



# Rocky Mountain Snow Guards Inc

ROCKY MOUNTAIN SNOW GUARDS  
4231 S NATCHES CT, UNIT C  
ENGLEWOOD, CO 80110  
PHONE: (877) 414-7606  
FAX: (720) 387-8361  
[www.rockymountainsnowguards.com](http://www.rockymountainsnowguards.com)

## SINGLE PLY COLORGARD SNOW FENCE SYSTEM

### AVAILABLE MATERIALS:

- GALVANNEAL OR STAINLESS-STEEL BASE PLATE
- ALUMINUM ADAPTER
- ALUMINUM COLORGARD BAR AND SPLICES

### OPTIONAL COMPONENTS:

- Pre-Painted Inserts (Color Strips)

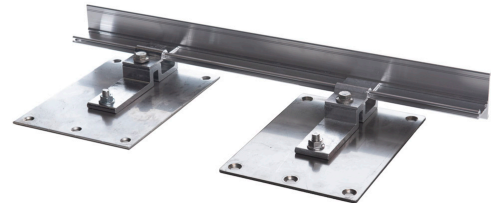
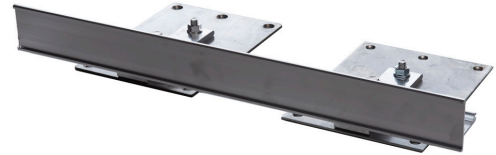
All Aluminum, Stainless and Galvanneal parts are available powder coated or mill finish.

### INFORMATION:

- Separate base plate and upright design provides easy leak-proof installation with target patch flashing.
- Excellent load ratings when installed with CTX fasteners into solid blocking, steel or wood decking

Excellent choice for:

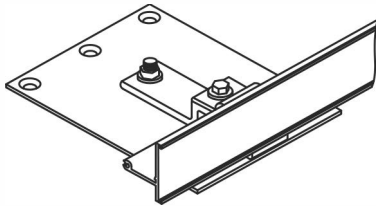
- New and existing EPDM, TPO or PVC roofs.
- Single Ply roofs installed over rigid insulation panels.



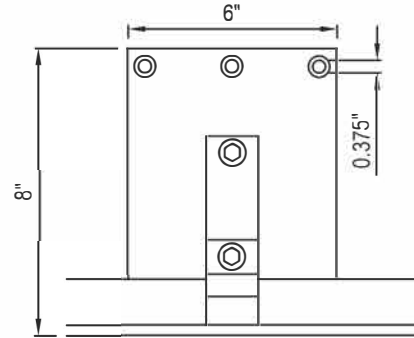


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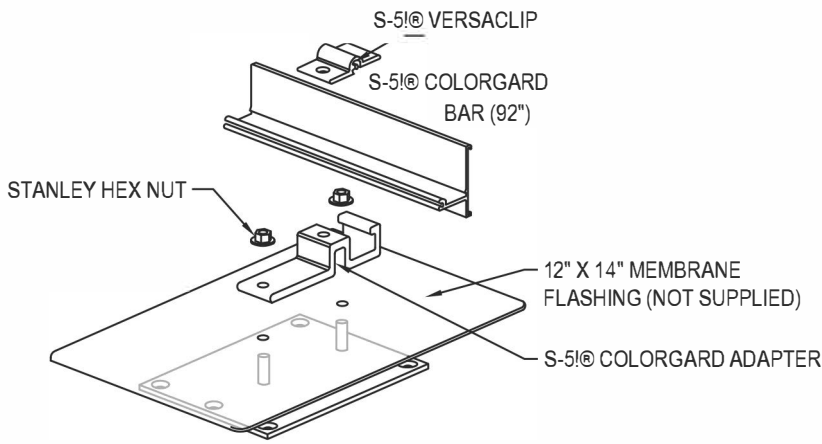
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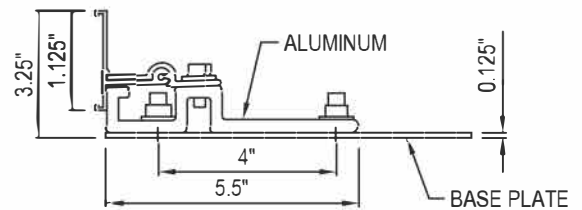
ISOMETRIC VIEW A



TOP VIEW



ISOMETRIC VIEW B



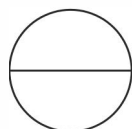
SIDE VIEW

#### MANUFACTURER NOTES:

1. CONTACT MANUFACTURER FOR SELECTED LAYOUT.
2. FOR CUSTOM MATERIALS CONTACT MANUFACTURER.
3. OTHER SIZES ARE AVAILABLE ON A CUSTOM BASIS.
4. SNOW GUARDS ARE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS

#### NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT [www.CADdetails.com/info](http://www.CADdetails.com/info) AND ENTER REFERENCE NUMBER 5281-028



## BRACKETS

SINGLEPLY COLORGARD SNOW FENCE BRACKET



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## Installation Instructions for Single Ply ColorGard Bracket

The Single Ply ColorGard snow fence bracket system is comprised of 3 parts.

