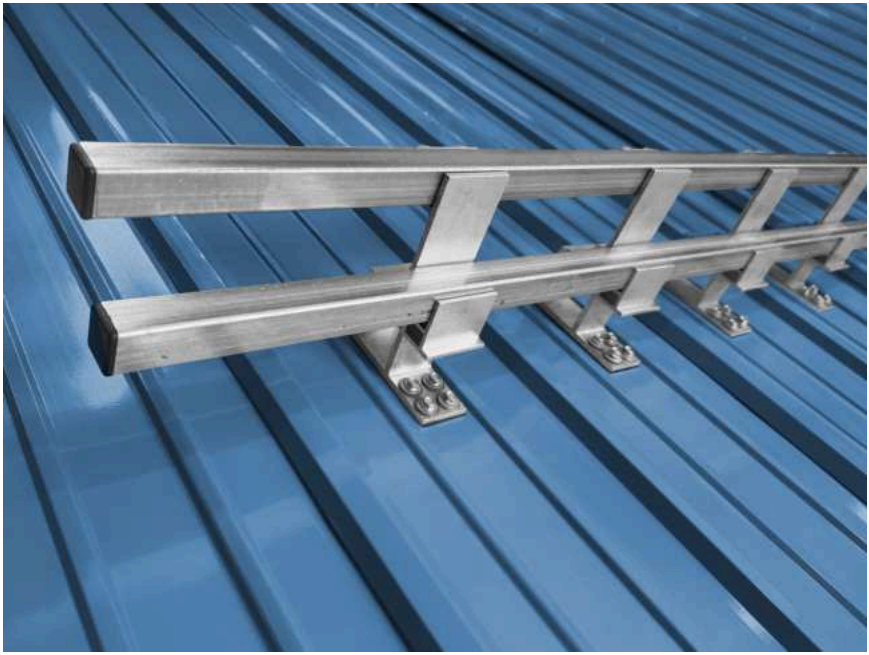
# SnoBar/Colorbar

## Screw Down Double Bar



# Installation Instructions

**Do not discard these instructions.**
**Please read and fully understand all warnings,**

**instructions and regulations prior to use.**

# Table of Contents



## Before Installing the SnoBar Screw Down Bar System

Read the **DESIGN CONSIDERATIONS** on page 10-11. Always make sure the roof panels are properly attached to the structure at a fixed point, and that each MRM Bracket is fastened through the panel and into a structural purlin, not into the panel alone.

**NOTE:**

Exposed-fastener (screw-down) metal roof panels carry snow loads through their fasteners into the purlins below. Fasteners that do **NOT** hit a purlin provide no load path and will not hold. The existing panel 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 before proceeding.

## REQUIRED TOOLS:

Recommended tools for SnoBar Screw Down installation.

- Hammer for installing the SnoBar plastic end caps
- Drill / impact driver with 3/8" nut driver for #14 screws
- 3/16" Allen bit for tightening set screws
- Tape measure
- Chalk line or pencil for marking purlin locations
- Hacksaw
- Deburring file
- Pencil

## SYSTEM PARTS:

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

- **#14 woodgrip or self-drilling metal-to-metal fasteners with bonded sealing washers**

- **Bars (SnoBar or ColorBar)**

- **End Caps (only for SnoBar)**

- **MRM Mounting Bracket and Hardware**

- **Splice Connectors (only for connecting multiple ColorBars)**

- **Screw Down Double Bar Bracket(SC2B)**

## DETERMINE LAYOUT OF ROWS:

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

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 edge (or 12'-6" from the first bar). Each base must land on a purlin — confirm purlin locations before drilling.

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

**Never use the SnoBar Screw Down system as a tie off point.**

## INSTALLATION INSTRUCTIONS:

- **Never extend the bar more than 3" past the last base 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 complete.
- **Short sections of SnoBar or ColorBar must span at least two bases.** In a continuous run of SnoBar or ColorBar, cutting of the bar may be required to avoid having a short bar at one base. **A short bar clamped to a single base is not acceptable and will fail.**

