

## #115R Pipe-Style Snow Guard for Membrane Roofs Assembly Instructions

### What's in the box?

Each #115R consists of an extruded and milled aluminum bracket, a stainless steel base plate, 2 neoprene-bonded washers, 2 stainless nuts and the ferrule material. The material used for the ferrules is the same as the pipe for the snow guard system. 24" per bracket is supplied, that is enough for about 3 ¼" of insulation. Ferrules are not cut to order; measuring and cutting should be done onsite to avoid mistakes.

### What's not in the box.

You will also need 7 fasteners per bracket. The fasteners must be long enough to penetrate the insulation and go well into the deck below.

Flashing (Target Patch) is available from Alpine or you can make your own. It should be a minimum of 12" square.

Appropriate mastics and patching techniques should be used according to the type of membrane roofing and the manufacturer's instructions.

You will need a coring tool to make 1" holes through the membrane and insulation.

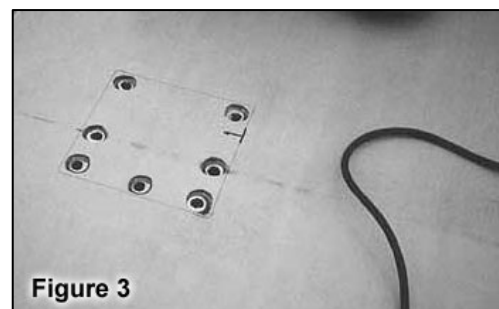
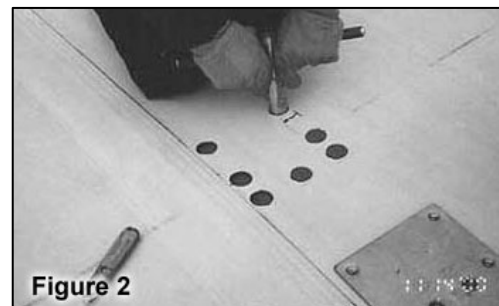
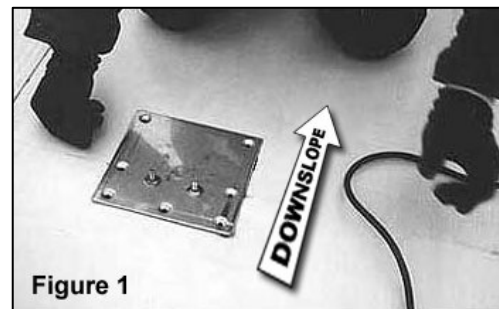
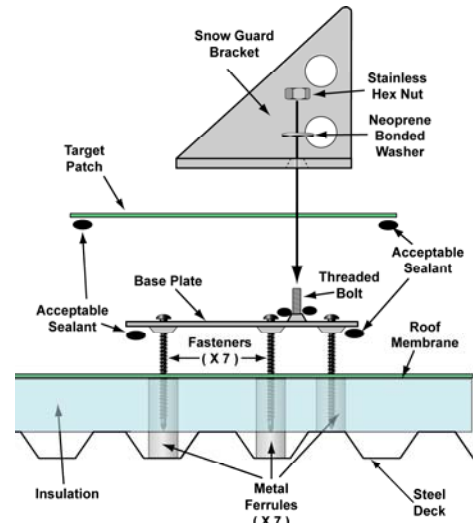
**I. Base Plate** (The base plate is the flat piece with the two threaded studs.) Start by measuring and snapping a line to ensure proper placement.