1. Aluminum ColorGard Attachment Bracket
2. Target Flashing
3. Stainless Steel or Galvanneal Base Plate

### Installation of the Base Plate:

1. The Base Plate is placed on top of the finished roof system and located as indicated on the snow retention plan provided by Rocky Mountain Snow Guards. Generally, the snow fence system will be 12" from the eave edge. The base plate is positioned with 3 attachment holes at the top.
2. The base plates are fastened into place with 5 fasteners of the type recommended for the specific job conditions. The Single Ply bracket is usually fastened into solid wood blocking on insulated roofing systems although fastening through wood decking is also acceptable provided there is no insulation between the decking and the membrane.

### Installation of the Target Flashing:

1. The Target Flashing must be of the same material as the roofing system.
2. Each Target Flashing should be a minimum of 12" x 14".
3. Holes are cut through the Target Flashing to correspond with the upright studs on the Stainless Steel Base Plate.
4. Apply sealant around each upright stud and push flashing into place over the studs.
5. Heat seam, tape or glue the Target Flashing to the roof membrane as required by the membrane manufacturer.

### Installation of the ColorGard Attachment Bracket:

1. Slide the bracket over the upright studs.
2. Tighten the supplied Stainless Steel nuts.

### Notes:

1. Rocky Mountain Snow Guards can provide job specific snow retention plans with bracket spacing, recommended fasteners and snow fence locations.

# 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](http://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](http://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").

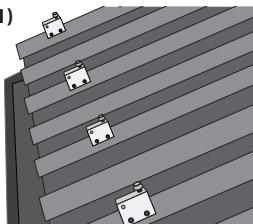
### Tools Needed

- 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!

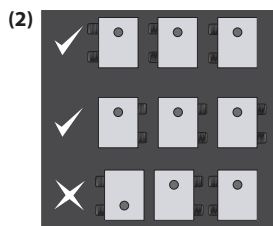
### To Install ColorGuard®

**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.**

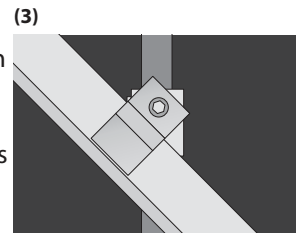
**2. Preparing the Clamps:** If the ColorGuard assembly utilizes the VersaClip™ for attachment of the ColorGuard cross-member, the bolt hole in the clamp should be at the upslope end of the clamp. If the assembly uses punched ColorGuard without VersaClip, the hole should be at the downslope end of the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

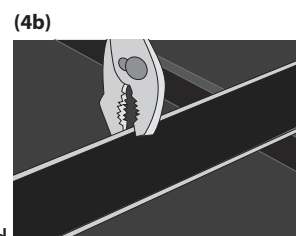
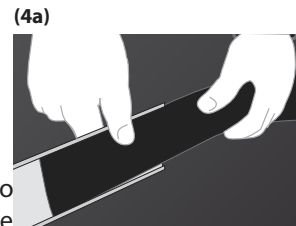
thinner gauges of steel. Please visit our load table at [www.S-5.com](http://www.S-5.com) to determine the proper screw tensions and holding strength.

**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.



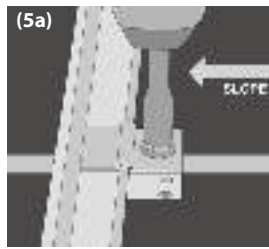
These instructions are for use by those experienced in the trade. Always follow appropriate safety precautions and use appropriate tools.

[www.S-5.com](http://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)

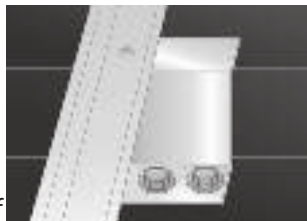


**ColorGuard® Cutting Tip:** If it is necessary to field cut ColorGuard, such as at the end of an assembly, it can be done with a hack saw or electric reciprocating saw with a fine tooth metal cutting blade. A power mitre saw with a fine tooth carbide tip blade also works well.

