

S-5!®

The Right Way!

The right way to attach almost anything to metal roofs!

ColorGuard® Install

Installation Instructions

Stop! Has your ColorGuard® system been designed properly with the assistance of a distributor or the online ColorGuard 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 ColorGuard snow retention assemblies (contact your distributor for products to accommodate a seam spacing greater than 32").

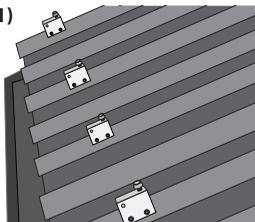
Tools Needed

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

*For time saving tool recommendations contact S-5!

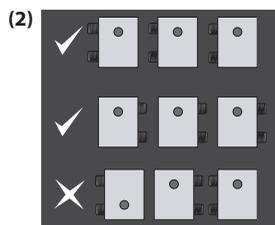
To Install ColorGuard®

1. Before you start: First, use a string 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.

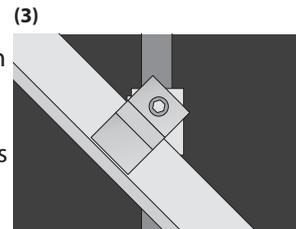
2. Preparing the Clamps: If the ColorGuard assembly utilizes the VersaClip™ for attachment of the ColorGuard cross-member, the bolt hole in the clamp should be at the upslope end of the clamp. If the assembly uses punched ColorGuard without VersaClip, the hole should be at the downslope end of the clamp. 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

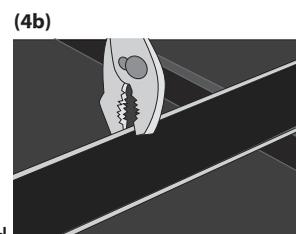
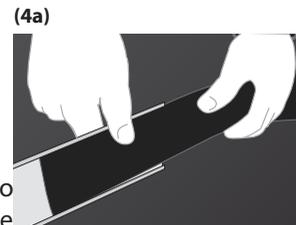
thinner gauges of steel. Please visit our load table at www.S-5.com to determine the proper screw tensions and holding strength.

Using VersaClip™: When seam spacing is not divisible by 4", when panels are not laid up true-to-dimension, or when ColorGuard 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 ColorGuard prior to placement of ColorGuard on the clamps. Align clips with S-5! clamp. VersaClip can be used with punched or unpunched ColorGuard.



4. Installing the ColorGuard:

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 ColorGuard cross-member as shown (4a). If the strip length is 8', it may be pre-assembled into the ColorGuard cross-member. If the strip is 10' long, it will be assembled to the ColorGuard as installation progresses. Joints in the ColorGuard should be concealed by offsetting the joints of the ColorStrip from the joints of the ColorGuard. The joints of the ColorStrips can be overlapped about 1/2" if desired. Each ColorStrip should be secured to the ColorGuard somewhere along its length. This is done by pinching the retainer lip of the ColorGuard with an ordinary pair of pliers (4b). It can be done at one end of the ColorGuard section or anywhere along its length to prevent lateral migration of the ColorStrip.



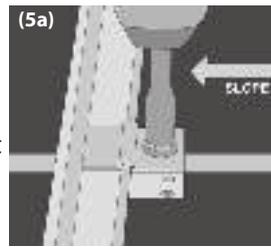
These instructions are for use by those experienced in the trade. Always follow appropriate safety precautions and use appropriate tools.

www.S-5.com

888-825-3432

5. Bolt ColorGuard® to clamps:

Attach ColorGuard 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 ColorGuard 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 ColorGuard. Trim ColorGuard at the end of the assembly, being sure it does not cantilever more than 4" beyond the last clamp of an assembly. Any trimmed piece of ColorGuard must be attached with at least two clamps.

(5b)



(5c)

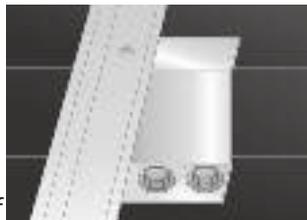


ColorGuard® Cutting Tip: If it is necessary to field cut ColorGuard, such as at the end of an assembly, it can be done with a hack saw or electric reciprocating saw with a fine tooth metal cutting blade. A power mitre saw with a fine tooth carbide tip blade also works well.

Using VersaBracket™

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

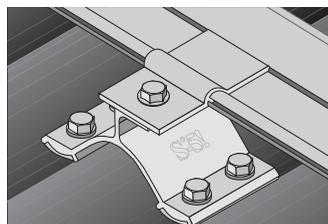
2. Fasten unpunched ColorGuard to the top flange of the bracket using a 1/4-14 stainless steel self drilling screw.



Using CorruBracket™

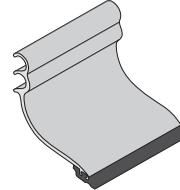
1. Install the bracket. See installation instructions that were included with your bracket. The threaded hole closest to the edge of bracket should be oriented upslope for unpunched ColorGuard & downslope for punched ColorGuard. When using VersaClip see step 3 on front page.

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

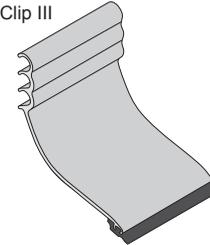


Using SnoClip™

SnoClip II

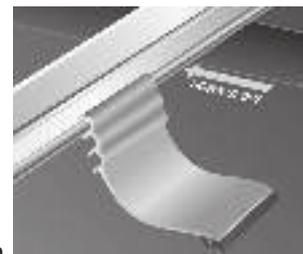
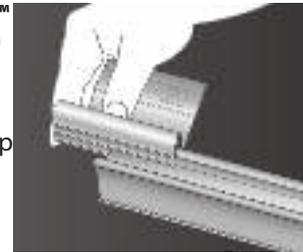


SnoClip III

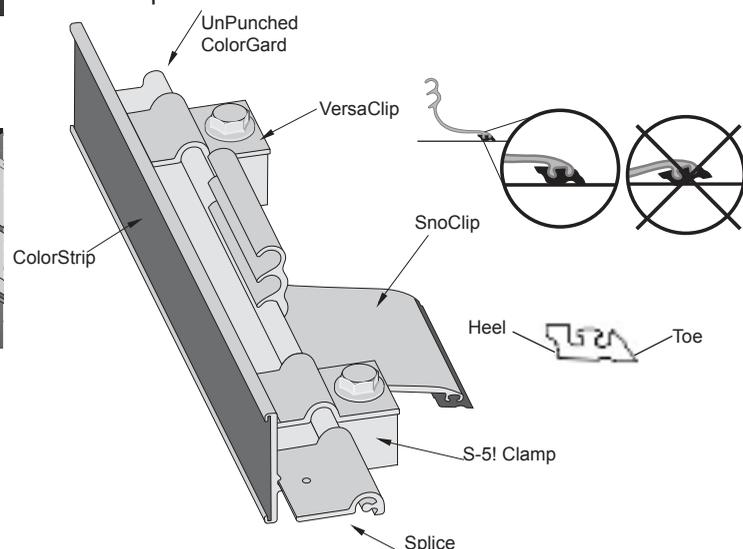


IMPORTANT NOTICE! SnoClip™ design has changed. SnoClip™ must now slide on from the end of the ColorGuard® cross-member.

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 ColorGuard 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 ColorGuard, 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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