

# S-5!®

The Right Way!

The right way to attach almost anything to metal roofs!

## Installation Instructions

**Stop! Has your snow retention system been designed properly with the assistance of a distributor?**

**Notice to S-5!® product 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 S-5! distributors as well as 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. Information contained within is intended to apply to the document as a whole. Clamp spacing should never exceed 24" with SnoRail™/SnoFence™ snow retention assemblies (contact your distributor for products to accommodate a seam spacing greater than 24").

### Tools Needed

- Screw Gun\*
- Electric reciprocating saw
- String Line
- Calibrated Torque Wrench
- Mallet or Pliers
- Allen Wrench (included)
- T-30 Torx Bit Tip (included with clamps)

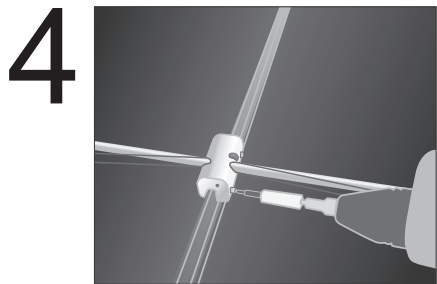
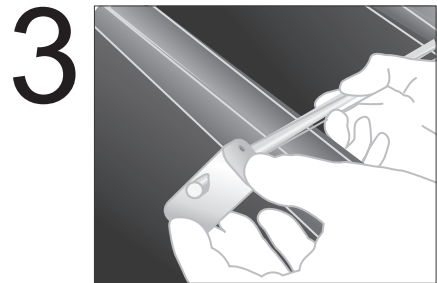
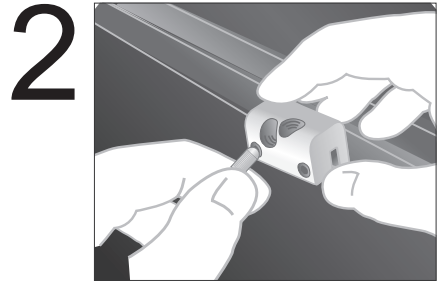
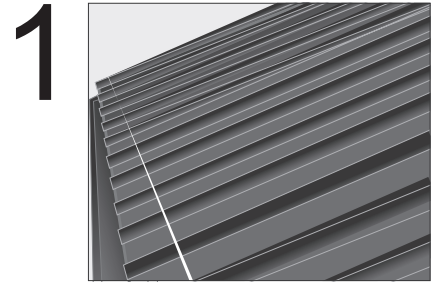
\*For time saving tool recommendations contact S-5!

### To Install the SnoRail™ / SnoFence™

- 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 each clamp location from the eave is not recommended.
- 2. Preparing the Clamps:** For copper roofs, use brass S-5-BSF clamps. For other standing seam roofing materials, use aluminum S-5-ASF clamps. Thread the setscrews into all clamps by hand. For vertical seams, determine which side of the seam should be engaged by the setscrew. On folded seam profiles, the setscrew should engage the folding contours rather than the smooth side of the seam.

**Before continuing, please take a moment to read the important notice about SnoClip™ on the back side of these installation instructions.**

- 3. Preparing the Assembly:** Thread the appropriate number of clamps onto the SnoRod™. Take care that the orientation of all clamps on the rod is the same. Use one S-5-BE or S-5-AE clamp per 48.00' of installation and at the ends of each installation, to fix the SnoRod, preventing lateral movement.  
**Installing the Assembly:** Position the clamp assembly appropriately on the panel seams, using the string line as a guide, and loose-fit all clamps to panel seams. At this time tighten setscrews just enough to hold the system in position. Place splices between adjacent lengths of SnoRod. If the intended system is SnoRail move on to step 4 and tighten all setscrews. If SnoFence is being installed see back of install instructions "SnoFence™ Systems" before tightening setscrews.
- 4. Tighten All Setscrews:** 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. If the system is SnoFence™, the clamp screws should not be tightened until the second upper rod has been fitted through the SnoPost™.



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

SnoRail™ / SnoFence™ Install

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## SnoRail™ Systems:

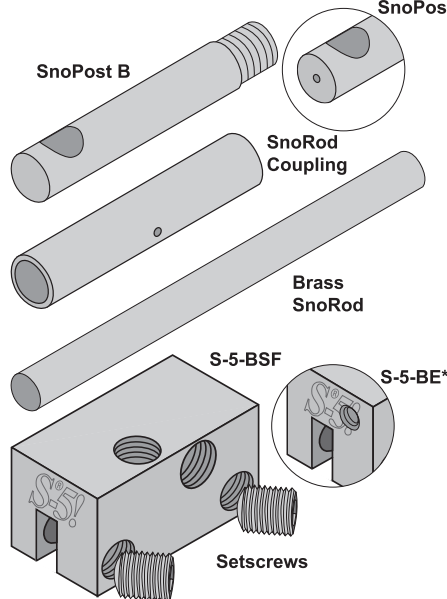
One SnoRod™ is inserted through the S-5-ASF or S-5-BSF clamps, positioning it just above the panel seams. Use one S-5-BE\* or S-5-AE\*\* clamp per 48.00' of installation, and at the ends of each installation, to fix the SnoRod, preventing lateral movement. Thread the small 8-32 setscrews into the appropriate clamp holes and tighten with the Allen wrench provided. The resulting assembly is called SnoRail™.

