

# TRM SR-ACC-Roof and Gutter Clip

## Installation Instruction Manual

### Product Description:

TRM Roof and Gutter Clips are utilized to affix mineral insulated cable and self regulating cable to shingled, seamed metallic, and flat roof tops as well as to the base of gutters.

Depending on the construction and configuration of the rooftop that is being heat traced, clips can be affixed to the rooftop either mechanically with screws and nails, or adhered with properly rated adhesives.

Kit Contents:

A:



50 Clips  
Per Bag

<u>Item</u>	<u>Quantity</u>	<u>Description</u>
A	50	Roof Clips for heating cable installation

### Tools Required for installation:

- Screw Driver
- Hammer
- Pliers
- Caulking Gun
- 2 Part Mixing Dispenser
- Suitably rated adhesive
- Safety Harness/Fall Arrest Gear

### Adhesives Suitable for most Roofs

\*All adhesives must be weatherproof\*

- LePage – PL Premium (Polyurethane)
- SikaBond – Pro Select (Polyurethane)
- Plexus MA300 (Methacrylate)
- Plexus MA310 (Methacrylate)
- DGE RTV167 Adhesive (silicone)
- Speed Bonder H3300 (Methacrylate)
- Speed Bonder H4800 (Methacrylate)

### WARNING:

Electric Shock Hazard. You **MUST** disconnect all power before installing or servicing heating cable and accessories. A qualified electrician must perform installation and servicing of heating cables and accessories. Heating cables must be grounded in accordance with your local electrical codes. Failure to comply with this code can result in personal injury or property damage.

**Product  
Certifications:**

To be utilized in conjunction with TRM SR cables and accessories in order to provide a fully CSA approved system



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Prior to installing your clips, it is imperative to determine what your heating cable layout will be so that you can plan clip placement effectively. Creating a layout drawing can help you plan clip placement location and properly calculate the quantity of clips required. When actually installing roof clips, we would recommend marking out your clip locations along the rooftop where you intend on installing each clip.

Calculating the number of roof clips needed:

- One clip is needed at each location where the cable changes direction and additionally one clip is needed for every 5 feet of unsupported heating cable that runs unimpeded without directional changes.
- A very rough estimate is, one bag of 50 clips is suitable for approx. 35' of sloped roof edge where you are heating 12"-36" up the peaks ( using the standard 24" wide trace pattern).

Once all clip locations have been identified, clean/prepare the area where the clip is being installed according to the recommendations of the adhesive manufacturer and then fasten your clips to the rooftop utilizing mechanical equipment where feasible, or adhesives where penetrations are not possible or not permissible. If mechanical penetrations are made, ensure that these penetrations are sealed with proper waterproofing or water tight material to prevent the roof from leaking.

If adhesives are being used, let the clip(s) and adherents cure for the appropriate amount of time. Once the cure time has elapsed, you can return to site to install the heating cable in the clips.

Thread the cable through the clips; utilize pliers to tighten the clamps around the heating cable, locking the cable into the clip. It is imperative to ensure that the clips only get closed enough to hold the cable in place, and not enough to crush/pierce the cable jacketing. Cable ends and components **MUST** be kept dry during all stages of the installation.

If the cable remains loose when all clips are installed, or if there is the potential for movement/abrasion of the cable, additional clips should be added to provide further support for the heating cables.

When cables are installed on metallic seamed rooftops, the cables should be zip tied with UV rated ties on the bottom of each seam (usually in the gutter) to ensure that the cables cannot move. This provides the cable with additional support.

**Important Note 1:**

The cables could come loose and fall off of the roof:

- If clips are not adhered properly to the rooftop (adhesive guides are not followed correctly)
- If there is not enough support for the heating cables.

**Important Note 2:**

Adhesives should not be utilized for metallic, slate or tiled rooftops without contacting the rooftop material manufacturer as certain chemicals in adhesives can permanently damage these materials.

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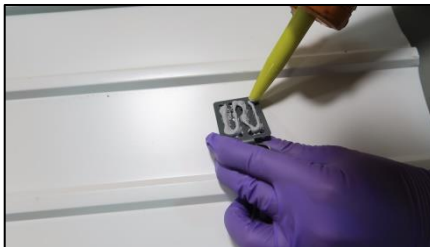
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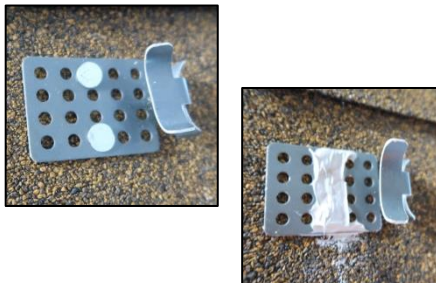
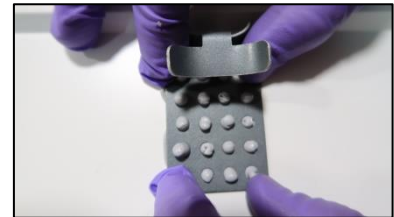
**Figure 1:** Determine the layout of your heating cables and mark out locations where you will be installing your roof clips.

**Figure 2:** Clean and prepare the area where you will be installing the roof clip – follow adhesive manufacturer’s instructions about how to properly prepare the area.



**Figure 3:** Apply properly rated adhesive/sealant on the full back side of the clip or on the portions of clip where nails/screws will be penetrating the roof for water sealant purposes.

**Figure 4-1:** Adhere or fasten the clip to the rooftop utilizing properly rated adhesives and/or fasteners.



**Figure 4-2:** If applicable spread properly rated sealant over nail or screw heads to help mitigate the potential of roof leaking.

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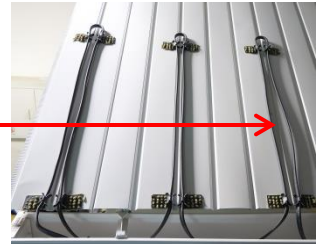
**Figure 5:** Let the clips and adhesives cure for manufacturer's specified amount of cure time. Note: Outdoor temperatures also impact curing times.

**Figure 6:** Thread heating cable through the clips.



**Figure 7:** Utilize pliers to fasten the clamps around the heating cable to hold the cable in place.

**Figure 8:** If the cable is still loose or moving, install additional clips to ensure that cable does not get damaged by abrasion and is not subjected to becoming dislodged from the roof.



**Figure 9:** If the roof is a metal seamed roof, ensure that cables are zip tied together using UV rated zip ties at the bottom of each seam, which will ensure cable stability and maximize system performance.

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**Figure 10:** Test your heating cable

**Figure 11:** Tie into the junction box ensuring the cable is terminated with a drip loop to prevent water run off migrating into the junction box. Connect the Heating cables to the control or GFEP protected circuit.



**Warning:** No cables should be hooked up to power during installation. All wiring, power connections, etc. should **ONLY** be conducted upon completion of cable installation and upon completion of proper heating cable testing by a qualified person.

**Warning:** Be mindful during your installation to not physically damage your heating cable, as cutting, crimping, twisting, or applying chemicals/adhesives directly to cables may cause the system to fault prematurely, which may result in fire or electrical shock.