## Using VersaBracket™

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

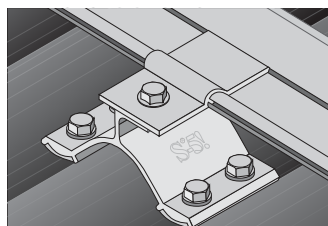
2. Fasten unpunched ColorGuard to the top flange of the bracket using a 1/4-14 stainless steel self drilling screw.



## Using CorruBracket™

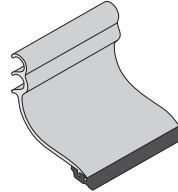
1. Install the bracket. See installation instructions that were included with your bracket. The threaded hole closest to the edge of bracket should be oriented upslope for unpunched ColorGuard & downslope for punched ColorGuard. When using VersaClip see step 3 on front page.

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

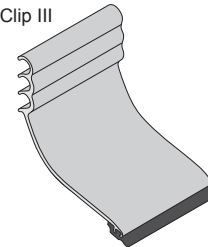


## Using SnoClip™

SnoClip II

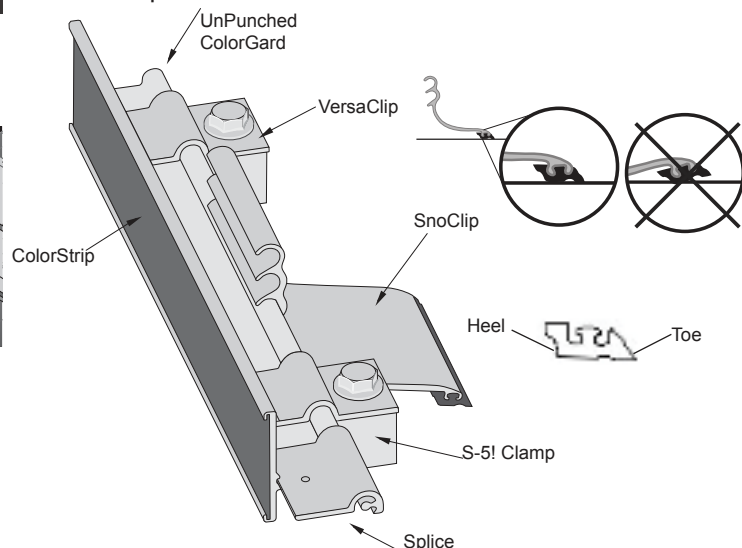
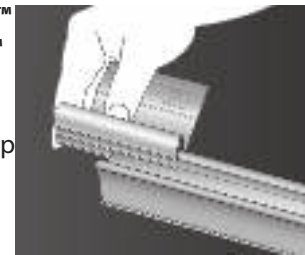


SnoClip III



**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](http://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](http://www.S-5.com).

Copyright 2018, Metal Roof Innovations, Ltd. S-5! products are patent protected. S-5! aggressively protects its patents, trademarks, and copyrights. CGI-V1.2-03-18



Rocky Mountain  
Snow Guards Inc



## Color Strip Sign-Off Form

**Black**

**Charcoal Gray**

**Dark Bronze**

**Medium Bronze**

**Evergreen**

**ACTUAL COLORS MAY VARY**

We strongly recommend obtaining a sample prior to purchasing.

**Color Strip Color Selection:** \_\_\_\_\_

To remove Color Strips from your order, enter "REMOVE" in the selection line above.

(877) 414-7606

[www.RockyMountainSnowGuards.com](http://www.RockyMountainSnowGuards.com)

## SECTION 07 72 53

### COLORGARD® SNOW GUARDS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes:
  - 1. Snow guards for metal roofs.
  - 2. [Non-penetrating] [Face fastened] attachment system.

##### 1.2 RELATED SECTIONS

- A. Division 01: Administrative, procedural, and temporary work requirements apply to this section.
- B. Section 07 41 13 - Metal Roof Panels
- C. Section 07 61 00 - Sheet Metal Roofing
- D. Section 07 62 00 – Sheet Metal Flashing and Trim
- E. Section 07 72 55 - Roof Accessory Attachment System.
- F. Section 13 34 19 – Metal Building Systems

##### 1.3 REFERENCES

- A. Aluminum Association (AA) - Aluminum Standards and Data, 2003 Edition.
- B. ASTM International (ASTM):
  - 1. B85-03 - Standard Specification for Aluminum-Alloy Die Castings.
  - 2. B221-04a - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