A. Place the base plate on the finished membrane and mark the locations of the seven fastener holes. NOTE: The threaded studs on the base plate are not centered. For #115R installation, align the base plate so that the studs are on the up-slope end of the base plate. **(Figure 1)**

B. Remove the base plate and at the seven marked locations, bore seven 1" holes through the finished membrane and through the insulation until the substructure is reached. **(Figure 2)**

C. Measure the depth of each hole and cut the ferrules to rest on the substructure and be flush with the finished roof surface when inserted into the holes – refer to the illustration above. The ferrules must rest firmly against the deck and be even with the surface. Drop the ferrules into place. The ferrules will prevent the insulation from compressing when the base plate is tightened into place. **(Figure 3)**

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- D. Place the base plate on top of the finished membrane roof so that the seven fastener holes line up with the centers of the seven ferrules. The holes in the base plate will lock into the ferrules when the ferrules are positioned properly. **(Figure 4)**
- E. Fasten base plate to the substructure using the appropriate fasteners for the type of decking and the thickness of the insulation. Make certain that the base plate cannot shift.
- F. Consult with manufacturer, project engineer or fastener company to determine the fastener required attaching the base plate to the substructure. See testing information for assistance.

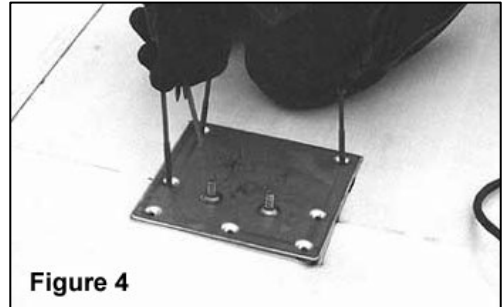


Figure 4

## II. Membrane Flashing of Base Plate

- A. Prepare the area for flashing according to the membrane manufacturer's instructions for patching. **(Figure 5)**
- B. Use a pre-cut and drilled patch/flashing from Alpine SnowGuards or an acceptable piece of flashing material 12" square...
- C. If making your own flashing, cut two small holes in membrane flashing to fit tightly over threaded studs.
- D. Before installing flashing apply a generous amount of acceptable sealer around threaded studs. **(Figure 6)**
- E. Apply flashing over base plate and seal the perimeter of the patch to the deck sheet. **(Figure 7)**
- F. The threaded studs are now the only part of the base plate exposed. NOTE: Due to the sealer applied around the studs there may be bleed out at this opening. When the snow guard block is installed and tightened this bleed out will help to create a water tight compression fitting. **(Figure 8)**



Figure 5

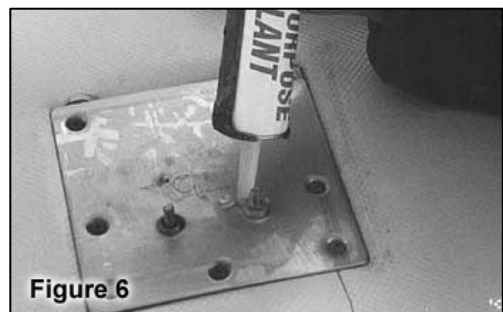


Figure 6

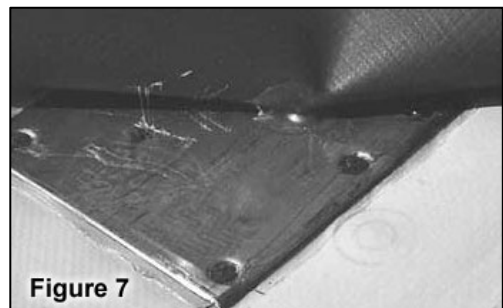


Figure 7

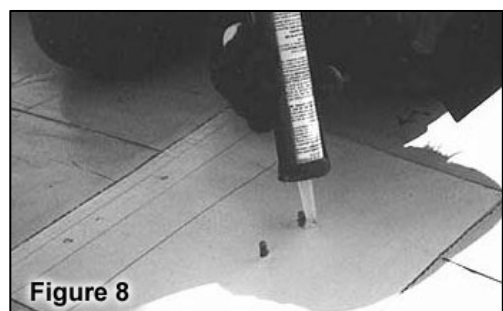


Figure 8

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### III Installation of snow guard block

- A. Install snow guard block over the threaded studs. The block will be centered on the base plate when installed properly. **(Figure 9)**
- B. Place one bonded neoprene washer over each stud.
- C. Place one stainless nut over the bonded neoprene washer and tighten. Note: the stainless nut should be tightened to 100 inch pounds to ensure a water tight seal.

