

S-5![®]

The Right Way

The right way to attach almost anything to metal roofs!

Installation Instructions

Stop! Has your ColorGard[®] system been designed properly with the assistance of a distributor or the online ColorGard calculator? If not, see our Calculator and Load Table at www.S-5.com, or ask your distributor!

Notice to S-5![®] users: Specific layout and assembly schematics for S-5! products are the responsibility of the user or project designer. Due to the many variables involved with specific panel products, climates, snow melt phenomena, and job particulars, the manufacturer cannot and does not express any opinions as to the suitability of any S-5! assembly for any specific application and assumes no liability with respect thereto. S-5! clamps are tested for ultimate holding strength on various seam types and materials. This information is available from the S-5! website: www.S-5.com. This document is an installation guide only and the photographs and drawings herein are for the purpose of illustrating installation, tools and techniques, not system designs. Read installation instructions in their entirety before beginning installation. Clamp spacing should never exceed 32" with ColorGard snow retention assemblies (contact your distributor for products to accommodate a seam spacing greater than 32").

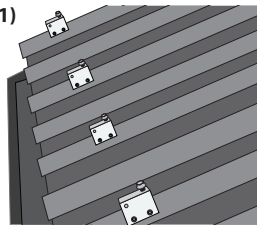
Tools Needed

- Screw Gun*
- Box End Wrench, 1/2" Drive Impact Wrench, or Ratchet
- Electric reciprocating saw to cut ColorGard cross-member
- Tin Snips
- String Line
- Torque Wrench
- Pliers or Vice Grip Pliers

*For time saving tool recommendations contact S-5!

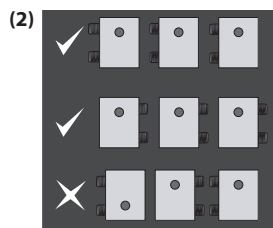
To Install ColorGard[®]

1. Before you start: First, use a string (1) line across the top of the panel seams at the desired location to establish a true line for installation of the S-5! clamps. Individually measuring from the eave to determine each clamp location is not recommended (1).



Before continuing, please take a moment to read the important notice about SnoClip[™] on the back side of these installation instructions.

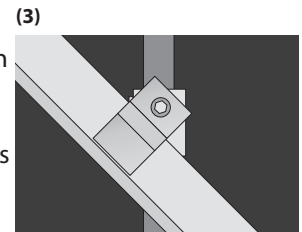
2. Preparing the Clamps: If the ColorGard assembly utilizes the VersaClip[™] for attachment of the ColorGard cross-member, the bolt hole in the clamp should be at the upslope end of the clamp. If the assembly uses punched ColorGard without VersaClip, the hole should be at the downslope end of the clamp. When using the S-5-U, determine which side of the clamp to load the setscrews into, and thread the setscrews into all clamps, being careful that the bolt hole will be in the correct (upslope or downslope) orientation, with the setscrews on the correct side of the seam. Both setscrews must be on the same side of the clamp (2).



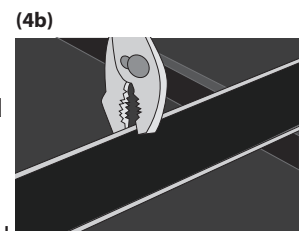
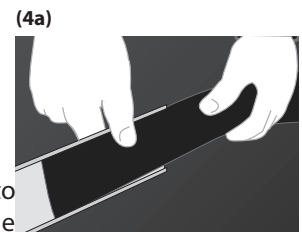
3. Installing the clamps: S-5! clamps are installed differently depending upon clamp model and seam style. Please see the installation instructions included with your clamps. For maximum holding strength, setscrews should be tensioned and re-tensioned as the seam material compresses. Screw tension should be verified using a calibrated torque wrench between 160 and 180 inch pounds when used on 22ga steel and between 130 and 150 inch pounds for all other metals and

thinner gauges of steel. Please visit our load table at www.S-5.com to determine the proper screw tensions and holding strength.

Using VersaClip[™]: When seam spacing is not divisible by 4", when panels are not laid up true-to-dimension, or when ColorGard is installed askew to the panel seams (3) (e.g. parallel with the line of a valley), the VersaClip facilitates installation. The VersaClips are inserted into the ColorGard prior to placement of ColorGard on the clamps. Align clips with S-5! clamp. VersaClip can be used with punched or unpunched ColorGard.

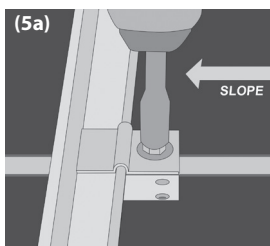


4. Installing the ColorGard: To maintain color conformity over time, ColorStrips should be sheared from the same pre-finished metal as the roof panels (supplied by others). Shear strips to exactly 2" wide (8' or 10' long). Slide the ColorStrip into the ColorGard cross-member as shown (4a). If the strip length is 8', it may be pre-assembled into the ColorGard cross-member. If the strip is 10' long, it will be assembled to the ColorGard as installation progresses. Joints in the ColorGard should be concealed by offsetting the joints of the ColorStrip from the joints of the ColorGard. The joints of the ColorStrips can be overlapped about 1/2" if desired. Each ColorStrip should be secured to the ColorGard somewhere along its length. This is done by pinching the retainer lip of the ColorGard with an ordinary pair of pliers (4b). It can be done at one end of the ColorGard section or anywhere along its length to prevent lateral migration of the ColorStrip.

