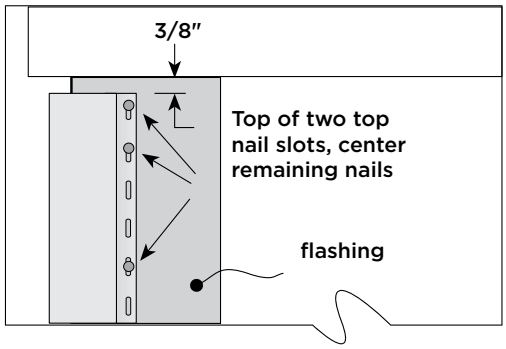
Position the starter strip with the top edge on the chalk line and the ends 6-1/2" away from the outside and inside corners (when using lineal systems or wide corners), 4" if using standard one-piece corners. Nail to wall following previously mentioned nailing instructions. When hollows occur in the wall surface, shim out the starter strip to avoid a wavy appearance in the finished siding job. Nail every 8" to 12".

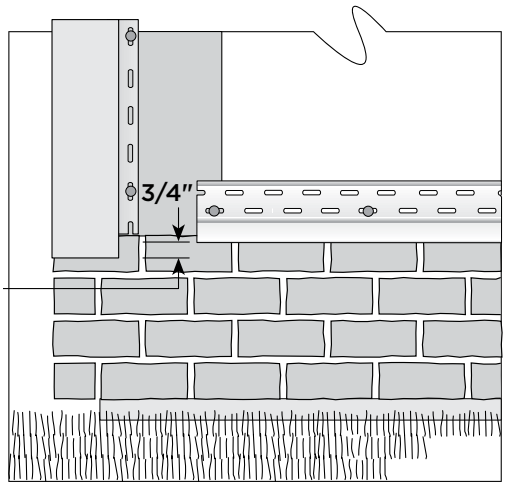
As you add starter strip sections, be sure to leave 1/4" space between them for expansion.

Sometimes—especially at sills above garage doors, porches or brick surfaces where the siding has been cut lengthwise — you may find it easier to use a combination of utility trim and J-Channel as a starter strip to secure a panel.

If you are concerned that the house is not level, measure down from the soffit at one corner of the house to the top of the foundation and subtract the width of the starter strip minus 1/4". Mark the wall, then transfer the measurement to the other corner of the wall. Snap a chalk line in between the corners at the marks.







Outside Cornerposts

A water-resistive material should be used to flash the inside and outside corners a minimum of 10" on each side before installation of the corner posts.

For cornerposts 12′ long or less

Position the outside cornerpost so that the top of the post is 1/4" from the underside of the eave. Extend the bottom of the cornerpost 3/4" below the starter strip.

Before nailing, make sure the post is straight and true. Hang the cornerpost by first positioning a nail at the top of the topmost nail slot. Position all remaining nails in the center of nail slots a maximum of every 8" to 12". Leave 1/8" to 1/16" between the nail head and the cornerpost to allow the cornerpost to move during normal expansion and contraction. (DO NOT NAIL TIGHT.) Follow this nailing pattern on both nail flanges of each post.

NOTE: CedarBoards corners install similar to standard outside cornerposts.

For cornerposts longer than 12′ long

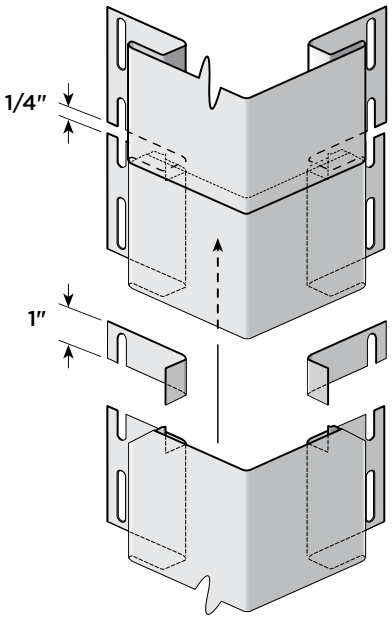
Position the outside cornerpost so that the top of the post is 3/8" from the underside of the eave. Extend the bottom of the cornerpost 3/4" below the starter strip.

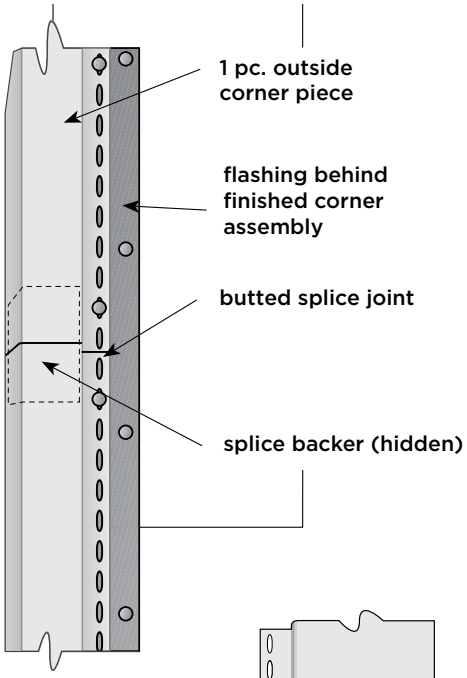
Before nailing, make sure the post is straight and true. Hang the cornerpost by first positioning a nail at the top of the two top nail slots slot. Position all remaining nails in the center of nail slots a maximum of every 8" to 12". Leave 1/8" to 1/16" between the nail head and the cornerpost to allow the cornerpost to move during normal expansion and contraction. (DO NOT NAIL TIGHT.) Follow this nailing pattern on both nail flanges of each post.

NOTE: When installing any hanging cornerpost longer than 12′, position the fasteners at the top of the top two nail slots on each side of the corner.

Transitioning from masonry to stucco

Position the bottom of the cornerpost 3/4" below the starter strip. If the corner is less than 12′, leave 3/8" from masonry/flashing to allow for expansion. If the corner is greater than 12′, leave 5/8" from masonry/flashing for expansion.





NOTE: ***If the transition material allows, the bottom 3/4" of the channels may be removed from the outside cornerpost so that the face of the corner may be positioned lower and more in line with the bottom of the siding. This method creates a transition with more pleasing aesthetics. The outside cornerpost face must still maintain 3/8" or 5/8" clearance from obstructions.***

If posts must be spliced for high walls, you have two options:

Option 1

Cut 1" off the nailing flanges and back so just the face of the outside cornerpost remains. Then lap 3/4" of the upper post over the lower post, allowing 1/4" gap for expansion. This method will provide an obvious joint between the two posts, but will allow water to flow over the joint, reducing the chance of water infiltration.

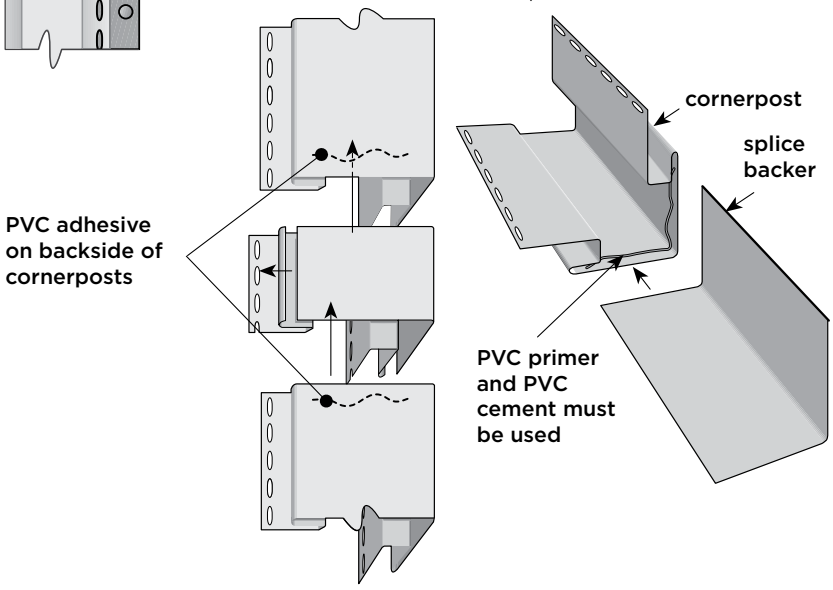
When the bottom edge of a cornerpost terminates into a porch, deck, brick, stone ledge, or roof line, etc., allow 3/8" for every 10′ of corner when the ambient temperature is above 40°F; 1/2" for every 10′ of corner when the ambient temperature is 40°F or below.

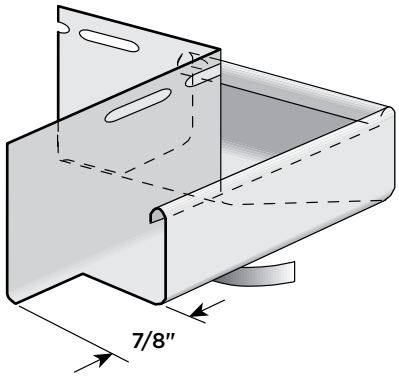
NOTE: It is acceptable to reverse lap outside corners as long as the corners are properly flashed and water can drain from the bottom of the cornerpost.

NOTE: When installing SuperCorners on runs exceeding 20′ follow standard outside corner installation instructions, but be sure to trim back the foam to accommodate the intersection of the pieces.

Option 2

Cut a 6" length of cornerpost and trim the nail flange, receiving channel, and sides until you have just a 90° bend of vinyl. Using PVC primer and PVC cement, glue the bent piece to the inside of the upper post and lower post. Butt the two posts together. Nail the entire assembly as one post with all nails in the lower post centered in the nail slots.

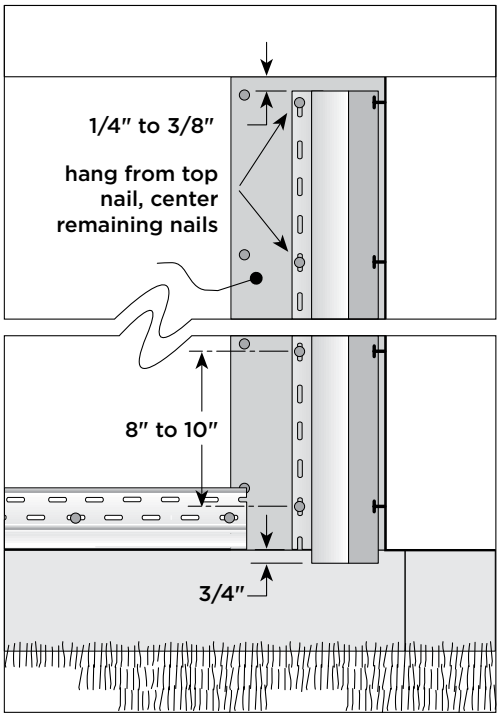




Capping an outside cornerpost

One method of capping an outside cornerpost is to cut a piece of J-Channel twice as long as the width of the corner-post face. Mark a 90° angle from the center and cut out this area. Then cut 7/8" away from each end, except for the nailing flange. Bend the J-Channel in the center and nail it to the outside of the corner of the house. Then insert the cornerpost into the J-Channel.

Another alternative is to trim the nail flange, receiving channel, and sides from the bottom 1" of the cornerpost. Notch 1" at the 90° bend, fold the bottom 1" of the cornerpost face, and fasten these "flaps" with a pop rivet.

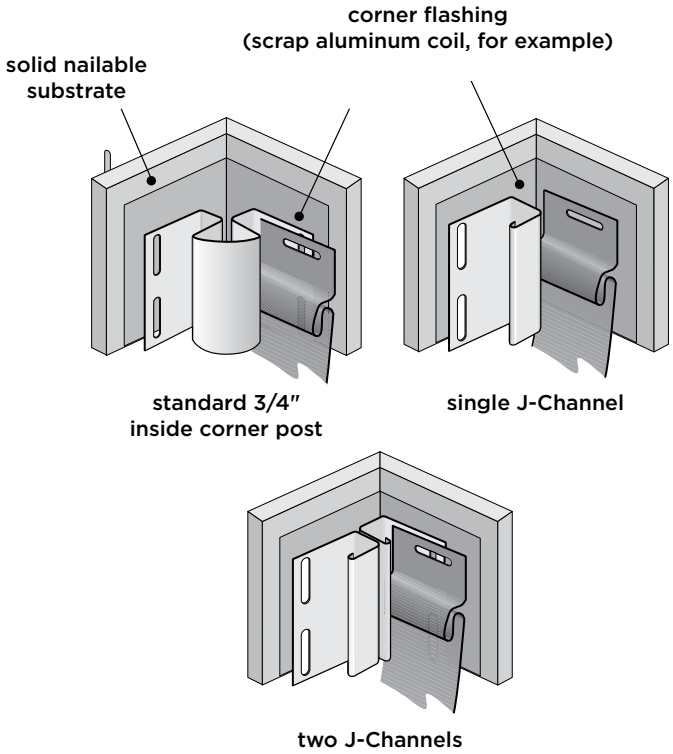


Inside Cornerposts

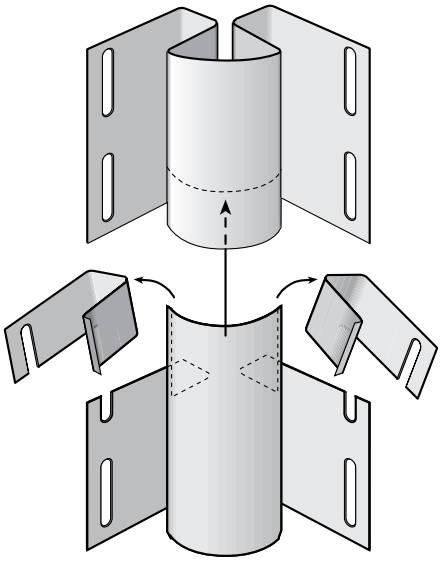
There are three options for trimming inside corners: Standard 3/4" inside cornerpost, single J-Channel, and two J-Channels.

A water-resistant material such as trim coil or self-adhering flashing should be used to flash the inside and outside corners a minimum of 10" on each side before installation of the corner posts.

To install inside cornerpost, hang the post from the top of the eave. The bottom should extend 3/4" below the starter strip. Remove the bottom 3/4" of the nailing flange so it does not show below the siding. Set the post straight and true. Position the top nail in the top of the nailing slot. All other nails should be in the center of the nail slots.



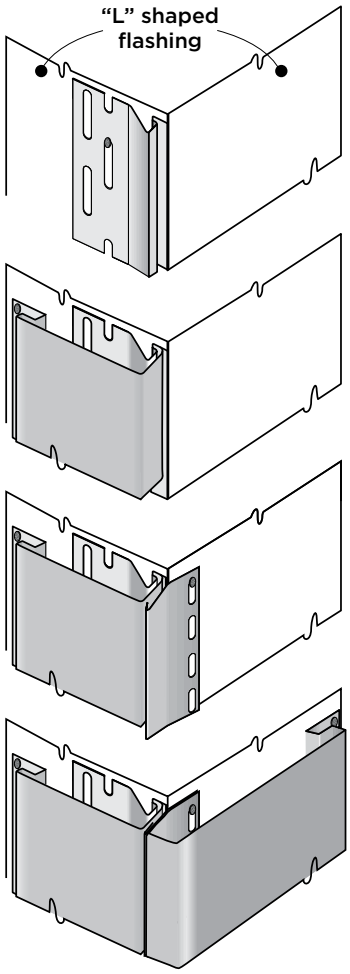
inside cornerpost splice



If you have to splice the inside cornerpost, cut 1" off all but the outer face of the lower post. Lap 3/4" of the upper post over the lower post, leaving 1/4" for expansion.

If you are using two pieces of J-Channel instead of an inside cornerpost, hang the J-Channel from the top of the eave. The bottom should extend 3/4" below the starter strip. Remove the bottom 3/4" of the nailing flange so that it will not show below the siding. Use the same positioning and nailing guidelines as inside cornerpost.

To create a narrower corner, you can also use a single length of J-Channel and color-matched flashing. First, install the siding on one wall. Then place the J-Channel lightly against the siding and nail it to the substrate on the adjacent wall. Follow the same positioning and nailing guidelines as inside cornerposts.



Federal Corners

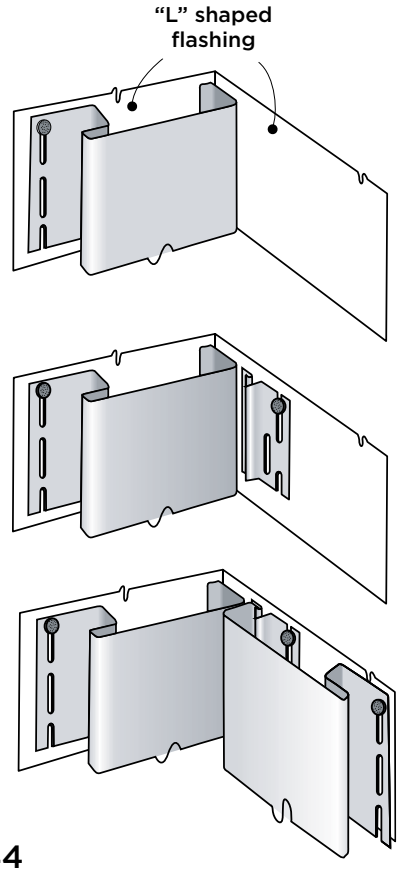
Hang a new construction starter strip. Position the top nail in the top of the nailing slot. All other nails should be centered in the slots spaced 8″ to 12″ apart.

Position and secure the 3-1/2″ lineal.

Position and secure an aluminum starter strip.

Position and secure the 5″ lineal.

NOTE: Aluminum starter can be used for both lineals. If the aluminum starter used for the 5″ lineal is not long enough, fashion a starter using a metal brake and coil stock to a length that allows for proper nailing into the substrate.



Inside Federal Corners

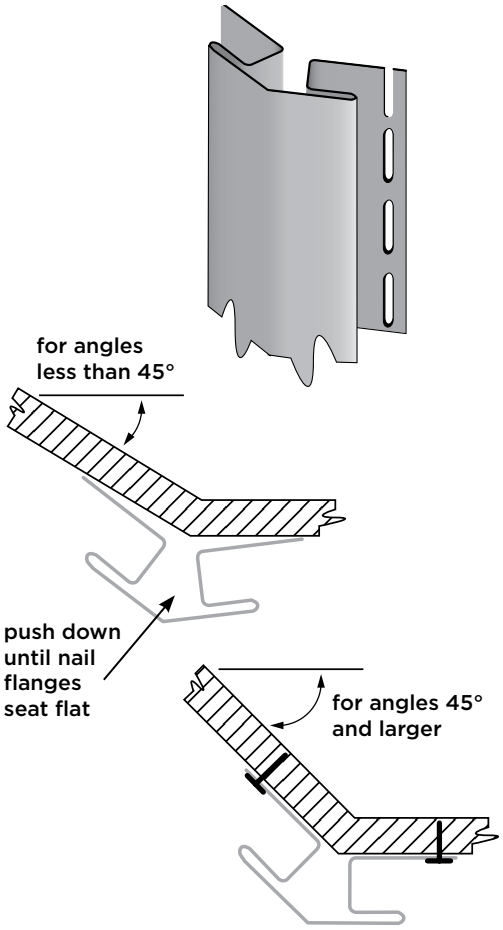
Flash the corner with aluminum trim coil or other flashing materials.

Position and secure the 5″ lineals (or a 3-1/2″ lineal) by butting the lineal up to the inside corner. Using a 5″ lineal will create a symmetric 3-1/2″ exposure in the corner. If two 3-1/2″ lineals are used, one exposure will be approximately 2-1/4″ and one will be 3-1/2″.

NOTE: Attaching the second lineal will keep the first lineal in place. You will not need a starter strip. Always position the top nail in the top of the nailing slot. All other nails should be centered in the slots spaced 8″ to 12″ apart.

Position and secure the starter strip.

Position and secure the remaining lineal.



Trimming Bay Window Corners

There are several ways to trim the odd angles of bay windows. Here are two of them:

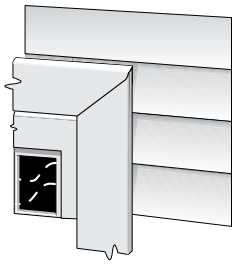
1. Install bay window cornerpost.
2. Install J-Channel with a quarter-round insert.

Before you begin, make sure the corner is properly flashed.

Install bay window cornerpost

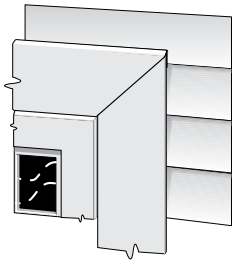
- Cut bay window cornerpost to the proper length.
- For angles less than 45°, push down on the face of the corner until the nail flanges seat flat against the wall surfaces.
- Hang the cornerpost by nailing loosely into the topmost nail slot.
- Make sure the cornerpost is straight and true.
- Position all remaining nails in the center of nail slots a maximum of every 8″ to 12″. Leave 1/8″ to 1/16″ between the nail head and the cornerpost to allow the cornerpost to move during normal expansion and contraction.
- Fit the siding into the cornerpost.

Decorative Trim Options around Windows and Doors



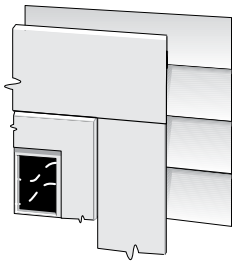
2-1/2" Window and door casing

System requires 2-1/2" window and door casing.



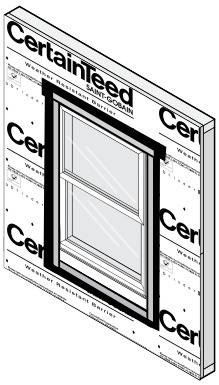
3-1/2" Lineal system

System requires 3-1/2" lineals and starter strips.



5" x 3-1/2" Lineal system

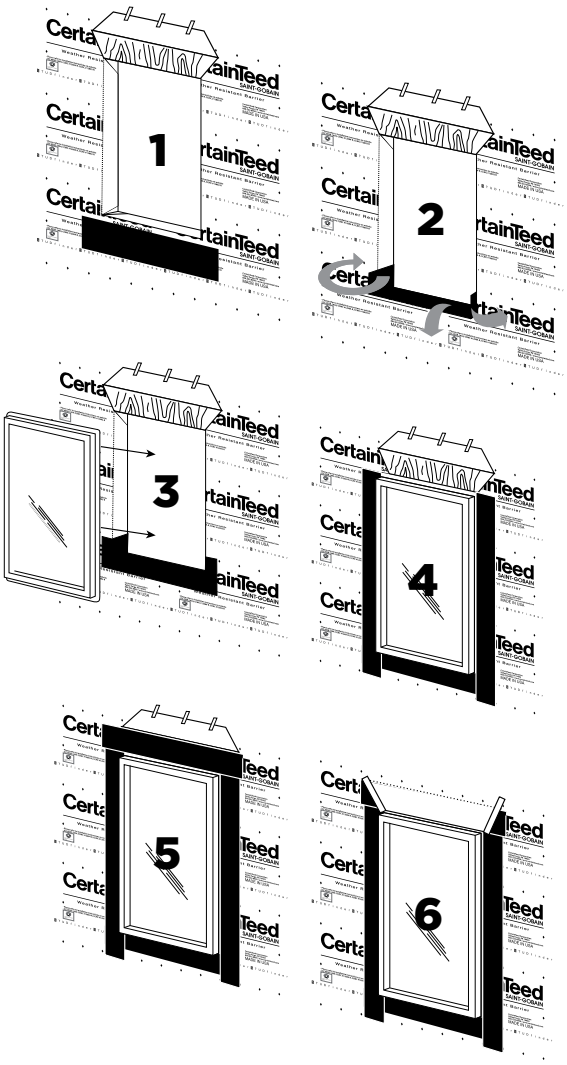
System requires 5" lineals, 3-1/2" lineals, and starter strips.



Window Flashing

If installing a new window and flashing, refer to the window manufacturer's instructions and ASTM E2112, Standard Practice for Installation of Exterior Walls, Doors, and Skylights for the proper flashing installation method for the window type and wall configuration of the project.

The width of all flashings is determined by the type of accessory surrounding the window and where the final complete course of siding stops below the window (in the case of the flashing under the window). The flashing should extend past the nail flanges of the accessory. The width of the flashing under the window must allow for the diversion of water.



Installing flashing around a rectangular window

1. Make diagonal cuts in the weather-resistant barrier at the upper corners of the top (head) of the rough opening. Gently lift and tape the flap temporarily in place.

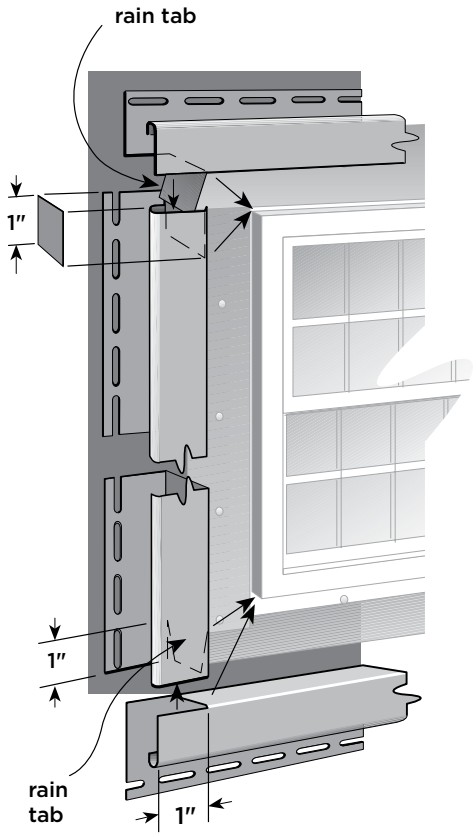
2. Cut a piece of flashing for the bottom (sill) that is 12″ longer than the width of the rough opening. Remove the backer from the flashing and begin applying one end to the jamb of the rough opening 6″ above the sill. (NOTE: the tape will extend over the exterior edge of the jamb.) Applying even pressure to the tape with your hands, work your way down the jamb, across the sill, and up the opposite jamb, finishing 6″ above the sill. Flex the overhanging tape down onto the wall, covering the weather resistant barrier in weatherboards fashion, again applying even pressure to ensure adhesion.

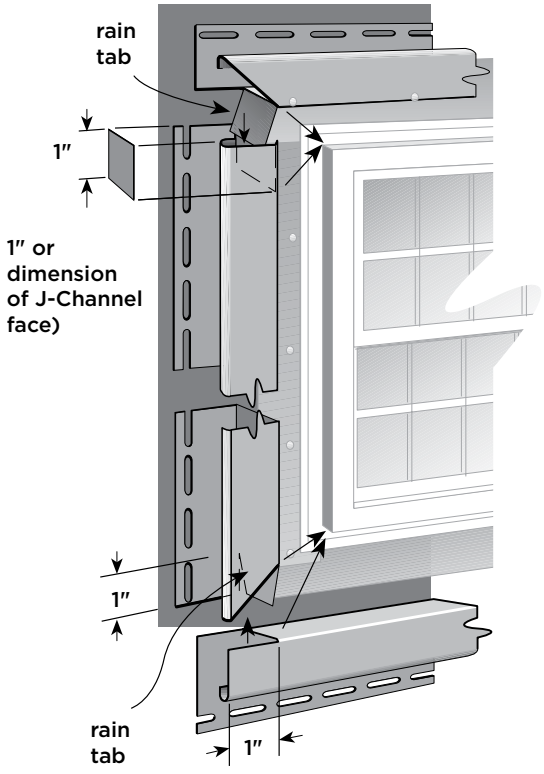
3. Before installing the window, apply a continuous bead of sealant to the interior of the window's mounting flange. Install the window according to the manufacturer's instructions.

4. Cut two strips of flashing for the sides (jambs) of the window. Jamb flashing tape should extend a minimum of 3″ above the top of the jambs of the window unit and a minimum of 1″ beyond the bottom flashing tape installed in step #2, covering the width of the previously installed flashing at the base. Slowly peel release paper off as you press the flashing in place. Ensure the flashing covers all nails and mounting slots on the window's mounting flange.

5. Cut flashing for the top (head) of the opening so it will extend beyond both ends of the jamb flashing Ensure the flashing covers all nails and mounting slots on the window's mounting flange.

6. Finally, lay weather resistant barrier over the head flashing. Apply CertaTape over both diagonal cuts.





Installing Window and Door Trim

Install J-Channel along the top and sides of door casings and around windows.

NOTE: When installing J-Channel around replacement windows that do not have nail flanges, add flashing for greater protection against water infiltration. For an example of completed flashing, see the previous page.

There are two methods of joining J-Channels at corners. The easiest method is to square cut the corners. For a more finished appearance, you can miter the corners. To prevent gaps, do not butt ends. Instead, lap them as shown.

To square cut corners

Install J-Channels at the sides of the windows. Notch them as shown.

NOTE: For best results, use aviation snips when cutting J-Channel.

Cut the top and bottom J-Channels so the ends extend beyond the casing to the width of side J-Channels.

Place the top J-Channel along the casing shoulder and nail it to the wall.

Make two cuts in the bottom of the upper channel and bend it down to overlap the side J-Channel. Repeat for the other side. This forms a water drain and allows the J-Channel to receive siding panel.

Nail the bottom J-Channel in place. Cut the channel as previously described. Fold the rain tabs into the receiving pockets for a tighter miter joint.

To miter cut corners

For best results, make sure you cut all J-Channels to the proper length, leaving the proper allowance for the width of the face of the J-Channel.

Square cut the bottom J-Channel so that its ends extend beyond the window casing to the width of the face of the side J-Channels. Notch the ends for clearance. Position and nail the J-Channel.

Measure the side J-Channels, adding the width of both the top and bottom J-Channels. Miter cut (45° angle) the lower ends of both side J-Channels. Notch the channel to form a rain tab, position it and nail.

Mark the top J-Channel so its ends extend beyond the casing to the width of the side J-Channels. Miter cut (45° angle) the ends. Cut and bend rain tabs. Position and nail.

NOTE: You can create blind miters on a J-Channel using a J-Channel cutter.

2-1/2" Window and Door Casing

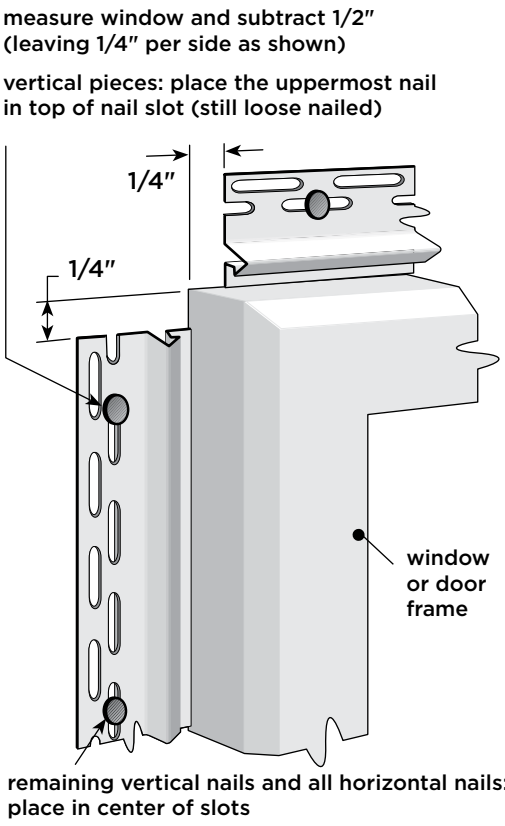
Window and door casing is installed in the same manner as a standard J-Channel installation with the exception of larger 2-1/2" notches and rain tabs to accommodate the larger face profile. It may help to trim back the nail flange on the top and bottom pieces so that the sides lay flatter.

Lineal Starter Application for Windows and Door Surrounds

When securing window and corner starter strips, outside corner pieces (OSCP), inside corner pieces (ISCP), one piece corners, lineals—basically, any vertically mounted siding product—always place the top nail (or staple) first, and in a manner that allows the part to hang from it without dropping. This promotes movement downward only, a must for a good corner joint. This is the only time you should not center a nail (or staple). It is also preferred to use the nail slots closest to the locking area (when using product with double nail slots).

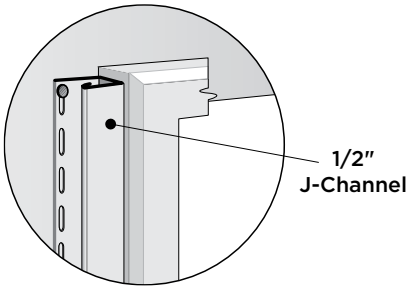
Remember to place the nails for the horizontal pieces in the center of the nailing slots as shown. Space nails 8" to 12" apart.

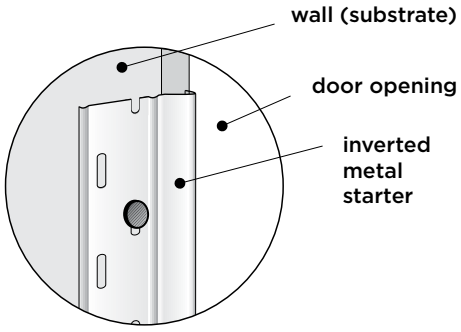
Follow instructions in the diagram at left. When applying starter around windows and doors, ensure that the starter butts up against the protruding door or window jamb. This will create the required friction fit between the lineal and the door or window jamb.



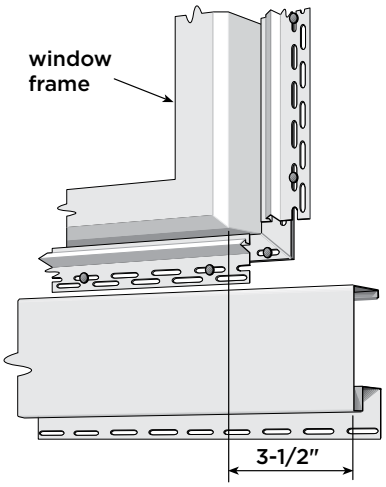
Using a 1/2" J-Channel as a starter for lineals

NOTE: Slide the lineals on from either end of the J-Channel (the lineal will not snap over the J-Channel as with a Window and Door Starter Strip), or pull the J-Channel away from the window slightly and zip the lineal into place.



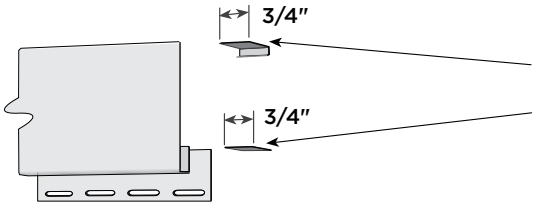


If the opening has no framework, such as a brick molding, use the metal starter in place of the Window and Door Starter Strip. The lineal's locking leg will fit behind the aluminum starter and into the receiving pocket of the Window and Door Starter.

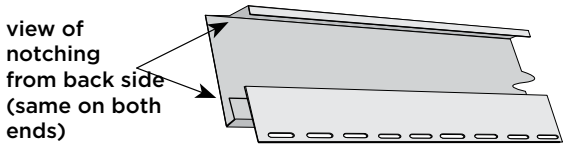


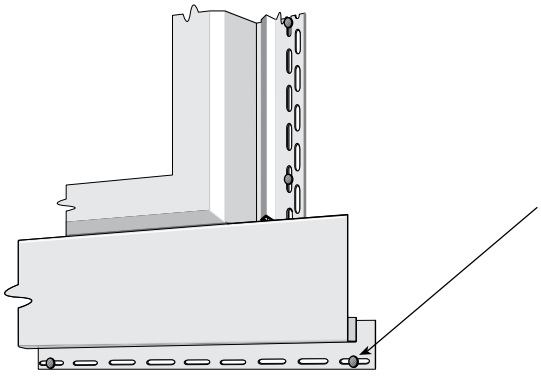
Lineal Application around Windows

Measure the bottom of the opening and add 7″ if the side lineals are also 3-1/2″ (3-1/2″ extra for each side equals 7″). Add 10″ when using 5″ lineals.

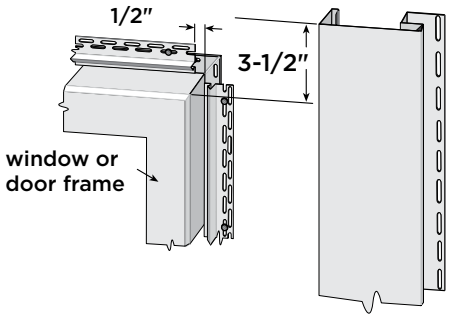


Trim 3/4″ tabs from the lineal as shown.

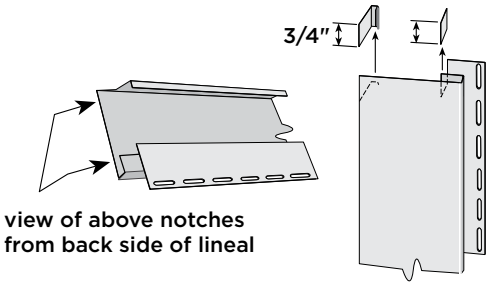




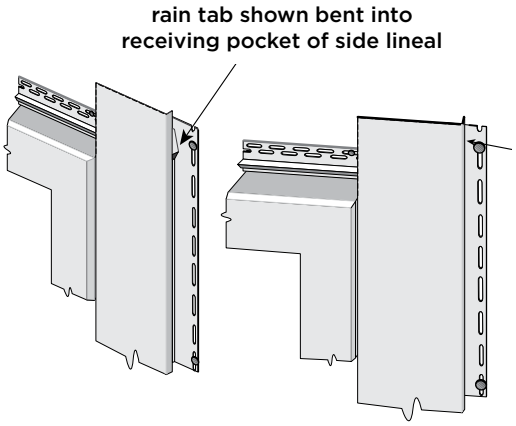
Snap the lineal in place and secure by nailing (or stapling) it through center of the nail slots.



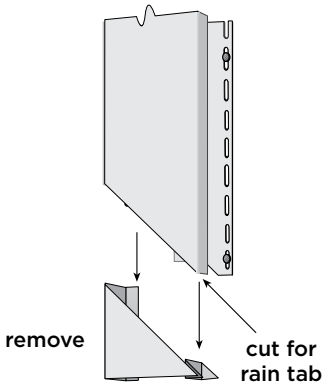
Measure the height of the window. Add 7" if using 3-1/2" lineals for the header and bottom lineal. (When using 5" lineals at header, add additional material). Cut lineal to length.



Trim a minimum of 3/4" from the top end of the side lineals.

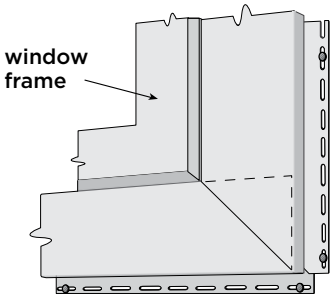


Snap the side lineals into place to check the fit.

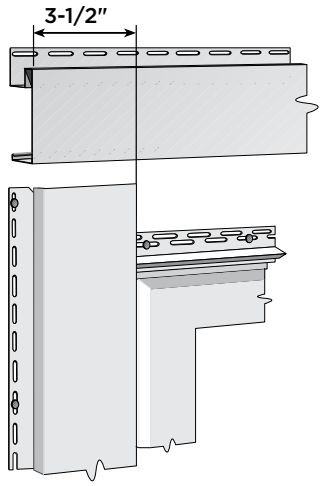


Use a triangle to create a 45° angle or measure 3-1/2" in from the locking leg.

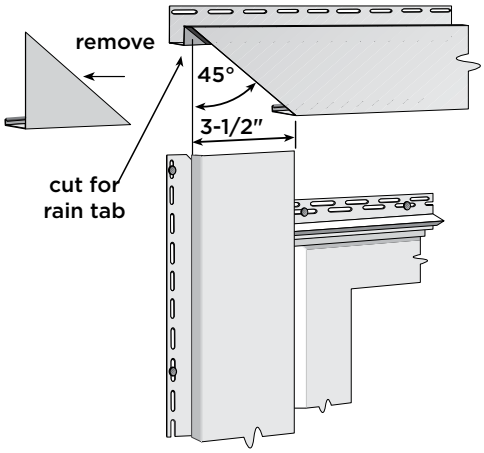
Cut a 3/4" rain tab (as shown).



Snap the side lineals into place and secure using nails or staples.



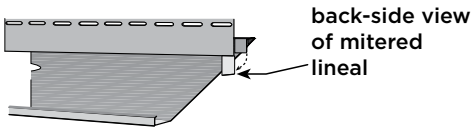
Measure the top of the opening and add 7" if the side lineals are also 3-1/2" (3-1/2" extra for each side equals 7"). Add 10" when using 5" lineals.



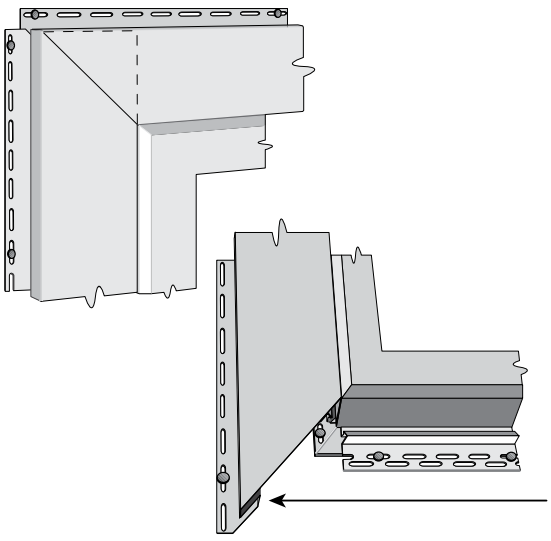
Use a triangle to create a 45° angle or measure 3-1/2" in from the locking leg.

NOTE: The nail flange is always the longest part of a surrounding miter.

Use snips to remove the part as shown.

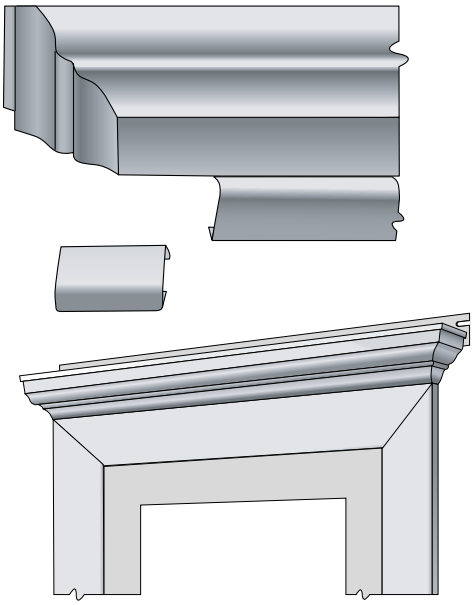


Cut a 3/4" rain tab (as shown).



Snap the completed top lineal into the previously attached starter strip. Bend the rain tabs of the top lineal down into the receiving pocket of the side lineals.

NOTE: The bottom miter of side lineals has the same cut as both ends of a top lineal.



Crown molding

Crown molding will fit over the top of the lineal system.

Install J-Channel and lineals around window casing.

Measure the top lineal and add 2-1/2". This will be the crown molding length.

Insert crown molding cap into the crown molding and trace the shape. Trim off the marked line.

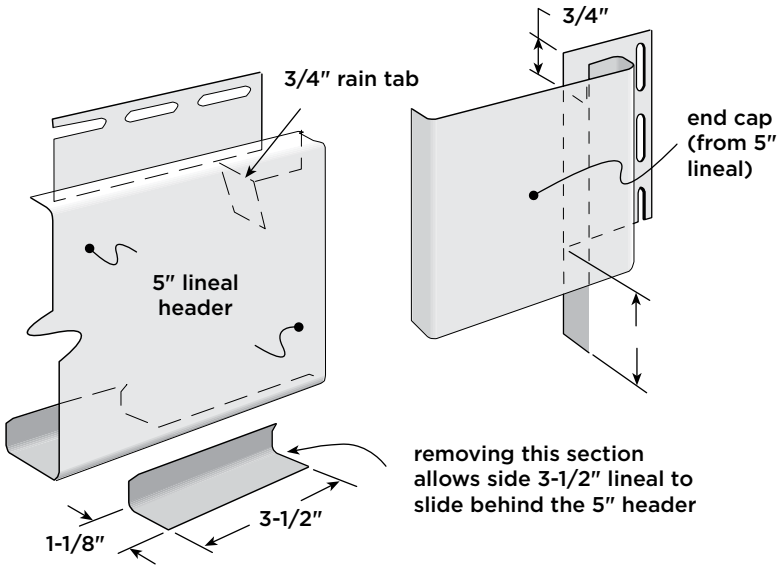
The crown molding requires a tab 2" long—cut from the pocket receiver as shown.

