SnoBar/ColorBar

Installation Instructions

Do not discard these instructions.

Please read and fully understand all warnings, instructions and regulations prior to use.

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Before Installing the SnoBar/ColorBar Bar System

Read the **DESIGN CONSIDERATIONS** on the last page.
Always make sure the roof panels are properly attached
to the structure at a fixed point.

NOTE:

Standing Seam Roof Clips normally **DO NOT** provide a fix point for floating roof panels. The standing seam panels must be attached with enough fasteners to withstand the added load incurred by retained snow. If unsure, please consult with a professional metal roofing installer.

REQUIRED TOOLS:

Make sure to have the proper tools for installing the SnoBar/ ColorBar System.

- Rubber Mallet for tapping in end caps for SnoBar
- Drill Gun with 3/8" Nut Driver Bit for driving Tek Screws
- Torque Wrench that reads into in/lbs. ***(inch pounds)*** for setting set screw torque to 90 in/lbs.
- 3/16" Allen Bits for tightening set screws (provided with your system)
- Flex Pivot Bit for Drill Gun – Helps when tightening set screws on shorter seams.
- Tape Measure
- Hacksaw
- Deburring File
- Pencil.

SYSTEM PARTS:

Verify quantities of the parts against the packing slip. Your system should include:

- SnoBar Clamps with Cup Tipped Set Screws
- RoofClamps (optional) w/screws, top bolts and washer
- Bar
- Self-Drilling Tek Screws
- End Caps (only for SnoBar)
- Splice Connectors (only for ColorBar)
- Optional Ice Stoppers (If ordered with your project).

DETERMINE LAYOUT OF ROWS:

Refer to the layout that was provided when the system was purchased. If no layout was provided, then a preliminary basic layout would be one row 12" up from the eave (or over the load bearing wall) and all additional rows will be spaced evenly up the slope.

For example, if the roof from eave to ridge is 26'-0", and you were putting on two rows, you would put the first row at 12" up from the eave (or over the load bearing wall), and the second row would be put at 13'-6" from the eave (or 12'-6" from the first bar).

Make sure all workers are properly harnessed and anchored to the roof according to OSHA fall protection guidelines.

Never use the SnoBar/ColorBar system as a tie off point.

INSTALLATION:

- Never extend the bar more than 3" past the last clamp on the end of a row or a row terminating in a valley.
- Bars may have to be cut to length depending on panel width. Do not discard any cutoffs until the job is completed.

Short sections of SnoBar or ColorBar must span at least two seams. In a continuous run of SnoBar or ColorBar, cutting of the bar may be required to avoid having a short bar at one seam. A short bar clamped to a single seam is not acceptable and will fail.

Installation, Cont'd.

1. Insert 2 set screws into all SnoBar clamps prior to getting on the roof, the cupped tips point inward toward the panel seam. Leave just enough room between the set screw tips for the clamp to slide over the seam.

2. Based on the layout, measure 12" to 18" up the seam from the eave (if there is an overhang, place the first row over the load bearing wall). Mark with a pencil at the farthest seam starting at the left. Then mark the same distance from the eave on the seam just short of the length of the bar you are installing. For example: If installing a full 12' section of bar you would want the 2nd mark to be just short of 12' from the 1st mark. Be sure the two seams are not wider than the length of bar that you are installing. Do not place the clamps over clips whenever possible to avoid restricting the thermal expansion of the panels.

3. Set the first SnoBar Clamp onto the furthest left seam of the bar section at your 1st pencil mark. Hand tighten the set screws to the seam, making sure the clamp is centered and the bottom of clamp is down tight to the top of the seam. The (2) holes in the bar receiver section of the SnoBar Clamp should be facing upslope when properly mounted onto the seam. While putting downward pressure on the SnoBar Clamp, torque the 2 set screws to 90 inch/lbs. Repeat this step to install a second SnoBar Clamp on the furthest right seam as marked in Step 2.

Installation, Cont'd.

4. Place a full section of bar down into both SnoBar Clamps (do not attach bar to clamps yet). This section of bar will be used as a straight edge to install the remaining SnoBar Clamps for that bar section. The clamps should only be set in place with the set screws being hand tightened.

Once all SnoBar Clamps in the bar section are installed, torque all set screws to 90 inch/lbs. while applying downward pressure to the bar.

5. If using the 1" square SnoBar, install the supplied Plastic End Caps at each end of the SnoBar. Be sure to de-burr any field cut bars prior to installing End Caps. If using the aluminum ColorBar, disregard this step.

6. The next step is to attach the bar to the clamps. SnoBar/ColorBar should never extend more than 3" past the last clamp at either end of a continuous row. Starting at the farthest left clamp, make sure the bar is seated tightly, while applying downward pressure. Install the (2) Tek Screws through the back of the SnoBar Clamp into the bar using the 3/8" driver bit. Follow the same procedures for each clamp, applying downward pressure, as you progress down the section of bar.

