

Climate-Shield® Rain Screen System™

Vertical Wood Siding Installation Guidelines using CS2 Rain Screen Clip over Plywood or OSB

Before starting your Climate-Shield Rain Screen installation, check that these important items have been done properly:

Pre-Check 1 – Make sure your structural sheathing has been attached properly to the framed wall system per manufacturer’s instructions and local building codes. Plywood or Oriented Strand Board (OSB) may be used. The panel thickness should be rated for structural application and must be a minimum of 7/16” thick. Plywood is typically stiffer and stronger than OSB. Thicker plywood or OSB makes a stronger wall and has greater holding strength of the Climate-Shield screw.

Note Foam and gypsum boards are not structural panels. (Installation of the Climate-Shield Rain Screen System over non-structural panels is possible – refer to Climate-Shield Attachment Channels and alternate installation techniques)*

Pre-Check 2 – Make sure the drainage plane material has been properly installed. Use the appropriate AWB (Air and Water Barrier) or WRB (Weather Resistant Barriers) as specified by the architect or designer. There are many products available to address requirements of the exterior wall in your climate zone.

Pre-Check 3 – All windows and exterior doors should now be installed properly. Check to ensure that the installation (and flashing) instructions from the door and window manufacturers were properly followed.

Note Window and door manufacturer’s installation instructions always take precedent over these guidelines.*

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Step 1 – Proper wood acclimation is imperative. Before starting any exterior wood installation, *always* make sure your wood has properly acclimated to local site conditions. Failure to properly acclimate wood on site is a recipe for poor results and dissatisfaction. [Please see Critical Wood Acclimation Guidelines here.](#)

Step 2 – Pre-finishing all siding boards prior to assembly is the only way to ensure that all 4 sides are coated evenly. It is highly recommended to coat all wood siding with a UV inhibiting sealer prior to installation. A UV inhibiting sealer helps the wood acclimate more slowly and minimizes surface checking and wood movement. Even if your goal is to allow the wood to naturally gray or silver out over time, a UV inhibitor at this point will help protect the wood when it is most vulnerable. [Pre-finishing options for hardwood siding and decking here.](#)

Step 3 – Create a level line for the starter rail on all walls where the bottom of the siding will be installed. This can be done with laser lines, or a snapped chalk line. We recommend that you complete this on all walls, to ensure the starter rail level line will be consistent on all sides of the building. This step is critical to a successful siding installation and should be done with accuracy.

**Take the time to do this step well, and all your next rows of siding will be properly aligned as you build.*

Step 4 - Install the outside corners you have selected. The Climate Shield System offers both Aluminum Extrusions and Solid Wood outside corner components, or you may provide your own corners. Regardless of the

outside corner you have selected, make sure they are aligned plumb and square level line starter course. This will ensure that the ends of your siding boards will fit precisely with a 90-degree end cut.

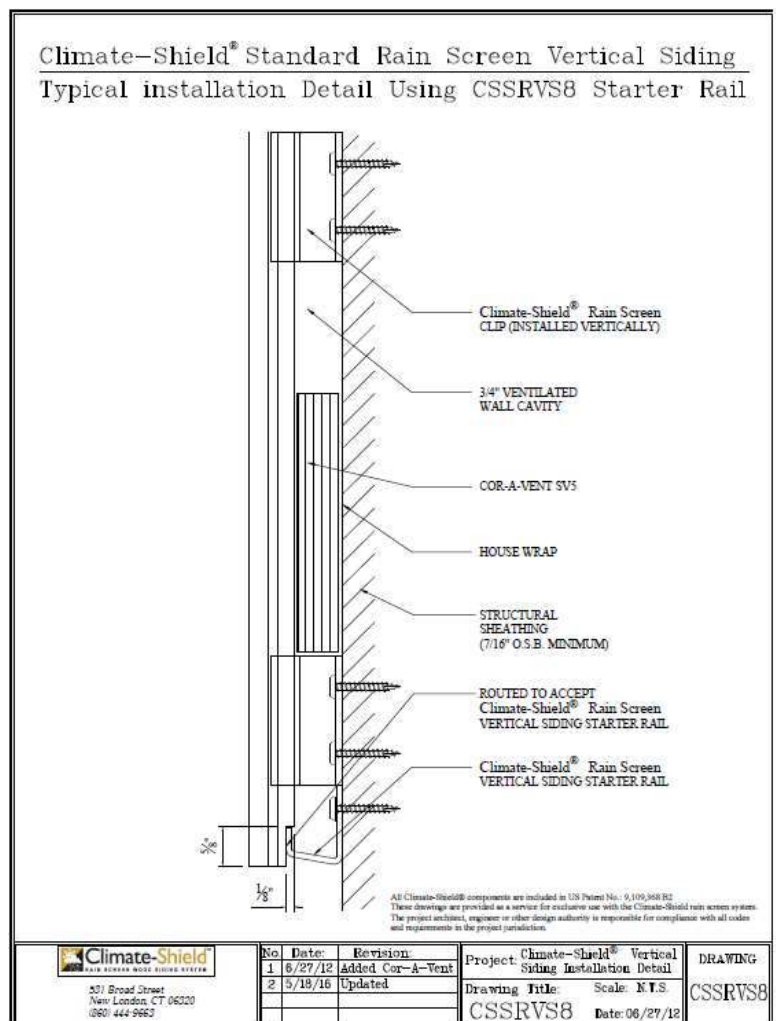
If you have selected the Climate-Shield marine grade aluminum outside corners, install the base piece component now with the screws provided. They are the proper length and are made from stainless steel, the finest choice for your building. (The outside corner finish piece installs after all the wood siding is installed)