Cut the crown molding cap in half and apply the halves with a bead of caulk.

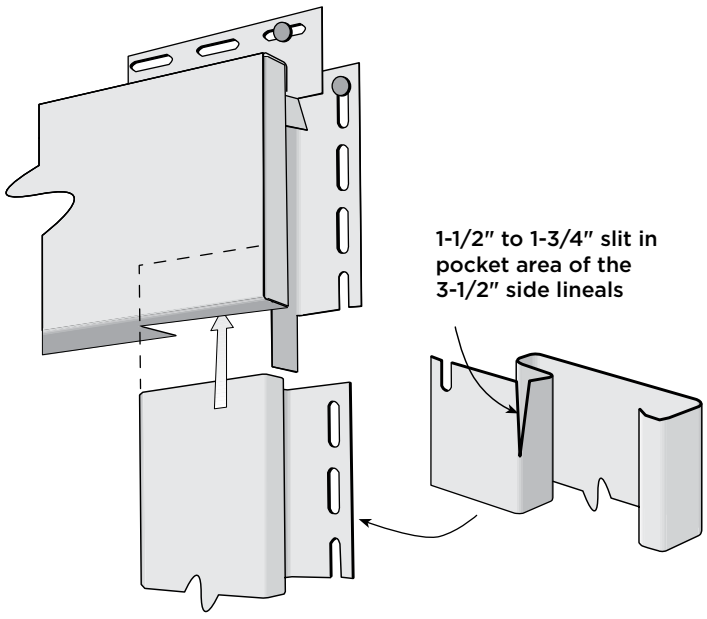
Insert the crown molding into the top of the lineal as shown.

5″ Square Header with Endcaps over 3-1/2″ Lineals Sides and Bottoms

Assemble the 5″ header and cap. The side 3-1/2″ lineals should extend approximately 1″ inside the header assembly.

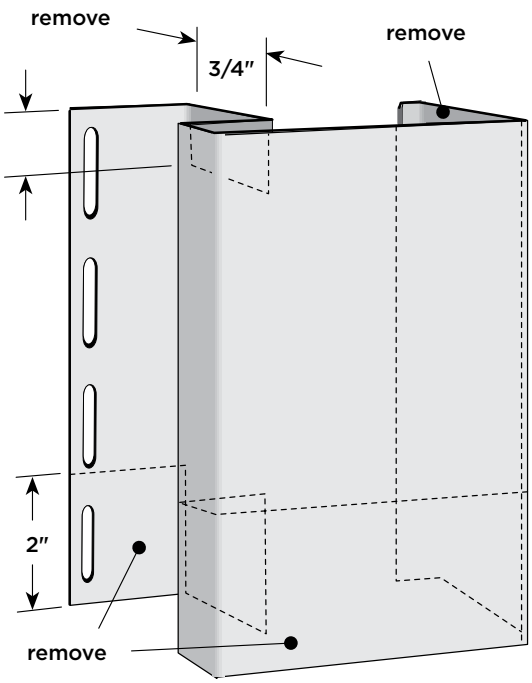


Finish the corner by sliding the 3-1/2″ side lineals behind the header, making sure the 2″ rain tab on the end cap extends into the receiving area of the side lineals.



NOTE: If using crown molding, see page 58.

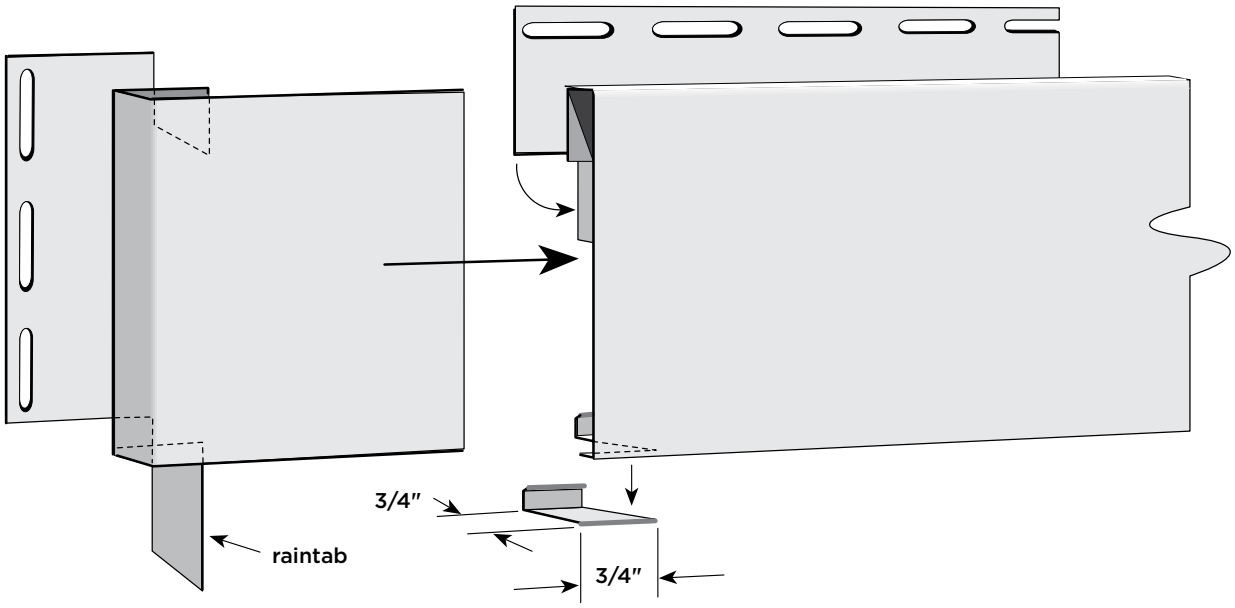
Creating End Caps for 5″ Lineals



To create the header, first cut a 7″ piece of 5″ lineal. Measure and trim as shown.

The resulting piece fits into the end of the 5″ lineal.

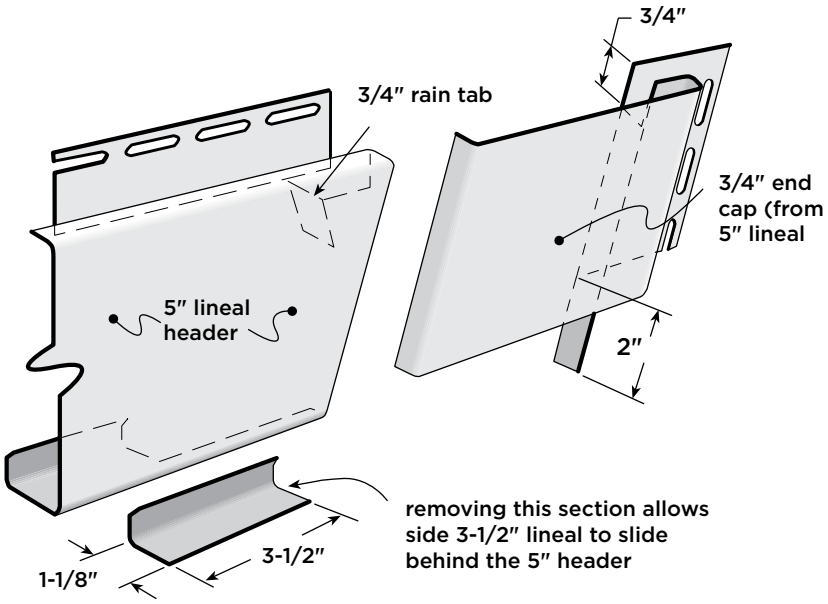
The ends of the 5″ lineal also need trimming to receive the end caps. Create a 3/4″ rain tab in the pocket area and trim off a 3/4″ tab from the bottom.



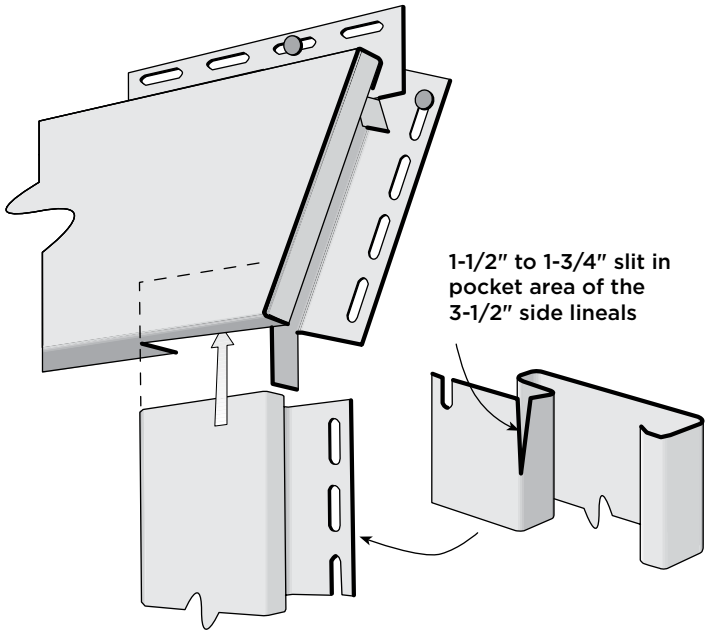
NOTE: To make end caps for 3-1/2″ lineals, simply start with a 5-1/2″ piece and remove the 3/4″ and 2″ areas as shown for the 5″ end caps.

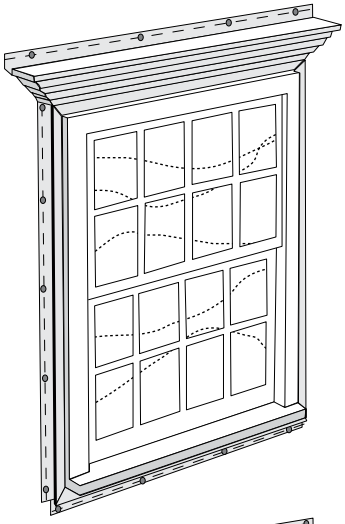
Slip Joints for Lineal Corners

Assemble the 5″ header and cap. The side 3-1/2″ lineals should extend approximately 1″ inside the header assembly.



Finish the corner by sliding the 3-1/2″ side lineals behind the header, making sure the 2″ rain tab on the end cap extends into the receiving area of the side lineals.



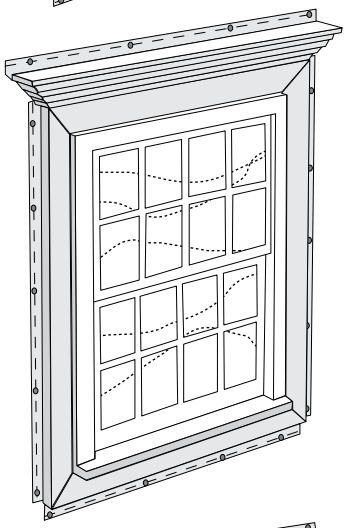


Crown Molding Treatment Options

Option 1 (page 58)

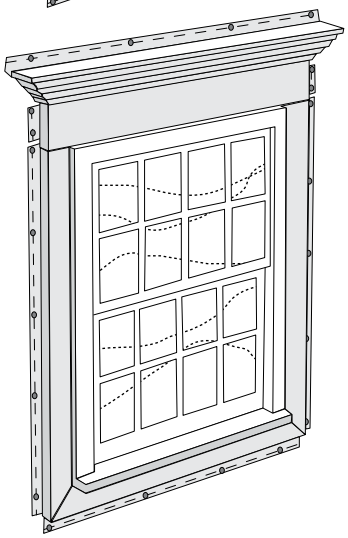
- Crown molding
- Crown molding end caps
- 3/4″ Pocket J-Channel header and surround

Other options are possible with the crown molding: For example, use 3-1/2″ lineals vertically and at the window base along with a J-Channel and crown molding header. The only requirement for using the crown molding is having receiving channels 3/4″ wide.



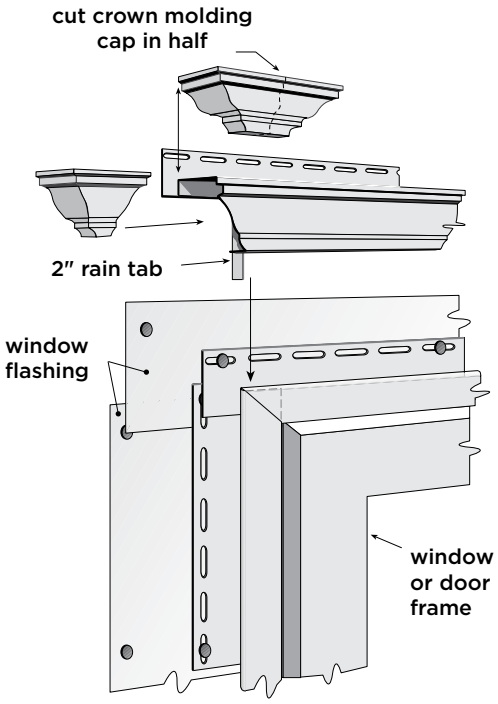
Option 2 (page 58)

- Crown molding
- Crown molding end caps
- 3-1/2″ Lineal header
- 3-1/2″ Lineal surrounds



Option 3 (page 58)

- Crown molding
- Crown molding end caps
- 5″ Lineal header
- 5″ Header end caps
- 3-1/2″ Lineal surrounds



Crown Molding and Cap for 3/4" Pocket J-Channel

You will need:

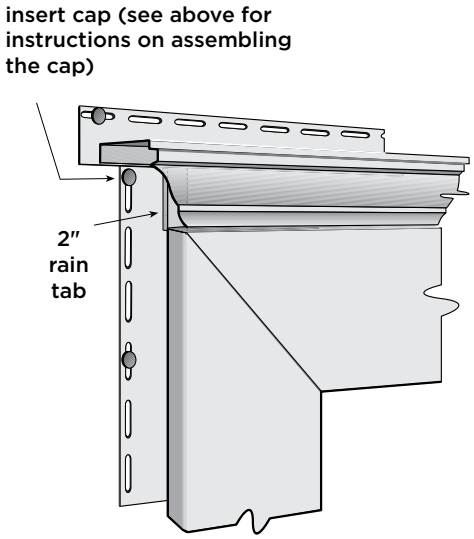
- Crown molding
- Crown molding end caps
- 3/4" pocket J-Channel header and surround

To use crown molding with 3/4" pocket J-Channels, measure the length of the completed J-Channel surround and add 2-1/2" (the crown molding overlaps the J-Channels by 1-1/4" per side).

Insert the crown molding cap into the crown molding and trace the tip shape. Trim as shown.

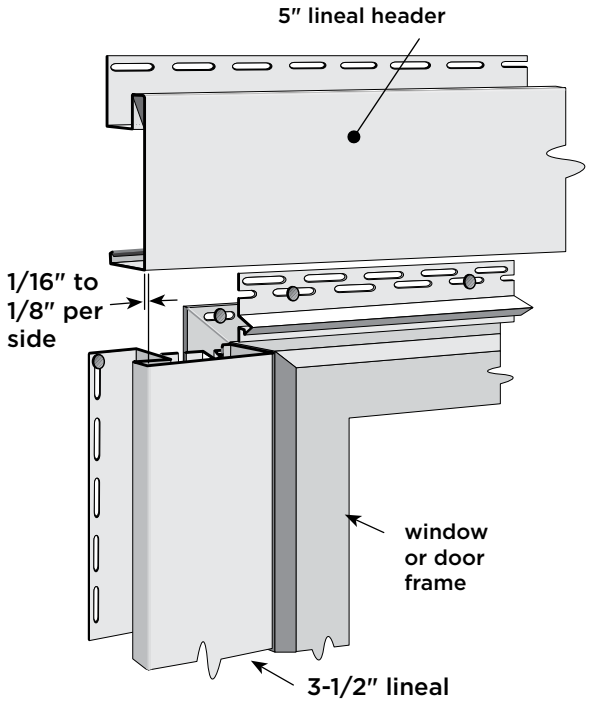
Insert 1/2 of the crown molding cap into each end of the crown molding lineal. Secure the crown molding with a bead of caulk.

Miter or square cut the J-Channel (mitered corner is shown). Insert the 3/4" wide rain tab into the receiving channel of the side J-Channel.



Crown Molding with 3-1/2" Lineal Surround

In addition to J-Channel, crown moldings can also be used with lineals. The next two pages demonstrate how crown molding can be used with various lineal configurations. Above all, remember that before applying accessories and siding, make certain the substrate is watertight. In order to be properly protected from precipitation, the substrate may need to be properly flashed to shed water to the exterior. The siding alone is not a watertight barrier.



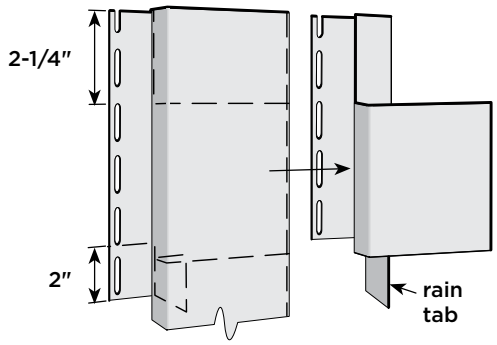
Crown Molding with Cap for

5″ Header Lineal

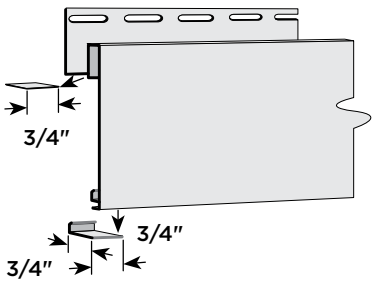
Crown molding with 5″ header and 3-1/2″ surrounds.

Determine the header length by measuring from the outside of both side lineals and adding 1/16″ to 1/8″ per side for overlap.

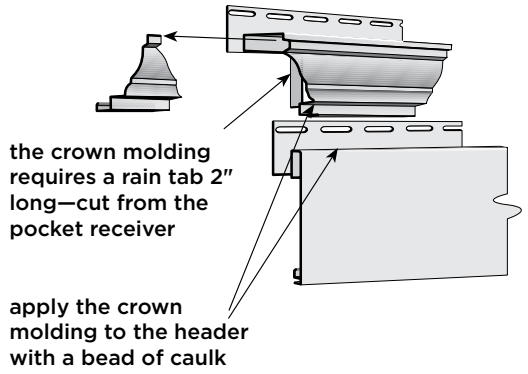
To cut the crown molding, add 2-1/2″ to the previously determined header length (1-1/4″ added per side).



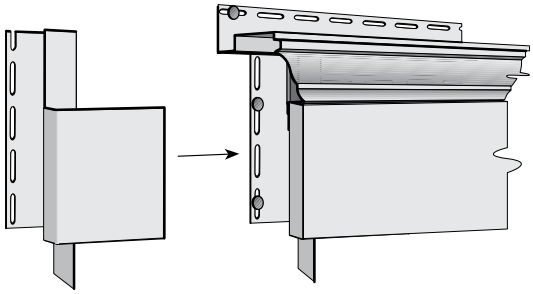
To create the header end cap, cut a 9-1/4″ piece of 5″ lineal and trim as shown.



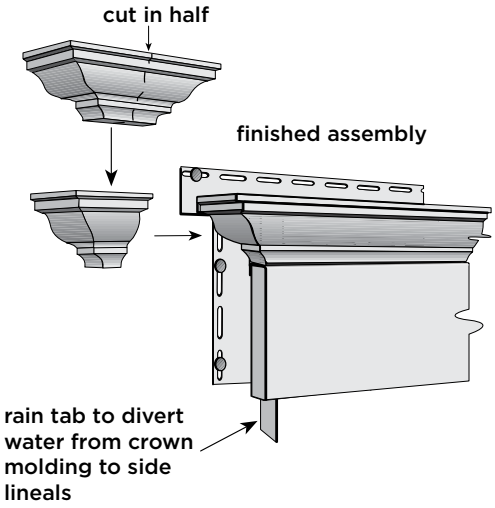
Notch both ends of the header as shown.



Insert a crown molding cap into the crown molding and trace the shape. Trim as shown.

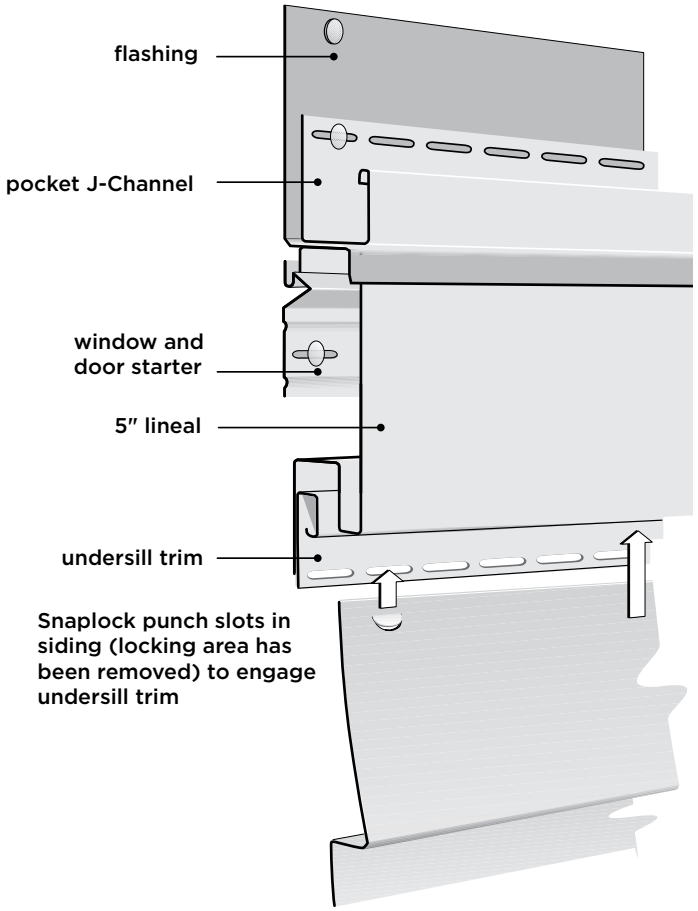


Insert the header cap.

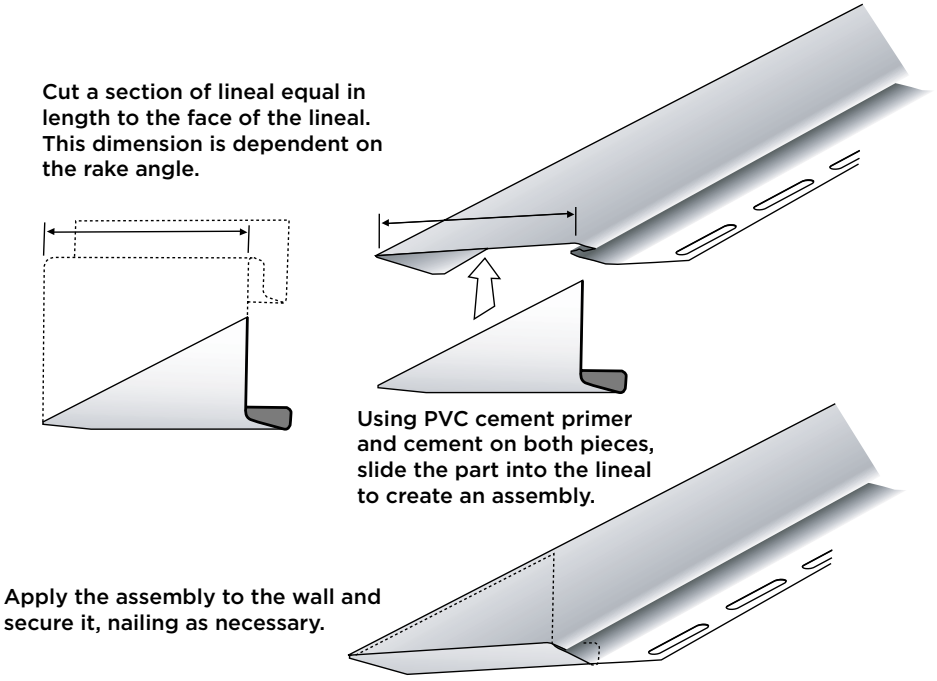


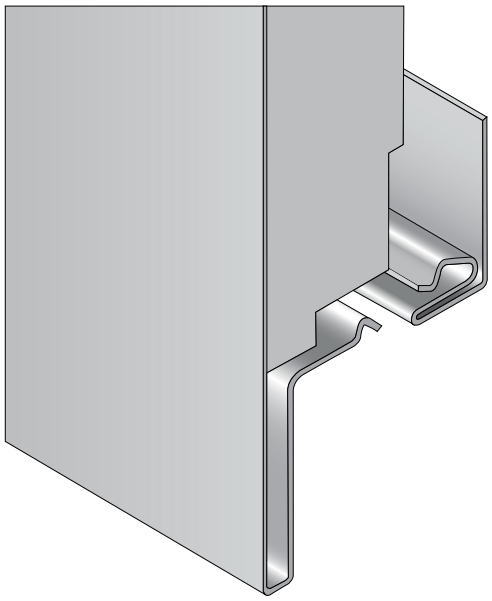
Cut the crown molding cap in half. Apply each half to the end of the crown molding and secure it with a bead of caulk.

Lineals over Horizontal Siding

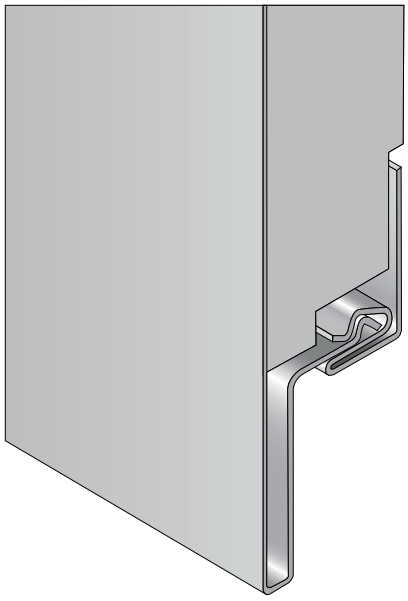


Capping a Lineal Used as a Rake Board





nail with fin facing up



push snap leg of band board into cornice receiver

Band Board

Installing Band Board

Before you begin, determine where the last course of siding will end. Nail cornice receiver loosely every 8″ to 12″, with the nailing fin facing up. Keep the cornice receiver straight as it establishes the line for the Band Board.

Install the last course of siding 1/4″ below the cornice receiver. If necessary, trim the top of the siding panel to fit below the cornice receiver. With a nail slot punch, punch nail slots 16″ apart, 1/4″ from the panel's upper edge. Nail through the center of the holes for a loose fit between the panel surface and the nail heads.

Cut Band Board to length, allowing for clearance between the Band Board ends and the trim for expansion and contraction. Push the snap leg of the Band Board into the cornice receiver. Nail the Band Board loosely every 8″ to 12″.

Fitting into trim pieces

The Band Board is designed to fit into 1-1/4″ J-Channel, pocket corners, and lineal accessories.

For lengths less than 12′, allow 1/4″ gap between the ends and the trim at temperatures above 40°F; allow 3/8″ gap at temperatures below 40°F.

For lengths greater than 12′, allow 3/8″ gap between the ends and the trim at temperatures above 40°F; allow 1/2″ gap at temperatures below 40°F.

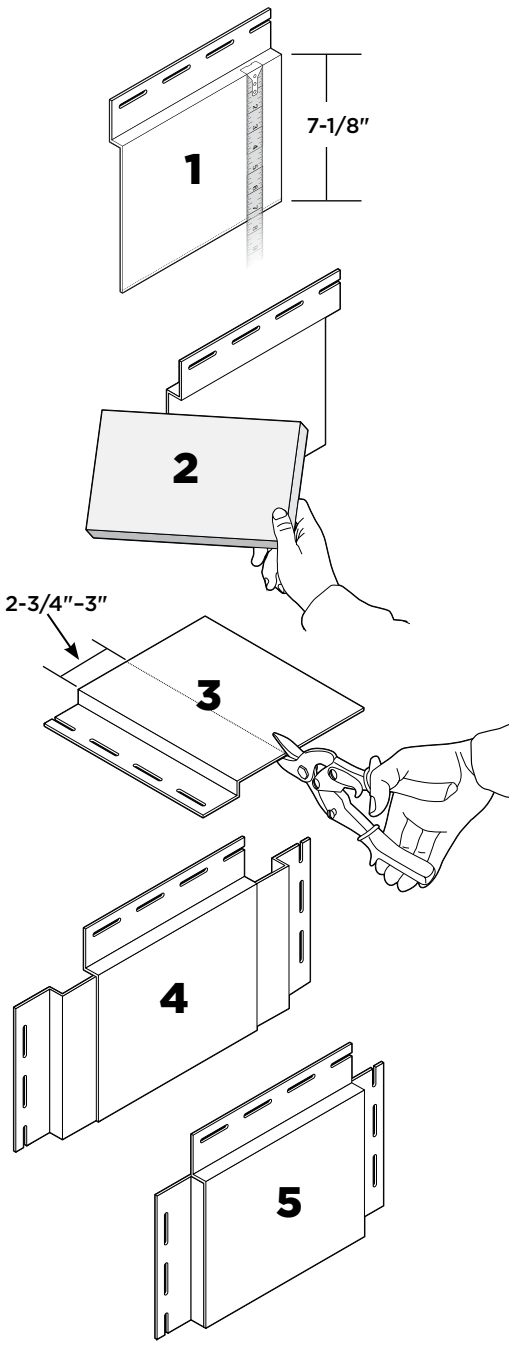
When using the Band Board in installations with accessories that DO NOT have a 1-1/4″ pocket, be sure to allow clearance between the two pieces for expansion. Trim a short section of Band Board to create an end cap for these applications.

Installing siding above Band Board

There are two ways to continue siding above the Band Board:

- For horizontal siding, use a starter strip. Position the starter strip above the Band Board enough to allow the siding return leg to engage the starter strip.
- For vertical siding, use J-Channel. Align the nail slots of the J-Channel with the nail slots of the Band Board.

NOTE: When nailing a starter strip, avoid pinning the Band Board. The Band Board must be allowed to expand and contract freely.



Overlapping two pieces of Band Board

Only factory-cut edges can be used create a lap seam. The adhesive begins approximately 2" back from the end of the foam.

For the underside piece, measure back 1-1/2" from the end of the vinyl. Cut back 1-1/2" of foam and remove the bottom portion of the rear return and snap leg. Slip the vinyl edge of the bottom portion of the seam between the foam and the vinyl panel. Slide two pieces together, overlapping them 1-1/4", leaving a 1/4" gap between the foam for expansion.

Creating end caps for Band Board

To create end caps for Band Board:

1. Cut 1/8" off the bottom of a piece of Band Board, leaving a piece that is 7-1/8" wide.

2. Remove the foam from the back of the piece.

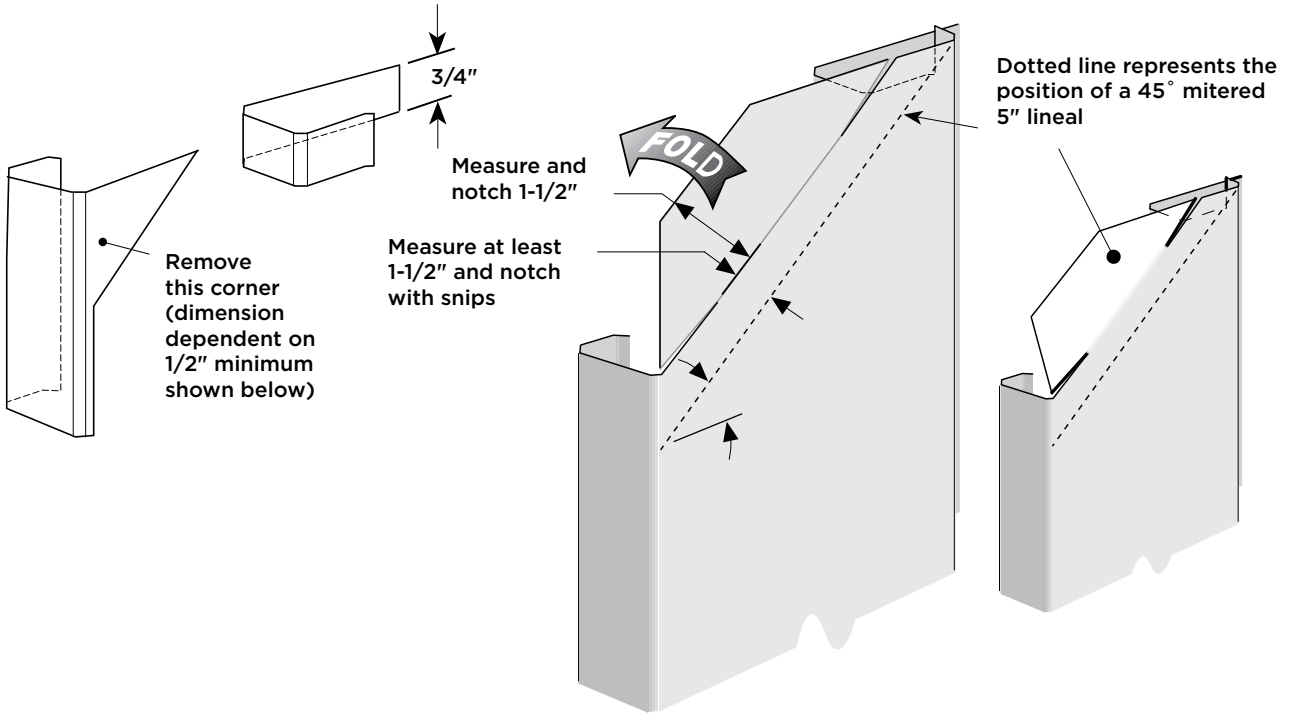
3. Then, cut the piece down so that it is 2-3/4"–3" wide. The nail hem will be either left or right, as the insert can be used for either side.

4. With the nail hem to the side, insert the cut piece between the foam and the Band Board. This will form a tight fit, but it may be necessary to glue or caulk at the point where the Band Board meets the cut piece.

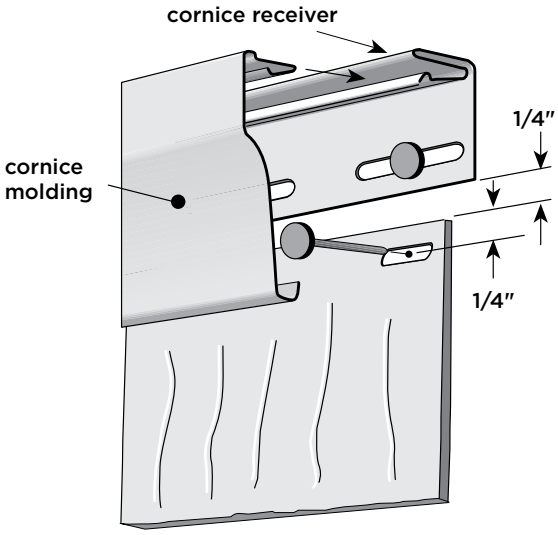
NOTE: Depending upon the corner system you are using, you may have to trim the nail hem to fit.

Blind Miter

An alternative to a standard blind miter offers support to the corner without adding material. The measurements shown for the fold are for a 5″ lineal. The same method can be used with 3-1/2″ lineals, but the fold would be changed from 1-1/2″ to 1-3/8″.



Finishing Siding



Finishing siding with Undersill Trim

To finish the top course of siding with undersill trim, attach an undersill trim to the top of the wall under the eave or soffit. Trim the top of the panel so that it fits inside of the undersill trim. use a snaplock punch every 6" across the top of the panel (punch tabs should stick out away from the wall). DO NOT alternate punch direction. Slide the panel into undersill trim and test to ensure fit and hold.

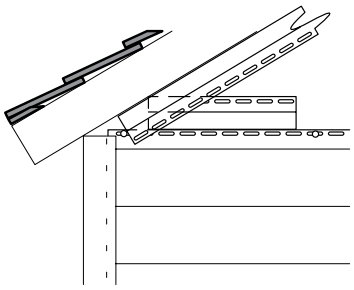
Finishing the last course of siding with Cornice Molding

To finish the top course of siding using cornice molding, 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, 16" apart. Nail off the top course and snap the cornice molding into the cornice receiver.

Finishing siding in a rake application with Cornice Molding

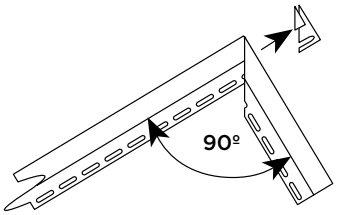
When using cornice molding and receiver in a rake, shimming the receiver away from the wall may minimize rippling of the face. Cut a piece of shim material the full length of the cornice receiver and fasten shim material to the wall. Apply receiver over shim; then finish installing siding product and cornice molding as you normally would.

Installing J-Channel as Gable End Trim

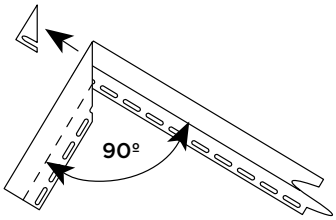


Install J-Channel to receive siding at gable ends, as shown in the illustration. To create a clean, professional look, follow these steps:

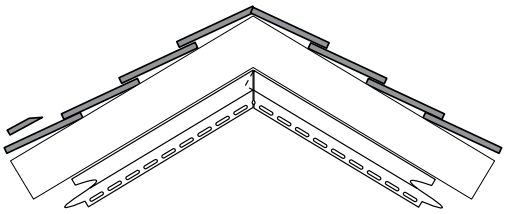
To create an angle template, hold a piece of J-Channel against the slope while transferring the angle to another J-Channel with a pencil.



Next, transfer the angle of the template to the end of a length of J-Channel. Be sure to extend the line onto the nail flange. Cut away the channel face and the nail flange.



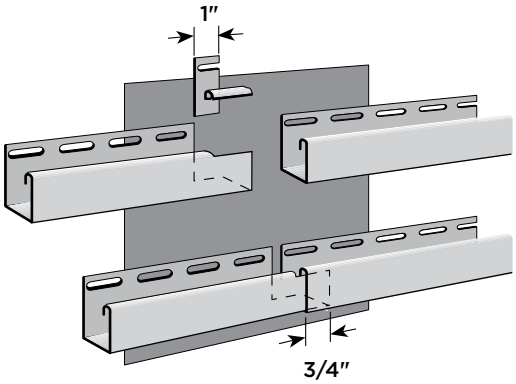
Turn the pattern over and transfer the opposite angle to the second J-Channel, being sure to extend the line onto the nail flange. Cut away the nail flange and return lip, but do not cut the J-Channel face.



Insert the full-faced J-Channel into the mitered J-Channel. If the nail flange or return lips butt and prevent a tight fit, trim off additional material from the second J-Channel.

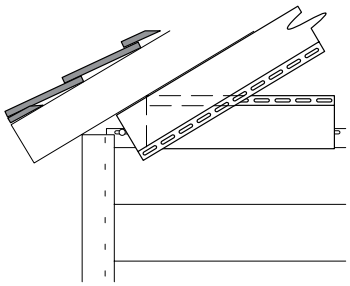
NOTE: For a more decorative appearance, you also can use 3-1/2" or 5" lineals to trim gable ends (see next page for details).

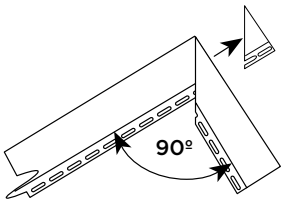
To splice the J-Channel, follow these steps:

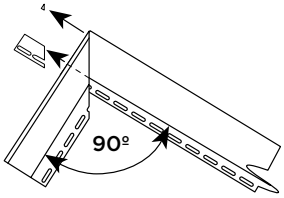


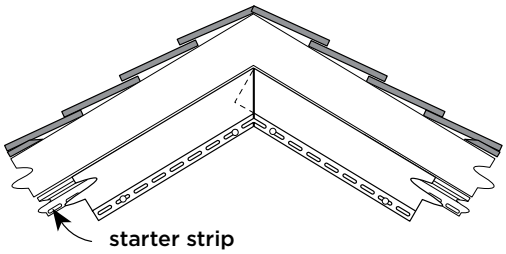
Cut out a 1" section of the nailing flange and face return as shown.

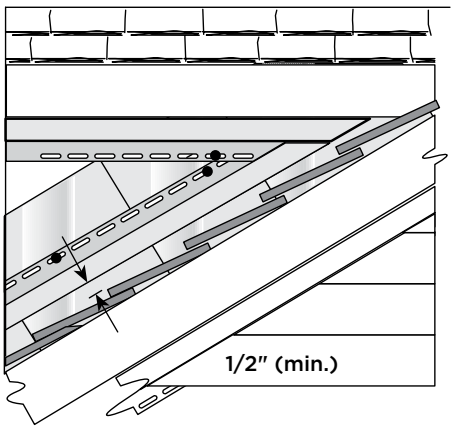
Install inverted J-Channel along the top of the wall, under the eave. Here again, leave a 1/4" gap between the J-Channel and the cornerposts. Overlap the J-Channel 3/4" to allow for expansion. When positioning the upper J-Channel, be sure to allow for expansion of the siding panel. In most cases, position the J-Channel at a point equal to the length of the panel plus 5/8" (1/4" for upper expansion and 3/8" for lower expansion).











Using Lineals as Gable Trim

You can give gable end trim a more dramatic appearance by using 3-1/2″ or 5″ lineals instead of J-Channel.

To install the lineals:

Make a pattern duplicating the gable slope. To create an angle template, lock a piece of lineal into the previous course of siding or other gable starter. Hold a second piece of lineal or starter against the slope and transfer the angle with a pencil.

Transfer the angle of the template to the end of a length of lineal. Cut away the lineal face and nail flange.

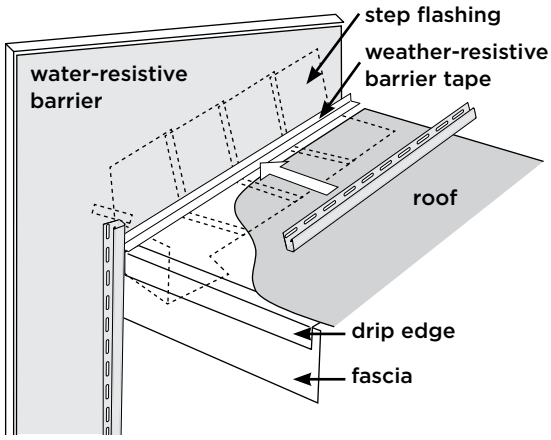
Turn the pattern over and transfer the opposite angle to the second lineal. Trim the nail flange and receiving channel from the opposite lineal to this line. Do not cut the lineal face.

Insert the full-faced lineal into the mitered lineal. If the nail flange or return lips butt and prevent a tight fit, trim off additional material from the second lineal.

Installing trim at roof line

To prevent water infiltration along the intersection of roof and wall, install flashing before installing J-Channel. At points where vinyl siding and accessories will meet at a roof line—such as areas where a gable dormer or a second story side wall intersect with the roof —it's best to position the J-Channel so it is a minimum of 1/2″ away from the roof line. Placing the J-Channel directly on the roof line will subject it to a build-up of heat, which could result
in excessive expansion.

NOTE: If you use more than one length of J-Channel to span a wall surface, be sure to overlap them 3/4″.

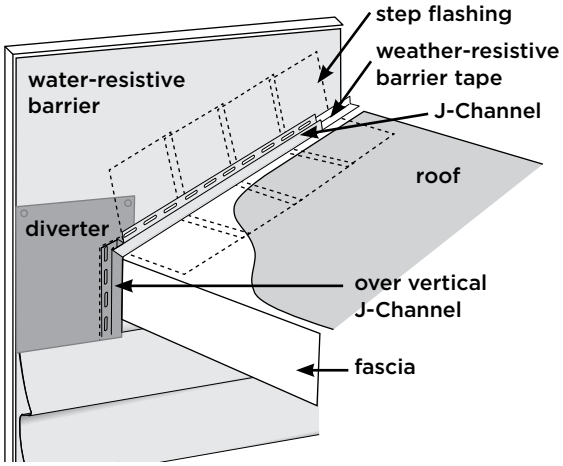


Sidewall Flashing at roof line

Run the siding until the last full course under the roof area.