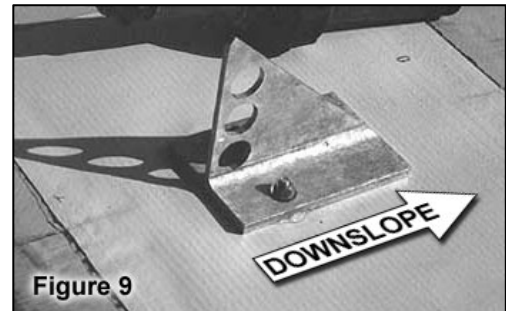
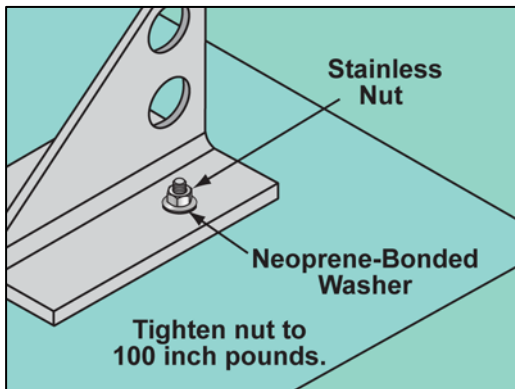


Figure 9



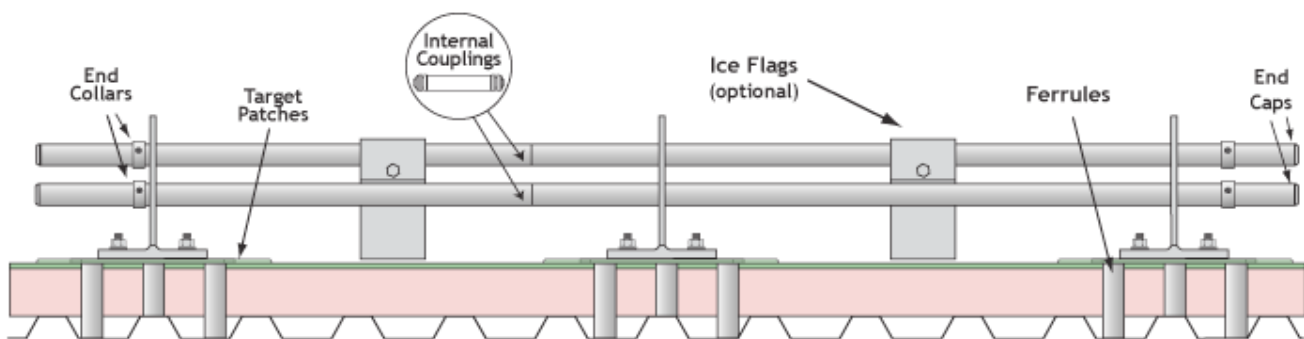
Figure 10

- D. Insert tubing through the holes in the uprights. **(Figure 10)**

### IV Locking Collars, End Caps, and Ice Flags (optional)

- A. Locking collars (#65) should be placed over each end of each line of tubing. Center the tubing on the snow guards and tighten the setscrew on the collar until it no longer slips.
- B. End caps (#56) are installed by pressing the cap into the end of the pipe.
- C. Ice flags (#95), if used, should be placed over the top tube so that the long leg rests against the uphill side of both tubes. Use the carriage bolt and nut to hold the ice flag in position. **Note: Ice Flags should not touch the roof surface.**

See our Pipe Accessories Installation page for more information on installing pipe, internal couplings, end caps, end collars, Ice Flags and Ice Screen.



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