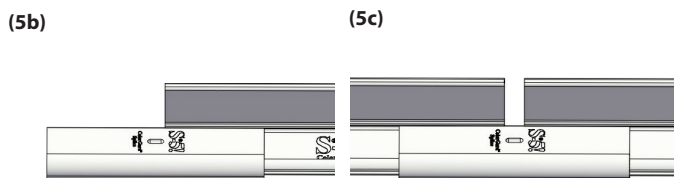


5. Bolt ColorGard® to clamps:

Attach ColorGard to clamps with the stainless bolts provided. Bolts can be tightened with a 1/2" (13mm) box-end wrench, or ratchet (5a). On larger jobs, a 1/2" drive electric impact will expedite this work. Tension bolts to a minimum



of 13 ft-lbs (18 Nm). Add splice pieces at each ColorGard joint as shown below (5b). The "dimple" in the splice piece will automatically provide a 3/8" space between adjoining sections (5c) to allow for linear thermal expansion of the ColorGard. Trim ColorGard at the end of the assembly, being sure it does not cantilever more than 8" beyond the last clamp of an assembly. Any trimmed piece of ColorGard must be attached with at least two clamps.

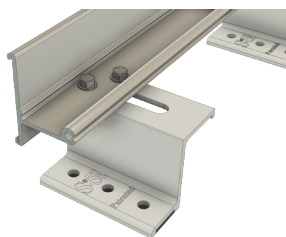


ColorGard® Cutting Tip: If it is necessary to field cut ColorGard, such as at the end of an assembly, it can be done with a hack saw or electric reciprocating saw with a fine tooth metal cutting blade. A power mitre saw with a fine tooth carbide tip blade also works well.

Using VersaBracket™

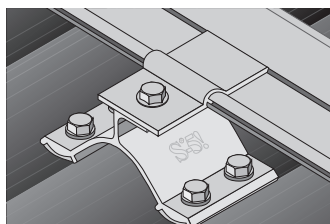
1. Install the bracket. See installation instructions that were included with your bracket.

2. Fasten unpunched ColorGard to the top flange of the bracket using (2) 1/4-14 stainless steel self-tapping screws.



Using CorruBracket™

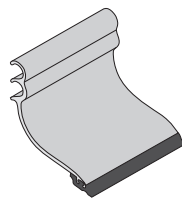
1. Install the bracket. See installation instructions that were included with your bracket. The threaded hole closest to the edge of bracket should be oriented upslope for unpunched ColorGard & downslope for punched ColorGard. When using VersaClip see step 3 on front page.



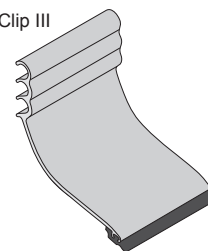
2. Fasten ColorGard to the bracket in the same fashion as step 5.

Using SnoClip™

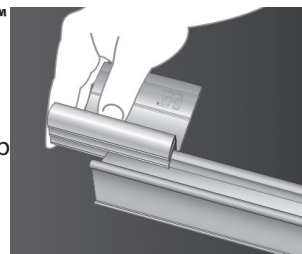
SnoClip II



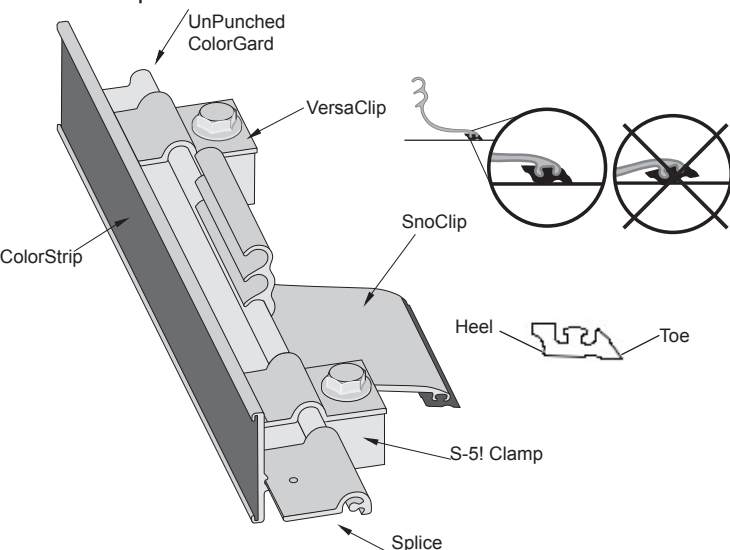
SnoClip III



IMPORTANT NOTICE! SnoClip™ design has changed. SnoClip™ must now slide on from the end of the ColorGard® cross-member. Be sure to slide SnoClip onto assembly before attaching cross-member to clamps (a new Retro-Fit SnapClip™ is also available from your authorized



S-5!® distributor). One SnoClip is used between seams (in some cases two SnoClips may be desired; see www.S-5.com for details). Mount the SnoClip to the back of the ColorGard using the lock that results with the rubber "foot" resting properly on the panel surface. When applying downward pressure on the part, the "toe" should engage the surface of the panel just before the "heel". Periodic maintenance over time may be necessary to ensure that the SnoClips maintain the appropriate positioning, as snow weight may sometimes flip the clip up slightly. When installing any S-5! snow retention assembly with SnoClip or SnapClip, be sure that the toe of the SnoClip part bears on an area of the roof panel that is well supported and not subject to excessive deflection. Should panel deflection be excessive under load allowing the SnoClip to rotate under the ColorGard, then SnoClips should not be used.



S-5!® Warning! Please use this product responsibly!

Products are protected by multiple U.S. and foreign patents. For published data regarding holding strength, fastener torque, patents, and trademarks, visit the S-5! website at www.S-5.com.

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