Cut a diverter from aluminum trim sheet, making sure it sits on the nail hem of the last full course (see illustration). Make sure the diverter is placed inside the receiving pocket of the vertical J-Channel and is tucked behind the nail hem of the J-Channel following the roofline for best drainage.

If a water-resistive barrier is present, a cut should be made in that barrier to allow the diverter to clip behind the roof step flashing and the J-Channels. That cut will need to be sealed with tape (approved by the housewrap manufacturer) once the diverter is installed. As an alternative diverter, create a "kick-out" from metal flashing.



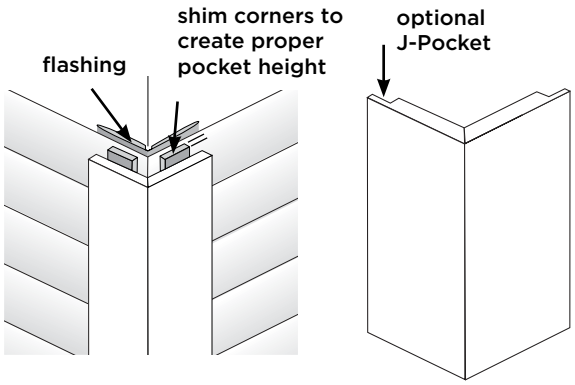
Using Restoration Millwork® in Place of Vinyl Accessories

Installing outside corners

Flash the corners of the home by bending a 20" wide piece of aluminum trim coil 90° so you have two 10" legs. Cover the entire length of the corner, lapping the upper pieces over the lower pieces. (Self-adhering flashing may be substituted for trim coil. Follow manufacturer's installation instructions and observe local building code requirements.)

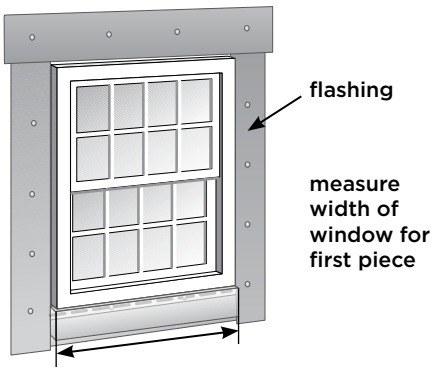
Position the outside cornerpost with the top of the post 1/8" from the underside of the eave and the bottom of the cornerpost 3/4" below the starter strip. Make sure posts are straight and true before fastening. For advice regarding fastening, please refer to "Restoration Millwork Installation Guidelines" (RM003), available online or where Restoration Millwork is sold.

NOTE: It may be necessary to shim or furr out the corners and/or window casings to get the proper pocket height. Always use shimming/furring materials, like Restoration Millwork, that will not rot or decay.

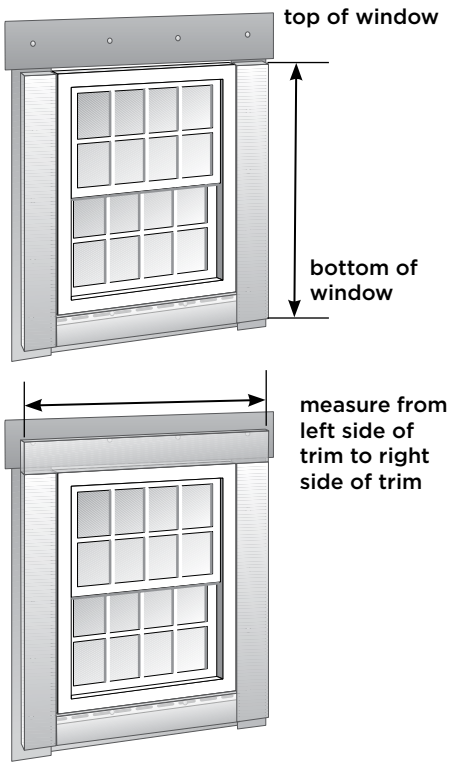


Installing Trimboards around windows

Flash the window according to the manufacturer's specifications. Once the opening is properly flashed, begin by measuring the width of the bottom edge of the window and, using this measurement, cut the first section of Restoration Millwork. Apply this piece to the bottom of the window, verifying each end of the section lines up with the edge of the window prior to fastening.



To determine the length of the trim along the sides of the window, measure each side of the window starting at the top of the window and dropping down to the bottom edge of the first piece of millwork applied. Using these measurements, cut the second and third sections of Restoration Millwork. Apply



these pieces to the left and right sides of the window, verifying that the top edge of each section lines up with the top of the window and the bottom edge of each section lines up with the bottom edge of the first piece of trim already applied.

To determine the length of the top piece of trim, begin at the left side of the left piece of trim and measure to the right side of the right piece of trim. This measurement should equal the width of the window plus two times the actual width of the trimboards being applied. Cut the final piece of trim and apply it at the top of the window, again verifying that the left and right edges of the cut section line up with the left and right edges of the trimboards in place at the sides of the window.

Once the top section of millwork is in place, apply flashing in compliance with local building codes.

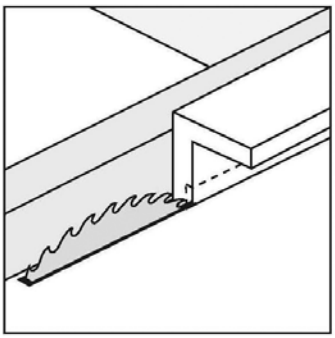
Installing Trimboards around exterior doors

Flash the door according to the manufacturer's specifications. Once the opening is properly flashed, begin by determining the length of the trim along the sides of the door by measuring each side. Start at the top of the door and drop down to the desired termination point. Using these measurements, cut the second and third sections of Restoration Millwork. Apply these pieces to the left and right sides of the door, verifying that the top edge of each section lines up with the top of the door.

To determine the length of the top piece of trim, begin at the left side of the left piece of trim and measure to the right side of the right piece of trim. This measurement should equal the width of the door plus two times the actual width of the trimboards being applied. Cut the final piece of trim and apply it at the top of the door, again verifying that the left and right edges of the cut section line up with the left and right edges of the trimboards in place at the sides of the door.

Once the top section of millwork is in place, apply flashing in compliance with local building codes.

Occasionally you will need to create a pocket to accommodate a nailing flange:



1. Measure the width of the nailing flange of the window at the opening where you plan to apply the trim.
2. Set the blade depth of your table saw approximately 1/8" higher than the width of the window nailing flange.
3. Set the table saw fence so you are cutting away only the thickness of the saw blade from the trimboard.
4. Make one cut from the back side of the trimboard on your table saw.
5. Check to be sure the trimboard will lay flat against the wall and that all joints are tight before fastening. If the boards do not lay flat against the wall or joints are not tight, repeat the above instructions starting at step 3.

Section 8 — 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 aviation 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).

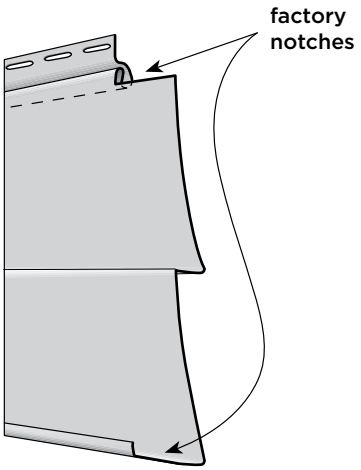
6. Always nail in the center of the nail slots: 16″ on center for siding; 8″ to 12″ for accessories.

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

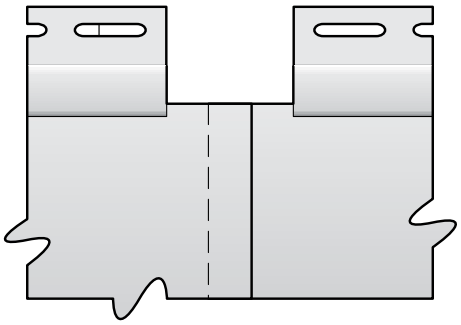
To cut panels to size, follow these procedures:

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.

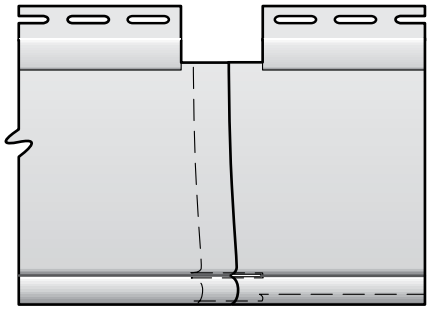
Panels can also be cut with snips. Use a square to mark the cut line. Start the cut at the top lock and continue to the bottom of the panel.



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.

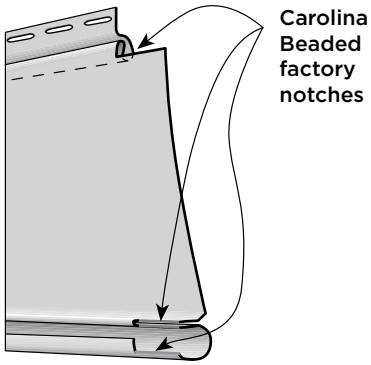
Use a combination of tin snips and utility knife to cut panels to fit around windows and doors.



Overlapping Panels

Refer to the chart on page 37-38 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.



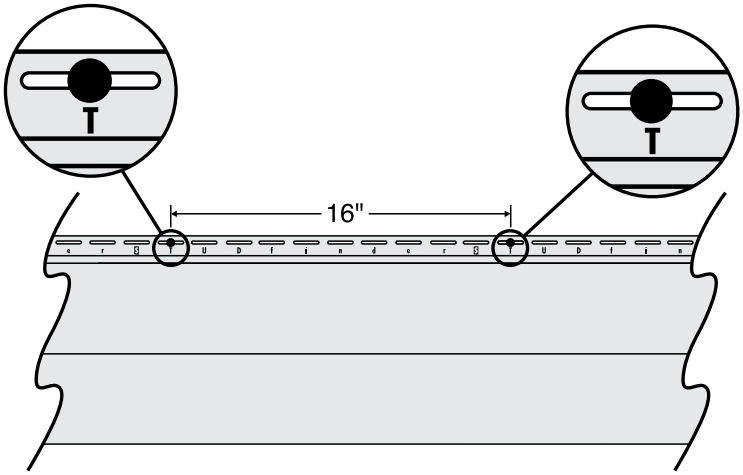
NOTE: The Carolina Beaded panel is factory-notched in three places. For best results, overlap panels using factory notched ends only. If a panel must be cut on site, insert cut ends into receiving channels in cornerposts or J-Channel. If this isn't possible, create an exact duplicate of notches using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

STUDfinder Installation System

for 12′ Panels

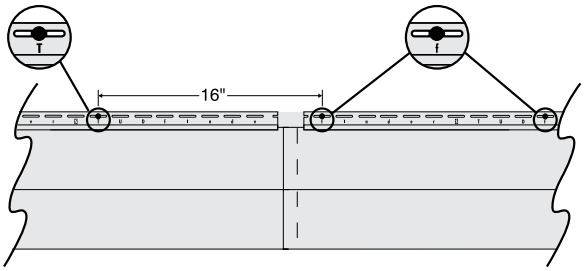
The STUDfinder™ Installation System combines precisely engineered nail slot locations with graphics to help ensure quick, accurate and secure installation of CertainTeed siding panels on homes with standard 16″ or 24″ o.c. frame construction.

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.



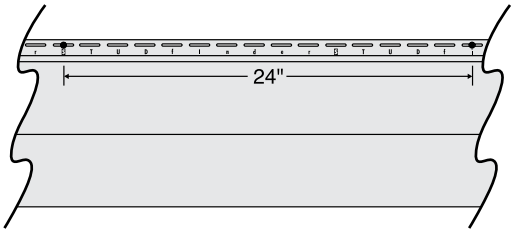
Standard 12′ panels feature 10 nail slots every 16″, with one of the 10 letters in the word “STUDfinder” centered directly under each slot. Locate the first stud and fasten the siding to it in the center of the nail slot. Notice which STUDfinder letter appears below the slot.

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.

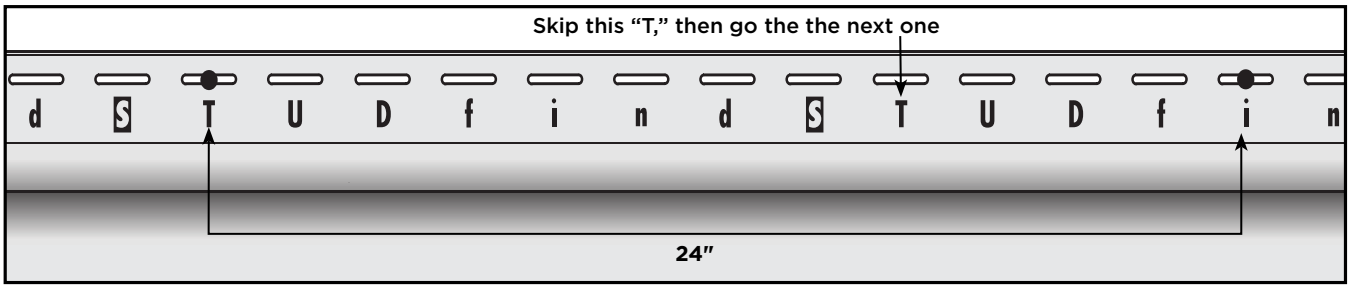


STUDfinder Installation System for

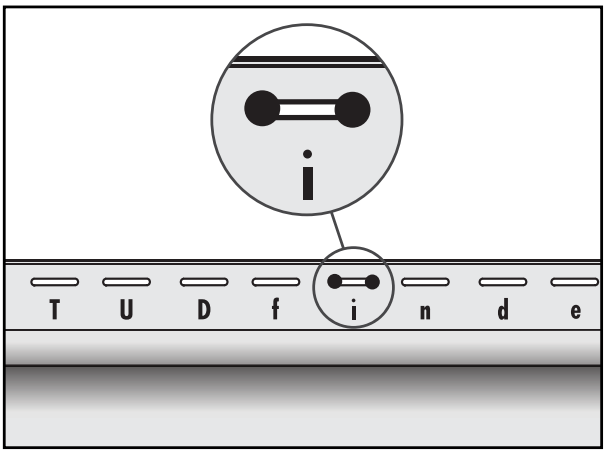
Oversized (16′, 16′ 8″, 20′ and 25′) Panels

CertainTeed's longer siding panels – CedarBoards XL 16′8″ and Monogram XL 16′, 16′8″, 20′, 25′ – 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 CedarBoards or Monogram 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.

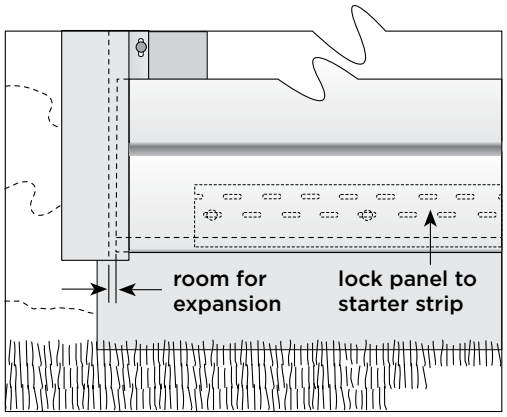


NOTE: Ensure that nail/staple penetration is at least 3/4″ into a stud (1-1/4″ into the stud olus sheathing) to comply with ASTM D4756 (specification for vinyl siding installation). Also be sure to allow 3/8″ for expansion and contraction between panel ends and trim when install temperature is greater 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 30 to 35) that pertain to your project.



Installing the first course

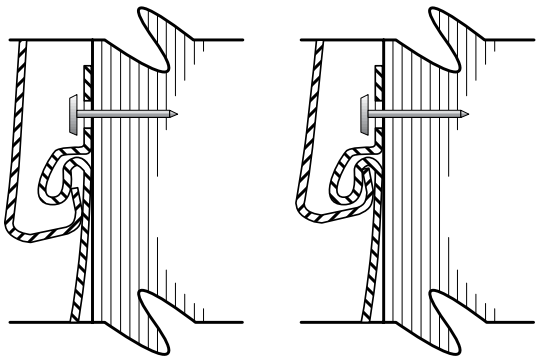
It's important to work with care and planning as you install siding panels. This is especially true when you're installing the first course of siding. (See pages 35 to 37 for fastening methods.)

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.



lock not fully engaged lock fully engaged

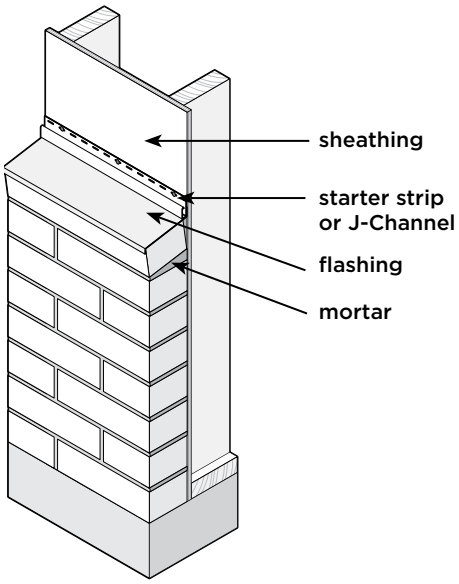
Slide the first panel into the cornerpost recess. Leave room for expansion (see page 37-38 for spacing requirements).

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. ***Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.***

Install the remaining starter course panels, overlapping panel ends (see pages 37-38 for overlapping requirements). The last nail should be at least 2″ to 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.



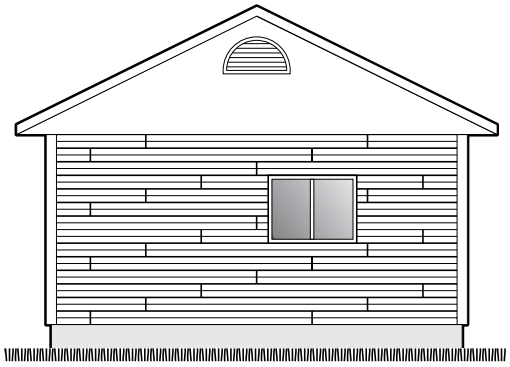
Transitioning from brick, stone, or stucco to vinyl siding

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 3/4" clearance so that the siding can engage securely.
- When installing vertical siding, use J-Channel to receive the siding.

Installing remaining courses

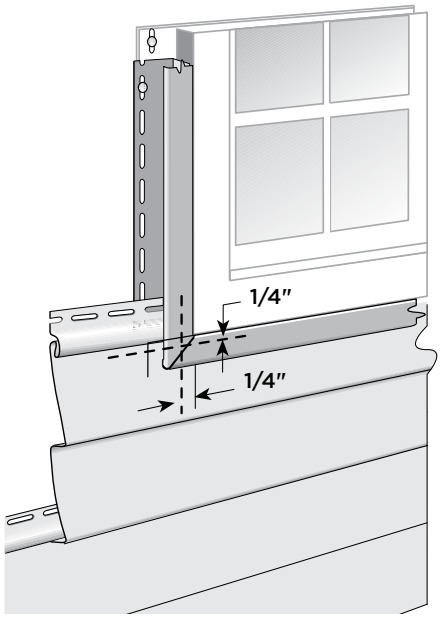
To ensure best appearance, position the laps to avoid unsightly joint patterns. The illustration at left shows a well-planned staggering of panel joints. Follow these guidelines:



- 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 around windows

For best aesthetics, and to avoid potential panel-to-panel interference: separate the vertical alignment of joints by at least two courses, avoid joints directly above or below windows and leave at least 3" separating joints on successive courses.



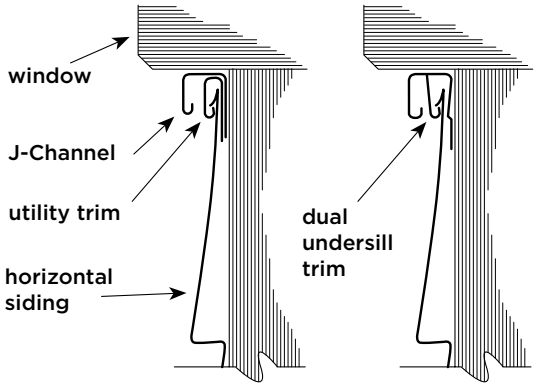
You'll probably have to cut panels to fit under windows. To make this task easier, plan panel positioning as shown at left so a single panel extends beyond both sides of window opening. Follow these steps to measure and cut panels:

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.



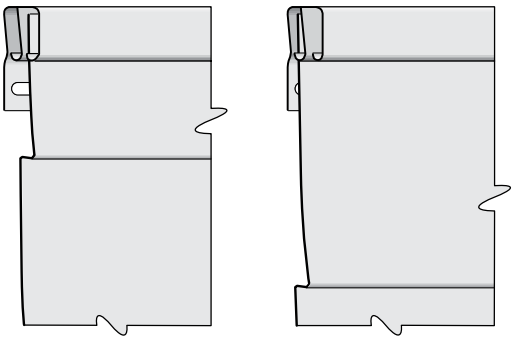
Install panel

If necessary to maintain the slope angle, install furring under the sill as described on pages 33-34.

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 or any area of the panel that does not lay flat against the wall. 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.



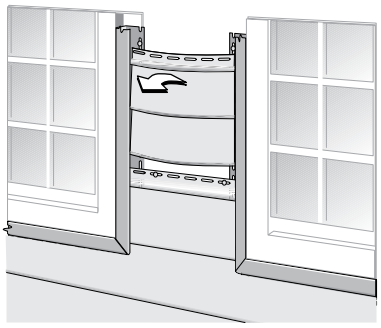
installing trimmed panels with dual undersill trim

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 33-34.

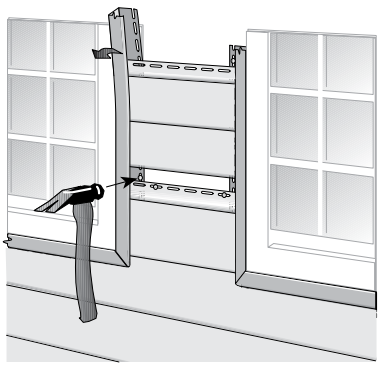
Drop the panel into position, making certain it fits into the undersill trim and J-Channel at the top and J-Channel at the sides. Interlock the panel with the siding panels below.



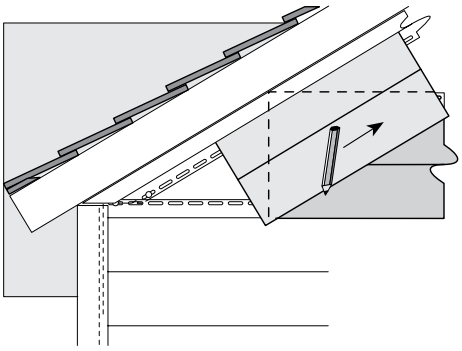
Fitting at narrow openings between windows

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, or slide them down from the opening at the top of the windows.



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:

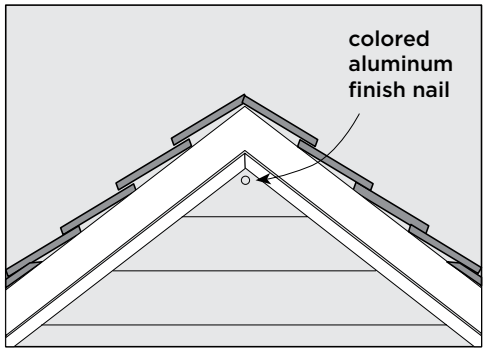
Lock a short piece of siding into the panel gable starter course as shown in the illustration.

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

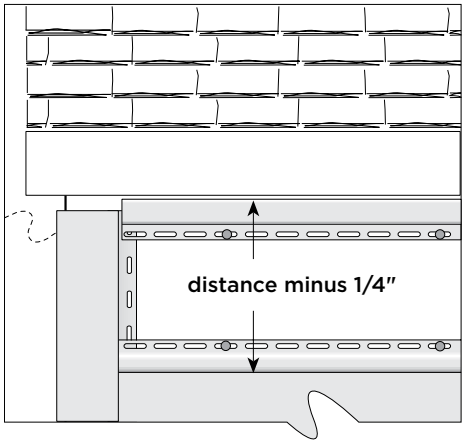
When you reach the last course of siding, you will probably have to rip cut panels lengthwise to fit under soffit.

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

To cut and install this last course:

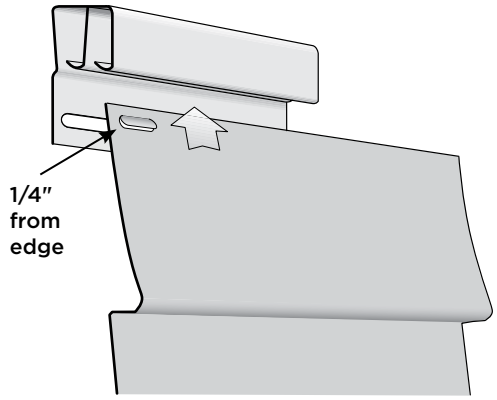
Install J-Channel and undersill trim or dual undersill trim.

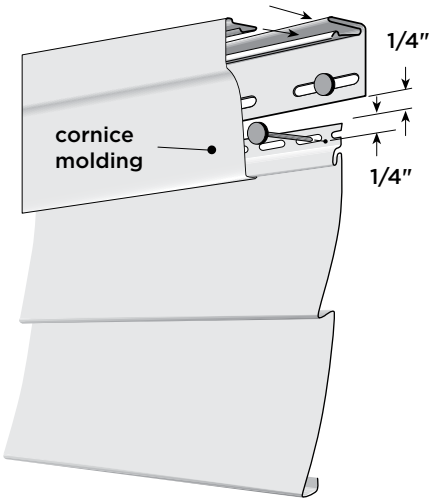
NOTE: When applying one accessory over another, align accessories to line up nail slots, or make new slots to avoid pinning the underlying accessory.

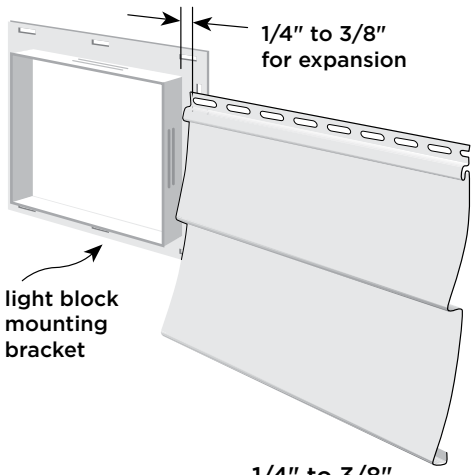


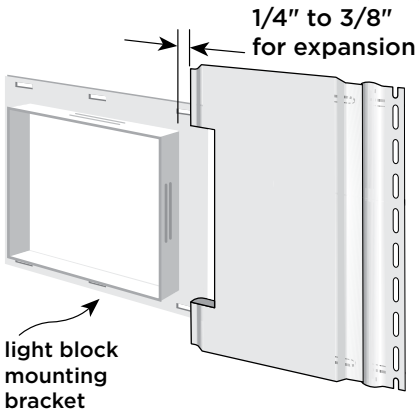
Measure from the soffit to the base of upper lock on the previous course of panels. Subtract 1/4". Mark this dimension on the panel to be cut, taking the measurement from the bottom edge of panel. For a more precise cut, repeat this procedure at several other points along the span to be covered by the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

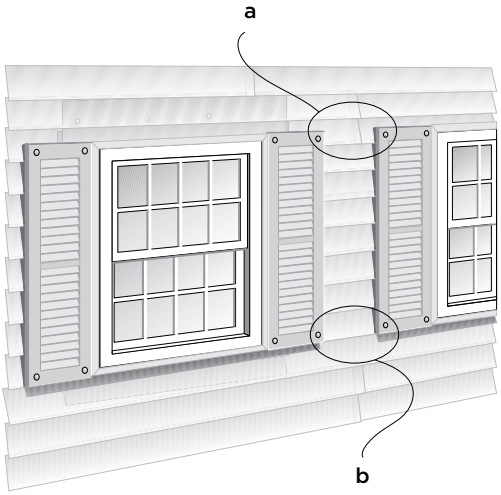
You can allow for this movement in two ways:

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. Allow 1/4" to 3/8" for expansion for horizontal siding. For light block with vertical siding, it should be 1/4" to 3/8" at the side and 1/2" on top of the block.



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 pinned between the two shutters and the siding is allowed free movement.

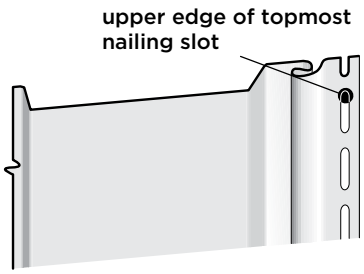
When there is no joint between the shutters and when the shutters are secured to the home (b), the shutters' fasteners do not allow the siding panel to move. The siding panel then fails to perform because it cannot expand or contract with the temperature changes.

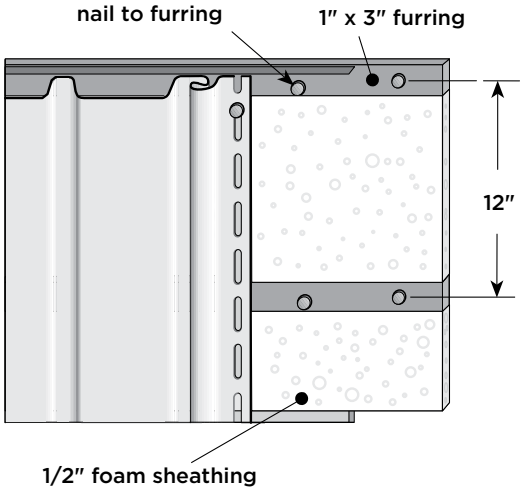
To prevent this, enlarge the holes in the siding for securing the shutter—the hole should be 1/4" larger than the shank of the fastener.

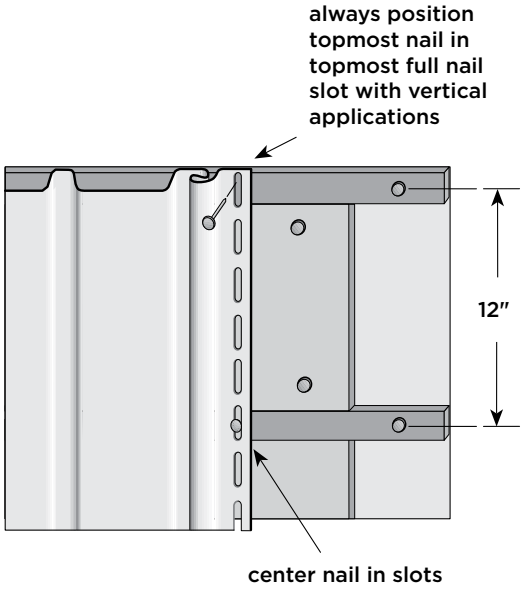
If possible, stagger the screws securing the shutter so that they do not line up on the same panel. It is also a good idea to apply caulk around the screws.

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

Section 9 – Installing Vertical Siding (Including Board & Batten)







Preparing Wall Surfaces

For the most part, the wall preparation instructions given for horizontal siding also apply to vertical applications. The key requirement, of course, is that you start with a smooth, level and rigid substrate (plywood, wood composite, rigid foam or fiber sheathing).

NOTE: Never install vinyl siding over open furring strips or studs. Always check with your local building code official.

With vertical siding, however, you may have to complete an extra step to provide solid nailing points along the vertical edge of the siding panel. The need for this added step depends on the type of substrate used and the nature of the construction project.

With new construction or remodeling using plywood or wood composite, there are no additional steps. You can nail into plywood and wood composite substrates at any point as long as you do not exceed 12" on center.

In new construction using rigid foam or fiber sheathing, you must install solid wood nailer strips horizontally to studs **before** applying sheathing. Use 1" x 3" wood furring positioned 12" o.c.

When remodeling over existing wood siding, you must apply rigid foam or fiber sheathing, shimming if necessary to create a level surface.

When remodeling over brick, block, stucco or irregular wall surfaces, apply furring strips horizontally to create a level surface; then apply rigid foam or fiber sheathing. See "Tips for applying wood furring" on pages 33-34 and "Applying over stucco" on page 34. When reviewing the illustrations for those sections, remember that furring strips must be applied horizontally.

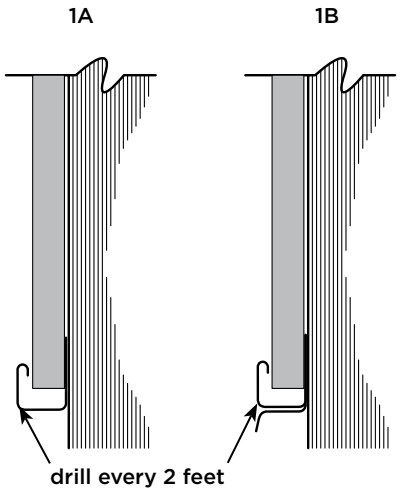
Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.

Marking a base line

The procedure is virtually the same as that described earlier. However, instead of snapping a chalk line 2-1/4" above the low point, snap it 1" above the low point.

NOTE: When installing vertical siding in high wind areas, position the fasteners at the top two nail slots of the panel.

See pages 137-139 for installing CedarBoards Insulated Vertical siding.



Cornerposts

Install outside and inside cornerposts using dimensions and procedures described on pages 40-43.

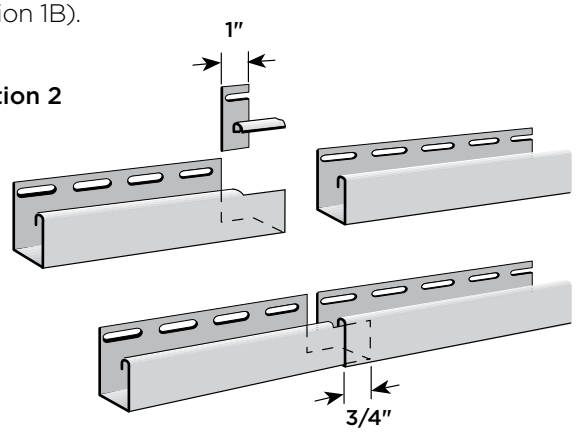
NOTE: Unlike the preparation for horizontal siding, do not install a starter strip for vertical siding.

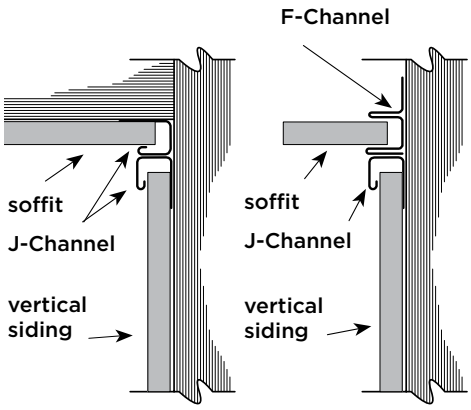
Top and Bottom J-Channel

Snap a base line 1" above the low part of the house. Apply J-Channel along the top and bottom of the walls to receive the siding panels. Drill drainage holes every 2 feet along the face of the bottom J-Channel prior to installation. Install the bottom J-Channel (illustration 1A). Overlap J-Channels 3/4". To do this, cut out a 1" section of the nailing flange and face return (see illustration 2).

If you prefer to use drip flashing with the J-Channel along the bottom of the wall, fabricate the lengths you'll need from aluminum coil stock of a color to match the siding (see illustration 1B).

Illustration 2



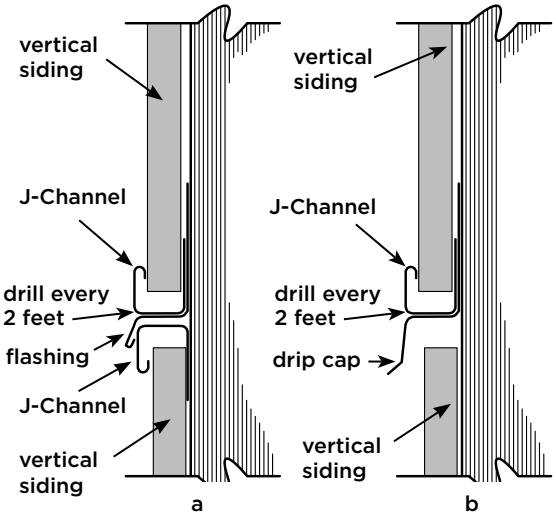


Install inverted J-Channel along the top of the wall, under the eave. Here again, leave a 1/4" gap between J-Channel and cornerposts. Overlap J-Channels 3/4" to allow for expansion. When positioning the upper J-Channel, be sure to allow for expansion of the siding panel. In most cases, position the J-Channel at a point equal to the length of the panel plus 5/8" (1/4" for upper expansion and 3/8" for lower expansion).

Soffit

If you're going to install soffit, you may want to install the receiving channels for the soffit at this point.

The illustrations show alternative approaches for installing siding and soffit receiving channels.



If a wall requires more than one course of siding, you can proceed in one of three ways:

Use two lengths of J-Channel, back-to-back, at the joint between the two courses (illustration a).

Use a combination of one length of J-Channel and one length of drip cap (illustration b).

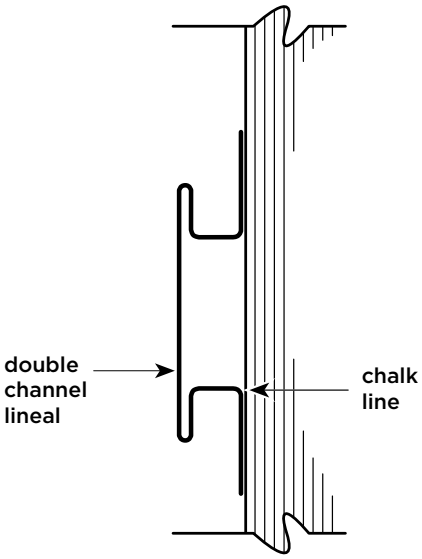
Use a double channel lineal and flashing where required.

If using J-Channel

Snap a chalk line parallel to the bottom J-Channel, at a height equal to the length of the lower panel plus an allowance for expansion. For example, if the lower panel is 144" long and you're adding 1/2" for expansion (because the temperature is above 40°F), you strike a line 144-1/2" from the bottom J-Channel. Nail inverted J-Channel along this line to receive panels from below. Leave a 1/4" gap between J-Channel and cornerposts. Overlap the J-Channels 3/4".

Prepare for the second course by applying head flashing above the just-installed J-Channel. Then nail J-Channel over the flashing to receive the upper panel.

NOTE: Some installers prefer to use formed aluminum flashing in place of vinyl drip cap as the receiving channel for the lower panel. This is an acceptable approach.



J-Channel at Gable Ends

Follow the procedure described earlier under the section "Preparation for Horizontal Siding" beginning on page 30.

If using double channel lineal: Measure the length of the lower panel, then subtract an allowance for expansion. Snap a chalk line parallel to the bottom J-Channel, at a height equal to your measurement. Position the lineal so the interior peak of the lower channel runs along the chalk line. Leave a minimum 3/8" gap between lineal and cornerposts when the ambient temperature is higher than 40°F. When the ambient temperature is below 40°F, leave a 1/2" gap.

If necessary, overlap lineals 1-1/4".

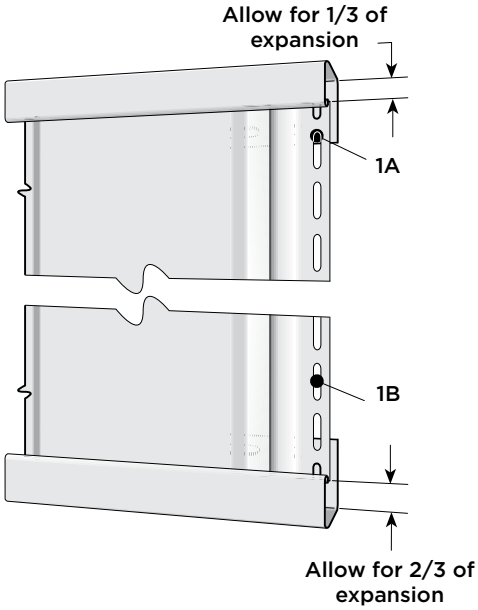
Wall Panels

Follow the instructions described earlier under the section "Preparation for Horizontal Siding" beginning on page 30.

Plan the panel layout

Correctly installed vertical siding should have a balanced appearance. This means that if you were to draw a vertical line down the center point of a wall, you'd have an equal number of panels to the right and left. If you had to trim panels to fit, the end-most panels would be of identical width.

To create this pleasing appearance, divide the space to be covered by a partial panel over both ends of a wall. For example, if a wall required 25 full panels plus 10", you would rip cut two 5" lengths of panel to create the end pieces.



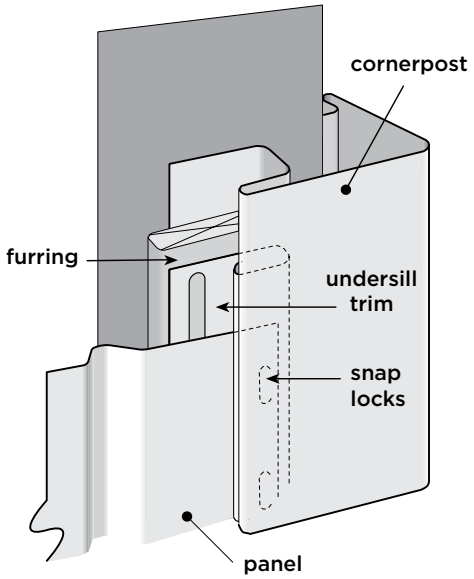
Expansion and contraction

In a vertical siding installation, most of the expansion is downward. So instead of allowing equal space for expansion at both ends of a vertical panel, leave more space at the lower end: allow for 1/3 of the total expansion at the top of a panel and 2/3 of the total expansion at the bottom.

For example, if the total expansion equals 3/4" (3/8" + 3/8"), allow 1/4" at the top and 1/2" at the bottom. If the total expansion equals 1/2" (1/4" + 1/4"), allow 3/16" at the top and 5/16" at the bottom.

NOTE: Always position top most nail at the top of the top most full nail slot (1a). Center the remaining nails in the slots (1b). When installing siding or accessories vertically, make sure the bottom of the panel can expand downward without interference.

Cut the first of the partial panels (if partial panels are necessary). Mark the cut line by measuring from the nail hem edge. Rip cut the panel. Do not cut off the nail hem. Use a snap lock punch to create locking tabs along the cut edge. Space the tabs 6" apart.



Before installing this partial panel into the outside cornerpost, provide additional support at the cut edge to compensate for the locking channel that was trimmed off.

To do this, insert furring into the channel of the outside cornerpost and nail it to the substrate. After furring, insert a length of undersill trim into the cornerpost and nail it to the furring. Finally, slide the cut edge of the panel into the undersill trim, making sure to engage the snap locks (see illustration).

NOTE: When applying overlapping materials, you may have to make new slots to avoid pinning the underlying accessory.

Using a level, make certain this panel is plumb. Nail every 12". Follow the same nailing procedures described for horizontal siding.

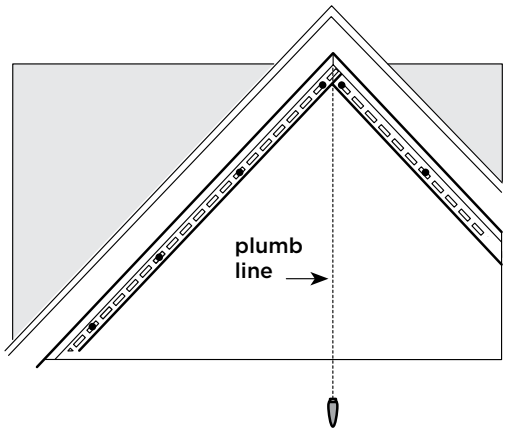
Install the next panel. Lock the panel into the preceding panel, then nail every 12". Continue with succeeding panels.

When necessary, cut panels to fit around doors and windows. When marking the cut, remember to allow for expansion.

The method used to install panels around doors and windows is determined by the need to cut a panel and the position of that cut. If a cut was made next to a remaining V-groove, insert the panel into the J-Channel. If a cut removes the support provided by a V-groove, use the procedure described above to provide support for the trimmed edge.