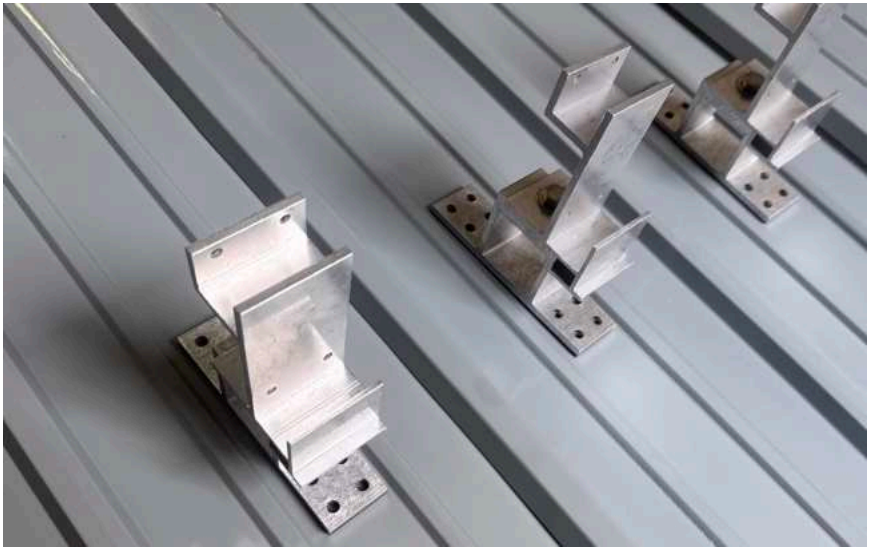
## INSTALLATION INSTRUCTIONS, Cont'd.:

**1. Locate the purlin and mark fastener positions.** Identify the purlins that run beneath the panel in the vicinity of your first row. Most through-fastened metal roofs have visible existing panel screws aligned with each purlin — use those as your guide. Measure 12" to 18" up from the eave (or over the load bearing wall) to the selected purlin and mark the base fastener locations along that line with a pencil or chalk line. Each base must be anchored through the panel and into a purlin — fasteners that hit panel only will pull free under snow load.

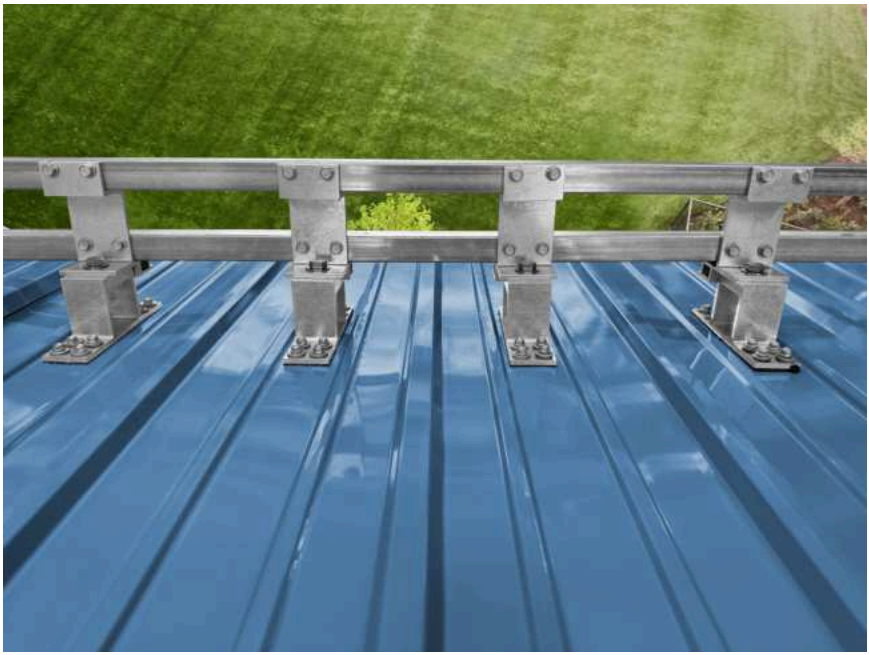
**2. Position the MRM on the panel and fasten through to the purlin.** Set the first base on the flat of the panel (between minor ribs) at your first pencil mark, centered over the purlin, with the bar receivers facing upslope. Using a drill or impact driver with a 3/8" nut driver, drive the supplied #14 woodgrip (wood purlin) or #14 self-drilling metal-to-metal (steel purlin) screws through every fastener hole in the base. Fasteners must penetrate a minimum of 1-1/2" into a wood purlin or fully engage the steel purlin. Seat each fastener so the bonded sealing washer just compresses — do not overdrive.

**3. Repeat across the row per engineered spacing.** Continue setting MRM along the row at the spacing specified on your engineered layout (typically 12" to 18" on center depending on snow load, panel type, and purlin spacing). Each base must land on a purlin.

**4 Install Screw Down 2Bar Bracket to the top of MRM Bracket.** Use a 9/16 hand wrench to tighten top bolt.



**5. Install the cross bars through the 2Bar Bracket.** Slide a full section of the lower bar through the lower receiver of every base in the row. Then slide the upper bar through the upper receiver. The bars should be seated fully into each receiver and run continuously along the row. Leave no more than 3" of bar extending past the last base at the end of a row. Do not attach bars to isolated bases — a short bar on a single base will fail.

