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## Installation Instructions for SnowMax Snow Guard System Using SnowMax-U2 and SnowMax-UT2

- I. SnowMax Block (Clamp) Installation
  - A. When attaching blocks (clamps) to machine folded seams, (regardless of panel profile and geometry), the SnowMax block (clamp) is designed to engage seams by pinching the seams with 2 stainless steel set screws. For horizontal seam applications (inverted "L"), set screws must be accessible from the top of the block for tightening. On snap together type seams, orient the block (clamp) so that the set screws are opposite the open, or overlap side of the seam. On some types of panel seams, the aspect of block (clamp) orientation is not critical.
  - B. NOTE: Some horizontal seams may require additional hand crimping at the block (clamp) location.
  - C. Two set screws are used in any given SnowMax block (clamp) installation.
  - D. Position the blocks (clamps) appropriately on the panel seam. Using a 3/16" Allen-wrench attachment tip for a 1/4" drive screw gun, tighten and retighten set screws as the seam material compresses. On low seam profiles, a 4" bit extension on the screw gun may help to access the set screw. Tighten set screws to a torque value of 140-180 inch-pounds.
  - E. **Note:** Battery-operated screw guns may not deliver consistent screw tension. Drywall guns may not deliver adequate tension.
  - F. Place the SnowMax bar on top of the SnowMax block (clamp) so that the slotted face of the bar is facing down slope. When properly installed, the face of the bar will help to hide the block (clamp).
  - G. Place lock washer on flat head bolt. Insert bolt in the top of SnowMax block (clamps) and tighten until the lock washer engages the top of the SnowMax block (clamp). Once this interface has been achieved, torque the bolt to a minimum of 100 inch-pounds.
  - H. The SnowMax bars are provided in 8' lengths. Each bar comes with a coupling/splice device (rectangular shape) that slides into the slot at the end of the bar. Join successive bars by sliding slotted end over the coupling/splice device.



## II. Optional Items

- A. Color Insert: The face of the SnowMax bar is designed to accept a 2" wide color insert using the color metal that the roof was made with. This Color Insert is available in a limited color selection from Alpine SnowGuards. Many installers will provide this part themselves using material they have on hand.
- B. SnowMax Ice Flags (IF): The SnowMax-IF is optional but recommended at least on the bottom tier of guards (assuming the project needs more than one tier). These IF's are cut to length so that the flag does not rest on the panel. Therefore, Alpine SnowGuards will need to know the seam height to precut the IF's to the proper length. To install the IF's on panel widths 24" wide or less, center the IF on the bar between seams and fasten with one Tek screw (provided). For panels 25" wide or wider, install 2 IF's per panel (example 42" wide/ 3 = 14" spacing between seam and IF) spaced evenly.

## III. Assembly - An assembly detail for the SnowMax System is available from Alpine SnowGuards, [www.alpinesnowguards.com](http://www.alpinesnowguards.com)

- A. Loads imposed on the SnowMax System will be transferred to the panels. Panels must be properly attached to building structure to resist these loads.
- B. This system is not approved as a fall arrest system.

## IV. Common Installation Hints and Tricks

- A. When a SnowMax-U2 block is installed slightly up or down-slope of the previous block, the gap may be too close to install the lock washer (gap shown in Figure IV.a). Due to tight manufacturing tolerance, this issue is a common occurrence but has a fast and easy solution.

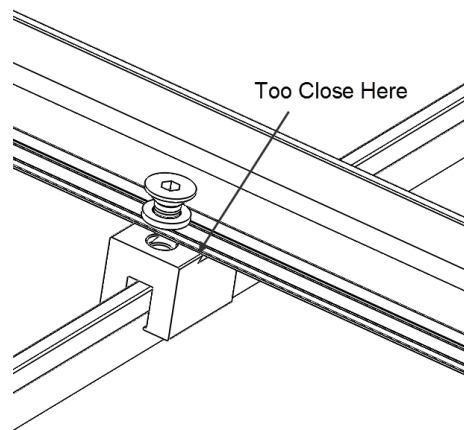


Figure IV.a Looking Down-Slope during SnowMax Install



- B. Lift slightly or apply down-slope pressure on the free (unfastened) side of the SnowMax bar and insert a small flat head screwdriver as shown in figure IV.b. If lifting does not create enough of a gap, use a hammer to tap the screwdriver into where the gap should be. This will gouge the aluminum dovetail, on the upslope edge of the block where the bar engages the block, and will not affect the integrity of the system.

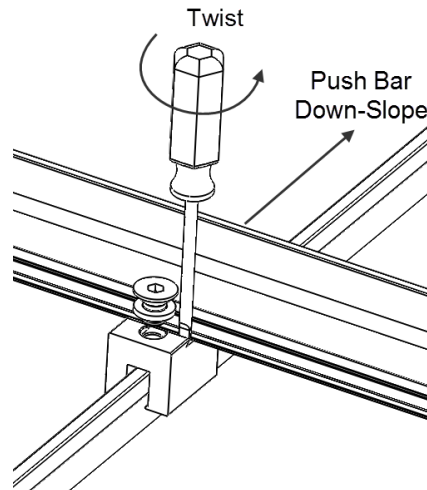


Figure IV.b Inserting the screwdriver

- C. Raise the handle of the screwdriver until it is plumb to the roof surface. Twist the screwdriver to create a lever that will force the bar to properly seat in the dovetail (See Figure IV.B). Once the bar is properly seated and aligned, insert the flat head bolt and lock washer and thread into the attachment hole. Once the bolt has been started, it is easiest to use an impact driver or screw gun with a socket to secure it the rest of the way in.
- D. It is also helpful to apply pressure downward on the top of the SnowMax bar to assure that it is properly seated in the dovetail. This downward pressure allows the head of the flat head bolt to slide easier past the back of the SnowMax bar.

#### NOTES:

- Do not install runs of snow retention bar more than 100 feet long without a break to allow for thermal expansion.
- First row of snow guards are installed above outer most wall or support of the building.

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