To finish the first course of a wall, cut the final panel to size and install it in an outside cornerpost, using the method described above.

NOTE: The cutting and supporting procedure described above is also used when fitting panels into inside cornerposts.



Installing Gable End Panels

When installing vertical or Board & Batten siding on a gable end wall, you should try to create a balanced appearance.

There are two ways to do this:

You can start from the center of the wall and work toward the sides. Begin by finding the center point of the wall (beneath the peak) and draw a plumb line. Nail two lengths of J-Channel, back to back, along this line. Be sure to flash underneath the J-Channel to help prevent water damage due to water seepage between the J-Channels. Cut the upper end of the first panel to the proper height and slope. Remember to allow for expansion.

NOTE: To guide the cutting of the upper end of the panel, make a pattern duplicating the gable slope.

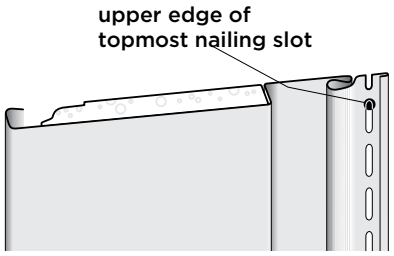
Insert the panel into the J-Channel along the gable slope.

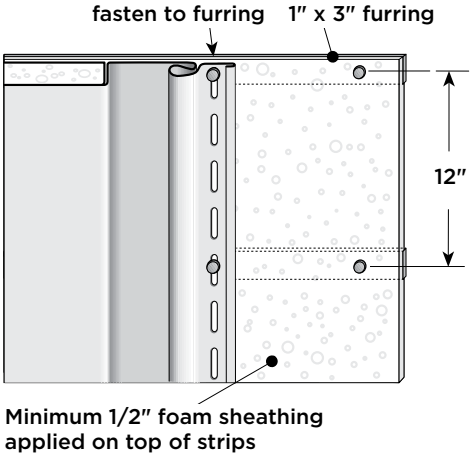
Use a level to make certain the panel is plumb. Nail every 12". Continue cutting and installing panels. Then repeat the procedure on the remaining half of the gable end.

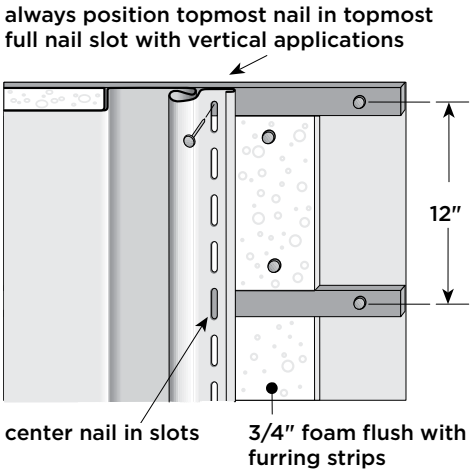
If you want to work from one end of the wall to the other, begin by centering a panel under the center of the peak. Mark the position of the panel on the wall, then measure the distance from the left (or right) cornerpost to mark for the left (or right) edge of the center panel.

If you need a partial panel, cut it and install it at the cornerpost, following the procedure described on pages 40-43. Cut the upper end of the panels to proper height and slope, following the procedure described above. Remember to allow for expansion.

Reverse Board & Batten Vertical Siding







Preparing Wall Surfaces

The key requirement for Reverse Board & Batten vertical siding is to start with a smooth, level and rigid substrate (plywood, wood composite, rigid foam or fiber sheathing).

With vertical siding, you have to provide solid fastening points along the vertical edge of the siding panel. The need for this step depends on the type of substrate used and the nature of the construction project.

With new construction or remodeling using plywood or wood composite, there are no additional steps. You can fasten to plywood and wood composite substrates at any point as long as you do not exceed 12" on center.

NOTE: Never install vinyl siding over open furring strips or studs. Always check with your local building code official.

In new construction using rigid foam or fiber sheathing, you must install solid wood nailer strips horizontally to studs before applying sheathing. Use 1" x 3" wood furring positioned 12" o.c.

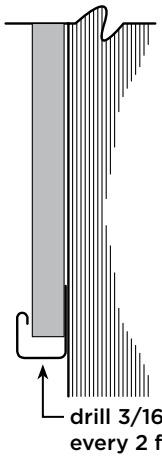
When remodeling over existing wood siding, you must apply rigid foam or fiber sheathing, shimming if necessary to create a level surface.

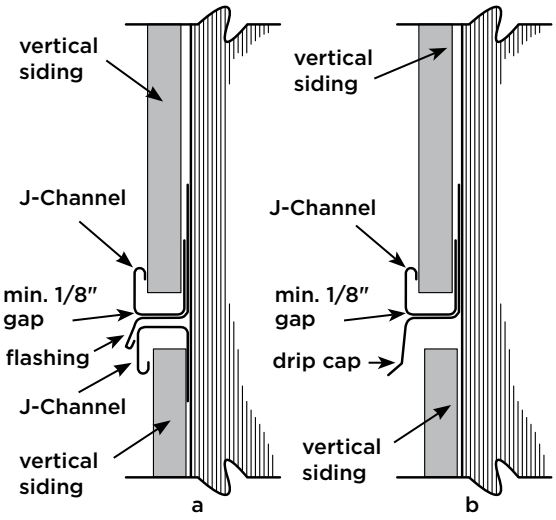
When remodeling over brick, block, stucco or irregular wall surfaces, apply furring strips horizontally to create a level surface; then apply rigid foam or fiber sheathing. See "Tips for applying wood furring" and "Applying over stucco" in the CertainTeed Installation Manual. When reviewing the illustrations in these sections, remember that furring strips must be applied horizontally.

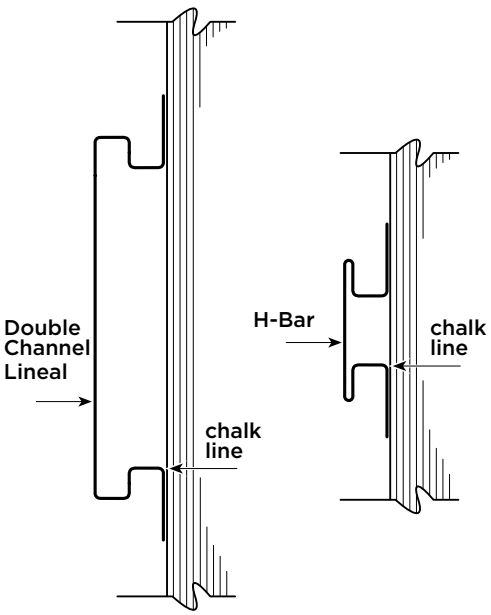
Cornerposts

Install outside and inside cornerposts using dimensions and procedures described in the CertainTeed Installation Manual.

NOTE: Unlike the preparation for horizontal siding, do not install a starter strip for vertical siding.







Top and Bottom J-Channel

J-Channel is used to frame the top and bottom of the vertical panels. Snap a base line 1" above the low point of sheathing. Apply a 3/4-channel along the top and bottom of the walls to receive the siding panels. Drill drainage holes every 2 feet along the bottom J-Channel prior to installation. Reference CertainTeed Installation Manual for further details.

Transitions

If a wall requires more than one course of siding, you can proceed in one of three ways:

Use two lengths of J-Channel, back-to-back, with flashing, at the joint between the two courses (illustration a).

Use a combination of one length of J-Channel and one length of drip cap (illustration b).

Use a H Bar Trim or a double-channel lineal and flashing where required.

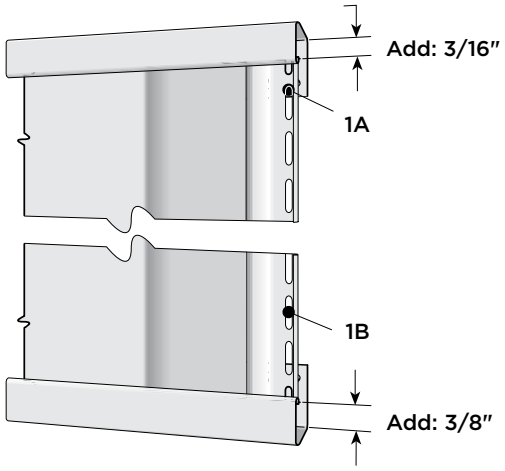
If using J-Channel: Snap a chalk line parallel to the bottom J-Channel, at a height equal to the length of the lower panel plus an allowance for expansion. Leave a 1/4" gap between J-Channel and cornerposts. Notch the J-Channel 1" and then overlap the J-Channels 3/4" on long runs requiring multiple pieces.

Prepare for the second course by applying head flashing above the just-installed J-Channel. Then fasten J-Channel over the flashing to receive the upper panel.

If using a H-Bar Trim or a double channel lineal: Measure the length of the lower panel, then subtract an allowance for expansion. Snap a chalk line parallel to the bottom J-Channel, at a height equal to your measurement. Position the H Bar/ Lineal so the interior peak of the lower channel runs along the chalk line. Leave a minimum 3/8" gap between H Bar/ Lineal and cornerposts when the ambient temperature is higher than 40°F. When the ambient temperature is below 40°F, leave a 1/2" gap.

If necessary, overlap lineals 1-1/4".

NOTE: Some installers prefer to use formed aluminum flashing in place of vinyl drip cap as the receiving channel for the lower panel. This is an acceptable approach.

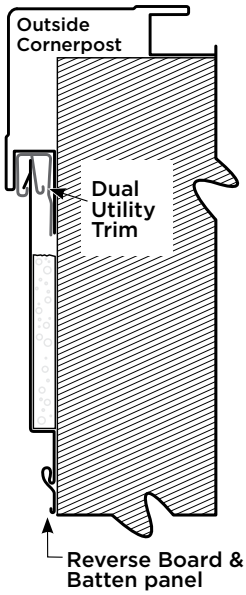


Expansion and Contraction

In a vertical siding installation, most of the expansion is downward. So instead of allowing equal space for expansion at both ends of a vertical panel, leave more space at the lower end: allow for 1/3 (3/16") of the total expansion at the top of a panel and 2/3 (3/8") of the total expansion at the bottom.

NOTE: Always position fastener at the top of the topmost full nail slot (1a). Center the remaining fasteners in the slots (1b). When installing siding or accessories vertically, make sure the bottom of the panel can expand downward without interference.

NOTE: When installing vertical siding in high wind areas, position the fasteners at the top two nail slots of the panel.



Plan the Panel Layout

Correctly installed vertical siding should have a balanced appearance. This means that if you were to draw a vertical line down the center point of a wall, you'd have an equal number of panels to the right and left. If you had to trim panels to fit, the end-most panels would be of identical width.

To create this pleasing appearance, divide the space to be covered by a partial panel over both ends of a wall. For example, if a wall required 25 full panels plus 10", you would rip cut two 5" lengths of panel to create the end pieces.

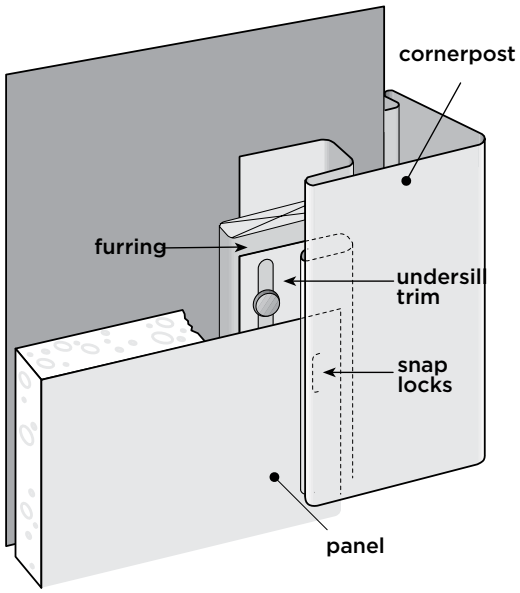
Cut the first of the partial panels (if partial panels are necessary). Mark the cut line by measuring from the nail hem edge. Rip cut the panel. Do not cut off the nail hem. Remove 1-1/2" of foam from panel in order to snap lock punch to create locking tabs along the cut edge. Space the tabs 6" apart.

Corner Details

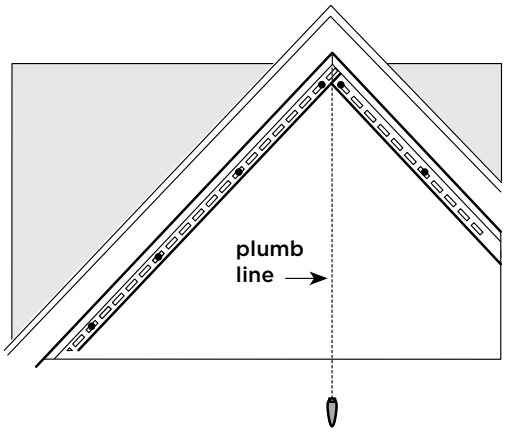
We recommend using Dual Utility Trim inside the pocket of the Outside and Inside Cornerposts.

Another option is to use 3/8" J-Channel inside the pocket of the Outside and Inside Cornerposts, or lastly, to use the Undersill Trim.

If using Undersill Trim, insert furring into the channel of the outside cornerpost and fasten it to the substrate. After furring, insert a length of undersill trim into the cornerpost and fasten through the furring. Finally, slide the cut edge of the panel into the undersill trim, making sure to engage the snap locks (see illustration).



NOTE: When applying overlapping accessories, you may have to make new slots to avoid pinning the underlying accessory.



Installing Panels

Using a level, make certain this panel is plumb. Install first fastener at top of first full nail slot and then fasten every 12" in the center of slots. Lock the next panel into the preceding panel and fasten in the same manner. The same rules used for fastening horizontal siding apply here as well, to allow for proper expansion and contraction.

When necessary, cut panels to fit around doors and windows. When marking the cut, remember to allow for expansion.

The method used to install panels around doors and windows is determined by the need to cut a panel and the position of that cut. If a cut was made in the full thickness of the panel, then insert to panel into the j-channel. If a cut was made on the flat section, install with Utility Trim and snap lock punch every 6".

To finish the first course of a wall, cut the final panel to size and install it in an outside cornerpost, one of the methods described above in "planning the panel layout"

NOTE: The cutting and supporting procedure described above is also used when fitting panels into inside cornerposts.

Installing Gable End Panels

When installing vertical siding on a gable end wall, you should try to create a balanced appearance.

NOTE: To guide the cutting of the upper end of the panel, make a pattern duplicating the gable slope.

There are two ways to do this:

You can start from the center of the wall and work toward the sides. Begin by finding the center point of the wall (beneath the peak) and draw a plumb line. Fasten two lengths of J-Channel, back to back, along this line. The H-bar or Double Channel Lineal can also be used for this application. Be sure to flash underneath the J-Channel to help prevent water damage due to water seepage between the J-Channels. Cut the upper end of the first panel to the proper height and slope. Remember to allow for expansion.

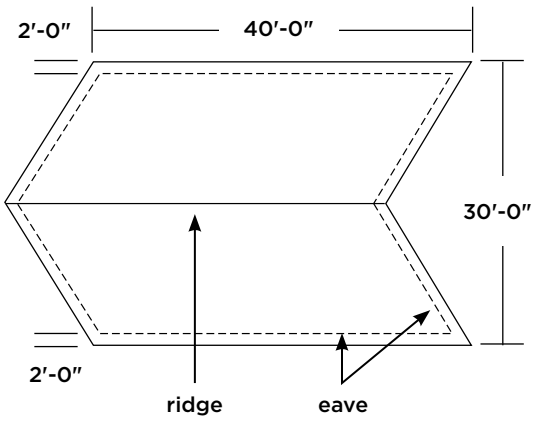
Insert the panel into the J-Channel along the gable slope.

Use a level to make certain the panel is plumb. Continue to hang each panel from upper portion of topmost full nail slot and fasten every 12" on center. Continue cutting and installing panels. Then repeat the procedure on the remaining half of the gable end.

If you want to work from one end of the wall to the other, begin by centering a panel under the center of the peak. Mark the position of the panel on the wall, then measure the distance from the left (or right) cornerpost to mark for the left (or right) edge of the center panel.

If you need a partial panel, cut it and install it into the pocketed trim, following the procedure described in the installation manual. Cut the upper end of the panels to proper height and slope, following the procedure described above. Remember to allow for expansion.

Section 10 — Porch Ceilings, Soffit, Fascia



Requirements for Proper Soffit Ventilation

Proper attic ventilation is important for any home. The 2009 International Building Code (IBC) Section 1203 Ventilation furnishes a basic guide for determining proper ventilation for any home. The information provided here may under certain circumstances not result in enough ventilation. Therefore, the calculation provided should be used as a guide only.

The IBC guideline requires that any attic or space between the top floor, ceiling and roof must be ventilated. It requires one square foot of ventilation area for every 150 square feet of attic space.

If a vapor retarder of less than one perm has been installed on the warm side of the ceiling or if at least 50% of the required ventilating area has already been provided by gable and vents or ridge vents, you need add only one-half of the ventilation area that would otherwise be required. The requirement would then be one square foot of ventilation area for every 300 sq. ft. of attic space.

How to determine soffit ventilation

1. Determine the local code requirement for total attic ventilation.

   1:150 requires 1 sq. ft. of ventilation for every 150 sq. ft. of attic space.

   1:300 requires 1 sq. ft. of ventilation for every 300 sq. ft. of attic space, if a vapor barrier having a transmission rate not exceeding 1 perm is installed on the warm side of the ceiling.

2. Determine the total area of the attic (sq. ft.) to be ventilated.
   40 ft. x 30 ft. = 1,200 sq. ft.

3. Total free area of ventilation required for the attic.
   1,200 sq. ft. / 150 = 8.0 sq. ft.

4. Convert square feet into square inches (sq. in.).
   8.0 sq. ft. x 144 = 1,152 sq. in.

5. Location of vents.
   50% at ridge, roof vent or gable vent =
   1,152 x .50 = 576 sq. in.
   50% at soffit/eave = 1,152 x .50 = 576 sq. in.

6. Total soffit ventilation area required.
   Area of the soffit available for ventilation:
   80 lineal ft. x 2 ft. soffit depth = 160 sq. ft.
   Ventilation area required per sq. ft. of soffit =
   576 sq. in. /160 sq. ft. = **3.6 sq. in. /sq. ft.**

7. Soffit product selection.
   Compare the soffit ventilation area required to the manufacturer's soffit product literature.

8. If the roof pitch is 9/12 or higher, add 30% more ventilation to accommodate the higher volume of air moving through the air.

Porch Ceilings

The procedures used to install a porch ceiling are in many ways similar to those used to install soffit. These procedures vary slightly, depending on whether you're working on new construction or a remodeling project.

New construction projects

Begin by installing receiving channels on all four sides of the porch. If you are using F-Channel, nail it to existing walls. If you are using J-Channel, you will have to install a nailing base.

If you plan to use light blocks to attach external light fixtures, install them to adequate backing.

Plan the layout of the ceiling panels to achieve an even balance or to align with adjacent work. If the ceiling panels will run parallel to the ceiling joists, you will have to install additional 1" x 3" wood furring nailing strips. Install these nailing strips perpendicular to the ceiling joists, nailing according to the schedule below.

Invert J-Channels and nail them to the underside of the wood strips along the perimeter of the ceiling area.

Install the first panel into the channels at one end of the porch. Be sure to leave room for expansion. Nail according to the schedule below, positioning the nails in the centers of slots. Do not nail tightly. Install remaining panels. When cutting the last panel of the first course, be sure to allow room for expansion.

Nailing schedule for soffit

For areas where more than one panel length is needed, use a double channel lineal.

If necessary, rip cut the final panel and use a snap lock punch to create tabs every 6" along the cut edge. Attach utility trim and insert the panel into the receiving channel.

NOTE: For best results, ensure you have adequate ventilation.

Beaded T2	Fasten 8" to 12"
Ironmax D5	Fasten every 16" to 24" (as allowed by local building code)
T3-1/3	Fasten every 16" to 24" (as allowed by local building code)
All other CertainTeed soffit panels	Fasten every 16"

Remodeling projects

Check to be sure the existing ceiling can serve as a solid nailing base. If the existing ceiling is solid, remove all existing moldings and fixtures from the ceiling and begin by nailing inverted J-Channel along the perimeter of the ceiling area.

If you plan to use light blocks to attach external light fixtures, install them to adequate backing.

Plan the layout of the ceiling panels to achieve an even balance or to align with adjacent work.

Use the existing ceiling as a nailing base for the panels. Install the first panel into the channels at one end of the porch. Be sure to leave room for expansion. Follow the nailing schedule on the previous page, positioning the nails in the centers of the slots. Do not nail tightly. Install the remaining panels. When cutting the last panel of the first course, be sure to allow room for expansion.

For areas where more than one panel length is needed, use a double channel lineal.

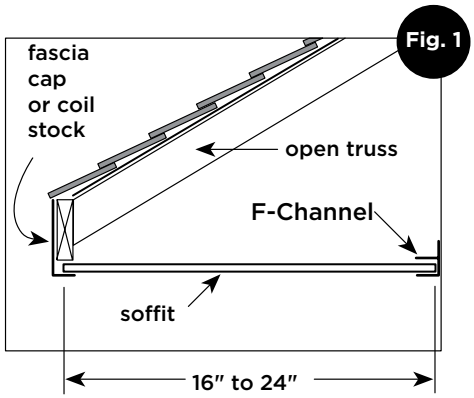
If necessary, rip cut the final panel and use a snap lock punch to create tabs every 8″ to 10″ along the cut edge. Attach utility trim and insert the panel into the receiving channel.

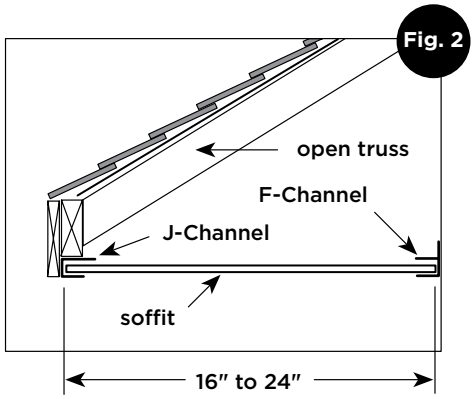
If the existing ceiling is not solid, install nailing strips to provide a secure nailing base. Then install J-Channel.

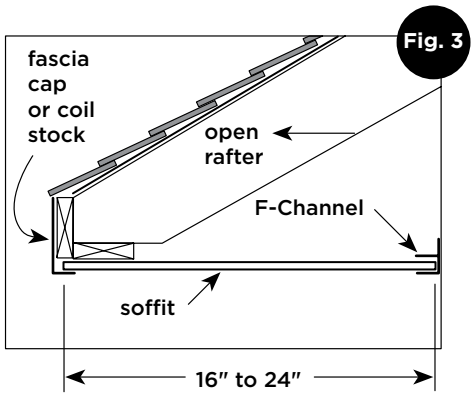
If the ceiling panels will run parallel to the ceiling joists, you will have to install additional 1″ x 3″ wood furring nailing strips. Install these nailing strips perpendicular to the ceiling joists, placing a strip every 1″ to 16″.

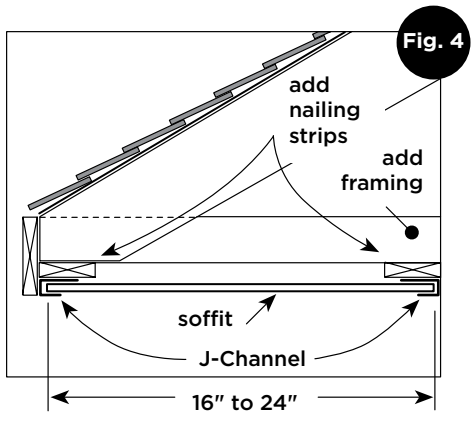
Invert the J-Channel and nail it to the underside of wood strips along the perimeter of the ceiling area.

Install the panels as explained above.









To determine the maximum permissible span, consult local building codes.

Soffit

You can use solid vinyl panels or perforated vinyl panels for soffit installations. Perforated panels provide ventilation, which helps to reduce heat buildup in the summer and ice dams in the winter. In buildings with roof ridge vents, you should install ventilated soffit. Check local building codes to determine the amount of ventilation required. In high windload areas, you should also check local building codes to determine if the application methods that are required differ from those described below.

The procedure used to install soffit depends on the construction of the eaves:

- **Open eaves—**eaves with exposed rafters or trusses—are typical of new construction. You will also have to use open eave installation procedures if you have to remove damaged soffit at a remodeling project.
- **Enclosed eaves—**eaves with soffit in place—are typical of remodeling projects.

Installation over open eaves

The first step in installing soffit is to install the proper receiving channels. You have several options for receiving channels. You can use accessories such as F-Channel or J-Channel, or you can make channels using coil stock. The best approach is to select a method that works most effectively with the construction techniques used to create the eave. Examine figures 1 to 4 and find the one that most closely resembles the construction methods used on your particular project.

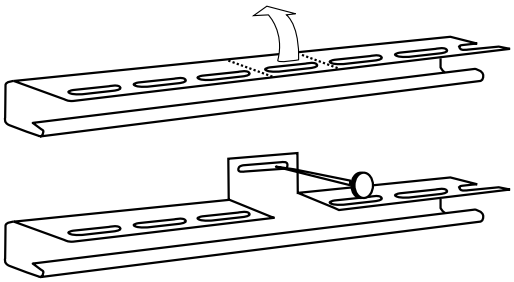
If no F-Channel is available, J-Channel can be modified to create F-Channel. Simply cut slots in the nail flange area where it would be nailed to the wall. After cutting the nail flange, bend the flange back and nail it to the wall. When installing Beaded T2" panels, use 3/8" H-bar or 3/8" J-Channel.

Installing receiving channels

Install the receiving channels following the details shown in figures 1 to 4. Nail the channels every 16", positioning the nail in the center of the slot. Do not nail tightly.

If the eave span is greater than 16", you will have to install nailing strips (as shown in figure 4) and install the receiving channels on the nailing strips.

If the soffit will turn a corner, cut and install the channel so there is 1/4" for expansion at each of the adjoining walls.

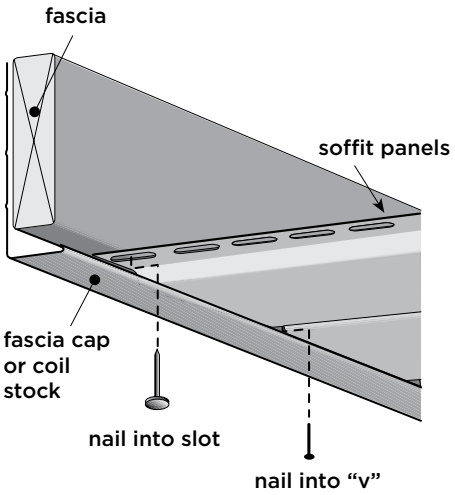


NOTE: If you don't have the proper receiver for the soffit, you can modify J-Channel to create an F-receiver. Simply cut slots in the nail flange area where the receiver will be nailed to the wall, bend back the flange, and nail the flange to the wall.

Installing soffit

Measure from the wall to the fascia board. Then subtract 1/2" to allow for expansion. Mark this dimension on a soffit panel and cross cut the panel using a power circular saw with a reversed fine-tooth blade. Cut one or two panels at a time, carefully advancing the saw through the vinyl.

Insert the panel into the channel on the wall, then into the channel at the fascia board. You may have to flex the panel slightly to insert it into the second channel. Make certain the panel is perpendicular to the wall, then nail. Depending on the installation method you're using, you'll nail either to a nailing strip or to the fascia board

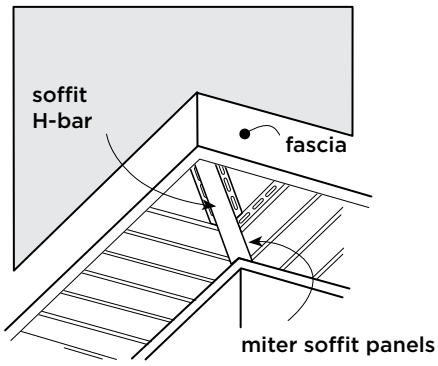


If you're nailing to the fascia board, use small-headed nails. Drive the nail through the nail flange and "V" groove.

This is one of the rare instances when face nailing is permissible. Once a soffit panel is face-nailed, it will expand only in one direction—in this case, toward the receiving channel. Be sure to leave space for the full expansion allowance in the receiving channel.

If you're using a nailing strip, do not nail tightly—allow movement for expansion.

Continue installing the panels by locking and nailing the soffit in place. Make certain soffit panels are fully locked along their entire length.

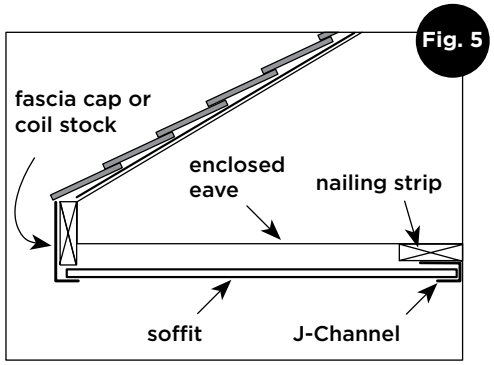


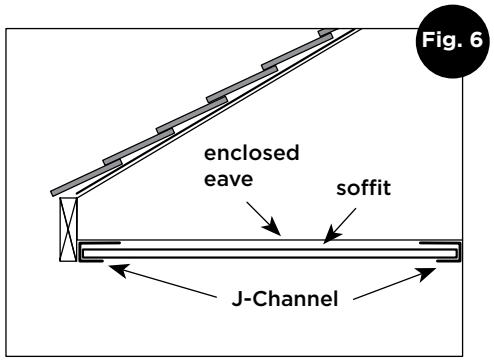
Turning a corner

To turn a corner, measure from the channel at the wall corner to the channel at the corner of the fascia board. Subtract 1/4" for expansion. If necessary, install nailing strips to provide backing for the lineal. Cut and install soffit double channel lineal or H-bar. Miter the corner soffit panels and install as described earlier.

Completing the installation

To complete the installation, apply utility trim and fasten aluminum fascia cap or formed aluminum coil stock with painted trim nails. If you must face nail fascia, drill holes for the trim nails to allow for expansion and to reduce denting of the aluminum.





Installation over enclosed eaves

If the existing soffit is rotted or damaged, it's best to remove it completely before installing vinyl soffit. Then use the instructions for open eaves.

If you're installing perforated soffit panels and the existing soffit doesn't have openings for ventilation, cut an adequate number of openings. Then complete the installation as described for open eaves.

The procedure used to install soffit over an enclosed eave is almost identical to that used for an open eave. The major difference is the installation of the J-Channel. Determine the method you'll use to install soffit at the fascia board (see figures 5 and 6). When installing J-Channel at either the wall or the fascia board, nail the J-Channel every 12" to 16".

Turning a corner

If the soffit is to turn a corner, cut and install J-Channel so there is 1/4" for expansion at each of the adjoining walls and adjoining fascia boards. Miter the corner soffit panels and install as described earlier.

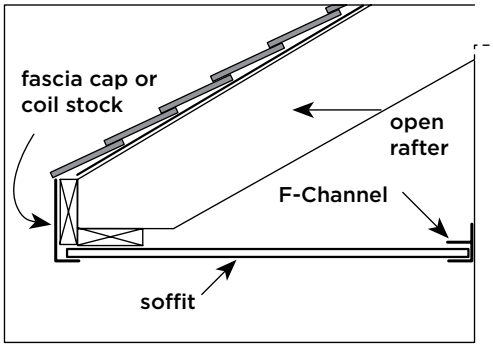
Invisivent and Perimeter Triple 3-1/3" Soffit Panels

Installation over open eaves

In most situations, T3-1/3 InvisiVent and Perimeter Soffit should be installed like our standard soffit products. However, when it is installed over open eaves, follow these installation techniques.

Install receiving channels

There are two ways to install receiving channels for soffit. The best approach is to select a method that works most effectively with the construction techniques used to create the eave. Examine the illustrations, and find the one that most closely resembles the construction methods on your particular project.



Use either 3/4" J-Channel or 3/4" F-Channel, or make receiving channels using coil stock. Install the receiving channels following the details shown in the illustrations.

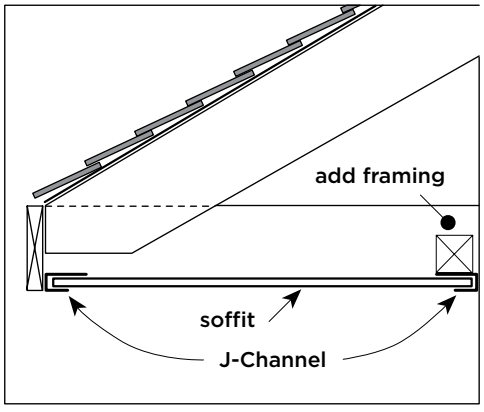
Nail the channels every 12" to 16", positioning the nail in the center of the slot. Do not nail tightly.

NOTE: If you are concerned about excessive insect infiltration with InvisiVent or Perimeter Soffit, cover the opening with corrosion-resistant mesh or other screening before installing the soffit.

Install soffit

Nail the soffit every 16" or 24", depending upon local building codes and stud spacing. T3-1/3 soffit will span up to 24" without additional nailing strips.

Installation over existing soffit



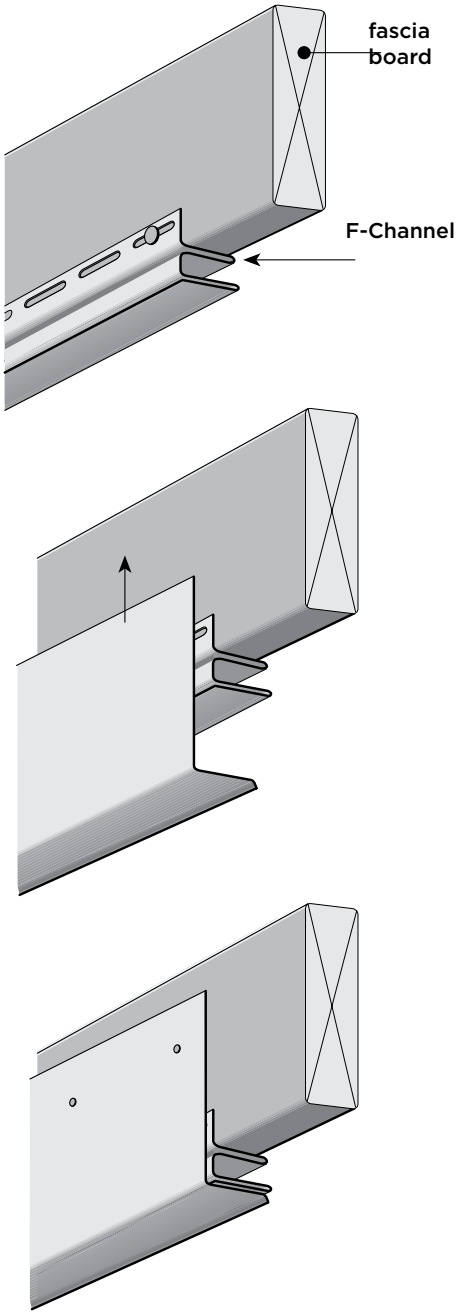
When installing InvisiVent or Perimeter Soffit over an existing solid wood soffit, you must cut openings into the existing soffit to provide adequate airflow through the soffit. The goal is to have at least 9 square inches of net free air per lineal foot of soffit. Removing a center portion of the existing soffit will provide the desired airflow.

Using a saw, cut along the length of the existing soffit. Leave 2" to 3" from both the wall and the fascia so that you will have enough wood surface to securely fasten the soffit.

Remove the center portion of the existing soffit.

Install the soffit as described above.

NOTE: Leaving solid areas of existing soffit intact reduces ventilation and must be considered when calculating total ventilation.



Aluminum Fascia

The techniques used to install aluminum fascia panels are similar to those used with vinyl—with three exceptions.

There is no special undersill trim to use with aluminum fascia. Aluminum fascia is made without nail slots, so you have to pay attention to proper nailing techniques. And corners are handled differently.

Install drip edge, gutter, or all-purpose trim along the top of the fascia board to receive the top edge of the fascia panel.

Slip the fascia panel in place. Then nail the underside of the panel. Nail every 24", keeping the nails lined up with the soffit V-grooves.

For best appearance, first drill a slightly oversized hole. Nail the fascia with painted trim nails, using a light touch.

At the outside corners, bend a 1" flange at a 90° angle so it turns the corner. Then cut the overlapping fascia at a 45° angle. Position the panels and nail.

NOTE: If you need a piece of nonstandard size fascia, use a portable brake to form it from aluminum trim sheet. Install and nail using the same techniques you used with standard fascia panels.

Cedar Impressions®:

D7" Straight Edge Perfection Shingles

D7" Staggered Perfection Shingles

D7" Straight Edge Rough-Split Shakes

D9" Staggered Rough-Split Shakes

Cedar Impressions® is not ordinary siding. Created from the texture and random sizes of real cedar shingles, Cedar Impressions offers the most natural looking cedar shingle siding available without the expense and heavy maintenance of wood. Cedar Impressions is manufactured in three styles. Perfection Shingles, Perfection Shapes and Rough-Split Shakes are injection molded in polypropylene. Because these panels are unique in design, special installation techniques are required for each. Knowing these special requirements will help you quote a Cedar Impressions installation properly.

General

Before applying siding and accessories, make certain the substrate is watertight. In order to be properly protected from precipitation, the substrate may need to be flashed to shed water to the exterior. The siding and accessories alone are not meant to be a watertight barrier.

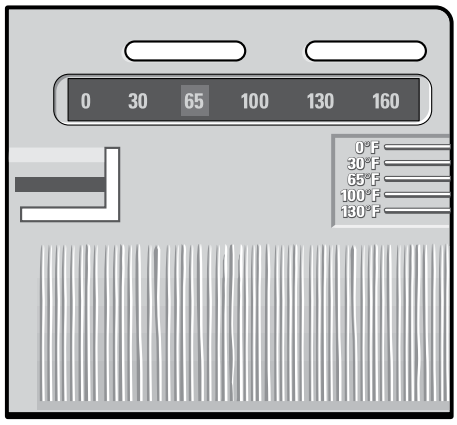
Cedar Impressions panels will be installed from the right to the left.

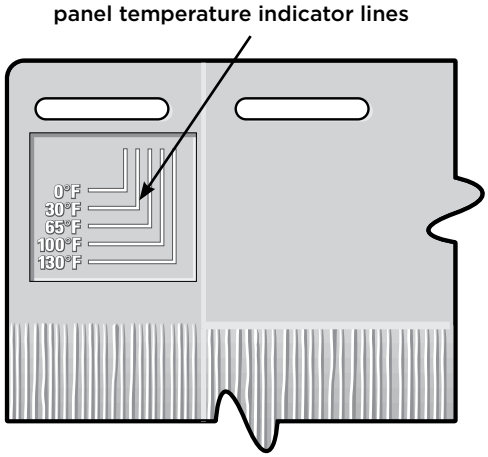
Important

This product is not designed for roof application. It is designed solely for installation on vertical surfaces. **Panels must be installed with nails over a solid substrate with nail holding strength** such as plywood, oriented strand board, or existing wood siding (minimum 7/16" thick). This product cannot be installed with staples.

NOTE: Each panel must be nailed through the round hole in the center of the nail hem to control the direction of normal expansion and contraction. If you are installing a partial panel and the center nail hole has been cut off, drill a nail hole in the center of the nail hem of the cut panel and nail through it.

PRO TIP: When cutting Cedar Impressions siding panels use a 40-tip carbide blade mounted in the standard (not backwards) position. Using this technique will reduce burring; it does not gum up the saw, and the blade stays sharp longer.





PRO TIP: When installing Cedar Impressions over foam insulation, extra care needs to be taken to verify that adequate space is left between all nail heads and the panel.

Panel Spacing at Different Temperatures

As with any polymer siding, Cedar Impressions expands and contracts with changes in temperature. For this reason, it is important that you space the panels according to the panel temperature at the time of installation. Failure to provide the proper spacing according to these temperature ranges may result in gaps that are too large or too small, thereby creating the potential for side locking tabs disengaging, panel distortion, or buckling. Spacing of panels previously installed at a different temperature does not require adjustment.

Each panel has a patented PanelThermometer™ that displays panel temperature and indicator lines that serve as guides for proper spacing between the panels. The PanelThermometer is located on the upper right-hand corner of the panel; the indicator lines are on the upper left-hand corner.

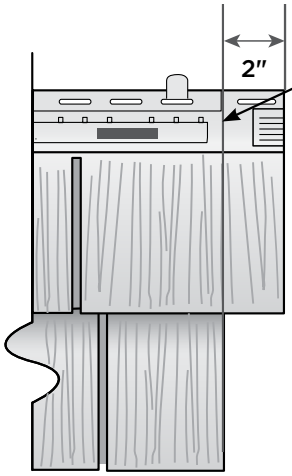
Note that the panel temperature may change throughout the day. Space the panels according to the panel temperature at the time of installation.

The cells on the PanelThermometer will change color to indicate the temperature of the panel.

NOTE: If two temperature cells on the PanelThermometer show a color change, use the brighter color as the indicator.

Panel Thermometer	Temperature Indicator Lines
0	Set to 0 line
30	Set to 30 line
65	Set to 65 line
100	Set to 100 line
130	Set to 130 line
160	Butt panels tight

If the brightest cell is between the numbered temperature cells, position the panel between the corresponding temperature indicator lines. Example: If the Panel-Thermometer reads 65, align the second panel to the 65 temperature indicator line on the first panel. If the cell between the 65 and 100 is brighter, position the panel between the 65 and 100 temperature indicator lines.



Cut 2" off the top course of the panel. This cut should be made where the recessed NailStop begins.

figure 1

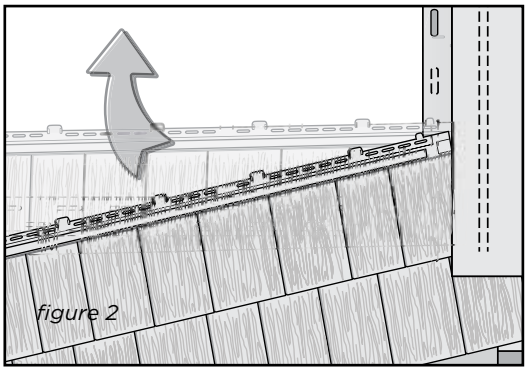


figure 2

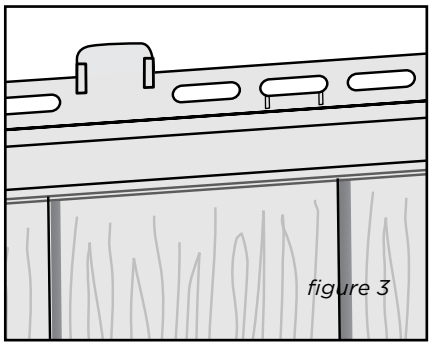


figure 3

D7" Straight Edge Perfection Shingles

First course

Strike a level line around the house and install Shingle Starter. If you plan to use Cedar Impressions Mitered Cornerposts, make sure the starter strip is installed to the edge of the comer. An alternative method of starting Cedar Impression is to use J-channel in place of starter strip to receive the bottom edge of the panel.

1. Cut 2" off the top course of the panel (figure 1).

2. Starting on the right side of the wall, hook the bottom locking leg of the panel into the starter strip and slide the panel into the cornerpost or receiving channel (figure 2). Leave 1/4" space between the panel and the corner for expansion. If you are planning to install the Mitered Cornerpost, space the panel 3" from the corner.

3. Fasten the panel to the wall by first nailing through the round center hole in the nailing hem at the top of the panel. Continue nailing the panel with 5 nails: one in the right-end nail slot and one at each of the QuickReference™ Nail Mark Indicators (figure 3). Leave 1/8" to 1/16" between the nail heads and the panel to allow freedom of movement during normal expansion and contraction. The D7 panel features NailStop™ to guide in correct nail head clearance.

4. Install the next panel by positioning it below the starter strip and next to the first panel. Push in and up to lock the panel into the start strip and the side tabs of the first panel, as shown in figure 4. Space the second panel according to the panel temperature (see page 94) at the corresponding to position panel into place. Gently tap the outside of the HammerTapper™ ribs to properly position the panel left or right.