##### 1.4 SUBMITTALS

- A. Action Submittal:
  - 1. Shop Drawings: Include roof plans showing locations of snow guards on roof and attachment details and spacing.
  - 2. Product Data:
    - a. Product description.
    - b. Construction details.
    - c. Material descriptions.
    - d. Individual component dimensions.
    - e. Finishes.
    - f. Installation instructions.
  - 3. Samples:

- a. Clamp samples.
  - b. 12-inch long cross member samples including all associated hardware.
- B. Informational Submittals:
  - 1. Include calculation of number and location of snow guards based on designed roof snow load, roof slope, roof type, components, spacings and finish
  - 2. Test results: Results of product tensile load testing, issued by a recognized independent testing laboratory, showing ultimate load-to-failure value of attachment.
- C. Closeout Submittals:
  - 1. Certification: Installer's certification that snow guard system was installed in accordance with manufacturer's instructions and approved Shop Drawings.

## 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer to specialize in production of Snow Guard Products of the type specified with a minimum of 20 years documented experience.
- B. Installer Qualifications: Installer to specialize in metal roof installation and installation of Snow Guard Products with a minimum of 5 years documented experience.
- C. Mockup:
  - 1. Size: Minimum [8] [ ] feet long.
  - 2. Show: Snow guard attachment, cross members, and accessories.
  - 3. Locate [where directed.] [\_\_\_\_.]
  - 4. Approved mockup may remain as part of the Work.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver components to jobsite properly packaged to provide protection during transport, delivery and handling.
- B. Store products in manufacturer's original labeled and unopened packaging in a clean and dry location, protected from potential damage, until ready for application.

## PART 2 - PRODUCTS

### 2.1 SYSTEM DESCRIPTION

- A. Attachment system to provide attachment to standing seam metal roofs:
  - 1. With only minor dimpling of panel seams.
  - 2. Without penetrations through roof seams or panels.
  - 3. Without use of sealers or adhesives.
  - 4. Without voiding roof warranty.
- B. Performance Requirements: Provide snow guards to withstand exposure to the weather and environmental elements, and resist design forces without failure due to defective manufacture.
  - 1. Loading: Design snow guard system to resist minimum in-service vector load of [ ] pounds per linear foot of eave.
  - 2. Factor of safety: Utilize a factor of safety  $\geq$  [2] [ ] to determine allowable loads from ultimate tested clamp tensile load values.
  - 3. Source Limitation: Provide snow guard system as designed and tested by the manufacturer as a complete system. Install components by the same manufacturer.

### 2.2 MANUFACTURER



- A. Acceptable Manufacturer: S-5! Metal Roof Innovations, Ltd., 8655 Table Butte Road, Colorado Springs, CO. 80908; Tel: 888-825-3432; Fax: 719-495-0045; Email: [support@s-5.com](mailto:support@s-5.com); Web: [www.s-5.com](http://www.s-5.com)
- B. Substitutions: Not permitted.

### 2.3 BAR/RAIL-TYPE SNOW RETENTION SYSTEMS FOR STANDING SEAM METAL ROOFS

- A. Basis of Design: ColorGard, manufactured by S-5! Metal Roof Innovations, Ltd.
- B. Components:
  - 1. Clamps
    - a. Manufactured from 6061-T6 aluminum extrusions conforming to ASTM B221 or aluminum castings conforming to ASTM B85 and to AA Aluminum Standards and Data.
      - 1) Model: No. [S-5-U.] [S-5-S.] [S-5-T.] [S-5-Z.] [S-5-E.] [S-5-B.] [S-5-Q.] [S-5-H.] [S-5-K700.] [S-5-H90.] [S-5-N.] [S-5-N 1.5.] [S-5-KHD.] [S-5-V.] [S-5-K Grip.] [S-5-R465.]
    - b. Set screws: 300 Series stainless steel, 18-8 alloy, 3/8 inch diameter, with round nose point.
    - c. Attachment bolts: 300 Series stainless steel, 18-8 alloy, 8 mm or 10 mm diameter, hex flange bolt..
  - 2. Brackets:
    - a. Manufactured from 6061-T6 or 6005-T5 alloy and temper aluminum extrusions conforming to ASTM B221 and AA Aluminum Standards and Data or cast aluminum.
      - 1) Model: No. [VersaBracket 47.] [VersaBracket 67.] [CorruBracket.].
    - b. Screws for attachment of brackets to roof: Type best suited to application: Metal to metal applications: ¼-14 self drilling point, 2 inch length, 3/8 inch hex washer head, Zinc/Aluminum cap. Metal to wood applications: ¼-14 type 17 AB milled point, 2 inch length, 3/8 inch hex washer head, Zinc/Aluminum cap.
  - 3. Cross Members:
    - a. Manufactured from 6061-T6 or 6005-T5 alloy and temper aluminum extrusions conforming to ASTM B221 and AA Aluminum Standards and Data.
    - b. Receptacle in face to receive color-matched metal strips.
    - c. Provide splice connectors ensuring alignment and structural continuity at end joints.
  - 4. Color Strips: Same material and finish as roof panels; obtained from roof panel manufacturer.
  - 5. Snow and Ice Clips:
    - a. Aluminum, with rubber foot, minimum 3 inches wide.
      - 1) Model: SnoClip II or SnapClip II for standing seam heights 1” to 1.75”
      - 2) Model: SnoClip III or SnapClip III for standing seam heights 1.75” to 3”

