



ThermaRail Installation Manual

The ThermaRail design is intended to prevent icicles and ice dams from forming along the edge of metal structures by compressing commercial-grade, self-regulating heat cable directly against the existing metal drip edge. ThermaRail fastens to the fascia beneath the metal drip edge of a roof, providing a containment system for the heat cable.

Required Tools and Components

- Speed Square/Putty Knife/Steel Scraper
- Handheld Metal Snips
- ThermaRail panels
- Drill with ¼ inch hex bit
- Fasteners
- Heat cable
- Adhesive
- Power connection kits
- End seals
- Splice kits (as needed)

NOTE: The roof pitch must be confirmed prior to ordering the ThermaRail. The bend angle of the rail must be compatible with the edge of the roof, ensuring compression of the cable and the underside of the metal roof.



Part 1: Placement of ThermaRail Panels

1. The entry and exit points of the ice melt cable from the ThermaRail raceway require a slight downward bend of the raceway to prevent the sharp cut edge from damaging the ice melt cable. The raceway can be cut to size at the job site, but the cut end needs to be de-burred.
2. Ensure all panels are face-up with visible raceway(s) extending outward for cable insertion and maintenance per NEC Article 426.



3. Measure the ThermaRail panels to determine the required cable length for each run. Don't forget to add additional length to connect the run(s) to power or for gutters/downspouts if incorporated into the design. Cut the ice melt cable on the ground before moving it to the roof.
4. If there is a need to trim the panels to length on-site, this can easily be done with metal snips.
5. Position the ThermaRail raceway firmly against the fascia and slide the ThermaRail upward to the bottom of the metal drip edge.
6. Loosely drive two sheet metal screws with rubber washers into the ThermaRail panels and affix the rail over the existing drip edge, feeding the heat cable as you go. There are multiple pilot holes available for onsite configuration.



NOTE: The cable padding will help keep the cable stabilized and compressed against the drip edge.

7. There should be a small horizontal gap between the bottom of the metal roof drip edge and the retention hem to comply with electrical building codes, requiring ice melt cable to be 'exposed' for roof and structure ice melting.





Electrical Best Practices

- Make sure an end seal kit is installed on the terminating end of the heat cable runs to protect the cable from moisture.
- Only a licensed electrical contractor should power up the system. The electrical connections and end seals require an experienced contractor.
- Details of the electrical installation in this document are brief and do not cover the many variables encountered in the field.
- More information is available in the ice melt cable manufacturer's installation instructions provided with the ice melt cable.
- The cold start-up current load after a power failure should be considered in the design phase of the project. In all cases, the UL approved ice melt cable manufacturer's instructions over-ride the ThermaRail installation instructions.
- At low temperatures, the startup current of self-regulating ice melt cable can be quite large. Consult the ice melt cable manufacturer's maximum cable length data charts for additional information.
- EPD ground fault breakers with 30 ma trip points must be used, as per Article 426.28 of the NEC.

Final Inspection Checklist

- ThermaRail panels are properly affixed to the existing roof structure.
- Ice melt cable is correctly measured, cut, and inserted into the ThermaRail raceway.
- The metal raceway is properly folded over the cable for protection.
- For additional support such as project quote, layout and bill of materials, contact your supervisor. If further assistance is needed, consult ThermaLine FAQ.
- If the above is insufficient, please email ThermaLine for troubleshooting the installation at: service@thermaline.us.