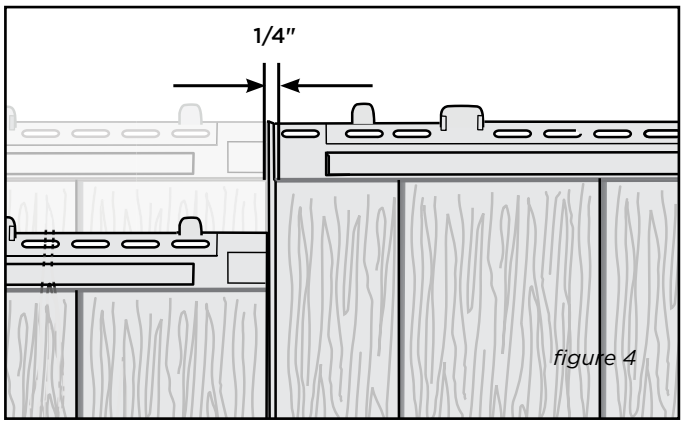


figure 4

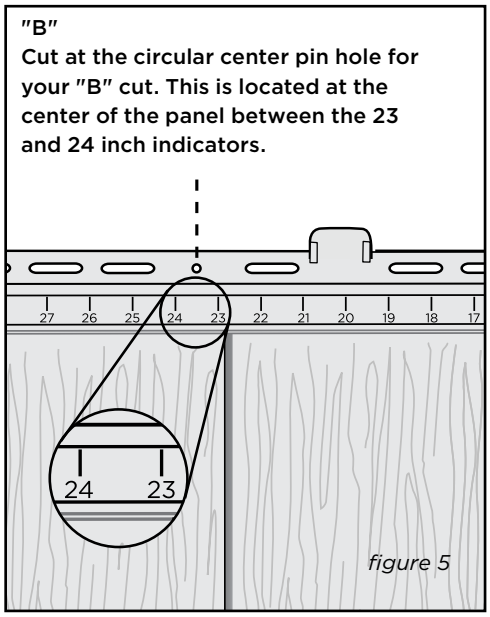


figure 5

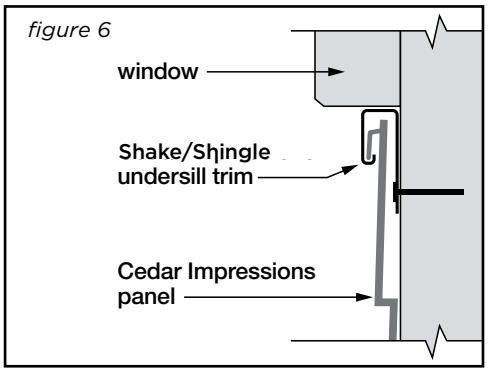


figure 6

5. Nail the panel into position starting with the round center hole and then placing the next nail in the right-end nail slot (which overlaps the previous panel's left-end slot) so that the nail goes through both panels' nail slots simultaneously. Continue nailing the rest of the panel using the procedure in step 3.

6. Continue to install remaining panels of first course as described in steps 3 through 5.

Second course

7. Cut 23-1/2" off the right side of the D7 shingle at the center pin hole, located between the 23 and 24 inch mark indicators cutting straight through the panel (figure 5). Drill a 3/16" hole in the center of the nail hem and nail the siding through this hole to control the direction of expansion and contraction. Another option is to nail each end of the nail slot located at the center of the panel.

8. Set spacing using the Panel Thermometer and temperature indicator lines and repeat steps 4-6.

9. Continue to stagger panel courses according to steps 1 and 7, alternating each time to ensure a random shingle pattern up the wall.

Installing under a window or opening

Install Shake/Shingle undersill trim (figure 6). Cut the panel to fit under the window. Drill a 3/16" hole in the center of the nail hem. Using a snap lock punch, raise tab faces on the outside of the panel 1/4" from the trimmed edge, 6" apart. Lock the panel into the previous course, and center nail the siding through the 3/16" hole drilled earlier. (Center nailing controls the direction of the panel's expansion and contraction.) Lock the panel into place.

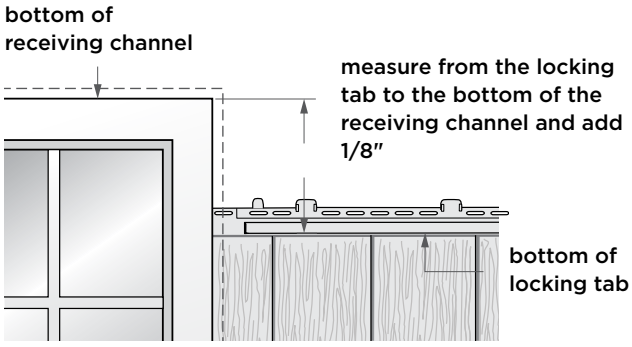
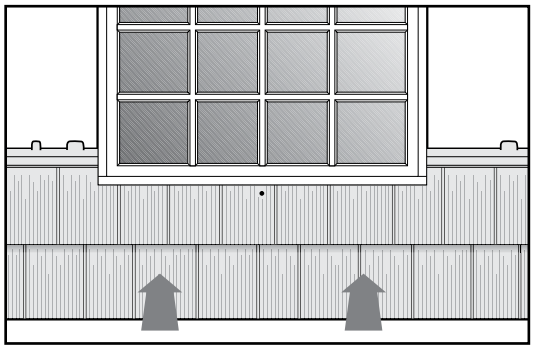


figure 7



Installing over a window or opening

Cut the panel to fit over the window by measuring from the locking tab of the previous row to the bottom of the receiving pocket (figure 7). Add 1/8″ to this measurement. Turn the panel over and, using this measurement, measure from the bottom of the return leg (figure 8). Cut the panel to this dimension. Install the cut panel by positioning the panel over the window and into the receiving pocket. Lock the cut panel into the previous course by pushing in and up. The cut edge should be 1/4″ below the top of the receiving pocket.

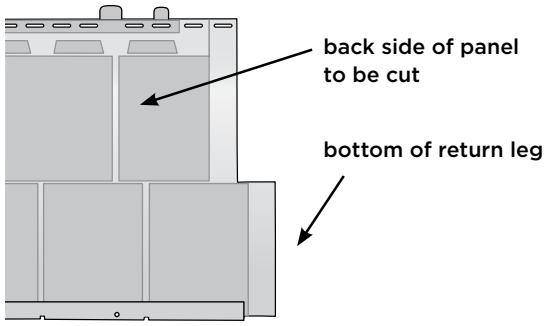


figure 8

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, 16″ apart. Nail off the top course and snap the cornice molding in to the cornice receiver (figure 9).

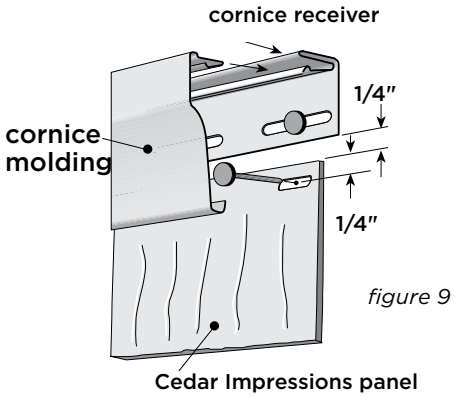


figure 9

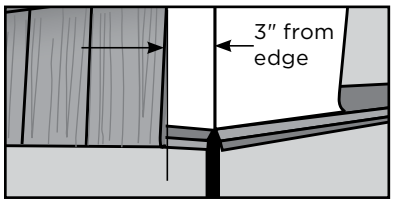


figure 10



figure 11

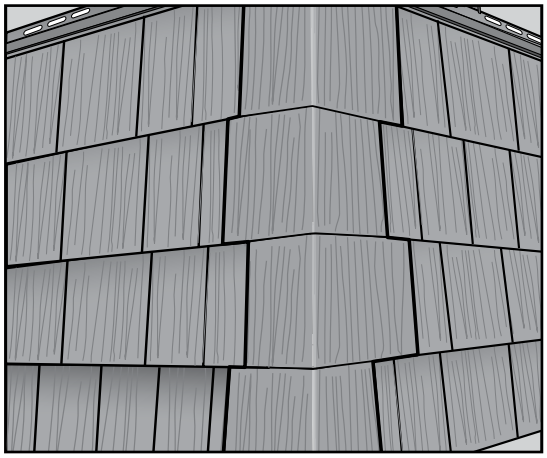


figure 12

Installing Mitered Offset Cornerpost

Before applying siding and accessories, make certain the substrate is watertight. To be properly protected from precipitation, make sure you have properly flashed the substrate so that it sheds water outside the siding. The siding and accessories alone are not meant to be a watertight barrier.

For the best appearance and easier installation, we suggest you install the Mitered Offset Cornerpost as you move up the wall. If you prefer, you can install Mitered Offset Cornerposts after the siding has been installed.

1. Install the first Cedar Impressions panel 3" from the edge of the outside wall (*figure 10*).

2. Once the panel has been fastened, hook the corner "A" over the siding, making sure the corner piece is locked into the starter strip (*figure 11*).

3. Nail through the top two holes of the cornerpost.

4. Continue installing the corner pieces as you move up the wall. Following the pattern of A, B, C, D and then repeat (*figure 12*).

5. When you reach the top panel, cut the corner piece to length and nail it with a color matched finish nail. Leave 1/4" between the top corner piece and the cornice receiver. If a course of siding ends at an outside corner that has a Mitered Offset Cornerpost installed, you will have to cut the Cedar Impressions panel to fit.

6. Measure from the edge of the last installed panel to the edge of the Cornerpost.

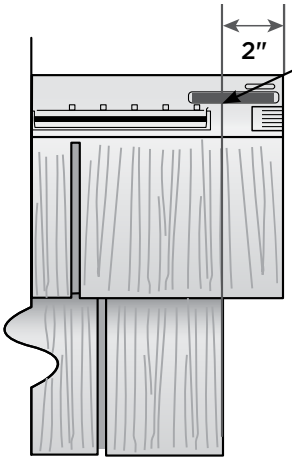
7. Add 1-1/2" to this dimension and cut the panel to length.

8. Angle the panel into the Cornerpost and slide it to the left.

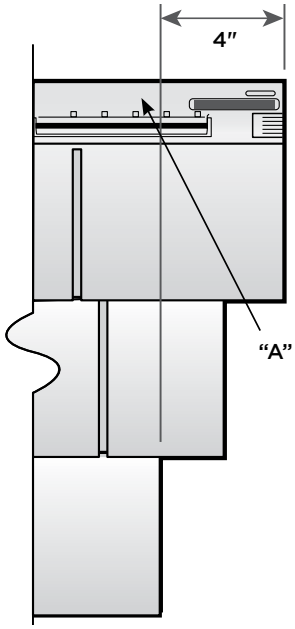
9. Then, slide the panel to the right until the correct temperature marks line up.

10. Fasten the panel to the wall.

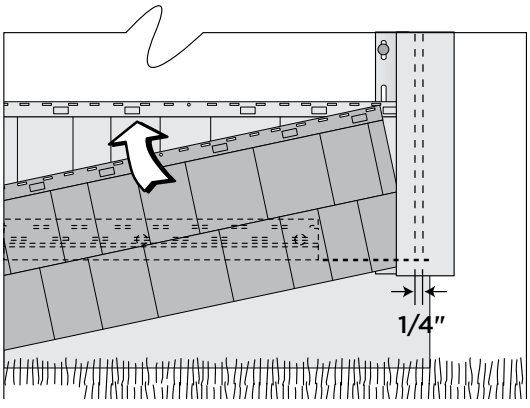
Similar to the top course under a soffit or window, cut shingles to appropriate angle, pre-drill and fasten using at least two staples or nails. Apply a trim board over the shingles to conceal the fasteners.



Cut 2" off the top course of the panel at indicator "A," which is located above the nail slots,



Cut off the top shingle and cut through to form a straight edge (T5 perfection)



D7" Staggered Perfection Shingles

D7" Straight Edge Rough-Split Shakes

D9" Staggered Rough-Split Shakes

First course

Strike a level line around the house and install Cedar Impressions Metal Shingle Starter.

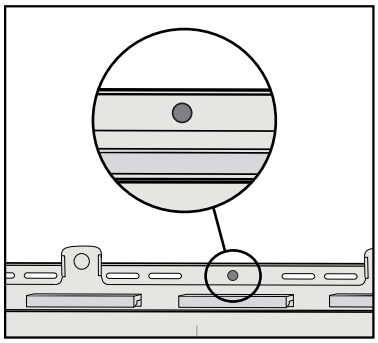
If you plan to use Cedar Impressions Mitered Cornerpost, make sure the starter strip is installed to the edge of the corner. An alternative method of starting Cedar Impressions is to use J-Channel in place of starter strip to receive the bottom edge of the panel. Drill 3/16" weep holes in J-Channel, a minimum 24" on center.

Cut the end of the top course of the panel at indicator "A," which is located above the nail slots. For T5 Perfection Shingles profile only, cut 4" off the top course of the panel at indicator "A," which is located above the nail slots.

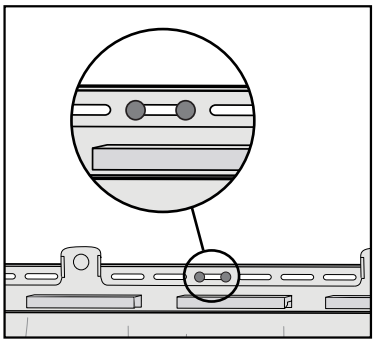
Starting on the right side of the wall, hook the bottom locking leg of the panel into the starter strip and slide the panel into the cornerpost or receiving channel. Leave 1/4" space between the panel and the corner for expansion. If you are planning to install the Mitered Cornerpost, space the panel 3" from the corner.

Fasten the panel to the wall by first nailing through the round center hole in the nailing hem at the top of the panel. Continue nailing the panel with 5 nails: one in the right-end nail slot and one at each of the QuickReference™ Nail Mark Indicators. Leave 1/8" to 1/16" between the nail heads and the panel to allow freedom of movement during normal expansion and contraction. ***Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.***

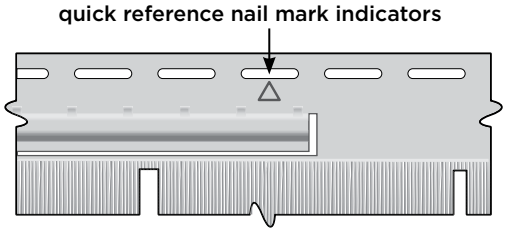
NOTE: Do not drive center-pin nails tight. Leave 1/8"–1/16" between the nail head and the panel to allow the panel to move freely during normal expansion and contraction.

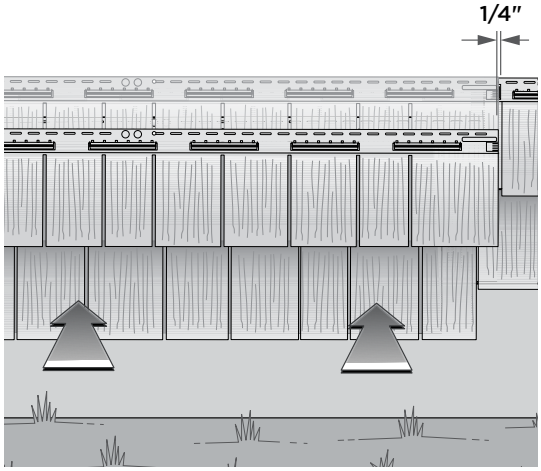


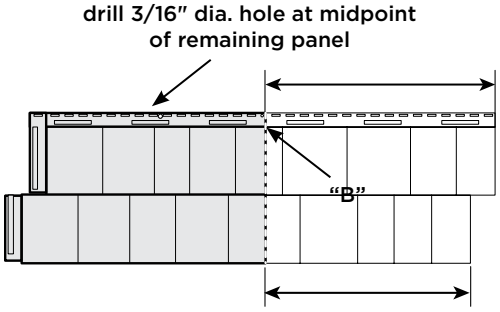
Full panel center pin method



Partial panel method







Install the next panel by positioning it below the starter strip and next to the first panel. Push in and up to lock the panel into the starter strip and the side tabs of the first panel. Space the second panel according to the panel temperature at the corresponding temperature indicator lines.

Nail the panel into position starting with the round center hole and then placing the next nail in the right-end nail slot (which overlaps the previous panel's left-end slot) so that the nail goes through both panels' nail slots simultaneously. Continue nailing the rest of the panel as described earlier.

Continue to install the remaining panels of the first course as described earlier.

When a window or doorway breaks a course, continue the application as if the opening were not there.

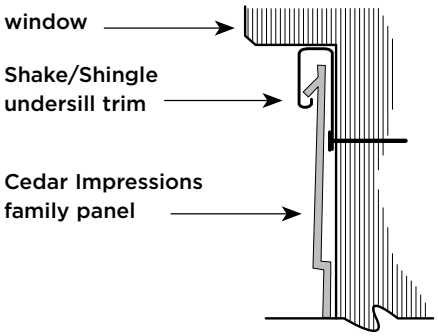
Second course

Cut off the right side of the shingle at indicator "B," which is located above the nail slots, cutting straight through the panel. Drill a 3/16" hole in the center of the nail hem and nail the siding through this hole to control the direction of expansion and contraction. Another option is to nail each end of a nail slot located at the center of the panel.

Starting on the right side of the wall, hook the bottom locking leg of the panel into the previous course and slide the panel into the cornerpost or receiving channel. Leave 1/4" space between the panel and the corner for expansion.

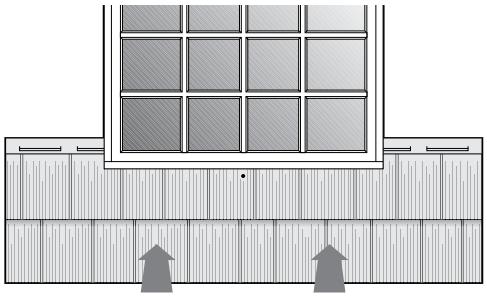
Set the spacing of the remaining panels using the PanelThermometer and temperature indicator lines.

Continue to stagger the panel courses, alternating each time to ensure a random shingle pattern up the wall.



Installing under a window or opening

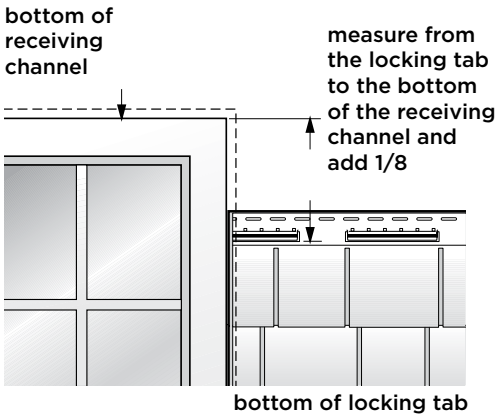
Install Shake/Shingle undersill trim. Cut the panel to fit under the window. Drill a 3/16″ hole in the upper center of the panel. Using a snap lock punch, raise tab faces on the outside of the panel 1/4″ from the trimmed edge, 6″ apart. Lock the panel into the previous course, and center nail the siding through the 3/16″ hole drilled earlier. (Center nailing controls the direction of the panel's expansion and contraction.) Lock the panel into place.

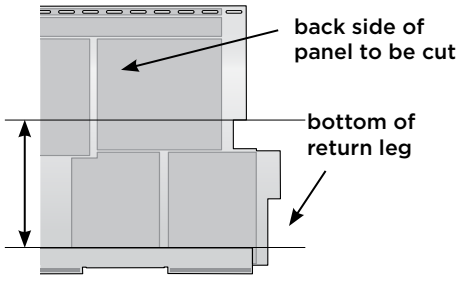


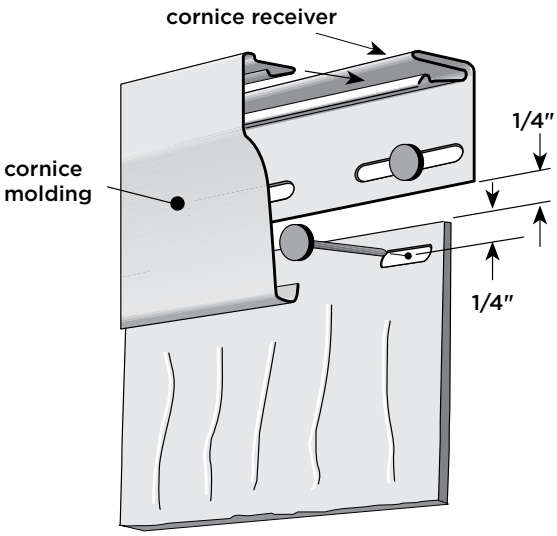
Installing over a window or opening

Cut the panel to fit over the window by measuring from the locking tab of the previous row to the bottom of the receiving pocket. Add 1/8″ to this measurement. Turn the panel over and, using this measurement, measure from the bottom of the return leg. Cut the panel to this dimension.

Install the cut panel by positioning the panel over the window and into the receiving pocket. Lock the cut panel into the previous course by pushing in and up. The cut edge should be 1/4″ below the top of the receiving pocket.





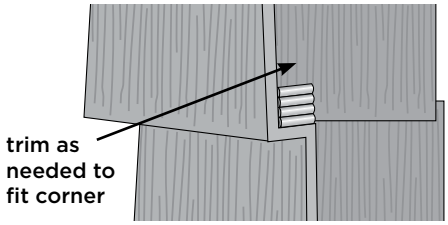


Finishing the last course of siding with Cornice Molding

To finish the top course of siding using cornice molding, 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, 16" apart. Nail off the top course and snap the cornice molding into the cornice receiver.

NOTE: Center-pinning is required for top course panels. When panel nail slots overlap nail flange of vinyl accessories, take care to ensure that the siding fastener does not pin the underlying accessory.

An alternate method is to use J-Channel and undersill trim, as described for installing under a window.



Installing Cedar Impressions Mitered Cornerpost with Straight Edge Perfection Shingles

If you are planning to install Mitered Cornerposts, space the siding panel 3" from the edge of the corner. Lock the first corner over the siding, making sure it also locks into the starter strip. Nail the corner through the top two nail slots.

NOTE: We recommend that you complete the first wall before installing the cornerpost. Then install the cornerpost as you install the courses of the second, adjacent wall.

Installing Cedar Impressions Mitered Cornerpost with Staggered Edge Perfection Shingles

If you are planning to install Mitered Cornerposts, space the siding panel 3" from the edge of the corner. Lock the first corner over the siding, making sure it also locks into the starter strip. Nail the corner through the top two nail slots.

Install the siding on both sides of the wall before you install the cornerpost. Space the siding 3" from the edge of the corner. The corners are designed to fit over the panels that are used to start a new course. Lock the first corner over the siding, making sure it also locks into the starter strip. The top of the corner must be in line with the top of the panel. Nail the corner through the top two nail slots.

The right-side corner gap has cut marks at 1/8" increments. They allow you to fit the corner to the different butt heights you may encounter as you finish a course. Trim the corner gap as needed to fit the panel.

Cedar Impressions Mitered Cornerpost

General

Before applying siding and accessories, make certain the substrate is watertight. In order to be properly protected from precipitation, the substrate may need to be flashed to shed water to the exterior. The siding and accessories alone are not meant to be a watertight barrier.

Cedar Impressions panels are installed from the right to the left.

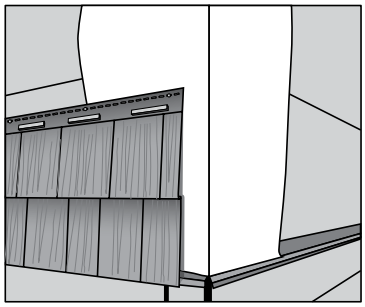
You can install Cedar Impressions Mitered Corners at three different times:

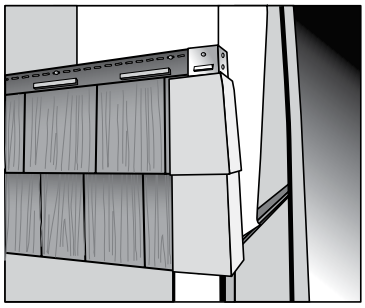
1. As you install courses up one side of the wall—CertainTeed's recommended method
2. As you install both sides of the wall at the same time—allowing you to make small corrections as you move up the wall
3. As you move up the second, adjacent wall after you have installed all the panels on one side of the wall—preferred by some installers

The first method is described below.

Cedar Impressions outside corner installation

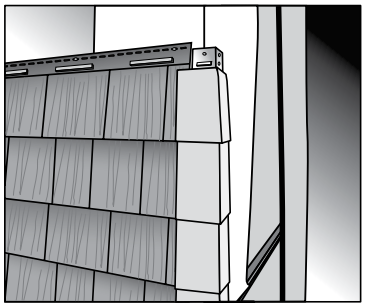
Install the first Cedar Impressions panel 3" from the edge of the outside wall.





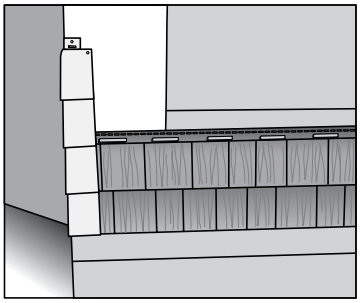
Hook the corner piece over the siding, making sure it engages into the starter strip and nail through the top two holes.

Continue installing corner pieces as you move up the wall.



When you reach the top panel, cut to length and nail with color-matched finish nails.

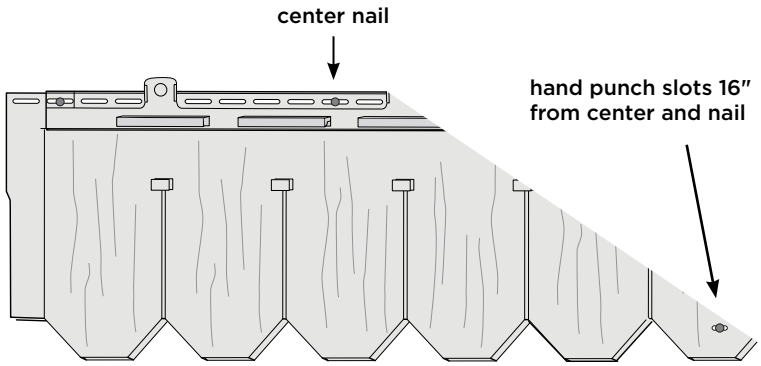
If you end on an outside corner that has a cornerpost installed, you need to measure from the edge of the panel to the edge of the cornerpost. Add 1-1/2" to this dimension; it will be the panel length.

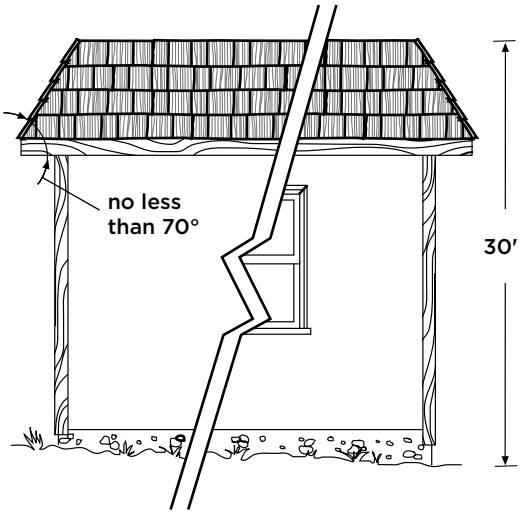


Angle the panel into the cornerpost and slide to the left until the side tabs clear. Next, slide the panel to the right until you have the correct temperature marks on the panel lined up.

Cedar Impressions on a Steep Rake

A solid nailable substrate is required for this product. The substrate must have the nail holding equivalent of a 3/4" penetration of a nail into solid wood.





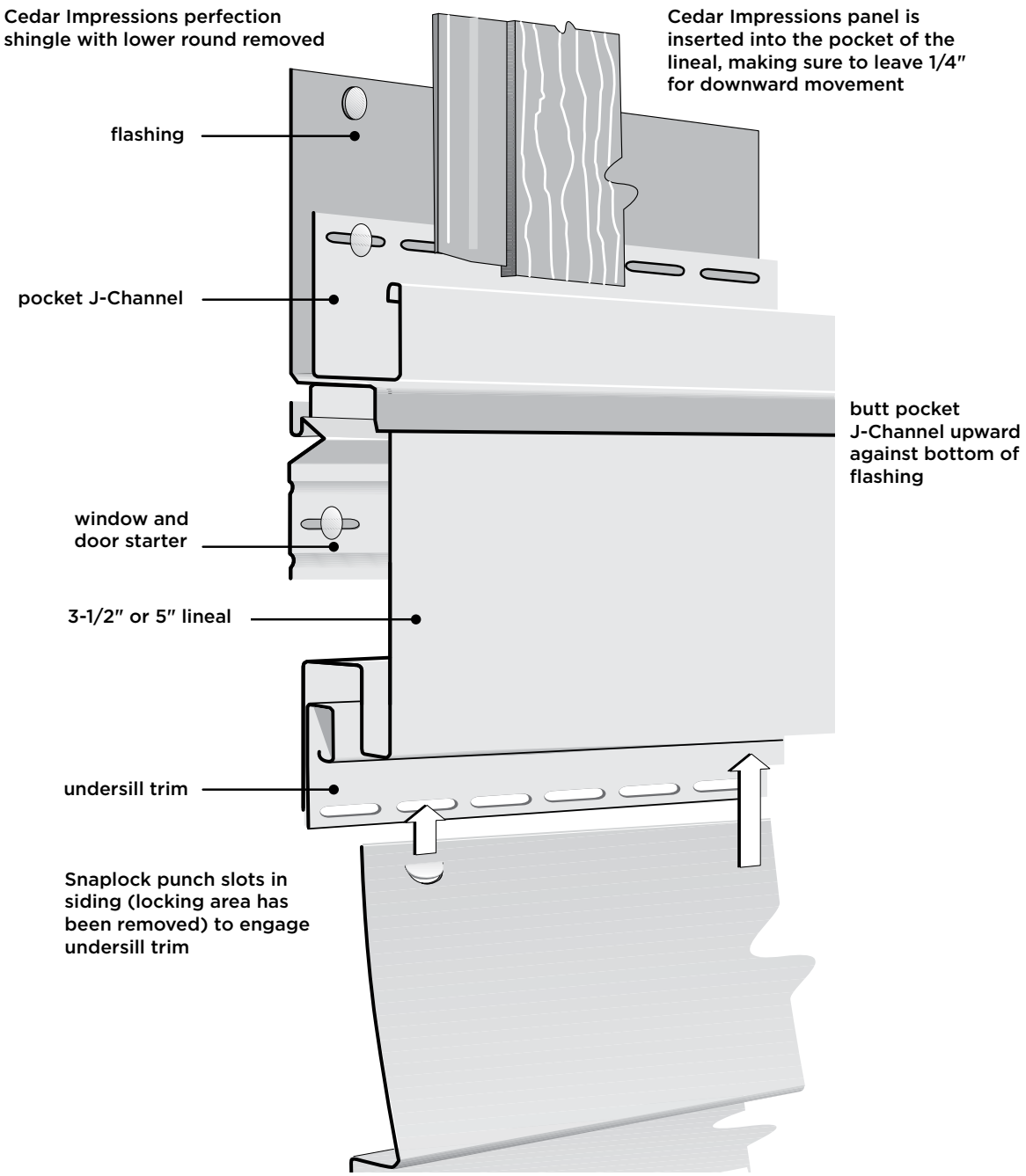
Installing Cedar Impressions on Non-vertical Walls

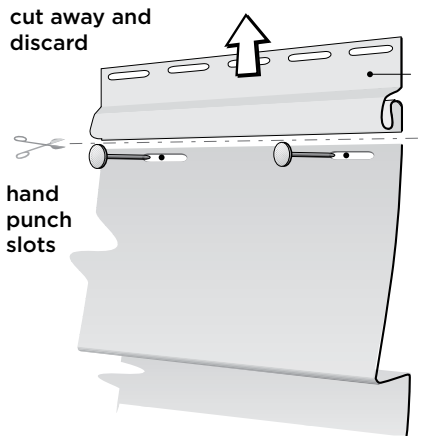
Cedar Impressions must never be used as a roofing material. However, the panels can be used on non-vertical applications that meet the following conditions:

- The non-vertical wall must be decorative and not functional as a roof surface.
- The non-vertical wall must not be greater than 20° off the vertical (no less than a 70° angle).
- The top of the wall cannot be higher than 30′ above grade. Because of different wind-load requirements, your local building code may stipulate a lower height. Use the lesser of the two heights.

Before you install Cedar Impressions on a non-vertical wall, install a non-binding, self-adhering underlayment or waterproofing membrane. Cap the uppermost edge of the top course of siding to prevent water from getting behind the siding. Flash all accessories to shed water away from the substrate. Siding alone is not meant to be a watertight barrier.

Starting Cedar Impressions with Lineals over Horizontal Siding

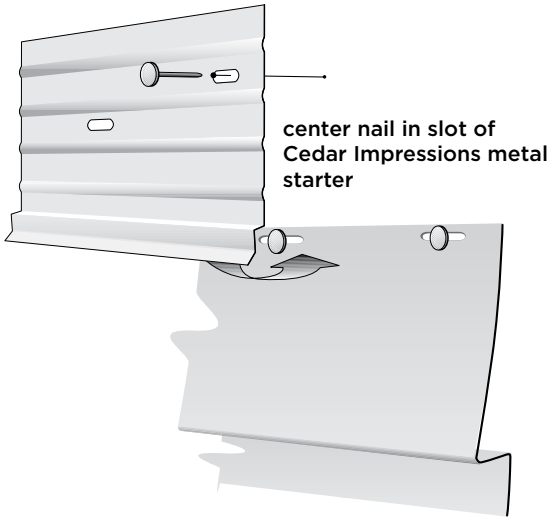




Starting Cedar Impressions over Horizontal Siding

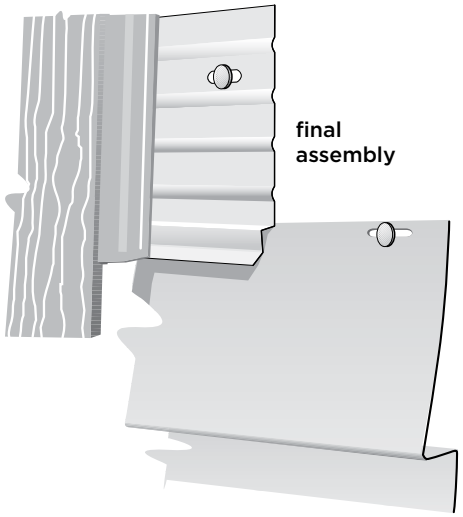
Cut away the nail flange and discard.

Hand punch nail slots into the panel face and secure the panel.

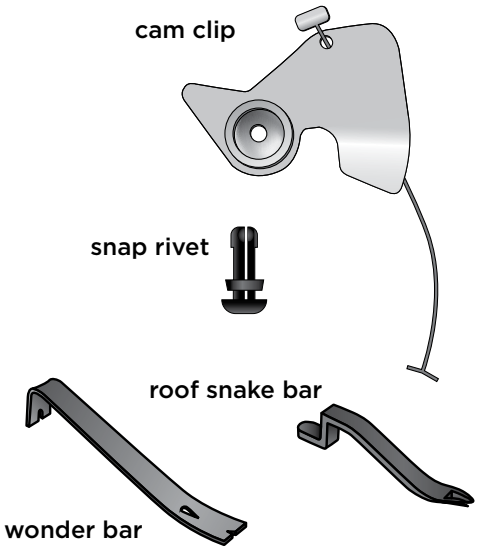


Secure Cedar Impressions 4" Metal Starter after hand punching and securing the siding piece.

NOTE: Only the Metal Starter may be used with Cedar Impressions.



Lock the Cedar Impressions panels into the starter strip and secure it.

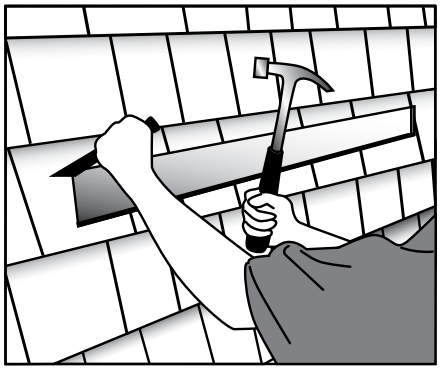


Replacing a Damaged Cedar Impressions Panel with the Repair Kit (Option 1)

Cam clips and snap rivets are included in the kit.

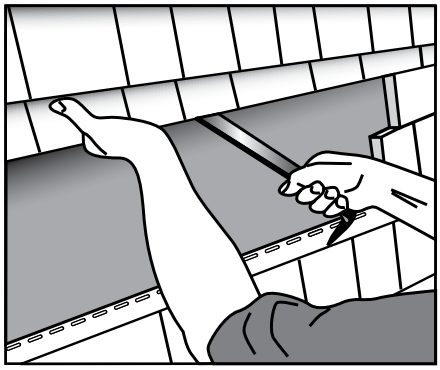
You will also need a hammer, utility knife, chisel, and "wonder bar" or "roof snake bar."

A video of this process can be viewed at:
www.youtube.com/user/ctfreedomofchoice

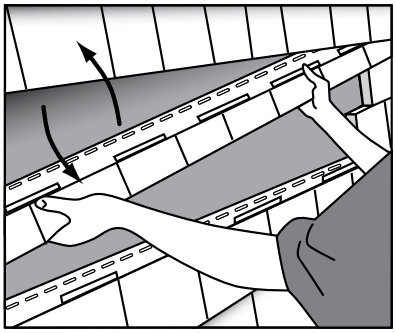


Removing the damaged panel

Cut a large rectangle out of the damaged panel. Cut or chisel through the sides of the panel and remove the lower half.

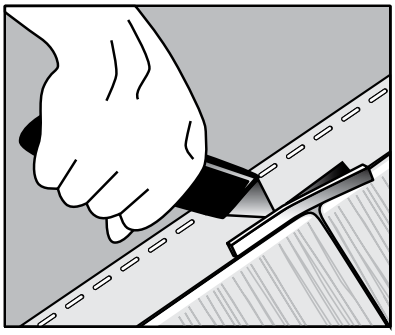


Pry the nails out of the nail hem of the damaged panel.



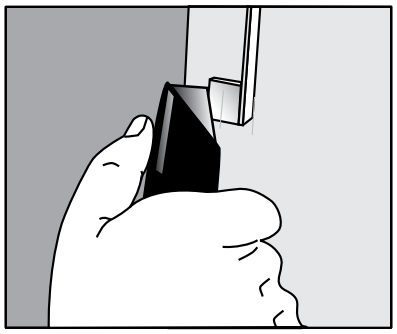
NOTE: To eliminate interference from the panel above the damaged panel, use two roofing nails as a wedge to prop up the upper panel.

Push up on the panel to unlock it, and then pull down to remove the damaged panel.

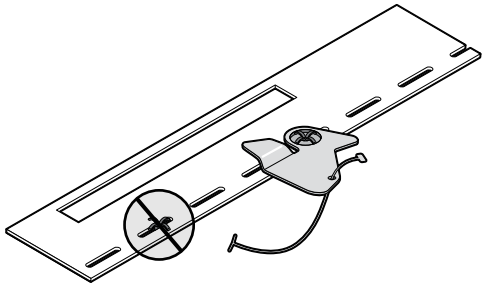


Preparing the new panel

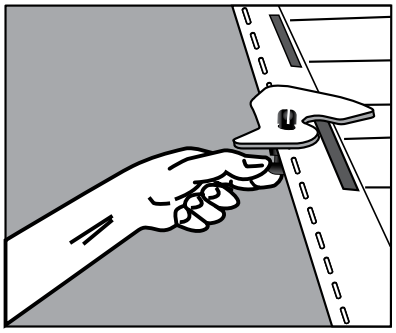
Cut off all top locking tabs.



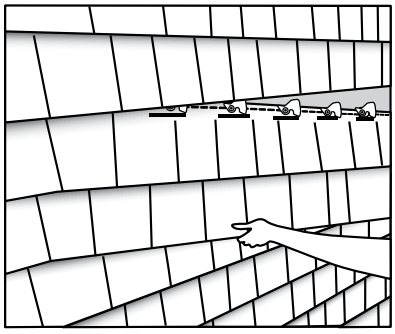
Flip the panel over and cut 1/8″ off the side locking tabs.



You must install the cam clip and the snap rivet at the same time. Installing the rivet before the clip may cause the rivet to mushroom and prevent it from keeping the cam clip securely in place.

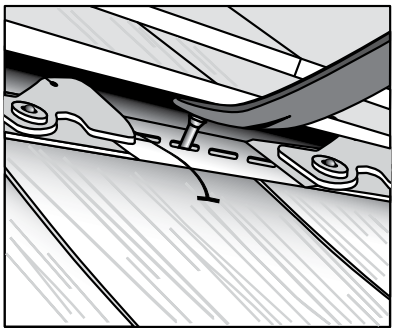


Push on the back button of the snap rivet to secure the clip to the panel. Repeat over each locking tab area.

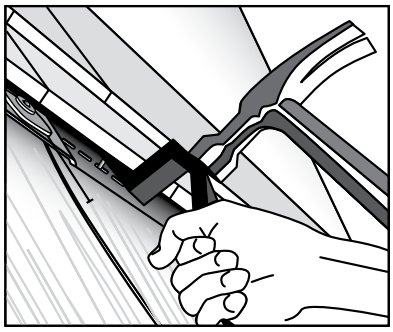


Place the heavier part of the cam clip up against the cam. While applying pressure to the top panel, pull down on the thinner end of the clip.

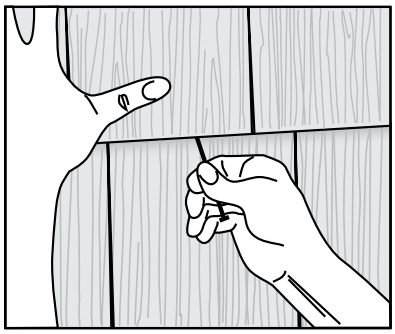
Installing the new panel



Slide the left side of the new panel into the side locking tabs. To engage the right side tabs into the existing panel, flex the panel out from the center. As you raise the new panel into position, make sure the bottom lip of the panel engages the locking tabs on the panel below.



Lift up the panel above the new panel far enough to place the nails into the old nail holes.

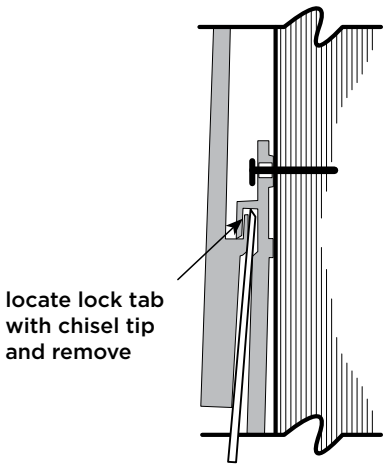


Using your wonder bar or roof snake bar, drive the nails in by placing the bar on the nail head and hitting the bar with a hammer.

Place the heavier part of the cam clip up against the cam. While applying pressure to the top panel, pull down on the thinner end of the clip. Make sure each cam clip engages the lip of the panel above it. Keep pulling down on the cam cords until they break off.

Replacing a Damaged Cedar Impressions Panel (Option 2)

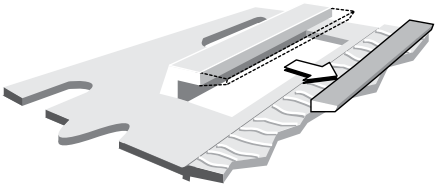
You will need a hammer, wood chisel, and hacksaw or utility knife.