Step 5 – Install your window and door trim. Climate-Shield offers window and door trim packages, or you can design your own. Now is the time to install them and put proper flashing in place. Always follow the window and door manufacturer's installation and flashing instructions.

Step 6 – Installing the Climate-Shield Vertical Starter Rail. To speed up your installation and help provide *the critical level line* to start your vertical siding installation, use the Climate-Shield 8' Vertical Starter Rail. The vertical starter rail speeds up installation and provides a continuous strip at the bottom edge of each siding board. The marine grade aluminum starter rail has pre-drilled holes for mounting to the plywood walls and has weep holes on the bottom to drain any bulk water intrusion.

Step 7 – Install your siding vent. We suggest installing a siding vent screen to prevent insects from entering the wall cavity from the ground. Follow the instructions of the manufacturer. The Cor-A-Vent SV5 siding vent is $\frac{3}{4}$ " thick and fills the rain screen wall cavity between the drainage plane created by the Climate Shield rain screen clips. This siding vent also allows moisture and bulk water to escape as well. For vertical siding installations, leave enough space above the vertical starter for the bottom rain screen clips to fit.

**Note It is also suggested to install the siding vent at the soffit, above door openings and above and below window openings.*



Step 8- Determine where your vertical siding joints will align before installing your first siding board. To avoid ending up with extremely narrow vertical siding boards around doors and windows or at the end of your siding run, you will want to determine the correct width to rip your first siding board. You will need $\frac{3}{4}$ " solid blocking to attach the cut edge of this board to fasten to the exterior wall. Cor-A-Vent SV5 may be used instead of wood blocking.

Step 9 - Use a Router to notch 1/8" off the back side of each siding board at the bottom. This will allow the bottom of each siding board to seat properly in the vertical siding starter rail. You can make this notch anywhere from 5/8" to up to 1" up the board; depending on how much coverage you would like the bottom of the vertical siding board to conceal the starter rail.

Step 10 – Install the first rain screen clip at the bottom of each vertical board – directly above the starter rail and just below the siding vent.

Important Note If your board does not seat properly, don't install it. NEVER 'force' a board into place. You may cut out any bow or bend (defect cutting) and install only the usable portion of the siding board.*

Step 11 - Repeat the assembly process for each vertical row of siding. When you need to make a joint in the vertical length of siding, simply use a rain screen clip at the bottom and top of the joint and straddle the two boards. You will automatically get proper alignment of the two boards. It works best if you miter the siding boards to be joined at up to a 45° angle (scarf joint), and there will be no gap showing in the future, regardless of the weather. Center the clip over the joint for maximum stability. This will give you a quality installation that you will be proud of for years. The scarf joint should always pitch toward the front of the siding.

**Important Note – Always apply Anchor Seal or similar end sealer product immediately after cutting any hardwood boards. This will help minimize potential end-checking of your siding boards*

Step 12 - Installing the top end of siding. When you reach the soffit (or areas below window openings), it is necessary to trim the top end of the wood siding to the appropriate length. Always seal the cut ends of hardwood immediately with Anchor Seal to minimize end checking of the siding boards. For best results, the rain screen clips need to be installed at the top of the boards and the siding vent installed below the clips.