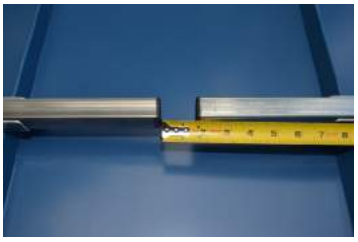
Repeat these 6 steps for each full section of bar until the row is completed.

Installation, Cont'd.

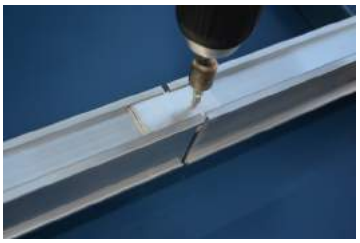
7. When the optional IceStoppers are installed, the short leg of the IceStopper should be facing upslope with the Tek screw holes lining up with the upslope side of the bar. If installing one IceStopper per panel, then center between clamps. Hold tightly to the upslope side of the bar and install (2) Tek Screws while applying downward pressure. On panels 18" or wider, use two or three IceStoppers spaced equally between panel seams.

   If you did not order IceStoppers with your system and you experience snow and ice sliding under the bars, they can easily be added in the future.

8. **<u>For SnoBar</u>**, butt joints should always be centered in the panel valley with no more than a 2" gap between butted ends. Some panels require the bars to be cut to obtain correct seam spacing.



   <u>For ColorBar</u>, the supplied Splice Connectors create a continuous run of bar therefore the bar ends should be no further than 1/8" apart. ColorBar butt joint connections can be made anywhere along the row other than inside the clamp, as long as splice connectors are properly installed with 1 Tek screw each.



Installation, Cont'd.

9. Space additional rows of SnoBar or ColorBar evenly up the slope, always measuring from the eave according to the layout provided. This gives the best protection against snow and ice slides while providing balanced structural loading across the entire roof structure. If not sure how to space additional rows, please call us at 800-766-5291.

   For example, if you have a 31'-6" panel length from eave to the ridge that requires three rows of SnoBar or Color-Bar, place the first row 18" up from the eave, the second row 11'6" from the eave, then place the third and final row 21'-6" up from the eave.

Action Manufacturing LLC and/or IceBlox, Inc are not responsible if failure occurs from improper installation, improper set screw torque, improper panel attachment, improper roof system installation, or inadequate design layout of the SnoBar or ColorBar system.

Be sure to follow all instructions and call us at 800-766-5291 if you have any installation questions.

DESIGN CONSIDERATIONS:

1. All loads incurred by the SnoBar/ColorBar System will be transferred to the panels. Therefore, proper panel attachment to substrate/structure is necessary to prevent roof panels from sliding under snow load. New and existing structures must be evaluated to insure they can withstand retained snow loads. (In instances where there is an overhang at the eave edge, it is imperative to make sure that
2. It is not recommended to place the SnoBar/ColorBar System in isolated areas such as just over doorways, vents and partial roof areas. Please call for special design considerations in these areas.

Design Considerations, Cont'd.

3. No snow retention system is capable of retaining 100% of snow and ice from falling off the roof. The system is designed to mitigate the dangers of sliding snow and ice.

4. Roof system should be a minimum of 24 gauge steel and have a seam height of at least 1". Do not use the SnoBar/ ColorBar system on seams with separate seam cover or batten strips.

5. Clamp spacing varies depending on seam spacing (12"o.c. up to 42"o.c.). Clamps should be placed on **every seam**, so that the load is distributed evenly to every roof panel. Yes, we know that other manufacturers may only provide a clamp for every other seam in order to be the lowest priced, but this is very risky and usually not warrantied against failure. We design systems that last the life of the roof and back them up with a Lifetime Warranty against failure.

6. Designer/Architect, Installer, or Owner of the project should have knowledge of the local snow loads (ground snow load PSF/kPa), climatic conditions, roof slope, roof orientation, potential drifting, and roof design prior to installing a SnoBar or ColorBar system.

7. System layout is calculated using length of panels, Ground Snow Load, roof slope, snow loading, and areas needing protection from falling snow. More than one row of SnoBar/ColorBar may be needed. We provide free design service to make sure it gets done correctly the first time. Call us at 800-766-5291 or email sales@snojax.com with any questions.

Design Considerations, Cont'd.

8. Finally, no matter how well a system is designed, Mother Nature will throw more at us than we have considered, such as drifting, ice, unusual amounts of snowfall, etc. Owners must be aware of these conditions and when these extremes are reached, snow and ice should be physically removed from the roof. Snow retention systems do not prevent snow drifting on overhangs or cornices. The owner must be aware of these situations and remove them as they occur.

It is the sole responsibility of the Designer/Architect, Installer, or Owner to assess the suitability of using the SnoBar/ColorBar systems based on the above design considerations.