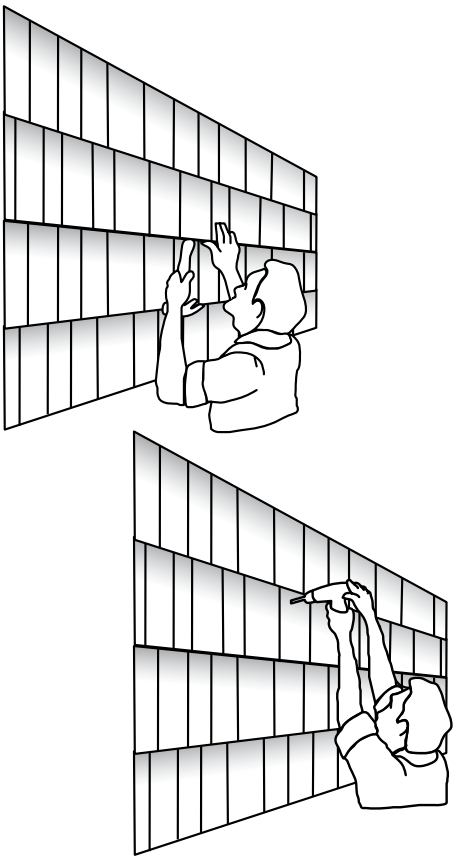
Use a wood chisel to remove the lock tabs on the top side of the damaged panel. Lock tabs can be located by using the chisel to slightly lift the panel locked into the upper portion of the damaged panel.

After locating the lock tabs, place the bevel of the chisel down against the face of the damaged panel; use a hammer and the chisel to knock off the lock tabs of the damaged panel. Then remove the nails on the damaged panel, and pull the panel down and remove it.

On the replacement panel, use a hacksaw or utility knife to cut the lock tabs to half their original length. Slide the replacement panel back into the position of the removed damaged panel.

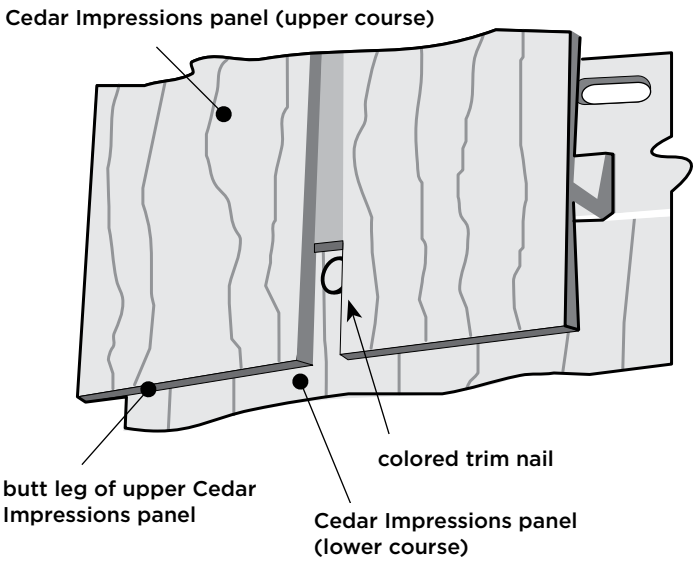


Use the hammer handle to put pressure against the bottom butt of the replacement panel to force pressure upward enough that the replacement panel will engage with the panel above.



Drill a nail hole in the center of the top portion of the replacement panel. Then use a colored trim nail to control the direction of expansion of the replacement.

NOTE: While this method provides an aesthetically acceptable replacement, it does not actually secure the panel to the wall. The only way to secure a replacement panel with nails is to remove the siding from the top of the wall down until the damaged panel can be removed.



Cedar Impressions Perfection Shapes: Scallop, Octagon and Half-Cove

These instructions describe and illustrate the steps involved in installing CertainTeed Cedar Impressions Perfection Shapes: Their purpose is to provide detailed information and how-to tips that will simplify the installation process. CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet our minimum requirements for proper installation. These requirements are outlined throughout the CertainTeed Installation Guide (CTS205). Any deviations from these requirements should be approved in writing by CertainTeed LLC.

Important

This product is not designed for roof application. It is designed solely for installation on vertical surfaces. Panels must be installed with nails over a solid substrate with nail holding strength such as plywood, oriented strand board, or existing wood siding (minimum 7/16" thick). This product cannot be installed with staples.

Tool and Fastener Requirements
Tools required

- Hammer
- Tape measure
- Square
- Chalk line
- Level
- Utility knife
- Shears
- Chop saw with sharp, 40-tooth carbide blade

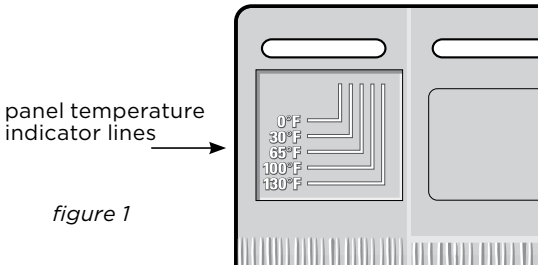
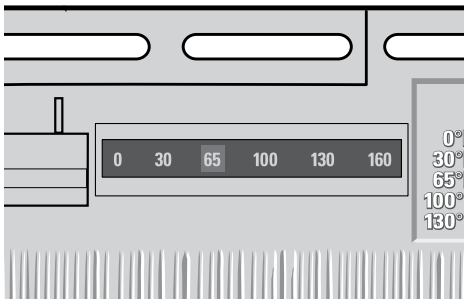


figure 1



Panel Thermometer

Panel Spacing at Different Temperatures

As with any plastic siding, Cedar Impressions® expands and contracts with changes in temperature. For this reason, it is important that you space the panels according to the panel temperature at the time of installation. Failure to provide the proper spacing according to these temperature ranges may result in gaps that are too large or too small, thereby creating the potential for panel distortion, or buckling. Spacing of panels previously installed at a different temperature does not require adjustment.

Each panel has a PanelThermometer™ that displays panel temperature and indicator lines that serve as guides for proper spacing between the panels. The PanelThermometer is located on the upper right-hand corner of the panel; the indicator lines are on the upper left-hand corner (figure 1). Note that the panel temperature may change throughout the day. Space the panels according to the panel temperature at the time of installation. The cells on the PanelThermometer will change color to indicate the temperature of the panel.

PanelThermometer Temperature Reading Indicator Lines

Panel Thermometer	Temperature Indicator Lines
0	Set to 0 line
30	Set to 30 line
65	Set to 65 line
100	Set to 100 line
130	Set to 130 line
160	Butt panels tight

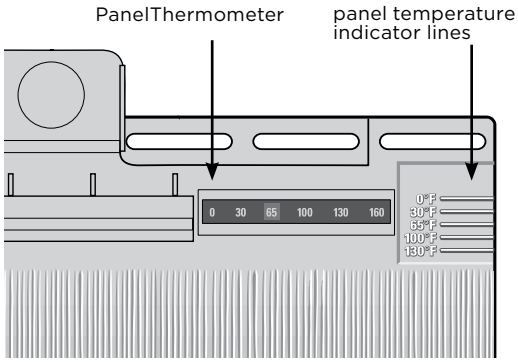
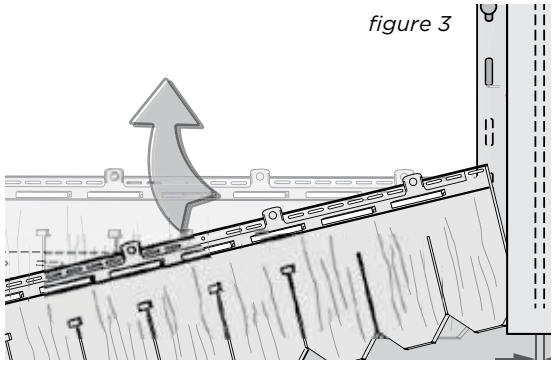


figure 2

If the brighter cell is between the numbered temperature cells, position the panel between the corresponding temperature indicator lines (figure 2). Example: If the PanelThermometer reads 65, align the second panel to the 65 temperature indicator line on the first panel. If the cell between the 65 and 100 is brighter, position the panel between the 65 and 100 temperature indicator lines.

figure 3



First Course

Installation is made simpler with these easily identifiable features marked on the front the shingles.

1. Use a full panel to start your first course.

2. Starting on the right side of the wall, hook the bottom locking leg of the panel into the hanger and slide panel into the cornerpost or receiving channel (figure 3). Leave 1/4" space between the panel and the corner for expansion.

3. Fasten the panel to the wall by first nailing through the round center hole in the nailing hem at the top of the panel. Continue nailing the panel with 5 nails: one in the right-end nail slot and one at each of the QuickReference™ Nail Mark Indicators (figure 4). Leave 1/8" to 1/16" between the nail heads and the panel to allow freedom of movement during normal expansion and contraction.

4. Install the next panel by positioning it below the hanger and next to the first panel. Push in and up to lock the panel into the hanger, as shown in figure 5. Space the second panel according to the panel temperature at the corresponding temperature indicator lines (figure 1). Gently tap the outside of the HammerTapper™ ribs to properly position the panel left or right.

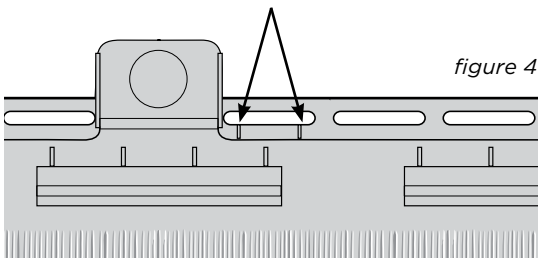


figure 4

figure 5



5. Nail the panel into position starting with the round center hole and then placing the next nail in the right-end nail slot (which overlaps the previous panel's left-end slot) so that the nail goes through both panels' nail slots simultaneously. Continue nailing the rest of the panel using the procedure in step 3.

6. Continue to install remaining panels of first course as described in steps 3 through 5.

Second Course

7. Cut 1 to 2 shingles off of the right side of the shapes panel (approximately 5" to 10" from the right) cutting straight through the panel. This step is necessary to ensure proper hanger and lock engagement. Drill a 3/16" hole in the center of the nail hem and nail siding through this hole to control direction of expansion and contraction.

NOTE: the necessary cut in step 7 ranges from 1 to 2 shingles from right depending the on the pitch of the roof if being installed in a gable.

8. Set the spacing using the PanelThermometer and temperature indicator lines. Another option is to nail each end of a nail slot located at the center of the panel and repeat steps 4-6.

Remaining Courses

9. Repeat steps 1 through 8 as you move up the wall (figure 6).

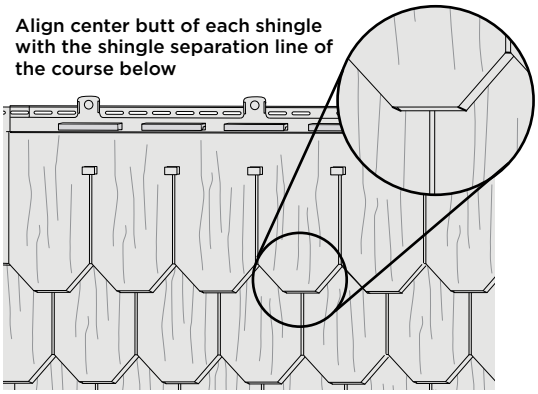


figure 6

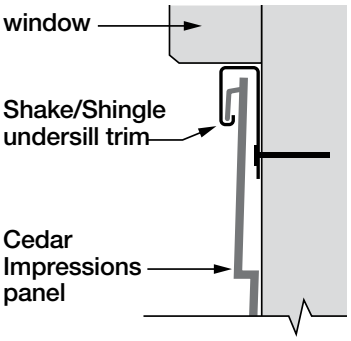


figure 7

Installing Under a Window or Opening

Install undersill trim. Cut the panel to fit under the window. Drill a 3/16" hole in the center of the nail hem. Using a snap lock punch, raise tab faces on the outside of the panel 1/4" from the trimmed edge, 6" apart. Lock the panel into the previous course, and center nail the siding through the 3/16" hole drilled earlier. (Center nailing controls the direction of the panel's expansion and contraction.) Lock the panel into place (figure 7).

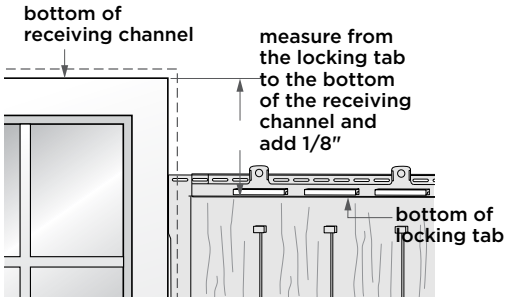


figure 8

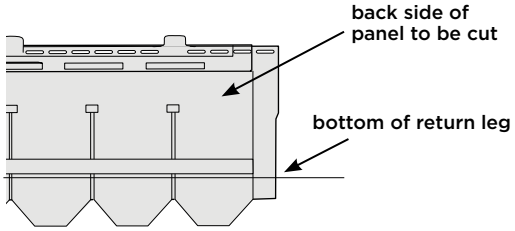


figure 9

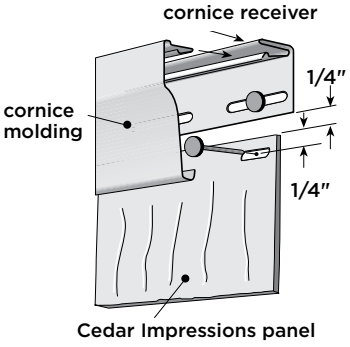


figure 10

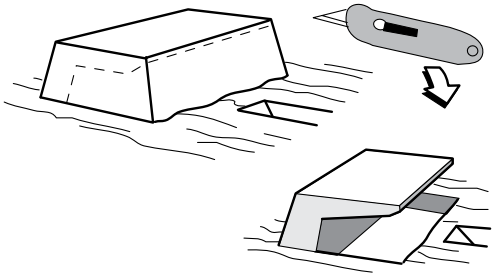
Installing Over a Window or Opening

Cut the panel to fit over the window by measuring from the locking tab of the previous row to the bottom of the receiving pocket (figure 8). Add 1/8" to this measurement. Turn the panel over and, using this measurement, measure from the bottom of the return leg (figure 10). Cut the panel to this dimension. Install the cut panel by positioning the panel over the window and into the receiving pocket. Lock the cut panel into the previous course by pushing in and up. The cut edge should be 1/4" below the top of the receiving pocket.

Finishing the Top Course

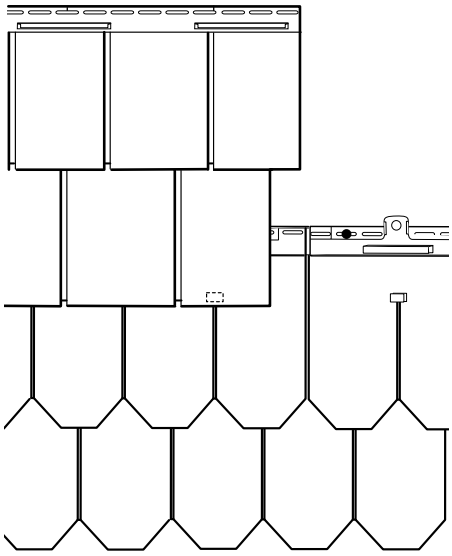
To finish the top course of siding, attach cornice receiver to the top of thewall under the eave orsoffit. Trim the top panel to within 1/4" of the cornice receiver. Usinga nail slot punch, punch nail slots 1/4" from the trimmed edge, 16" apart. Nail off the top course and snap the cornice molding into the cornice receiver.

Special Effects with Cedar Impressions



Another look can be achieved by using the lower locking tabs. First, remove the protective material from the sides of the tabs (see left). Lock the upper panel into the tab and secure.

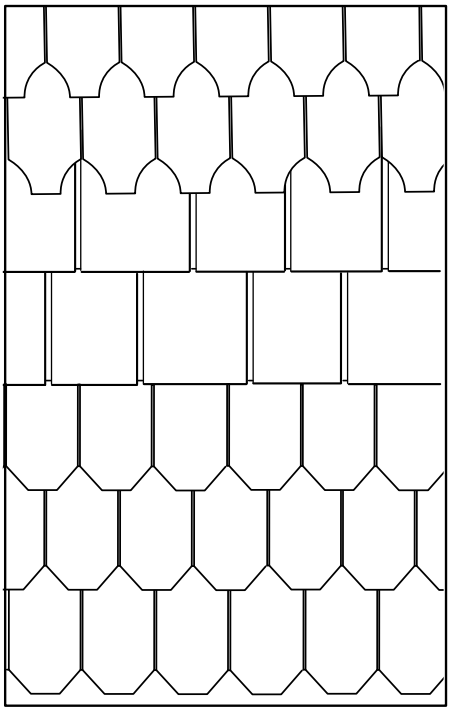
NOTE: This method can also be used to finish the top course of shingles.



Cedar Impressions Shapes can be mixed with other Cedar Impressions Shakes and Shingle applications, as shown below left

To do this, the "flash" material must be removed from the lower tabs on the face of the Shapes panels with a utility knife (as shown above). The resulting lock allows the next course of Shapes to be secured.

Lock Perfection Shingles into newly created lock tabs and secure.



Historic Restorations and Custom Designs

Cedar Impressions Perfection Scallop, Octagon and Half-Cove Shapes are architecturally accurate to traditional, decorative cedar shingle shapes once applied to historic structures. This makes Shapes ideal for preserving decorative details in historic restorations, particulary from the Victorian era. Cedar Impressions Shapes can be easily applied in mixed courses to replicate the original custom patterns or to enhance a new home's design.

Single 7" Straight Edge Perfection Shingles

These instructions describe and illustrate the steps involved in installing CertainTeed Cedar Impressions S7" Perfection Shingles and trim. Their purpose is to provide detailed information and how-to tips that will simplify the installation process. CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet our minimum requirements for proper installation. These requirements are outlined throughout the CertainTeed Installation Guide (CTS205). Any deviations from these requirements should be approved in writing by CertainTeed LLC.

Important

This product is not designed for roof application. It is designed solely for installation on vertical surfaces. Panels must be installed with nails over a solid substrate with nail holding strength such as plywood, oriented strand board, or existing wood siding (minimum 7/16" thick). This product cannot be installed with staples.

Note: Each panel must be nailed through the round hole in the center of the nail hem to control the direction of normal expansion and contraction. If you are installing a partial panel and the center nail hole has been cut off, drill a nail hole in the center of the nail hem of the cut panel and nail through it.

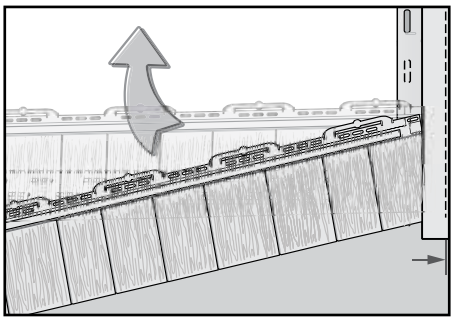


figure 1

When cutting Cedar Impressions siding, use a 40-tip carbide blade mounted in the standard (not backwards) position. Using this technique will reduce burring; it does not gum up the saw; and the blade stays sharp longer.

Panel Spacing at Different Temperatures

See page 94 for PanelThermometer™ instructions.

First course

Installation is made simpler with these easily identifiable features marked on the front the shingles.

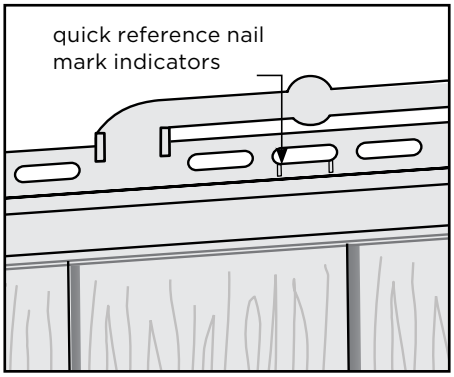


figure 2

1. Use a full panel to start your first course.

2. Starting on the right side of the wall, hook the bottom locking leg of the panel into the starter strip and slide panel into the cornerpost or receiving channel (figure 1). Leave 1/4" space between the panel and the corner for expansion.

3. Fasten the panel to the wall by first nailing through the round center hole in the nailing hem at the top of the panel. Continue nailing the panel with 5 nails: one in the right-end nail slot and one at each of the QuickReference™ Nail Mark Indicators (figure 2). Leave 1/8" to 1/16" between the nail heads and the panel to allow freedom of movement during normal expansion and contraction. The S7 panel features NailStop™ to guide in correct nail head clearance.

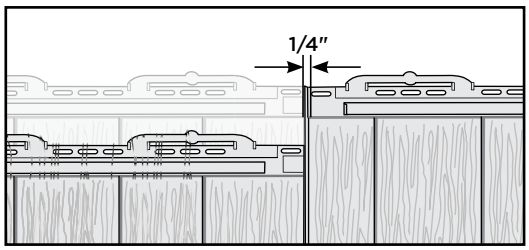


figure 3

4. Install the next panel by positioning it below the starter strip and next to the first panel. Push in and up to lock the panel into the starter strip, as shown in figure 3. Space the second panel according to the panel temperature at the corresponding temperature indicator lines (figure 1). Gently tap the outside of the HammerTapper™ ribs to properly position the panel left or right.
5. Nail the panel into position starting with the round center hole and then placing the next nail in the right-end nail slot (which overlaps the previous panel's left-end slot) so that the nail goes through both panels' nail slots simultaneously. Continue nailing the rest of the panel using the procedure in step 3.
6. Continue to install remaining panels of first course as described in steps 3 through 5.

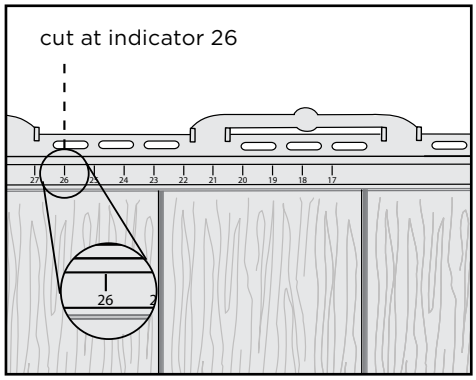


figure 4

Second course

7. Cut 26″ off of the right side of the S7 panel at indicator 26, which is located on the hanger below the nail slots, cutting straight through the panel (figure 4). Drill a 3/16″ hole in the center of the nail hem and nail siding through this hole to control direction of expansion and contraction.
8. Set the spacing using the temperature indicator lines. Another option is to nail each end of a nail slot located at the center of the panel and repeat steps 4-6.

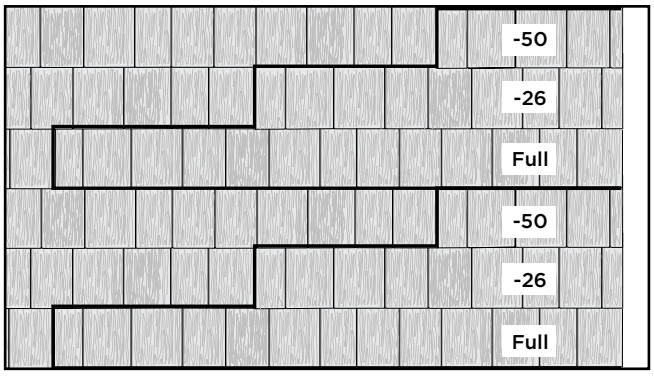


figure 5

Third course

9. Cut 50″ off of the right side of the S7 panel at indicator 50, which is located on the hanger below the nail slots, cutting straight through the panel. Drill a 3/16″ hole in the center of the nail hem and nail siding through this hole to control direction of expansion and contraction. Another option is to nail each end of a nail slot located at the center of the panel.

   Continue to stagger panel courses according to steps 1 and 9, repeating the same process of 1st course, 2nd course, 3rd course to ensure a random shingle pattern up the wall (figure 5).

Note: Care must be taken to not align the shingle separation when installing on a gable end. Do not follow the full, -26″, -50″ pattern in the gable.

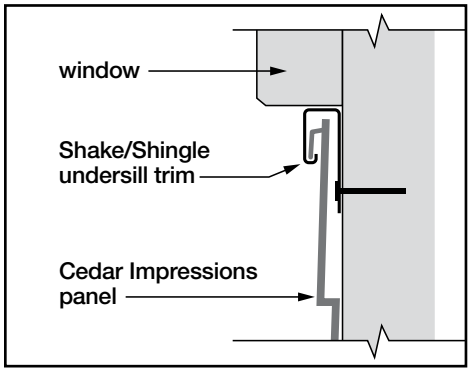


figure 6

Installing under a window or opening

Install undersill trim. Cut the panel to fit under the window. Drill a 3/16″ hole in the center of the nail hem. Using a snap lock punch, raise tab faces on the outside of the panel 1/4″ from the trimmed edge, 6″ apart. Lock the panel into the previous course, and center nail the siding through the 3/16″ hole drilled earlier. (Center nailing controls the direction of the panel's expansion and contraction.) Lock the panel into place (figure 6).

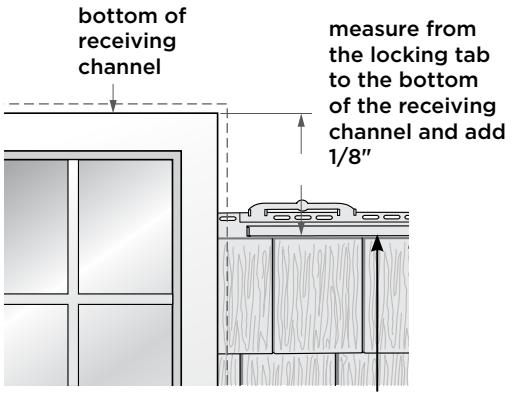


figure 7

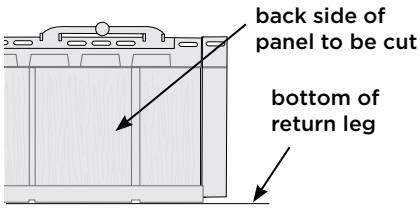


figure 8

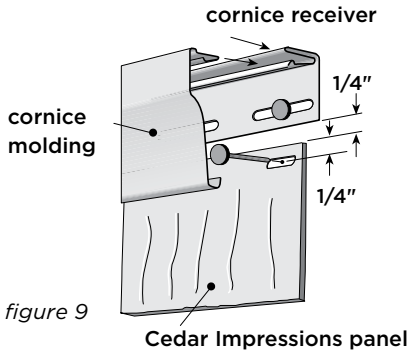


figure 9

Installing Over a Window or Opening

Cut the panel to fit over the window by measuring from the locking tab of the previous row to the bottom of the receiving pocket (figure 7). Add 1/8" to this measurement. Turn the panel over and, using this measurement, measure from the bottom of the return leg (figure 8).

Cut the panel to this dimension. Install the cut panel by positioning the panel over the window and into the receiving pocket. Lock the cut panel into the previous course by pushing in and up. The cut edge should be 1/4" below the top of the receiving pocket.

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, 16" apart. Nail off the top course and snap the cornice molding into the cornice receiver (figure 9).

Installing Mitered Offset Cornerpost

Before applying siding and accessories, make certain the substrate is watertight. To be properly protected from precipitation, make sure you have properly flashed the substrate so that it sheds water outside the siding. The siding and accessories alone are not meant to be a watertight barrier.

For the best appearance and easier installation, we suggest you install the Mitered Offset Cornerpost as you move up the wall. If you prefer, you can install Mitered Offset Cornerposts after the siding has been installed.

1. Install the first Cedar Impressions panel 3" from the edge of the outside wall (figure 10).

2. Once the panel has been fastened, hook the corner "A" over the siding, making sure the corner piece is locked into the starter strip (figure 11).

3. Nail through the top two holes of the cornerpost.

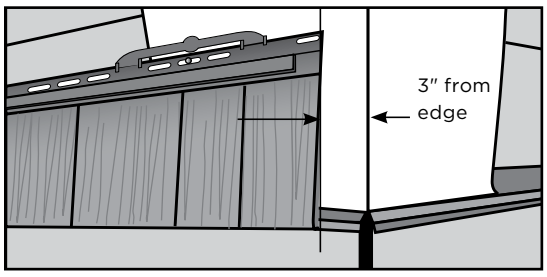


figure 10

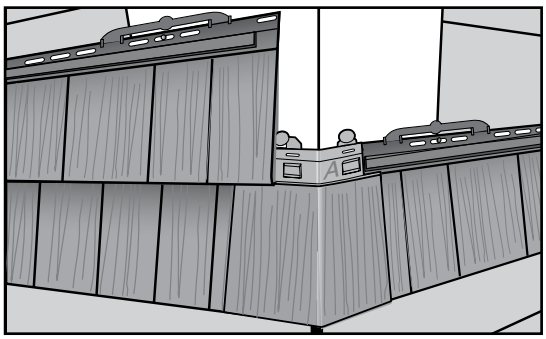


figure 11

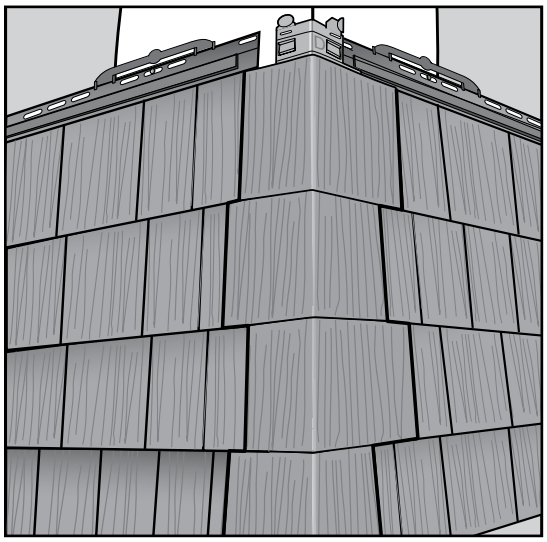


figure 12

4. Continue installing the corner pieces as you move up the wall. Following the pattern of A, B, C, D and then repeat (figure 12).

5. When you reach the top panel, cut the corner piece to length and nail it with a color matched finish nail. Leave 1/4" between the top corner piece and the cornice receiver. If a course of siding ends at an outside corner that has a Mitered Offset Cornerpost installed, you will have to cut the Cedar Impressions panel to fit.

6. Measure from the edge of the last installed panel to the edge of the Cornerpost.

7. Add 1-1/2" to this dimension and cut the panel to length.

8. Angle the panel into the Cornerpost and slide it to the left.

9. Then, slide the panel to the right until the correct temperature marks line up.

10. Fasten the panel to the wall.

Similar to the top course under a soffit or window, cut shingles to appropriate angle, pre-drill and fasten using at least two staples or nails. Apply a trim board over the shingles to conceal the fasteners.

Triple 5" Straight Edge Sawmill Shingles

These instructions describe and illustrate the steps involved in installing CertainTeed Cedar Impressions T5" Sawmill Shingles and accessories. Their purpose is to provide detailed information and how-to tips that will simplify the installation process. CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet our minimum requirements for proper installation. These requirements are outlined throughout the CertainTeed Installation Guide. Any deviations from these requirements should be approved in writing by CertainTeed LLC.

Important

This product is not designed for roof application. It is designed solely for installation on vertical surfaces. Panels must be installed with nails over a solid substrate with nail holding strength such as plywood, oriented strand board, or existing wood siding (minimum 7/16" thick). This product cannot be installed with staples.

Note: Handle shingles carefully to avoid scuffing due to mishandling.

Note: Each panel must be nailed through the round hole in the center of the nail hem to control the direction of normal expansion and contraction. If you are installing a partial panel and the center nail hole has been cut off, drill a nail hole in the center of the nail hem of the cut panel and nail through it.

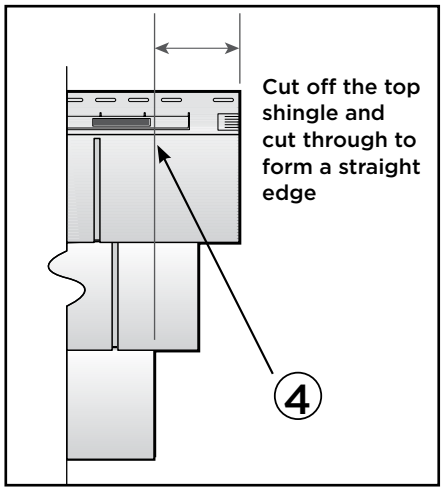


figure 1

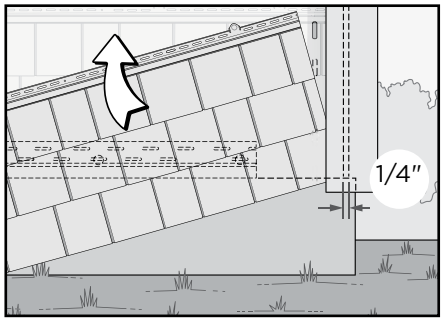


figure 2

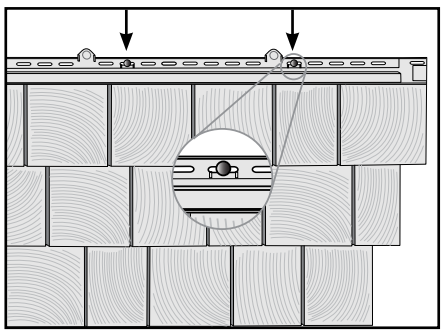


figure 3

When cutting Cedar Impressions siding, use a 40-tip carbide blade mounted in the standard (not backwards) position. Using this technique will reduce burring; it does not gum up the saw; and the blade stays sharp longer.

Panel Spacing at Different Temperatures

See page 94 for PanelThermometer™ instructions.

First course

Strike a level line around the house and install Shingle Starter Strip, holding it back 2-3/4" from each end of the wall. If you plan to use Cedar Impressions Mitered Cornerposts, make sure the starter strip is installed to the edge of the corner. An alternative method of starting Cedar Impressions is to use J-channel in place of starter strip to receive the bottom edge of the panel.

1. Create a straight edge on the right side of the panel by cutting the top two shingles so they are flush with the bottom shingle, as shown in figure 1. Cut 4" off the top course of the panel at the 4 mark on the tape measure located on the hanger, below the nail slots.

2. Starting on the right side of the wall, hook the bottom locking leg of the panel into the starter strip and slide panel into the cornerpost or receiving channel (figure 2). Leave 1/4" space between the panel and the corner for expansion. If you are planning to install the Mitered Cornerpost, space the panel 2-3/4" from the corner.

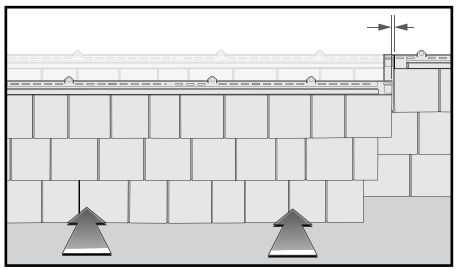


figure 4

3. Fasten the panel to the wall by first nailing through the round center hole in the nailing hem at the top of the panel. Continue nailing the panel with 5 nails: one in the right-end nail slot and one at each of the QuickReference™ Nail Mark Indicators (figure 3). Leave 1/8″ to 1/16″ between the nail heads and the panel to allow freedom of movement during normal expansion and contraction. The T5 panel features NailStop™ to guide in correct nail head clearance.
4. Install the next panel by positioning it below the starter strip and next to the first panel. Push in figure 4. Space the second panel according to the panel temperature at the corresponding to position panel into place. Gently tap the outside of the HammerTapper™ ribs to properly position the panel left or right.
5. Nail the panel into position starting with the round center hole and then placing the next nail in the right-end nail slot (which overlaps the previous panel's left-end slot) so that the nail goes through both panels' nail slots simultaneously. Continue nailing the rest of the panel using the procedure in step 3.
6. Continue to install remaining panels of first course as described in steps 3 through 5.

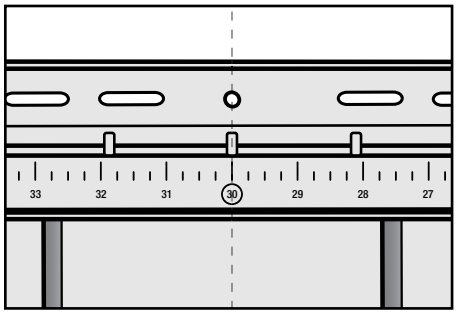


figure 5

Second course

7. Cut 30″ off of the right side of the T5 shingle at indicator 30, which is located on the hanger below the nail slots, cutting straight through the panel (figure 5). Drill a 3/16″ hole in the center of the nail hem and nail siding through this hole to control direction of expansion and contraction. Another option is to nail each end of a nail slot located at the center of the panel.
8. Set the spacing using the PanelThermometer and temperature indicator lines and repeat steps 4-6.

Third course

9. Continue to stagger panel courses according to steps 1 and 7, alternating each time to ensure a random shingle pattern up the wall.

Note: Care must be taken to not align the shingle separation when installing on a gable end. Do not follow the full, -4", -30" pattern in the gable.

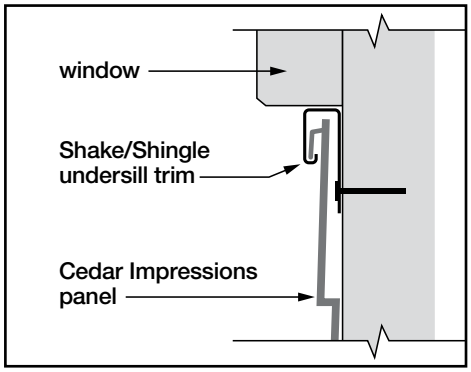


figure 6

Installing under a window or opening

Install undersill trim. Cut the panel to fit under the window. Drill a 3/16″ hole in the center of the nail hem. Using a snap lock punch, raise tab faces on the outside of the panel 1/4″ from the trimmed edge, 6″ apart. Lock the panel into the previous course, and center nail the siding through the 3/16″ hole drilled earlier. (Center nailing controls the direction of the panel's expansion and contraction.) Lock the panel into place (figure 6).

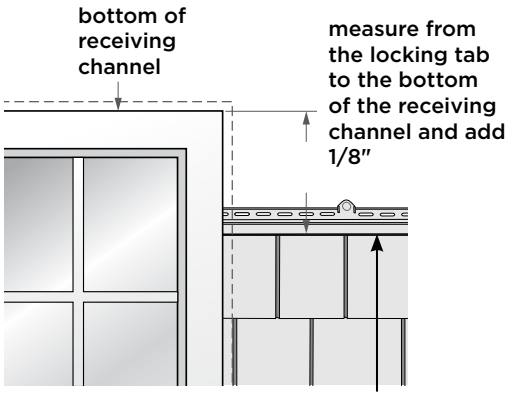


figure 7

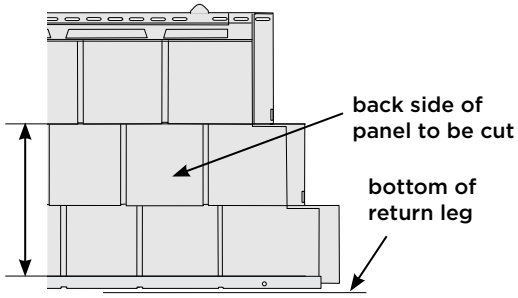


figure 8

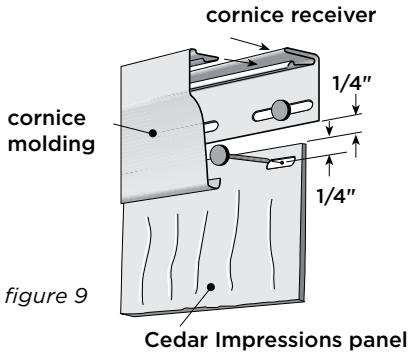


figure 9

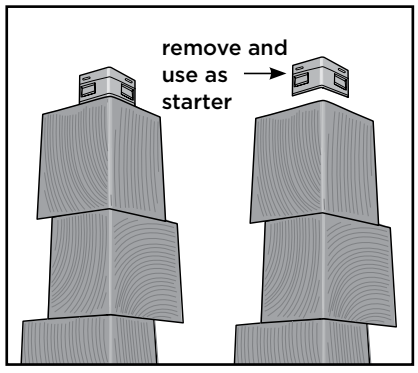


figure 10

Installing Over a Window or Opening

Cut the panel to fit over the window by measuring from the locking tab of the previous row to the bottom of the receiving pocket (figure 7). Add 1/8" to this measurement. Turn the panel over and, using this measurement, measure from the bottom of the return leg (figure 8).

Cut the panel to this dimension. Install the cut panel by positioning the panel over the window and into the receiving pocket. Lock the cut panel into the previous course by pushing in and up. The cut edge should be 1/4" below the top of the receiving pocket.

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, 16" apart. Nail off the top course and snap the cornice molding into the cornice receiver (figure 9).

Installing Mitered Offset Cornerpost

Before applying siding and accessories, make certain the substrate is watertight. To be properly protected from precipitation, make sure you have properly flashed the substrate so that it sheds water outside the siding. The siding and accessories alone are not meant to be a watertight barrier.

For the best appearance and easier installation, we suggest you install the Mitered Offset Cornerpost as you move up the wall. If you prefer, you can install Mitered Offset Cornerposts after the siding has been installed.

1. Remove nail hem from cornerpost as shown in figure 10 and use as your starter. Install fastener through each nail hole. Note: save the corner that was cut for finishing final course.

2. Install the first Cedar Impressions panel 2-3/4" from the edge of the outside wall (figure 11).

3. Once the panel has been fastened, hook the corner piece over the siding, making sure the corner piece is locked into the nail hem starter (figure 12).

4. Nail through the top two slots of the cornerpost.

5. Continue installing the corner pieces as you move up the wall (figure 13).

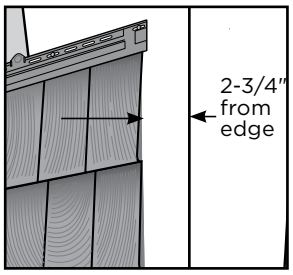


figure 10

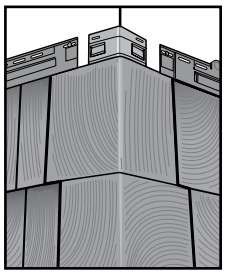


figure 11

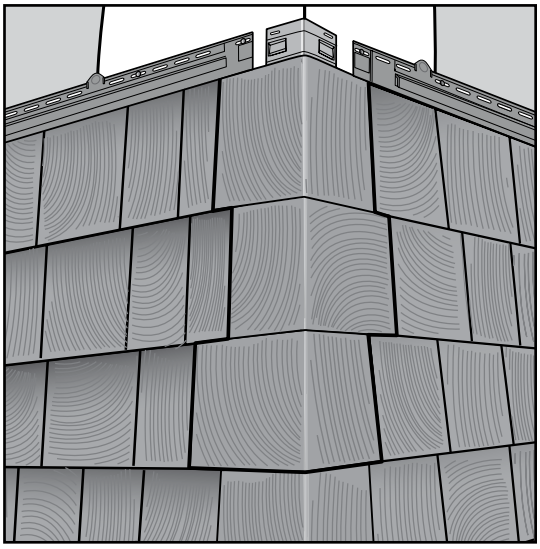
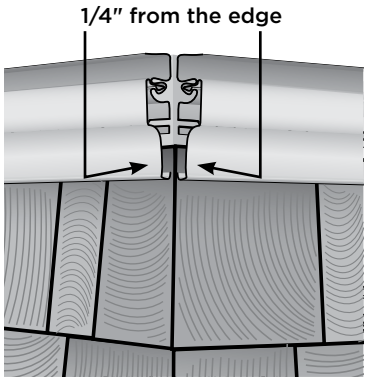


figure 12



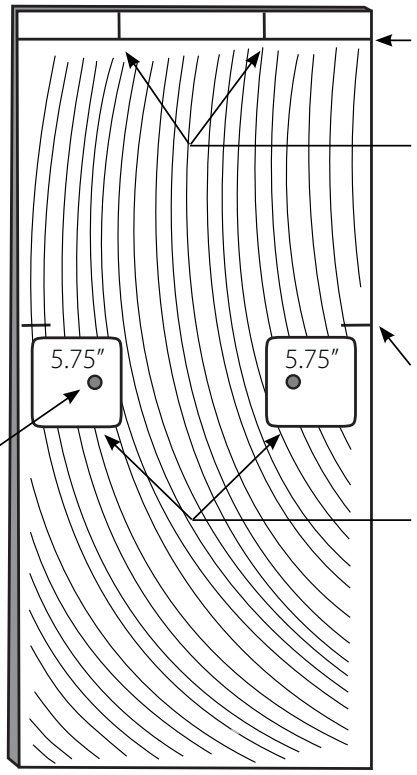
6. When you reach the top panel, use the cornerpost that was cut previously to create the starter course and cut this piece to length and nail it with a color matched finish nail. Measure from lowest butt edge of the last panel installed to the cornice receiver. Subtract 1/4" from measurement and cut your corner to that length. Leave 1/4" between the top corner piece and the cornice receiver.