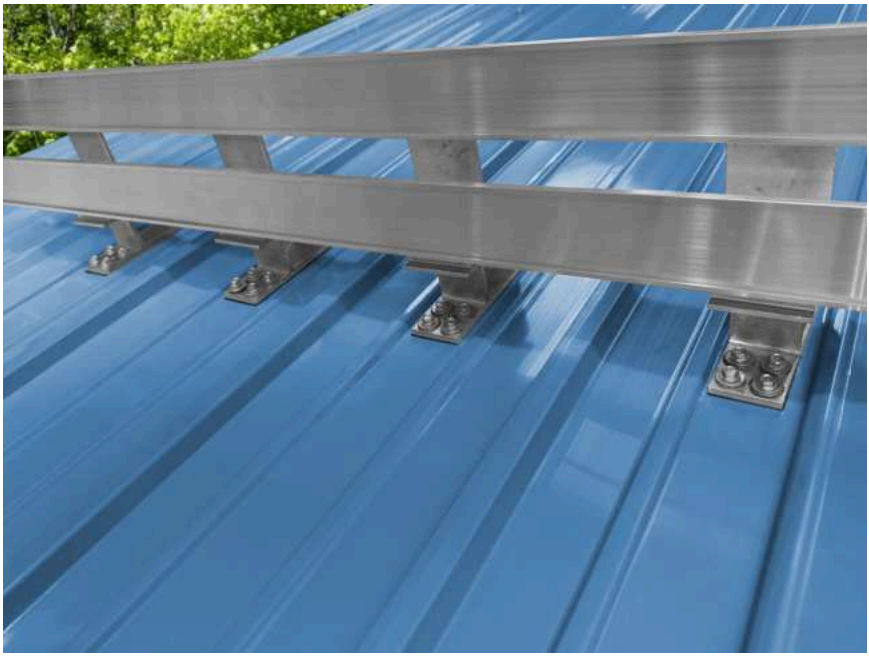


*Two bars seated in the upper and lower receivers of each base.*

**5.2. Secure the bars with supplied Tek screws / retaining hardware.**

**INSTALLATION INSTRUCTIONS, Cont'd.:**

**6. Install splice connectors where bars meet (If applicable, ColorbarOnly).** For **SnoBar**, butt joints should always be centered between two bases with no more than a 2" gap between butted ends. Some panels require the bars to be cut to obtain correct base spacing. For **ColorBar**, the supplied splice connectors create a continuous run of bar — butt ends should be no further than 1/8" apart. ColorBar splice connections can be made anywhere along the row other than inside a base, as long as the splice connectors are properly installed with one Tek screw each.



**7. Install end caps.** If using the 1" square SnoBar, install the supplied plastic end caps at each end of the bar. Be sure to de-burr any field-cut bars prior to installing end caps. If using the aluminum ColorBar, disregard this step.

**8. Lay out additional rows.** Space additional rows of SnoBar Screw Down evenly up the slope, always measuring from the eave edge according to the manufacturer's recommended spacing layout and always landing each row on a purlin. This gives the best protection against snow and ice slides while providing balanced structural loading across the entire roof structure. If you have any questions or need spacing assistance, please call us at 800-766-5291.

**Action Manufacturing LLC and/or SnoBlox-Snojax is not responsible if any system failure occurs from improper panel attachment, improper roof system installation, missed purlin fasteners, or inadequate spacing layout of the SnoBar Screw Down system.**

## DESIGN CONDITIONS:

1. All loads incurred by the SnoBar Screw Down System will be transferred through the panel into the purlins. Therefore, proper panel attachment to substrate/structure and adequate purlin capacity are necessary to prevent roof panels from sliding under snow load. New and existing structures must be evaluated to insure that they can withstand retained snow loads. (Where there is an overhang at the eave, it is imperative to make sure the overhang can hold the accumulated snow load; otherwise, the first row of SnoBar Screw Down should occur at the bearing wall or first purlin.)
2. It is not recommended to place the SnoBar Screw Down System in isolated areas such as over doorways, vents, or partial roof areas. Please call for special design considerations in these areas.
3. No snow retention system is capable of retaining 100% of snow and ice from falling off of the roof. The system is designed to mitigate the dangers of sliding snow and ice.
4. The roof system should be a minimum of 26 gauge steel over wood purlins or 24 gauge over steel purlins, with panel fasteners properly installed at the manufacturer's recommended spacing. Do not use the SnoBar Screw Down system on panels with loose, pulled, or under-driven fasteners — correct panel attachment first.

## Design Conditions, cont'd.

5. Base spacing varies depending on snow load, panel type, and purlin spacing (typically 12" to 18" on center). Bases must be placed only where they can be fastened through the panel into a purlin. 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, roof design, and existing panel fastening pattern prior to installing a SnoBar Screw Down system.
7. System layout is calculated using length of panels, ground snow load, roof slope, snow loading, purlin spacing, and areas needing protection from falling snow. More than one row of SnoBar Screw Down 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 support@snojax.com with any questions.
8. Finally, no matter how well a system is designed, Mother Nature may create unforeseen conditions that may have not been considered, such as drifting, ice, uncharacteristic 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 Screw Down system based on the above design considerations.**