## SnoFence™ Systems:

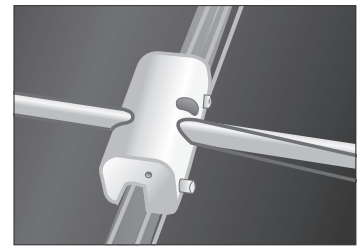
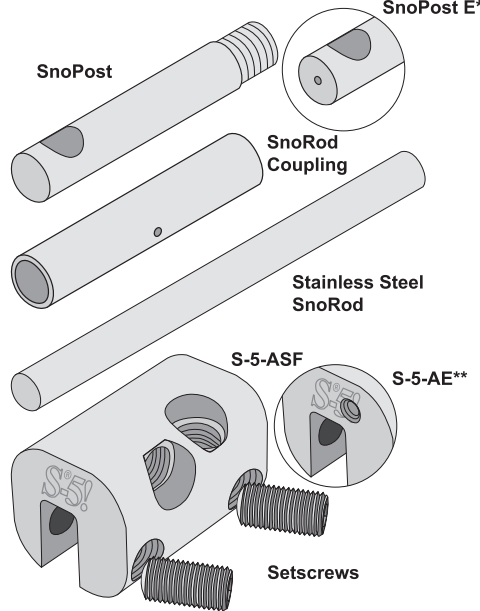
Starting with an assembled SnoRail system, simply thread one SnoPost™ into the S-5-ASF or S-5-BSF clamp, ensuring that the rod hole in the SnoPost is parallel with the rod hole in the clamp. Use one SnoPost BE™ or SnoPost AE™ per 48.00', and at the ends of each installation, to fix the upper SnoRod, preventing lateral movement. Insert a SnoRod through the SnoPosts. Thread the small 8-32 setscrews into the appropriate SnoPost holes and tighten with the allen wrench provided. The resulting double-rod assembly is called a SnoFence.

Secure all rod intersections using furnished rod coupling. If a rod intersection occurs at a clamp location, field cut the rod so that the clamp location is avoided. Rods should not cantilever past the last clamp at the end of an assembly by more than 4.00". Rods can be cut with an ordinary hack saw, or a reciprocating saw with a metal cutting blade. Deburring the cut end with a metal file may facilitate installation.

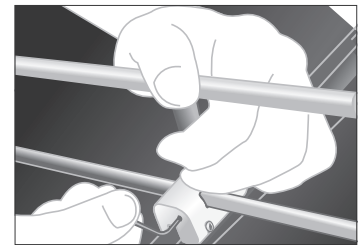
### Brass Components:



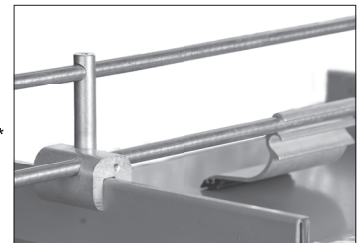
### Aluminum Components:



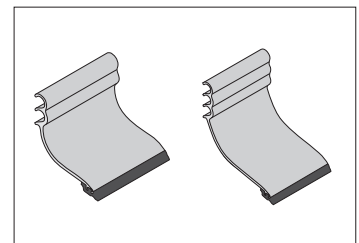
SnoRail System



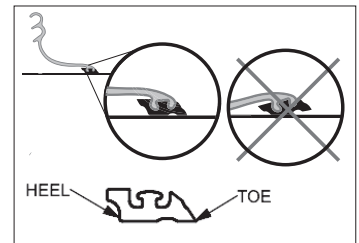
SnoFence System



Using SnoClip



SnoClip II / SnoClip III



Correct Use of SnoClip

## Using SnoClip™ :

**IMPORTANT NOTICE!** - SnoClip™ design has changed. SnoClip™ must now slide on from the end of the SnoRod. Be sure to slide SnoClip™ onto assembly between clamps. One or two SnoClips™ are used between seams (please visit [www.S-5.com](http://www.S-5.com) for details). Mount the SnoClip™ to the back of the SnoRail™/SnoFence™ 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 SnoClip™ maintains the appropriate positioning, as snow weight may flip the clip up slightly. Should crosswise panel deflection be excessive and allow the SnoClip™ to rotate under the SnoRail™, then SnoClips™ should not be used. Please reference the SnoClip™ installation instructions for further information.

### S-5!® Warning! Please use this product responsibly!

Products are protected by multiple U.S. and foreign patents. Visit the website at [www.S-5.com](http://www.S-5.com) for complete information on patents and trademarks. For maximum holding strength, setscrews should be tensioned and re-tensioned as the seam material compresses. Clamp setscrew 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. Consult the S-5! website at [www.S-5.com](http://www.S-5.com) for published data regarding holding strength.