If you finish the top course of Cedar Impressions siding with cornice molding, you should also install Vinyl Carpentry Cornice Cap to finish the installation of the Mitered Cornerpost.

Individual 5" Sawmill Shingles

Features of Cedar Impressions Individual Shingle Siding

There are seven different shingle widths that vary from 4" to 8" (widths are engraved within the staple zone). Shingles are 12" long and required exposure is 5" (+/- 1/4"). Installation is made simpler with these easily identifiable features marked on the front the shingles.



Starter 1/2" Offset
Align with top of first course shingles

Shingle Gap Zone
Overlapping shingle gap must fall between upper vertical marks and Fastener Target Zones (1-1/2" minimum from shingle edge)

Course Hash Marks
Align marks to top of prior course to assure 5" exposure

Fastener Target Zone
Fastener must be applied within the recessed area. 2 fasteners per shingle are required

Pre-formed Holes
For hand nailing application

Before Installing

For installation temperatures ABOVE 40°F, use pneumatic stapler

For installation temperatures BELOW 40°F, hand nail ONLY

DO NOT USE pneumatic nailers, USE pneumatic staplers

Important

Before you begin, take the time to read this entire guide to clearly understand the requirements and steps to follow for proper installation.

Note: Handle shingles carefully to avoid scuffing due to mishandling.

Cedar Impressions® Individual Shingle products are not designed for roof application. They are designed solely for installation on vertical surfaces. The shingles must be installed over a solid flat substrate with nail holding strength such as plywood or OSB (minimum 7/16" thick). The wall itself must be flat as the shingles will follow the undulations in the wall.

Building codes and regulations vary throughout the country. Be sure to check with your local code official or governing body for building requirements in your area.

When cutting Cedar Impressions siding, use a 40-tip carbide blade mounted in the standard (not backwards) position. Using this technique will reduce burring; it does not gum up the saw; and the blade stays sharp longer.

Note: Check with your local code official or governing body for the building requirements for fasteners in your area.

Preparing Wall Surfaces

The key to successful siding application is proper preparation of the wall and nailing surface. It is essential that you work over a smooth/flat nailing surface. The more level and even the wall surface, the better the finished installation will look. Shingles must be installed over a solid substrate such as plywood or OSB.

Make sure sheathing is fastened securely to studs. If you're planning to use a conventional house wrap or building felt, apply according to the manufacturer's recommendations. In all cases, however, install the products so they are secured firmly to the substrate so that they provide a smooth, even surface for the final siding installation.

Individual Shingles are exterior cladding; they are not a complete weather resistant barrier. Before applying siding, make certain the substrate is watertight. In order to be protected from precipitation, the substrate may need to be properly flashed around areas such as windows, doors, other openings and corners so as to shed water to the exterior. Refer to CertainTeed Installation Guide for proper flashing around windows. The siding alone is not meant to be a watertight barrier.

Tool and Fastener Requirements

Tools required:

- Hammer
- Tape measure
- Square
- Chalk line
- Level
- Utility knife
- Shears
- Chop saw with sharp, 40-tooth carbide blade
- Air compressor
- Pneumatic stapler

NOTE: Check with your local code official or governing body for the building requirements for fasteners in your area.

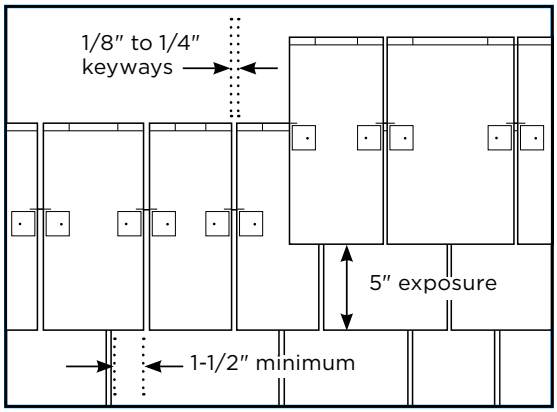
Fasteners

CertainTeed requires the use of stainless steel or other equally corrosion-resistant fasteners. Failure to do so may lead to early corrosion or staining on the shingle surface which is not covered in the warranty.

Staples:
- Stainless steel staples with 7/16" crown, minimum 16 gauge, minimum 1-1/2" long

Nails:
- Stainless steel or hot dipped galvanized roofing nails minimum 1-1/2" long, with minimum head diameter of 5/16"

Screws:
- Use stainless steel #6 (bugle or truss) head 1-1/2" long screws. (for use with mitered outside corner)



Exposure and Keyway Spacing

Use a 5" exposure. Hash marks provided on the front of the shingle are aligned to the top of the prior course to aide in maintaining the proper exposure.

Course exposures can be adjusted slightly up or down (+/- 1/4" max) to achieve a full exposure over and under wall openings such as doors, windows, trim, etc. The allowable adjustment to the shingle exposure will be limited by the trim style and thickness. Creating a story pole is recommended for this type of installation.

Recommended keyway spacing is 1/4" between shingles (1/8" minimum). The edges should not touch. The keyway joints allow for expansion and prevent buckling. The keyway spacings on consecutive rows must be offset a minimum 1-1/2" to ensure fasteners of under course are not visible.

Cutting Shingles

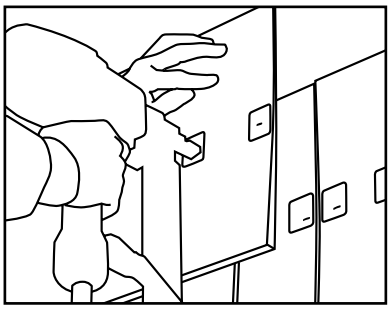
Shingles can be easily cut with a utility knife or table saw. When filling a space with a partial shingle, avoid using shingle widths less than 2". Partial width shingles need to have at least two back support ribs.

Utility knife: Using a straight edge press firmly down with utility knife to cut through shingle. Avoid cut scoring and folding the shingle as this will cause a stress-whitened edge, instead continue to cut directly through the shingle.

Saw cuts: For a precise cut, use a saw equipped with a sharp, 40-tooth carbide blade mounted in the standard (not backwards) position.

Ledger Board Section

Use of a ledger board is acceptabel providing it is not fastened through the previoulsy installed shingles. Use the ledger board from the top down, snapping a chalk line 5" up from the top of the last course and attach the ledger board above this line. Then lay out shingles on top of the ledger board to check color/ spacing of shingles versus the previous course, and then move them down and install them one by one.



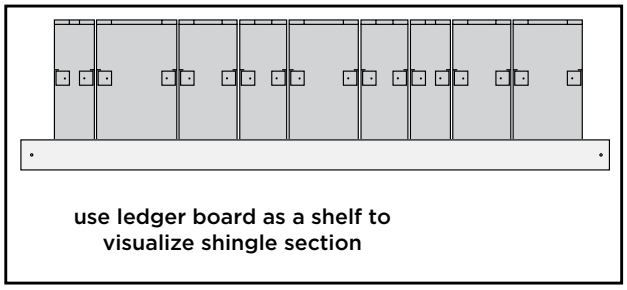
Fastening Shingles

Fasten within the fastener target zone using two staples per shingle. An alternative is to hand nail the shingles using a siding or roofing nail through the pre-formed holes with the staple zone. REMINDER: PNEUMATIC NAIL GUNS ARE NOT APPROVED FOR INSTALLATION.

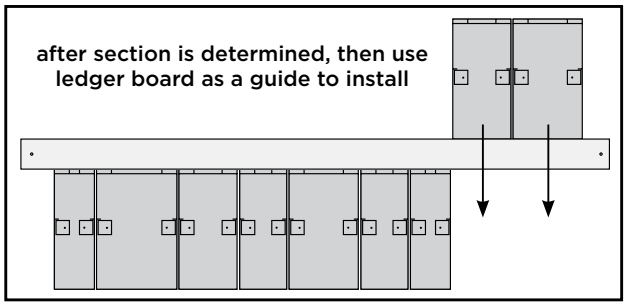
When using a pneumatic stapler, drive the staple horizontally in the fastener target zone. Fasteners should be driven flush with the surface of the shingle. Underdriving or overdriving fasteners will affect the integrity of the installation. Depending on the manufacturer, stapler adjustments may be required to meet the driving requirements. **We recommend the use of a test piece to adjust staple depth.**

For partial shingles where the staple zone is removed (i.e. – finishing the top course), pre-drill holes and fasten with appropriate length nails.

Note: For installations below 40 degrees you must fasten the shingles using nails in the pre-formed holes in the stapling zones. Shingles pneumatically stapled in these temperatures may crack due to cold temperature and such cracking is NOT covered by the product limited warranty. Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.



use ledger board as a shelf to visualize shingle section



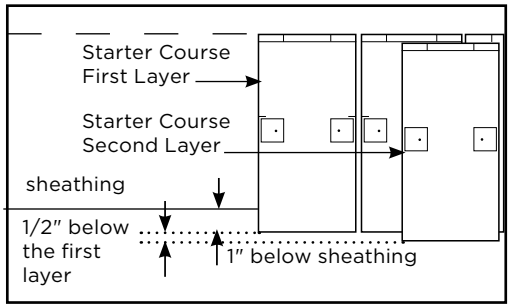
Mixing Variegated Color Shades

Avoiding Patterns

Note: Color shades are boxed separately. When using multiple color shades, you must mix color shades and shingle widths to achieve a natural appearance.

To ensure your installation has a natural appearance you must be sure to mix shingle widths and color shades randomly on the wall. It is suggested to place an equal amount of shingles from each shade of color into a separate working bin. Pull shingles from the bin so that color and widths of shingles are distributed across the wall and no repeating patterns are created. Shingle widths: 4", 4-1/4", 4-1/2", 5", 5-3/4", 6-3/4", 8"

Installing the Starter Course

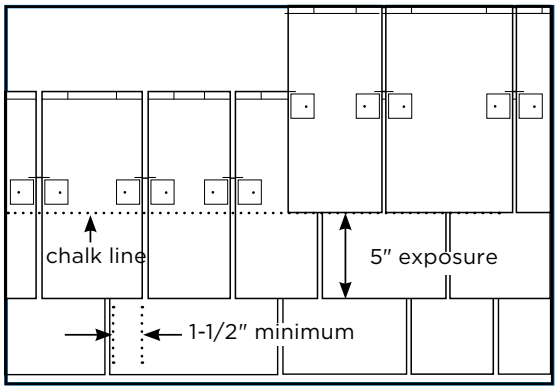


Strike a level line around the house to establish a straight reference line to guide the positioning of the starter course of siding. The starter course must extend at least 1" past the sheathing to allow for proper drainage.

The starter course has two layers of shingles. Use full shingle lengths (12") for the first layer. The starter offset line at the top of the panel will aide in aligning the second layer so it extends 1/2" below the first layer.

Start at one end of the wall varying shingle widths and color shades (if using more than one color shade) as you progress across the wall.

Note: The butt line of the lowest course must allow a minimum spacing of 1" from decks, patios, rooflines and other hard surfaces. Consult local building codes for minimum spacing of cladding from grade.

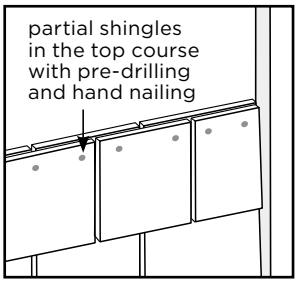


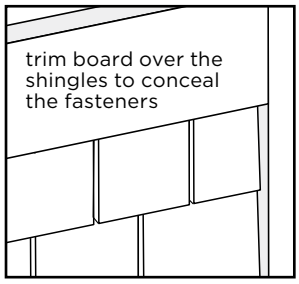
Installing Remaining Courses

Install remaining courses in a single layer on the rest of the wall according to the 5" exposure by aligning the course hash marks on the shingle you are installing with the TOP of the previous course. Snapping additional chalk lines will help keep your courses straight and level.

Shingles come in various widths, so make sure that the keyways are not aligned over subsequent courses. Keyway spacing is a minimum 1-1/2" from the shingles in the previous course.

NOTE: Finished appearance is improved when you avoid using cut partial shingles in the wall infill. It is best to butt the cut edges into window, door and corner trim boards.



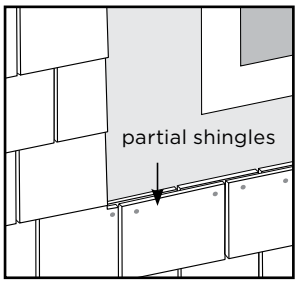


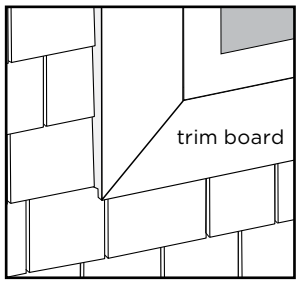
Accessories and Trim

We recommend the use of Restoration Millwork cellular PVC trim. If pocketed accessories are desired, a 1" minimum pocket height is required to cover the built-up shingle projection. Shingles must maintain a 1/16" minimum clearance from any trim edge.

Finishing the Top Course

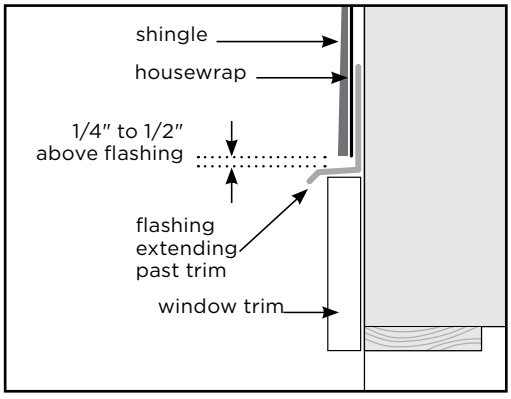
To finish the top course of the siding, apply a trim board over the shingles to conceal the fasteners. First determine the shingle length required to fill the remaining space. Be sure to plan for trim width, fastening and shims if used. Two fasteners are required to secure the shingle to the wall. Partial shingles with no staple zone will require pre-drilling and hand nailing.





Under a window or opening

As above, apply a trim board to conceal the fasteners. Partial shingles with no staple zone will require pre-drilling and hand nailing.



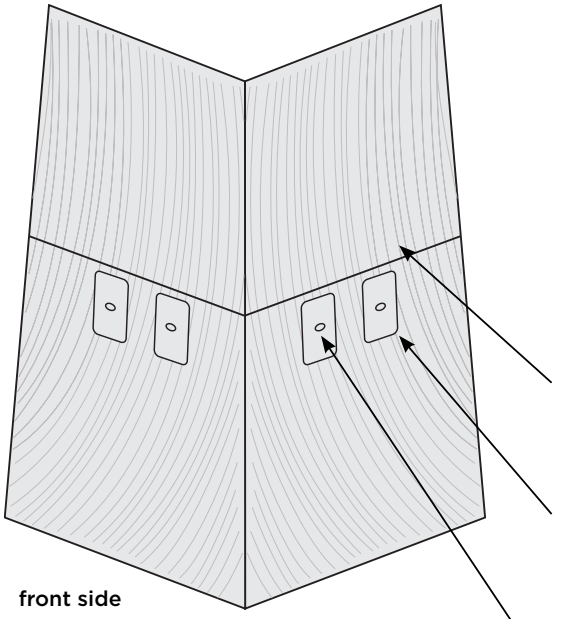
Over a window or opening

Shingles installed above window and door headers must be spaced 1/4" to 1/2" above the flashing to ensure proper drainage.

Gables and at the Rake

Similar to the top course under a soffit or window, cut shingles to appropriate angle, pre-drill and fasten using at least two staples or nails. Apply a trim board over the shingles to conceal the fasteners.

Individual 5″ Sawmill Shingle Mitered Corner Installation Instructions



front side

Features of Cedar Impressions
Individual Shingle Mitered Corner Piece

The mitered corner accessory is used to create an authentic woven shingle corner appearance. Staggered coursing requires the corner shingles to be installed at the same time as the infield shingles. Some trimming of the infield shingles will be necessary to maintain the correct keyway spacing. For the best natural appearance, be sure to mix all three color shades randomly up the corner and on the wall (if mixing shades).

Course Hash Marks

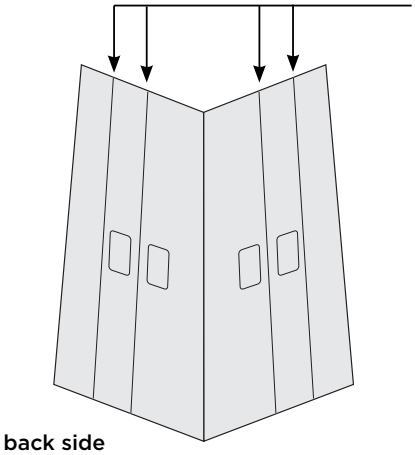
Align marks to top of prior course to assure 5″ exposure

Fastener Target Zone

Fastener must be applied within the recessed area. Minimum of 2 fasteners, one on each side per shingle are required.

Pre-formed holes

For screw application.



back side

Trimming Ribs

For guiding trims.

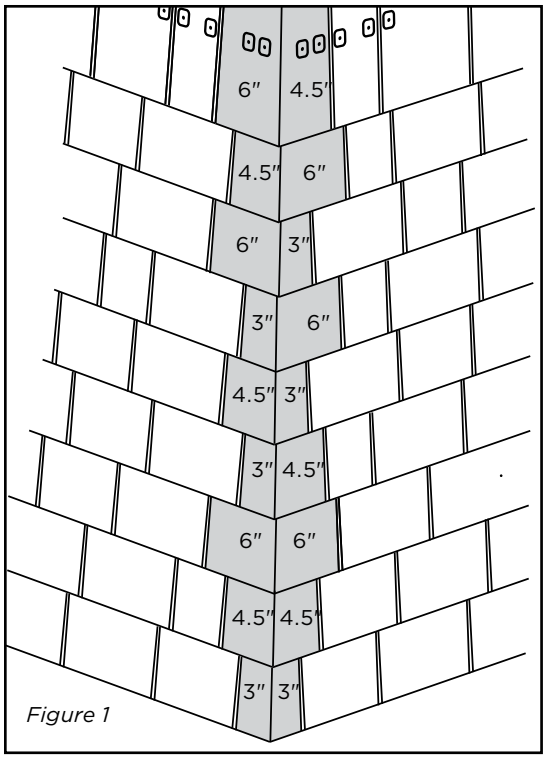


Figure 1

Recommended Stagger Configuration

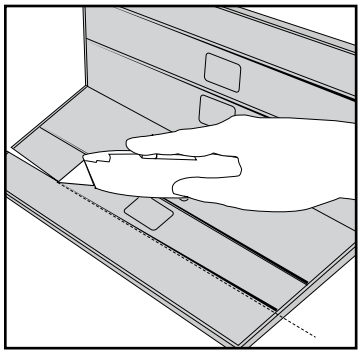


Figure 2A

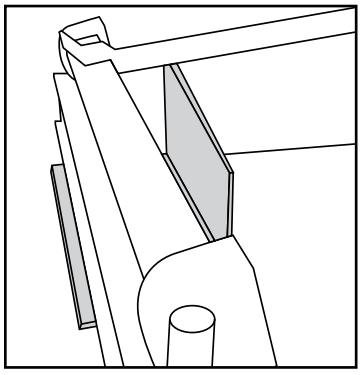


Figure 2B

Creating the Offset

The corners are designed with a trimmable face width that allows up to 9 different offset configurations to be created. No measuring is required, the ribs on the backside of the corner are spaced for 3″, 4-1/2″ and 6″ face widths.

Cut Corners to Width

Cut shingle widths to size using the edge of the rib on the backside of the corner. Cut along the outer edge leaving the rib intact. (see Figure 2A). With a utility knife make several passes along the rib until the blade cuts completely through the part.

Another option is to use a guillotine-type shear such as the Bullet Tools Siding Shear. (Figure 2B).

DO NOT score and fold the shingle as this will cause a stress-whitened edge.

Fastening Shingle Corners

Fasten within the fastener target zone using one fastener minimum per side to secure the corner to the wall. Screws are the preferred fastener for corners as it is easier to adjust a corner if it moves during fastening. Use stainless steel #6 (bugle or truss) head 1-1/2″ long screws. Use holes formed in the staple zone to position screws prior to installation (Figure 3A). Staples or nails may also be used, but adjustments to misaligned corners will be difficult (Figure 3B).

PRO TIP: ***Not all walls are perfectly square. Screws can provide temporary assistance. Screws can be used as an alternative to staples or nails. Screws offer flexibility in making adjustments to the corner position to get the best appearance prior to permanently fastening with nails or staples. Use stainless steel #6 (bugle or truss) head 1-1/2″ long screws.***

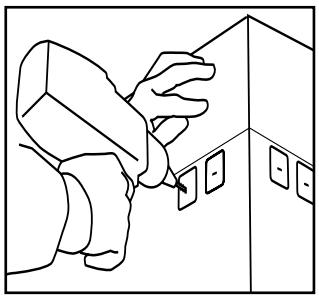


Figure 3A

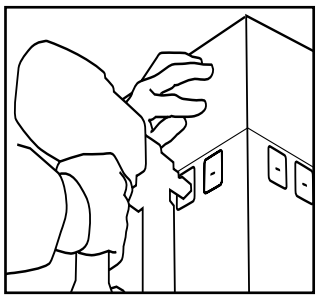


Figure 3B

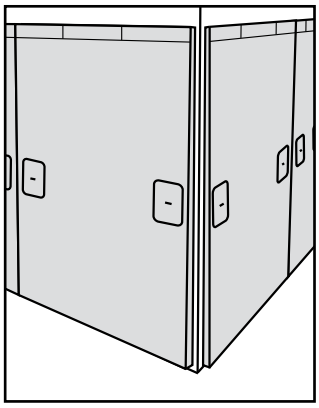


Figure 4

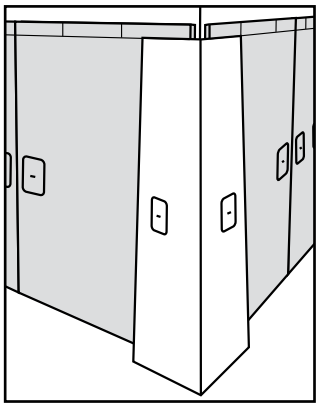


Figure 5

Installing the Starter Course

Run the first layer of the starter course all the way to the outside corner (see gray shingles in Figure 4). Align the top of the first corner piece to the starter 1/2" offset line and secure to wall (Figure 5).

Installing Remaining Courses

Work the corner weave up both sides at the same time as the adjacent shingle pieces are coursed. Continue to work toward the opposite corner of the wall (Figure 6). A partial shingle may be necessary to complete the course (see Figures 7). Maintain correct width, exposure and keyway spacing when fitting partial shingles into the infill (Figure 8).

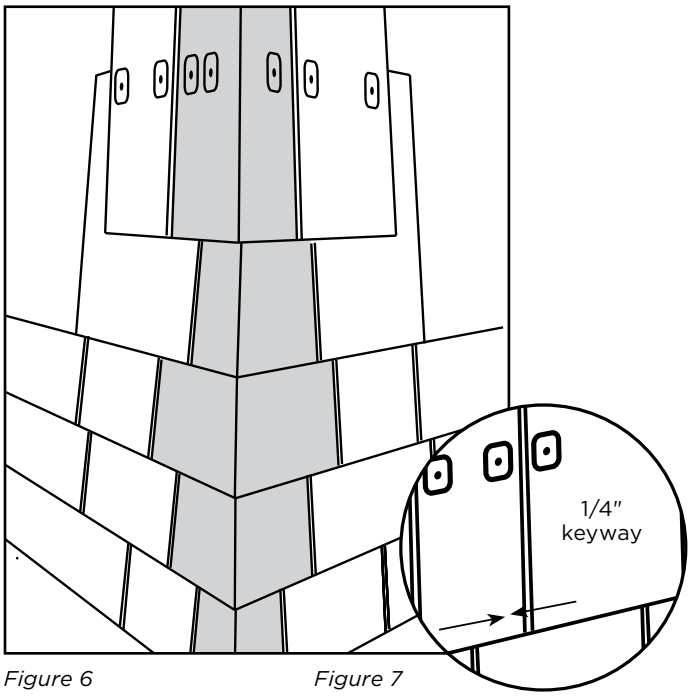


Figure 6 *Figure 7*

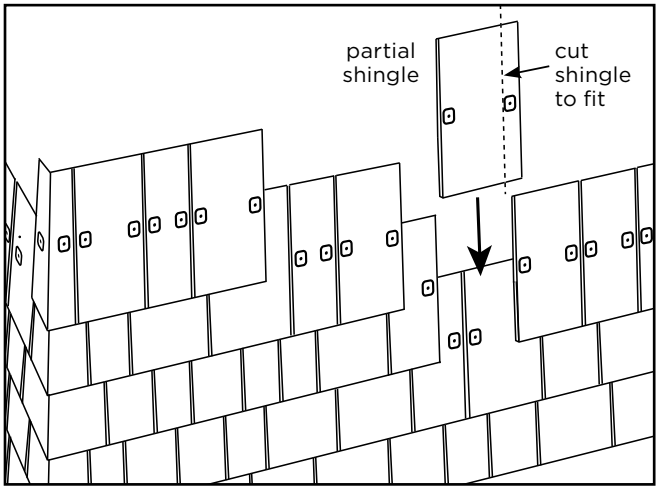


Figure 8

Northwoods S7" Shake and Shingle Siding

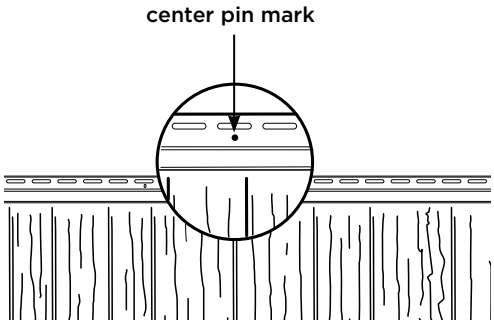
Overview

The installation of a Northwoods Shakes or Shingles panel is unique in that the lap joint is hidden in the ribs between the shake or shingle pattern. Positioning the laps in the rib area requires that special installation procedures be followed to maintain product performance and aesthetics.

Panels must be installed from right to left. The left panel will overlap the right panel.

Factory laps

All lap joints are cut at a predetermined point on the panel during the manufacturing process. All male laps must be factory cut. Female laps may be field cut using the gap. However, do not cut along the edge of the gap; leave 3/16" of the gap for the overlap.



NOTE: Do not drive center-pin nails tight. Leave 1/8"–1/16" between the nail head and the panel to allow the panel to move freely during normal expansion and contraction.

Center pinning

Vinyl siding expands and contracts as the temperature of the panel changes. To maintain the proper rib width at the lap joint, you will have to limit the movement of the panels. To do this, you must center pin each panel. Center pinning prevents the rib width at the lap joint from becoming too wide or too narrow.

Center pin each panel regardless of length

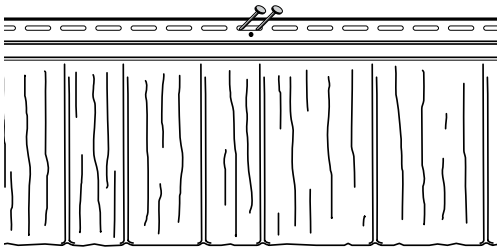
Install the siding according to one of the following methods, depending on whether the substrate is or is not fully nailable.

NOTE: The siding must be applied over a rigid sheathing that provides a smooth, flat surface or an underlayment (such as wood, wood composition, rigid foam or fiber sheathing) that is no more than 1" thick. Do not apply siding directly to studs. See pages 30-35 for additional information about proper sheathing and substrates.

Lock the right side panel into place on the starter strip. Allow room for expansion and contraction in all accessory pockets:

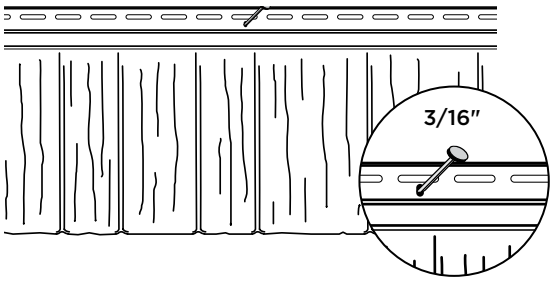
- 1/4" if the ambient temperature is above 40° F.
- 3/8" if the ambient temperature is below 40° F.

Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.



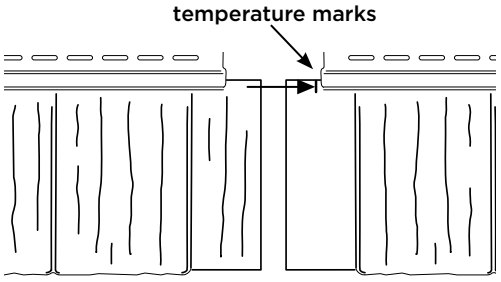
Locate the mark at the center of the panel. Use the nailing slot closest to this mark. Center pin the panel in this location using one of the following options:

1. Install a nail on both ends of the same nail slot.
2. Drill a 3/16″ diameter hole through the nail hem and substrate, and place a single fastener through this newly drilled hole.

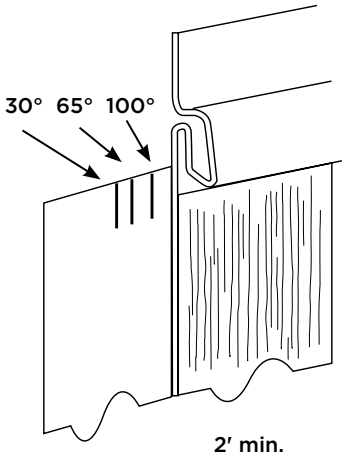


Apply fasteners at nail slots aligned with studs a maximum of 16″ apart. Leave adequate room between the fastener head and the nail flange for expansion and contraction (approximately 1/16″ to 1/8″).

Do not hard nail these fasteners.



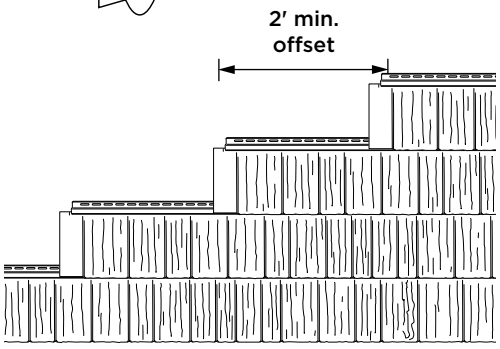
Install the next panel to the left of the installed panel. Lap this panel over the installed panel, positioning the right edge of the panel to the appropriate temperature mark, which is located in the factory notch area.



If the ambient temperature is less than 45°F, lap the panel to the first (30°) mark.

If the ambient temperature is between 45°F to 80°F, lap the panel to the second (65°) mark.

If the ambient temperature is greater than 80°F, lap the panel to the third (100°) mark.



Fasten the panel according to the procedure described earlier.

Continue the first course of siding, remembering to center pin every panel.

Start the next course of siding from the right side, repeating the earlier steps. Offset the laps from course to course a minimum of 2 feet.

Installing CedarBoards Insulated Siding

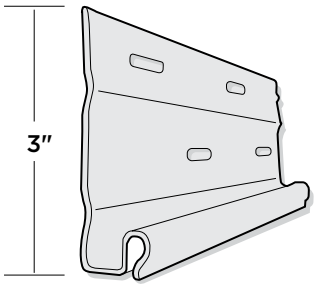
CedarBoards Insulated Siding will help even out wall surfaces. However, to minimize extremes in the peaks and valleys of uneven walls, you may have to repair the underlayment. Make sure the substrate is smooth, flat, and weather tight. If the surface is significantly uneven, apply 1/4" (minimum) foam sheathing before installing CedarBoards Siding. If the wall surface is smooth, use standard underlayment practices.

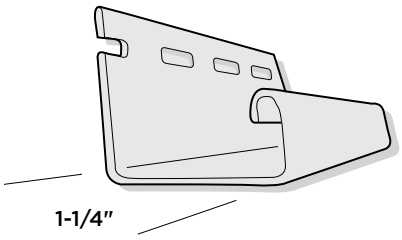
Horizontal Siding

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.





Starter strips

Insulated siding is thicker than hollow vinyl siding. To accommodate the 1-1/4" thickness, we recommend that you use the CedarBoards starter strip.

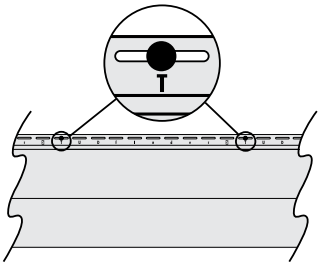
An alternative method of starting CedarBoards is to use 1-1/4" J-Channel in place of starter strip to receive the bottom edge of the panel.

Fastening

Use 2" (minimum) corrosion-resistant nails to penetrate the wood substrate at least 1-1/4". Drive the nails until there is 1/16" between the nail head and the nail flange. ***Also see Nail Spacing and Product Expansion and Contraction on pages 37-38.***

Center the nail in the slot and drive the nail straight in. Do not drive nails at an angle. Space nails 16" o.c.

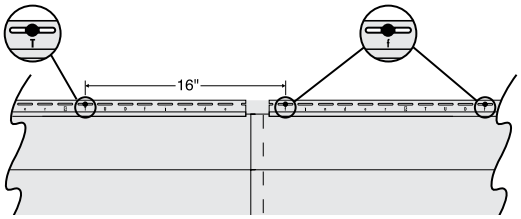
STUDfinder Installation



The STUDfinder™ Installation System combines precisely engineered nail slot locations with graphics to create a siding panel that is designed to help ensure quick, accurate and secure installation. The nail slots are positioned 16" on center to allow for alignment with studs, with STUDfinder graphics centered directly under each nail slot.

Locate the first stud and fasten in the center of the nail slot. Ensure that nail penetration is at least 1-1/4" into framing members 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," so will the succeeding studs in 16" o.c. applications (every 10th slot).

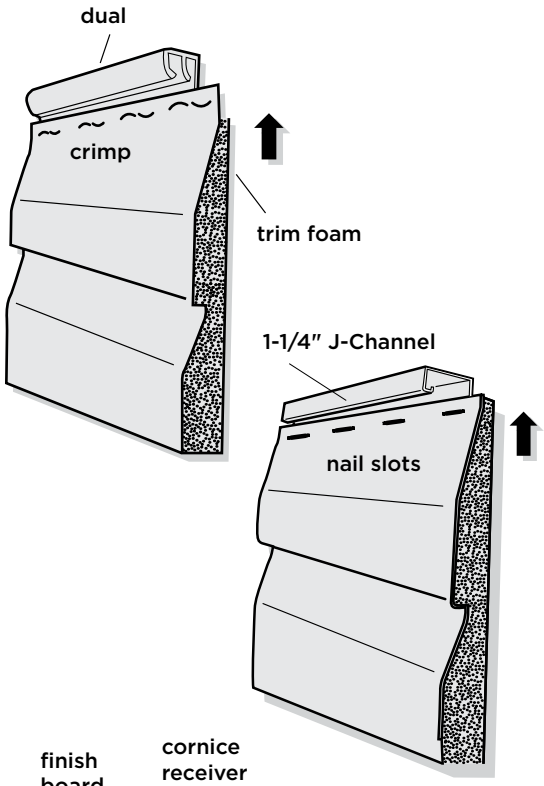


When installing CedarBoards XL 16'8" panels, the succeeding studs are at every 8th slot. When you apply the next panel, adjust the overlap, as necessary to line up with studs and repeat the steps above.

NOTE: CedarBoards panels must overlap 1" to 1-1/2". Consequently, the overlapping panels may not use the same letter as your initial panel.

Fitting into trim pieces

Around windows, doors, and other openings, use 1-1/4" CedarBoards accessories. When the outside temperature is higher than 40° F, allow a 1/4" gap between the siding and the trim. When the temperature is less than 40°F, leave a 3/8" gap. For CedarBoards XL, allow a 3/8" gap between the siding and the trim when the outside temperature is above 40°F; 1/2" when the temperature is below 40°F.

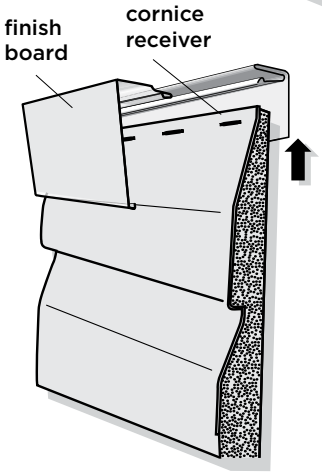


Around windows and doors

Because insulated siding is thicker than hollow vinyl siding, windows, doors, and other openings may have to be built out to avoid looking recessed. Use wood shims and either aluminum trim coil or vinyl lineals to build out openings. In some cases, the foam backing in CedarBoards siding will create enough stiffness to span over or under a window without additional support.

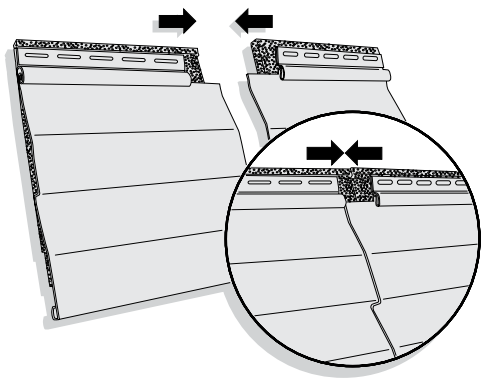
If you are using utility trim or dual undersill trim to secure the panel, shim the trim to accommodate the thickness of the siding panel. Remove the top 1" of the foam backing so the top of the panel fits into shimmed trim. Use a snap lock punch to raise tabs every 6" to lock the panels into the trim.

When you cut a siding panel to fit around an opening, use a nail slot punch to create additional nail slots. Fasten through these additional nail slots to secure the panel. Make sure the face of the J-Channel or other trim will cover the nail slots.



Under soffit

Secure the last course of siding under the soffit with utility trim and a furring strip, dual undersill trim, cornice receiver with finish board or 1-1/4" J-Channel. You will have to create tabs or nail slots as described above. We recommend the cornice receiver with finish board, as it provides an attractive look and eliminates the need for furring strips.



Overlapping panels

On factory-cut panels, the foam is set back from both ends of the panel. The adhesive begins 2″ back from the end of the foam. To correctly overlap the panels, slip the vinyl edge of the bottom portion of the seam between the foam and the vinyl panel.

For standard length CedarBoards, slide the panels together until the foam ends touch or you achieve a minimum overlap of 1″. The maximum overlap should not exceed 1-1/2″ because exceeding an overlap of 1-1/2″ can compromise the appearance of the lap.

For CedarBoards XL:

- Above 40°F, overlap the panels 1-1/4″ to 1-3/4″
- 40°F and below, overlap panels 1″ to 1-1/2″ and leave a 1/4″ space between the foam

TIP: For ease of handling extended length product, we recommend carrying the panels on edge, not flat. Two-person installation is also suggested.

Measuring CedarBoards

When lapping two factory laps, you will often butt the panel foam and not lap 1″ as in standard vinyl applications. This mandates a different approach from standard practice when you measure CedarBoards panels.

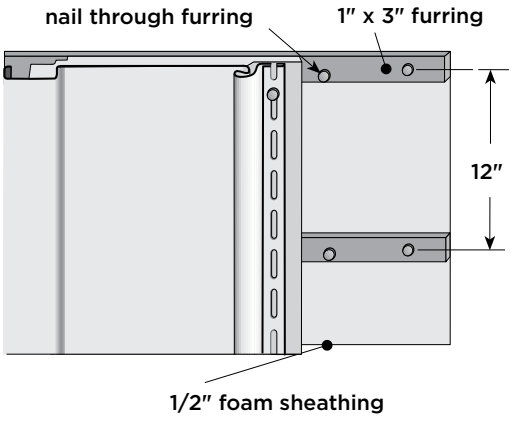
When filling in a piece to end a course of siding, hold the tape tight into the receiver of the corner post, J-Channel, etc., and measure the distance to the foam of the existing piece already hung. Subtract the proper amount for expansion and contraction, depending on the temperature.

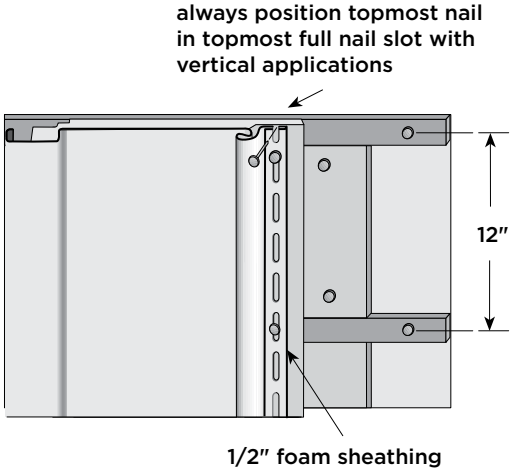
As you measure on the full piece to be cut, measure from the foam on the factory end that butts to the existing piece to your desired measurement. This will ensure a butt fit on the foam and the proper room in the receiver for expansion and contraction.

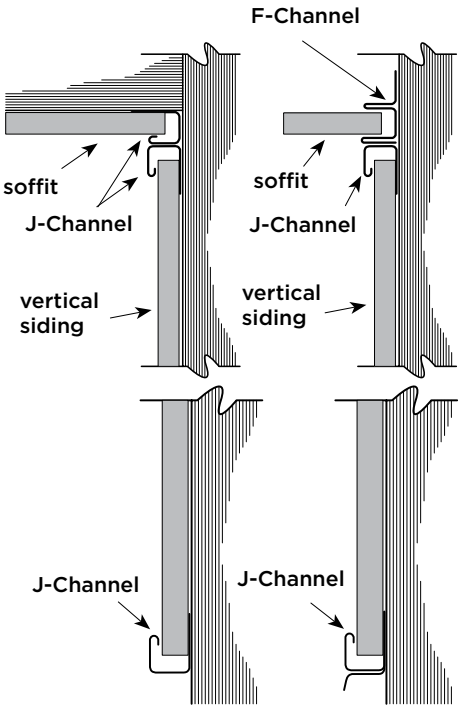
Creating a field lap

For best appearance, lap factory ends only. If you must lap a non-factory end, you will first have to remove the foam and adhesive.

Cut the foam back approximately 3/4″ on the field cut, fabricate the top and bottom panel end notches, and always use a factory notch as the overlapping panel. Place the field-cut end into the factory end.







Insulated Vertical Siding

NOTE: Never install vinyl siding over open furring strips or studs. Always check with your local building code official. With vertical siding, however, you may have to complete an extra step to provide solid nailing points along the vertical edge of the siding panel. The need for this added step depends on the type of substrate used and the nature of the construction project.

With new construction or remodeling using plywood or wood composite, there are no additional steps. You can nail into plywood and wood composite substrates at any point as long as you do not exceed 12" on center.

In new construction using rigid foam or fiber sheathing, you must install solid wood nailer strips horizontally to studs before applying sheathing. Use 1" x 3" wood furring positioned 12" on center. For further information regarding applying wood furring over stucco, please refer to page 34.

When remodeling over existing wood siding, you must apply rigid foam or fiber sheathing, shimming if necessary to create a level surface. When remodeling over brick, block, stucco or irregular wall surfaces, apply furring strips horizontally to create a level surface; then apply rigid foam or fiber sheathing.

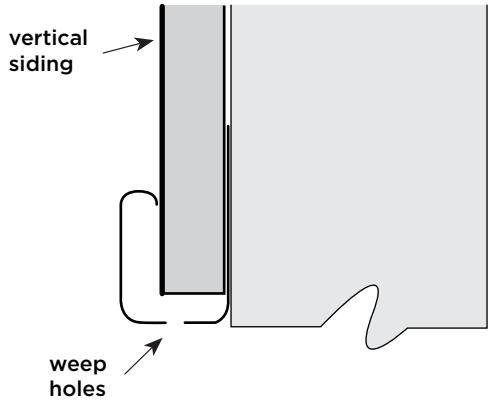
Installing Trim

When installing CedarBoards products, use specially designed 1-1/4" accessories at corners and around windows, doors and other openings.