## PART 3- EXECUTION

### 3.1 EXAMINATION

Prior to beginning installation, verify that:

- 1. Panel seaming is complete.
- 2. Panel attachment is sufficient to withstand loads applied by snow guard system.
- 3. Installation will not impeded roof drainage.

Prior to beginning installation, verify that:

1. Roof attachment is sufficient to withstand loads applied by snow guard system.
2. Installation will not impede roof drainage.

### 3.2 PREPARATION

- A. Clean areas to receive attachments; remove loose and foreign matter that could interfere with installation or performance.

### 3.3 INSTALLATION

- A. Install system in accordance with manufacturer's instructions and approved Shop Drawings

- B. ColorGard Snow Retention System:

1. Place clamps at maximum 32 inches on center or as required by in-service loads.
2. Place clamps in straight, aligned rows.
3. Place both set screws on same side of clamp.
4. Tighten set screws to manufacturer's recommended torque. Randomly test set screw torque using calibrated torque wrench.
5. Insert color-matched metal strips into cross members, staggering strips to cover cross member joints.
6. Attach cross members to clamps; tighten bolts to manufacturer's recommended torque.
7. Install splice connectors at cross member end joints.
8. Do not cantilever cross members more than 4 inches beyond last clamp at ends.
9. Install [one SnoClip or SnapClip] [two SnoClips or SnapClips] per panel between panel seams.
  - a. SnoClips: slide onto cross member before securing cross member to clamps
  - b. SnapClips: Secure [SnapClip II] [SnapClip III] to back side of cross member using stainless steel #10 x ½ inch screw

1. Place brackets at maximum 32 inches on center or as required by in-service loads.
2. Clean roof area to receive bracket. Remove protective seal on butyl tape
3. Place brackets in straight rows along underlying substrate.
4. Insert color-matched metal strips into cross members.
5. Place brackets at spot of attachment and fasten with screws best suited for type of attachment
6. Attach cross members to brackets using self drilling screws.
7. Install splice connectors at cross member end joints.
8. Do not cantilever cross members more than 4 inches beyond last bracket at ends.

9. Install SnoClips or SnapClips at spacings indicated on Shop Drawings.
  - c. SnoClips: slide onto cross member before securing cross member to clamps
  - d. SnapClips: Secure [SnapClip II] [SnapClip III] to back side of cross member using stainless steel #10 x ½ inch screw (provided).

END OF SECTION



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## Rocky Mountain Snow Guards Snow Retention System Maintenance Guide

Systems designed by Rocky Mountain Snow Guards, installed properly should last the life of the roof. Rocky Mountain does not recommend adhesive tape or sealant attachment for any snow fence or snow guard system. Rocky Mountain snow retention systems installed on commercial buildings, above high traffic areas or in areas with high snow loads should be inspected by a qualified roofing or snow retention professional on an annual basis to ensure the system will continue to perform as designed.

### Bolt Down Snow Fence Systems:

1. Inspect brackets, snow fence components and fasteners for evidence of damage.
2. Replace damaged parts prior to the next snow season.

### Clamp to Seam Snow Fence and Snow Bar Systems:

1. Inspect brackets, snow fence and snow bar components for evidence of damage.
2. Replace damaged parts prior to the next snow season.
3. Check torque on set screws with an appropriate torque wrench.
4. Torque set screws to recommended torque. This is especially important after the 1st snow season.

### Snow Guards:

1. Inspect snow guards for evidence of damage.
2. Inspect exposed fasteners.
3. Replace damaged parts prior to the next snow season.