Top and bottom J-Channel

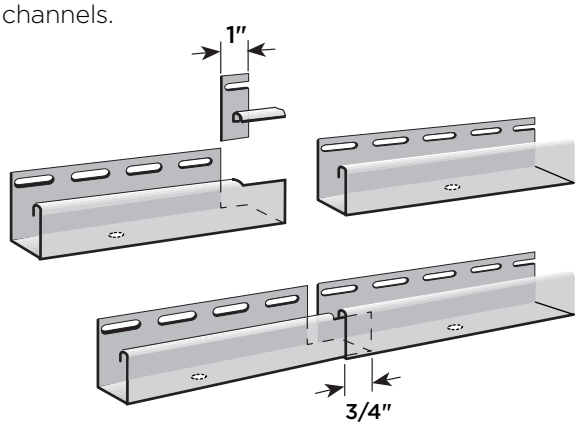
Unlike the preparation for horizontal siding, do not install a starter strip for vertical siding. J-Channel is used to frame the top and bottom of the vertical panels.

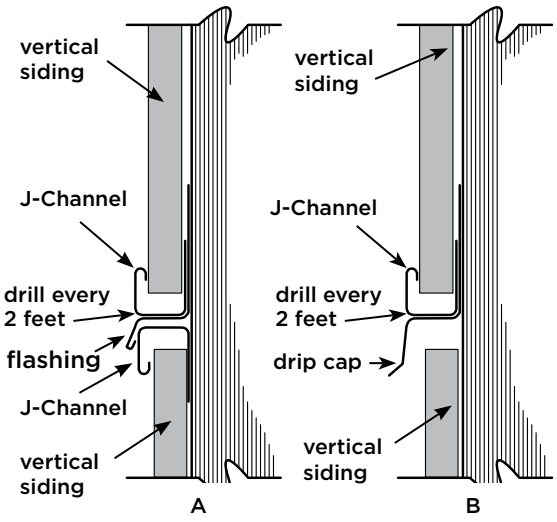
- Snap a base line 1" above the low part of the house. Apply 1-1/4" J-Channel along the top and bottom of the wall to receive the siding panels.
- Install the bottom J-Channel, and overlap the J-Channels 3/4". To do this, cut out a 1" section of the nailing flange and face return.
- Install inverted J-Channel along the top of the wall, under the eave. Leave a 1/4" gap between J-Channel and cornerposts. Overlap J-Channels 3/4" to allow for expansion.
- For water drainage, drill weep holes a minimum 3/16" diameter in the base of the J-Channel spaced every 24".



Soffit

If you are going to install soffit, you may want to install the receiving channels for the soffit at this point. The illustrations show alternative approaches for installing siding and soffit receiving channels.



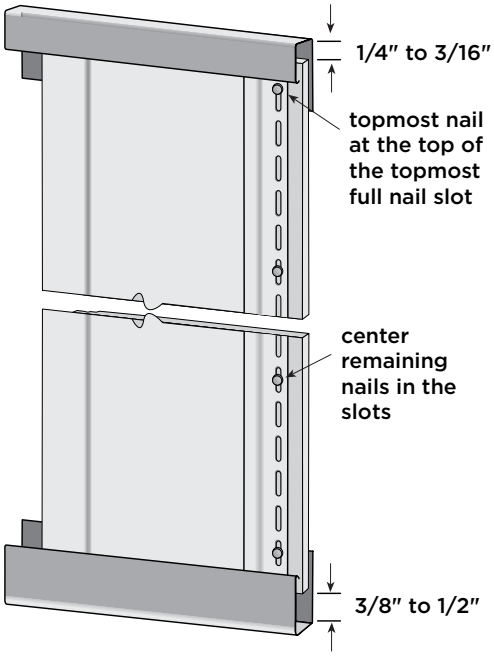


Options for transitions

If a wall requires more than one course of vertical siding or Board & Batten or if you are transitioning to another cladding, you can proceed in one of two ways:

- Option 1. Use two lengths of J-Channel, back-to-back, at the joint between the two courses (A).
- Option 2. Use a combination of one length of J-Channel and one length of drip cap (B).

Installing the siding panels



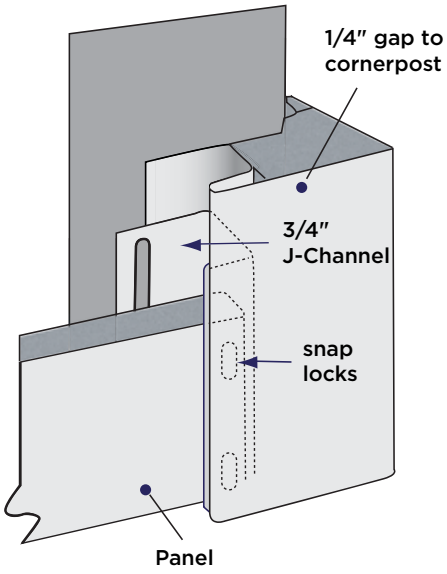
Plan the panel layout. Correctly installed vertical siding should have a balanced appearance. This means that if you were to draw a vertical line down the center point of a wall, you would have an equal number of panels to the right and left.

If you have to trim panels to fit, the end-most panels should be the same width. To do this, divide the space to be covered by the width of one panel over both ends of the wall. For example, if a wall required 25 full panels plus 10", you will need to rip cut two 5" lengths of panel to create partial panels for the end pieces.

Use 2" (minimum) corrosion-resistant nails to penetrate the wood substrate at least 3/4". Do not drive nails at an angle.

Do not drive nails down tightly. Drive nails until there is 1/16" between nail head and the nail flange.

Always position the top most nail at the top of the top most full nail slot. Center the remaining nails in the slots. Space the nails vertically 12" o.c.



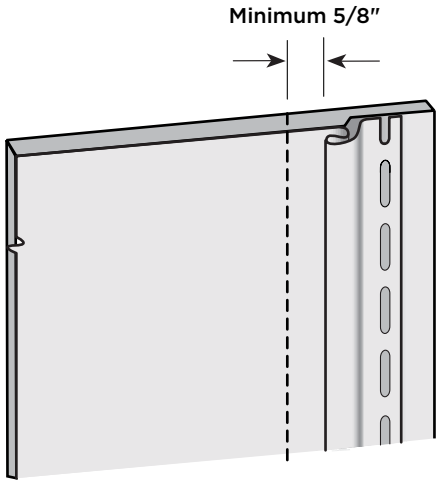
Fitting into trim pieces

Around windows, doors and other openings allow a 1/4" minimum gap between the siding and the trim. If an opening occurs near the lower end of a panel, be sure to allow room for downward expansion as described in the instructions.

Starting and finishing with partial panels

Cut the first of the partial panels.

- Mark the cut line by measuring from the nail hem edge.
- Rip cut the panel. Do not cut off the nail hem.
- Use a snap lock punch to create locking tabs 6" apart along the cut edge. In some cases (if the glue bead is too close from the cut edge), a portion of the foam backer may need to be removed in order to snap lock punch the cut edge.
- Before installing this partial panel into the outside cornerpost, install a piece of 3/4" J-Channel inside the 1-1/4" J-Channel to receive the partial panel locking tabs. Remember to allow 1/4" gap for expansion/contraction.
- Slide the cut edge of the panel into the J-Channel, making sure to engage the snap locks.
- Using a level, make certain this panel is plumb.
- Nail vertically every 12" following the fastening procedure for vertical siding.
- Install the next panel. Lock the panel into the preceding panel, and follow same fastening instructions for succeeding panels.



To finish the first course of the wall, rip cut the panel to size and snap lock punch locking tabs every 6" on the cut edge. Install a piece of 3/4" J-Channel inside the 1-1/4" J-Channel to receive the cut edge locking tabs.

NOTE: When necessary, cut panels to fit around doors and windows. When marking the cut, remember to allow for expansion. The starting and finishing procedure described above is also used when fitting partial panels around windows and doors.

NOTE: If you start with a full panel, create a starter piece by rip cutting the nail hem from a panel (minimum 5/8").

Installing CERTAplank Reinforced Siding

CERTAplank Reinforced Siding is a rigid, foam-backed panel that installs similar to standard vinyl siding, including the use of standard 3/4" accessories. Key differences are noted below:

TOP POINTS TO REMEMBER:

1. Use CERTAplank starter strip.

2. Each panel must have one end trimmed prior to lapping.

3. Each panel must be center pinned.

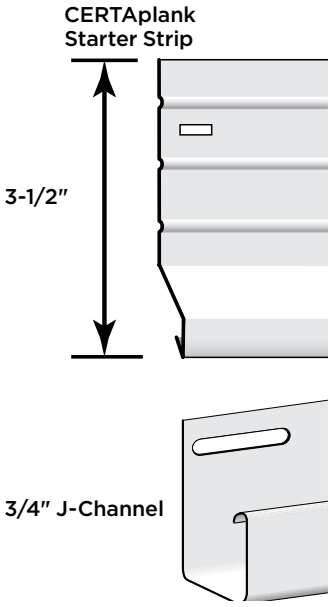
4. DO NOT butt foam edges when installing panels.

Preparing Wall Surfaces

The key to successful vinyl siding application is proper preparation of the nailing surface. CERTAplank panels must be installed over a smooth, solid substrate with nail holding strength such as plywood, oriented strand board or existing wood siding (minimum 7/16" thick). The more level and even the wall surface, the better the finished installation will look.

The steps involved in preparation differ for new construction versus remodel homes, so choose the instructions that pertain to your project (CertainTeed Installation Guide, CTS205).

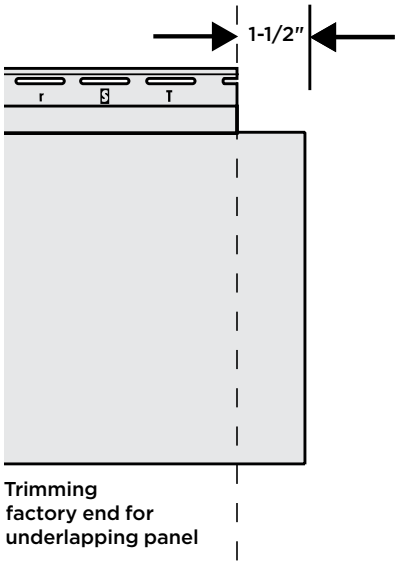
All weatherproofing needs completion prior to siding installation. Like all other vinyl siding, CERTAplank siding is not water tight.



Starter Strips

CERTAplank uses a specially designed CERTAplank starter strip to accommodate the foam and offset butt section.

An alternative method of starting CERTAplank is to use 3/4" J-Channel in place of starter strip to receive the bottom edge of the panel.



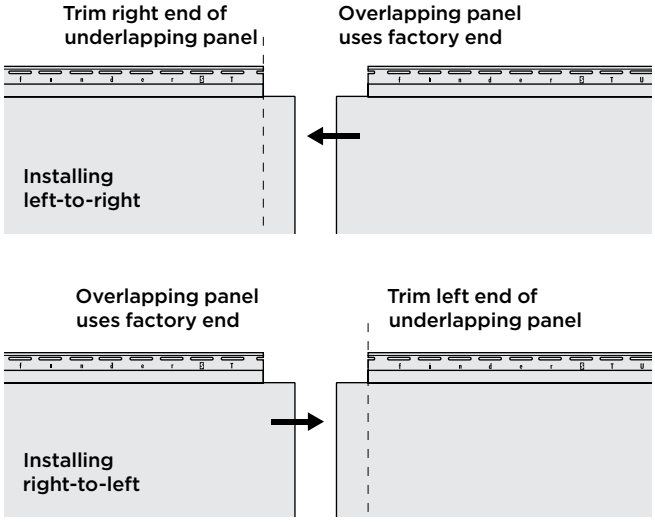
Trimming factory end for underlapping panel

Trimming the Factory End for Overlap

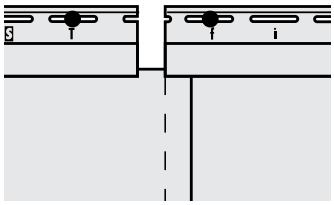
CERTAplank panels come with foam that is set back from both ends of the panel. **Prior to lapping panels, the factory end of the underlapping panel must be removed.** The underlapping panel MUST be trimmed at least 1-1/2". Overlapping panels MUST always utilize a factory end.

PRO TIP: Cuts are best made with a chop saw or snips.

Example: When installing left-to-right, the right end of each panel at an overlap will need to be trimmed 1-1/2" prior to installation.



Fastening



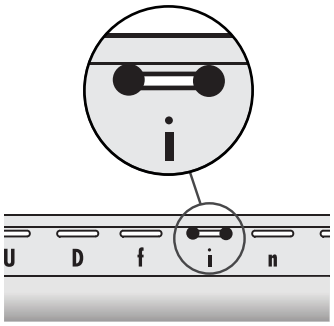
Detail of CERTAplank Overlap (note nailing on both sides)

Use 1-1/2" (minimum) corrosion-resistant nails to penetrate solid framing (such as wood sheathing and studs) at least 1-1/4". Drive the nails until there is 1/16" to 1/8" between the nail head and the nail flange. (Also see "Nail Spacing and Product Expansion and Contraction" chart below).

Position nails in the center of the nail slots. Nail spacing is 16" on center. **Also, nail in the center of the last available full nail slot above each side of a lap joint** to help control panel movement. Do not hard nail these fasteners. **Fasteners at lap joint do not need to penetrate a stud.**

Nail Spacing and Product Expansion and Contraction

Product Category	Max. Nail Spacing	Gaps to Accessories		Overlap	
		40°F or Greater	Less than 40° F	40° F or Greater	Less than 40° F
CERTAplank	16"	1/4"	3/8"	1"	3/4"



Center Pinning

CERTAplank Reinforced Siding differs from other foam-backed siding installation. Center pinning the panel is required to control expansion and contraction at the overlap.

Locate the center of the panel. Center pin the panel in this location by installing a nail on both ends of the same nail slot. **Center pin fasteners do not need to penetrate a stud. Center pin each panel regardless of length.**

IMPORTANT: Center pin each panel regardless of length.

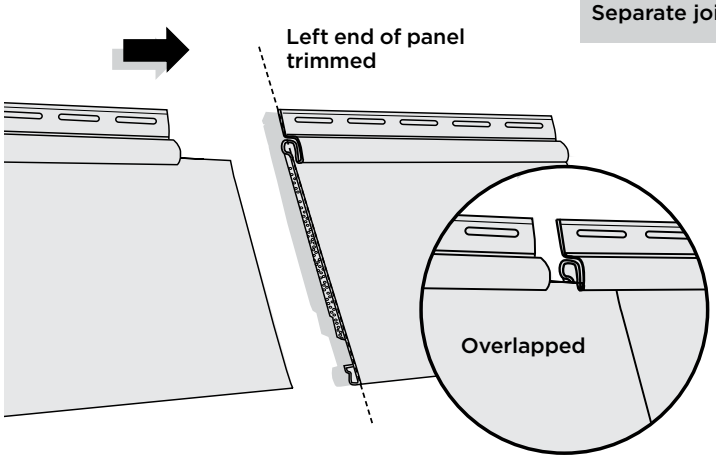
NOTE: Do not drive center-pin nails tight. Leave 1/16" to 1/8" between the nail head and the panel to allow the panel to move freely during normal expansion and contraction.

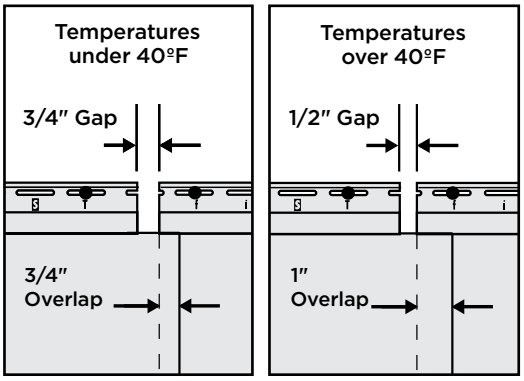
Overlapping Panels

For CERTAplank, slide the panels together until you achieve an overlap of 1" for temperatures over 40ºF. When temperature is under 40ºF, overlap panels 3/4".

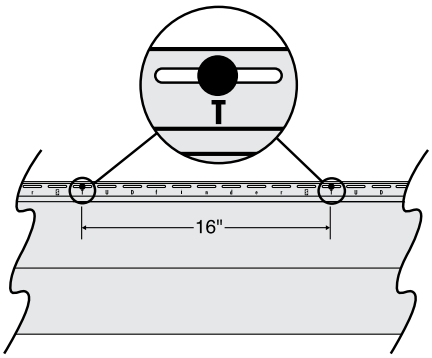
NOTE: Do not butt foam edges when installing panels. Foam is not designed to be butted.

PRO TIP: Lap away from the highest traffic pattern, typically the front of the house. Keep laps at least 3' apart from course to course. Separate joints by at least 2 courses.





STUDfinder Installation System



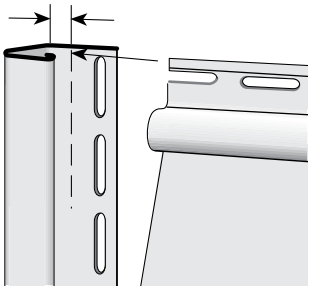
The STUDfinder™ Installation System combines precisely engineered nail slot locations with graphics to create a siding panel that is designed to help ensure quick, accurate and secure installation. The nail slots are positioned 16" on center to allow for alignment with studs, with STUDfinder graphics centered directly under each nail slot.

Locate the first stud and fasten in the center of the nail slot. Ensure that nail penetration is at least 1-1/4" into framing members 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," so will the succeeding studs in 16" o.c. applications (every 10th slot).

NOTE: CERTAplank panels must overlap 3/4" to 1". Consequently, the overlapping panels may not use the same letter as your initial panel.

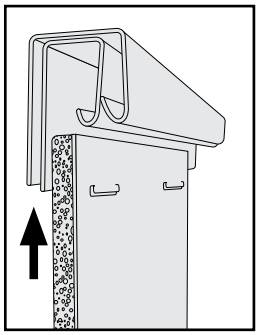
1/4" to 3/8" gap



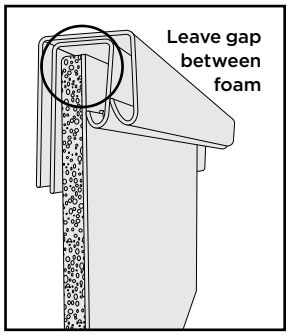
Fitting into Trim Pieces

Around windows, doors, and other openings, use standard 3/4" accessories. Standard vinyl installation rules apply. When the outside temperature is higher than 40°F, allow a 1/4" gap between the siding and the trim. When the temperature is less than 40°F, leave a 3/8" gap.

PRO TIP: When installing CERTAplank siding, you may need to angle the panel slightly towards you to help fully engage the interlock.



Engaging last course



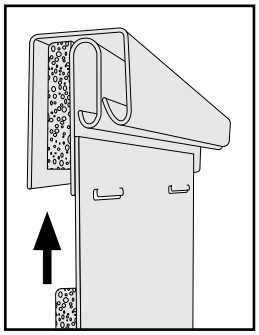
Finished course

Finishing the Last Course

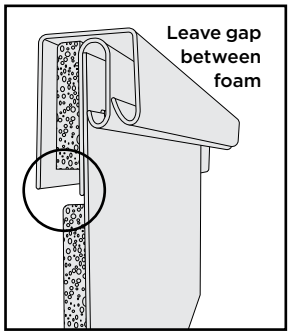
Secure the last course of siding under the soffit with 3/8" J-Channel, Undersill Trim or Cornice Molding.

Finishing with 3/8" J-Channel

To finish the top course of CERTAplank with 3/8" J-Channel, use a snap lock punch through the panel and foam to raise tabs every 6" to lock the panels into the J-Channel.



Engaging last course



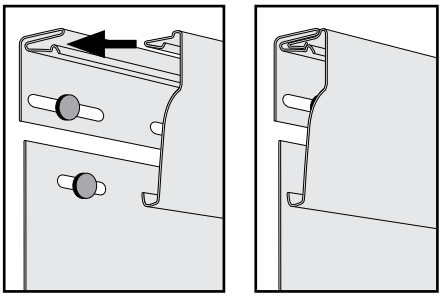
Finished course

Finishing with Undersill Trim

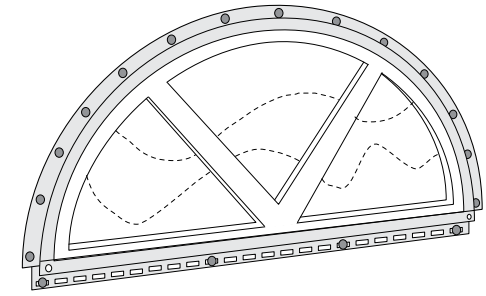
To finish the top course of CERTAplank with undersill trim, shim the trim to accommodate the thickness of the siding panel. Remove the top 1-1/2" of the foam backing so the top of the panel fits into shimmed trim. Use a snap lock punch to raise tabs every 6" to lock the panels into the trim.

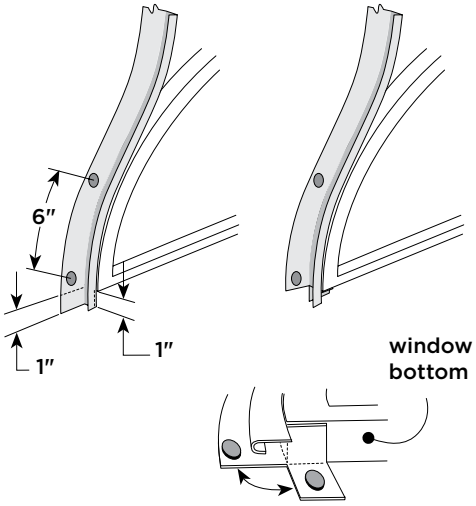
Finishing with Cornice Molding

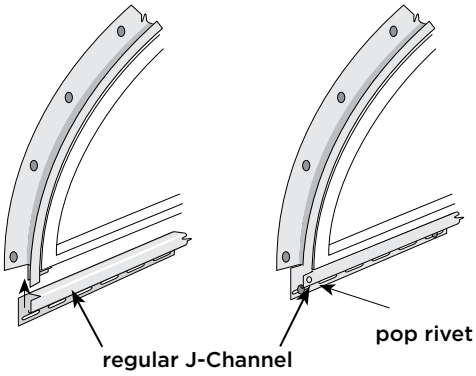
To finish the top course of CERTAplank, attach cornice receiver to the top of the wall under the eave or soffit. Trim the top panel to within 1/4" of the cornice receiver. Using a nail slot punch, punch nail slots through the panel and foam 1/4" from the trimmed edge of the siding panel, 16" apart. Nail off the top course and remember to center pin the panel. Snap the cornice molding into the cornice receiver.



SECTION 12 — Special Situations







Trimming Curved Openings

Flexible J-Channel simplifies installations around curved objects such as half and full round windows. To install around the top of an arched window, follow these simple steps:

Measure the circumference of the arch, then add 2″ to allow for overlap of the bottom J-Channel.

Place the channel along one side of the window, leaving a 1″ section below the bottom edge of the window sill (shown). Position the first nail at the base of the arch. Drive the nail through the flange, tightly securing the flexible channel.

NOTE: This is an exception to the rule that says don't fasten vinyl tightly. When installed around curved objects, flexible channel must be nailed tightly.

Place additional nails every 6″ along the flange. Again, nail tightly. Be sure the last nail is positioned at the base of the opposite arch.

Using a utility knife, cut through the back of the channel, at the point where it extends beyond the bottom edge of the window sill. Make a second cut perpendicular to the first at the base of the channel face. The length of the cut should equal the length of the extension (shown).

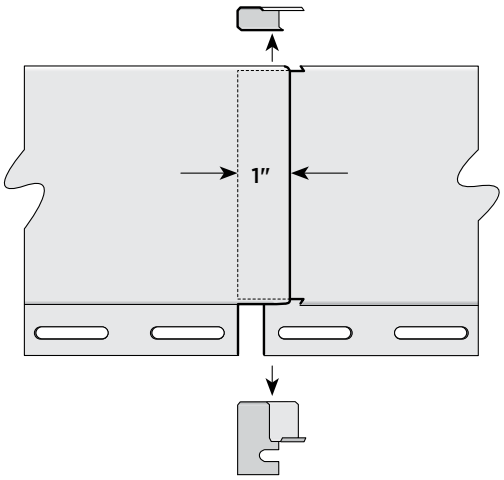
Put a 90° bend in the channel, then nail the resulting tab under the window (shown).

Repeat at the opposite ends of arch.

To install the bottom J-Channel, square cut the corners to overlap the flexible J-Channel. Use the same technique described under "Installing window and door trim" (page 48). Use pop-rivets to secure corners (shown). Use washers on the inside of the rivets to prevent pull through.

NOTE: Remember to properly flash all windows.

Frieze Board



You can create a frieze-board appearance using the 3-1/2" or 5" lineals in combination with a window/door starter or J-Channel used as a starter.

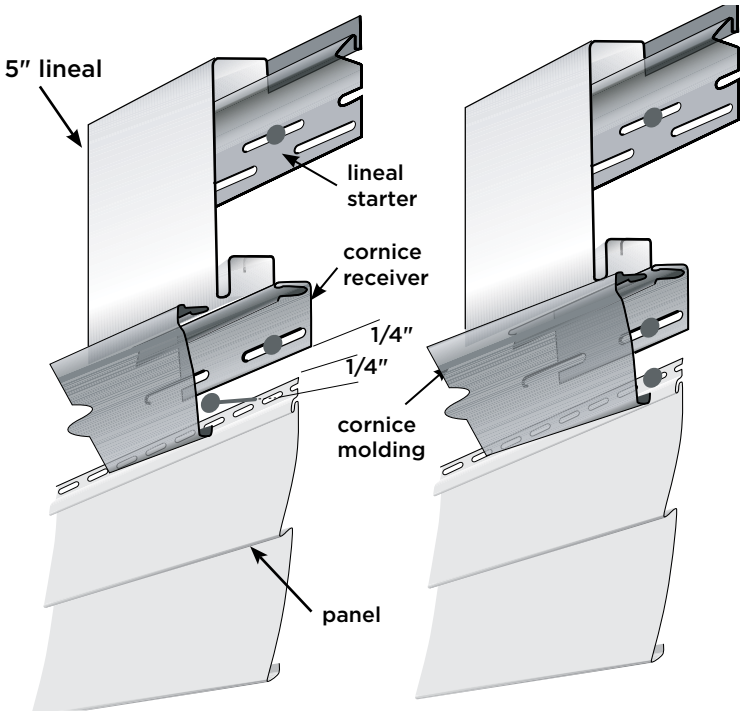
You will need: 3-1/2" or 5" lineals and new construction window starter or J-Channel.

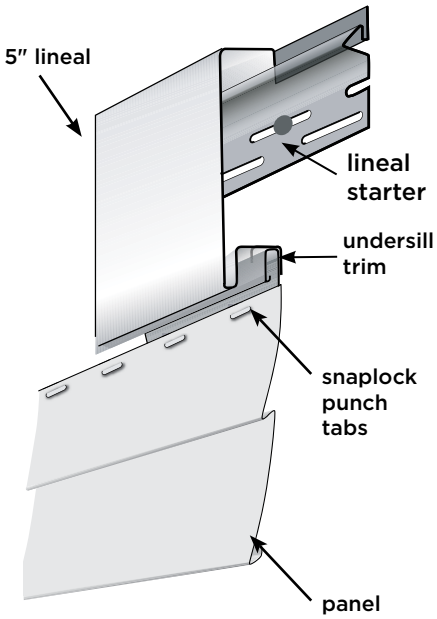
Position the short leg of new construction window starter against the soffit or overhang and nail it in place.

Snap the lineal onto the locking edge of the new construction window starter between the starter and the soffit/overhang, and nail it in place.

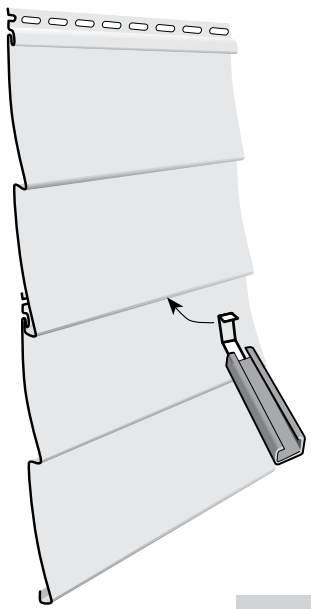
Trim 1-1/2" from the return leg of the overlapping lineal. Make a cut 1-1/2" at the 90° bend of the lineal face and inside (locking) edge. Trim 1-1/2" from the nail flange and receiving channel. Overlap the lineals 1" by fitting the notched lineal over the un-notched lineal.

An alternative to using the window/door starter is to use 1/2" J-Channel as a starter. Install the J-Channel with the back edge against the soffit or overhang. Then slide the lineal over the J-Channel.





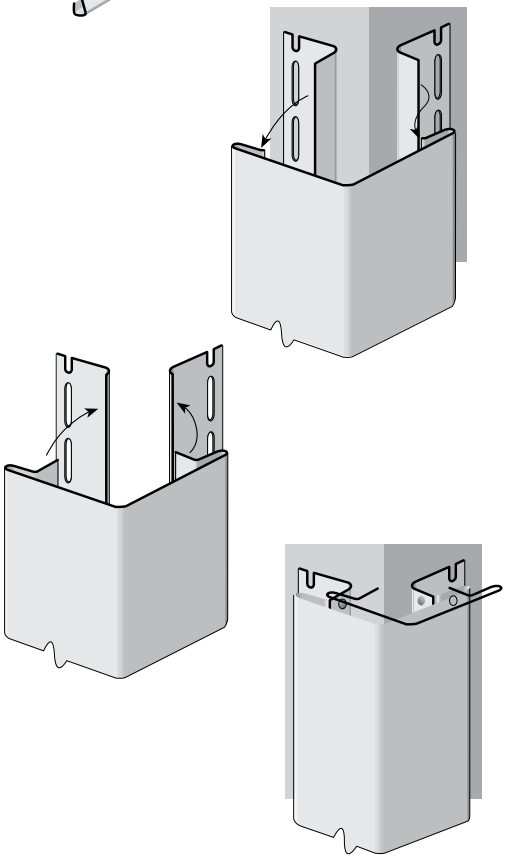
Section 13 — Repair



Replacing a Damaged Siding Panel

To remove a damaged panel, insert the hook end of a zip tool between the damaged panel and the panel above. Pull downward. This will allow access to the damaged panel's nail flange. Remove the nails securing the panel.

The nails may be allowed to stay in the wall if they are driven flush with the substrate after the damaged panel is removed. Remove the damaged panel and install a new panel. Then use the zip tool to lock the new panel into the panel above.



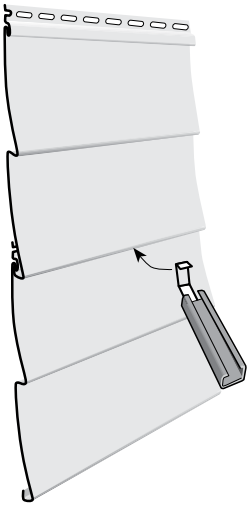
Replacing a Damaged Outside Cornerpost

Remove the face portion of the damaged post by scoring along the outside corner of the receiving channel with a utility knife. It may be easier if you first cut away part of the face of the outside cornerpost to get better access to make these cuts.

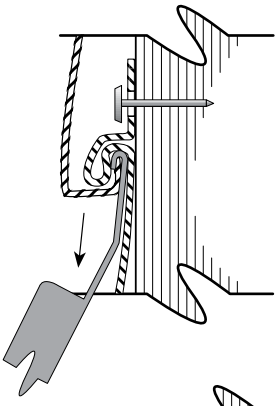
Remove the nailing flanges from the new cornerpost by scoring and bending until the flanges snap off. Be sure to score along the inner corner of the receiving channel.

Lap the partial receiving channel of the new post over the partial channel on the remaining nail flange. Pop rivet the two receiving channel legs together as needed.

Repairing Buckled Siding at the Joist

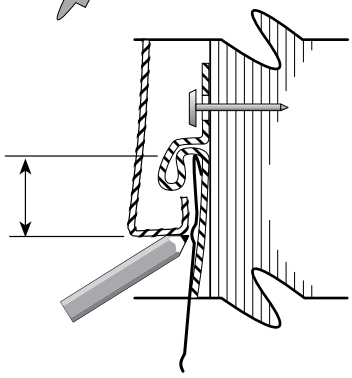


Vinyl siding sometimes becomes buckled between the first and second floors of a newly built siding installation due to settling and shrinkage of wet lumber and some framing practices. Using "engineered" lumber for the joist greatly reduces the chances of shrinkage and settling and can help prevent buckling of siding. If, however, you do have a building with this situation, here is a way to correct the problem using aluminum starter strip.



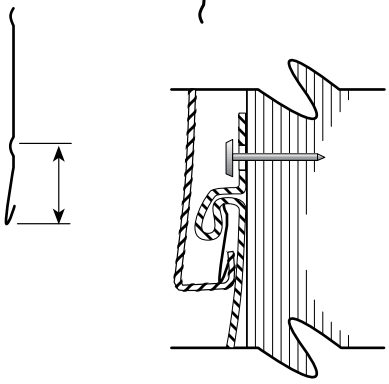
With a zip-lock tool, unlock the buckled panel from the panel below by inserting the hooked end of the tool behind the return leg of the buckled panel until the hook catches.

Pull down and "unzip" the panel.



Insert an inverted scrap piece of starter strip into the exposed receiving lock of the lower panel.

With the scrap piece inserted into the lock, lay the upper panel over the starter strip. The starter strip should be visible behind the upper panel. Mark a line on the scrap piece where the return leg of the upper panel meets the scrap piece.



Trim the starter on this line, saving the portion with the locking edge.

NOTE: Cut the starter strip in short lengths to ease handling and relocking.

Insert the trimmed edge into the lock of the lower panel.

Begin at one end and, using a zip-lock tool, pull the return leg of the upper panel down to engage the upper panel with the aluminum starter strip.

Section 14 — Miscellaneous

Cleaning Vinyl Siding

Vinyl siding resists most common household stains, but it will become dirty like any product exposed to atmospheric conditions. In areas not exposed to direct sun and rain, periodic washing with a soft bristle brush and clean water from a garden hose may be necessary to remove surface dirt. Chalk may also accumulate on the surface. This is a normal condition for pigmented materials exposed to the elements.

For the best appearance, clean vinyl siding at least once a year.

To remove soil, grime and chalk from siding, use a garden hose, a soft bristle brush, and a bucket of soapy water. (You can also use the solution described below in the section about mildew.) To minimize streaking, wash the house from the bottom up.

Thoroughly rinse the siding with clean water from a garden hose. Avoid prolonged or high pressure rinsing of open ventilated areas. Keep cleaning solution off surrounding fixtures and surfaces not scheduled for washing.

NOTE: We do not recommend power washing vinyl or polymer siding as it can cause moisture intrusion, damage, and/or discoloration.

Stubborn stains

If you can't remove especially stubborn stains using normal household detergents, request a cleaner from your siding contractor or your local building materials retailer. Always test any cleaner on an inconspicuous area before full use.

Mildew

Mildew may be a problem in some areas, especially warmer climates with consistently high humidity. Mildew appears as black spots on surface dirt and is usually detected in areas not subjected to rainfall, such as under eaves and porch enclosures. To remove mildew, prepare a solution as follows:

1/2 cup detergent (Tide, for example)
2/3 cup trisodium phosphate (Soilax, for example)
1 quart 5% sodium hypochlorite (Clorox, for example)
3 quarts water

CAUTION: Greater concentration may cause damage to the siding and soffit.

If the above solution does not readily remove mildew spots, ask your siding contractor or your local building materials retailer for a mildew cleaner.

Siding over Asbestos

Vinyl siding retrofit over asbestos

This is a recommendation from the Vinyl Siding Institute after discussions with Federal EPA officials. Because local regulations supersede federal regulations, local EPA officials should be contacted in the area where the work is being done.

The most desirable practice is not to disturb the existing siding on the home. Apply sheathing over the existing asbestos siding, and then apply vinyl siding over the top of the sheathing. The sheathing will serve to flatten the wall and also retain any breakage of the cement asbestos siding. Nails should be long enough to penetrate through the sheathing and existing asbestos siding and into the wall studs.

If there is a need to level or flatten a wall, apply furring strips over the sheathing.

In the case where the homeowner wants the existing cement asbestos siding removed completely, removal should be done by a professionally trained asbestos removal crew.

Please note that some jurisdictions require all asbestos removal to be performed by a trained asbestos removal crew.

Historic Restoration

Vinyl Siding Institute recommended guidelines

If a building is in an historic area or has been designated an historic building, be certain that approval for the use of vinyl siding has been obtained from the local historic society. This applies to building additions as well.

Before proceeding to re-side an historic building, the building should be examined for moisture, insect infestation, structural defects and other problems which may be present. These problems should be addressed and the building pronounced “healthy” before re-siding with any material.

Do not damage or remove the original siding. If at all possible, do not alter the original structure so that the application of vinyl siding is reversible (i.e. the original would remain intact and some time in the future, if desired, the vinyl siding could be removed). Exception: “In cases where a non-historic artificial siding has been applied to a building, the removal of such a siding before the application of vinyl siding would, in most cases, be acceptable.” (Preservation Briefs, Number 8 - U.S. Dept. of the Interior—1984)

Exercise every care to retain architectural details wherever possible. Do not remove, cover, or add details until you have the building owner's written approval. Determine that the owner has consulted the local historic society regarding the foregoing.

Use siding which closely approximates the appearance of the original siding in color, size and style.

Lead Renovations

Many houses and apartments built before 1978 have paint that contains high levels of lead (called lead based paint). Lead from paint, chips, and dust can pose serious health hazards if not taken care of properly. You can find out about other safety measures by calling 1-800-424-LEAD. Ask for the brochure "Reducing Lead Hazards When Remodeling Your Home." That brochure explains what to do before, during, and after renovations.

Caulking and Sealants

When installing vinyl siding, the use of caulking and other sealants is minimal. Do not caulk panels where they meet the receiver of inside corners, outside corners, or J-Channels. Do not caulk the overlap joints. Do not caulk vinyl accessories where they butt up against adjacent materials, such as window and door jambs.

For More Information

These instructions will enable you to successfully complete a siding, soffit, or porch ceiling installation. However, no set of instructions can answer every question or problem that might come up during a project. So if you are in doubt about how to complete a specific procedure, we suggest you try two avenues of help:

First, call or visit your building materials supplier. You should be able to find someone with the know-how and experience to answer your question or solve your problem.

Second, if you need additional help, call us at 1-800-233-8990. Our Sales Support Group is always ready to help you.

This installation manual is updated periodically. The most current information will always be posted on our website: www.certainteed.com.

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GLOSSARY

Because this manual was written for building professionals, we have freely used the language and jargon of the siding industry. To avoid confusion, we thought it a good idea to share our understanding of each of these terms with you.

Band Board—A decorative piece of horizontal trim placed between two floors along the rim joist.

Beaded—A narrow, half-round molding at the base of a lap siding panel.

Bevel—A cut, usually 45°, made at the end of a piece of molding or board that is used to form a mitered joint.

Casing—Molding of various widths used to trim door and window openings at the jambs; also referred to as lineal, window, or door surround.

Center Pin—Nailing a panel at the hole that allows for even expansion and contraction.

Clapboard—The most popular style of siding, that is a long, panel with edges horizontally overlapping in series of courses on a wall.

Contraction—Commonly refers to building products contracting due to outside temperature changes.

Course—A row of siding panels running the width of the wall.

Dormer—A gabled extension built out from a sloping roof to accommodate a vertical window.

Drip Cap—A horizontal flashing placed over exterior door or window frames to divert rainwater.

Dutchlap—Refers to a drop-style panel that was popularized by early American settlers in the seaboard states; lap siding panel with a horizontal bevel at the top of the panel that sits just below the bottom of the next course of siding.

Eave—The overhang of a pitched roof at the bottom edge, usually consisting of a fascia board, a soffit for a closed cornice, and appropriate moldings.

Expansion—Commonly refers to building products expanding as outside temperature changes.

Exposure—The width of the exposed face of each panel of siding; also referred to as reveal.

Face—The side of the siding, trim, or soffit that is exposed to view after the product has been installed.

Fascia—A flat, horizontal band that covers the rafter tails and runs along the bottom edge of the roof line.

Flashing—A thin, impervious material, usually metal, placed around openings to prevent water penetration or to direct the flow of water over the cladding.

Frieze—The horizontal trimboard connecting the top of the siding with the soffit.

Furring/Furring Strip—Long, thin strips of wood or other materials used to build out the fastening surface of a wall; commonly used to correct imperfections in wall surfaces, to establish a rainscreen, or to re-establish a structural fastening surface on the exterior of nonstructural products such as foam insulation.

Gable—The triangle formed on the side or the front of a building by a sloping roof.

Hanger—Also known as lock, the area of a siding panel protruding underneath of the nail hem which creates a locking engagement with the return leg of the panel being installed above.

Horizontal Siding—A type of siding that features long boards applied horizontally.

Hot-dip Galvanized—The process of dipping metal into molten zinc to apply a protective coating that prevents corrosion; hot-dipped galvanized iron and steel are corrosion resistant.

Keyway—A recess or groove in a manufactured shake or shingle siding panel.

Lap—Where two siding panels join horizontally, one over the other.

Ledger Board—A level surface that is used as a straight reference guide for positioning of the starter course of siding before applying.

Lineal—Molding of various widths used to trim door and window openings at the jambs; also referred to as casing, window, or door surround.

Miter Cut—A beveled cut, usually 45°, made at the end of a piece of molding or board that is used to form a mitered joint.

O.C.—On center; a measurement of the distance between the centers of two repeating members in a structure, usually studs.

OSB—Oriented Strand Board.

Panel Projection—The distance that the bottom edge of the siding projects from the wall.

Profile—The contour or outline of a siding panel as viewed from the side.

Rainscreen Wall—A method of constructing walls in which the cladding is separated from a membrane by an airspace that allows pressure equalization to prevent rain from being forced in. It consists of an exterior cladding, a cavity that is typically created through the use of furring strips behind the cladding, and an inner wall that incorporates a weather-resistant barrier.

Rake—Trim members of a gable roof that run parallel to the roof slope from the eave to the ridge.

Rigid Sheathing—Plywood, OSB, or foam sheathing.

Rim Joist—The board that the rest of the joists are nailed to. It runs the entire perimeter of the house.

Rip Cut—A cut made lengthwise on a piece of siding or trim.

Kick-Out Diverter Flashing—A flashing piece located where sloped roofs meet vertical walls; designed to divert water into a gutter.

Shake—A style of siding replicating pieces of cedar that are split by hand from lumber logs using special crafting tools.. The end of the cut, or butt, is thicker than a shingle and has rougher edges.

Sheathing—Sheets of plywood, exterior gypsum board, or other material nailed to the outside face of studs as a base for exterior siding.

Shim—A building material, usually wood, used to even a surface.

Shingle—A style of siding replicating pieces of cedar that are cut on both sides using a saw. The end of the cut, or butt, is thinner than a shake.

Skirtboard—Treated lumber or PVC trimboard installed horizontally; used as a transition from foundation to siding or as a starter strip.

Soffit—The underside of an overhanging eave.

Square—Unit of measure for siding; equal to 100 square feet of exposure (e.g. a 10-ft. by 10-ft. wall section = 100 square feet = 1 Square).

Starter Strip—An accessory used to engage the locking leg of the first course of siding.

Structural Member—A support that is a constituent part of any structure or building.

Structural Sheathing—The layer of boards, wood or fiber materials applied to the outer studs, joists, and rafters of a building to strengthen the structure and serve as a base for an exterior cladding.

Substrate—A layer of material applied over the studs at the exterior walls of a building.

Vertical Siding—A type of siding that features long panels applied vertically.

Weather-Resistant Barrier—A building membrane that protects building materials from exterior wind and water penetration.

NOTE: When the terms “recommend” and “should” are used in this manual, the step is optional for installing vinyl and polymer siding products. However, it is included because the step represents best practice. When the terms “required” and “must” are used, the step is a necessary part of the installation process and must be adhered to.

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