

ThermaShingle Installation Guide

The ThermaShingle system was designed by ThermaLine to mitigate ice dams and icicles on roof eaves by way of our heated metal drip edge. This system works on asphalt and composition roofs with our UL-listed self-regulating ice melt cables. This manual provides a step-by-step guide for technicians to ensure a smooth and efficient installation.



Required Tools and Components

- Putty Knife/Steel Scraper
- Handheld Metal Snips
- ThermaShingle panels (1x, 2x or 3x)
- Transition panels
- Heat cable
- Adhesive
- Power connection kits
- End seals
- Splice kits (as needed)

Part 1: Find Adequate Placement for ThermaShingle

1. Locate the first two, three, four or five rows of shingles on the roof, depending on the width of your panel (1x, 2x or 3x).

2. Gently separate one inch of the edge of the corresponding shingle row which will overlap the ThermaShingle. A thin 3-5 inch wide metal scraper functions best for this task.

3. Ensure all panels are face-up with visible raceway(s) extending outward for cable insertion and maintenance per NEC Article 426.





4. Flip the panel over to the unfinished side and apply adhesive in inch-wide dollops every 6–12 inches along the panel's backside or directly onto the roof shingles.



5. Flip the ThermaShingle panel back over so the finished side is up and lay the panel on top of the corresponding shingle rows and slide gently beneath the loosened row until the backside of the cavity is seated against the existing asphalt composite shingle roof edge.



NOTE: For inside/outside corners: Use hand held metal snips, cut the edges in a diagonal direction (approx. 120 degrees). Where the raceway meets in the corner, cut back each raceway 3 inches to allow for the heat trace cable to make the bend and avoid kinking. Heat trace cable will not function properly if it has been kinked or cut.





6. Maintain a 1/4-inch gap between the front edge of the shingle and the back inside cavity of the ThermaShingle panel.



7. Make sure to leave 1/4-1/2 inch from one panel to the next to allow for expansion and contraction of the roof. The transition panels will cover these areas at the end of the installation.

8. Apply a small dollop of adhesive beneath the highest shingle and press down to secure it to the top of ThermaShingle.

Part 2: Securing the Ice Melt Cable

1. Measure the ThermaShingle panels to determine the required cable length for each run.
2. Cut the ice melt cable on the ground before moving it to the roof, allowing additional cable for:
 - 1 inch per transition panel
 - 3 additional feet for each electrical junction box
 - 1 foot at the other end for the end seal
3. Adjust raceways before insertion using steel scrapers, square edges, or pliers in small sections to ensure the cable is properly placed and secured.



4. Starting at one end, feed the heat trace cable into the raceway from the front. Be sure to protect the heat trace cable and prevent damage from burrs or sharp edges. Gently push the heat trace cable into the front raceway using your fingers or the plastic handle of a scraper.





5. Once the heat trace cable is loosely seated, use a soft plastic scraper and press the handle with the palm of your hand and gradually secure it downward.



6. Fold the metal back over the cable using pliers to protect it from weathering

7. Loop the remaining 3 feet of Ice Melt Cable under the inner edge of each panel.

8. Fasten the cable to the raceway and bring it to the panel's bottom edge, securing it with a T Splice kit or an end seal.



Part 3: Applying the Transition Panels

Transition panels secure the ThermaShingle panels and ice melt cable at each seam, creating a horizontal heated drain path for melted snow and ice to flow through.

1. Installing the Transition Panels:

- Attach transition panels after inserting the cable to hold it in the raceway.
- Leave a 1/8-1/2-inch gap between each panel before securing.
- If necessary, trim the existing shingle at an angle to create a drainage channel for water runoff

2. Slide the transition panel into place then seal the perimeter with adhesive.



Electrical Hookup Best Practices

- 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 ThermaShingle 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

- ThermaShingle panels are properly placed between shingle rows with correct spacing.
- Seal Bond 105 adhesive has been applied at the appropriate intervals.
- Ice melt cable is correctly measured, cut, and inserted into the ThermaSingle raceways.
- The metal raceway is properly folded over the cable for protection.
- Cables are looped and secured with clamps or padded loops to prevent damage inserting into electrical panels.
- Transition Panels are aligned, fastened, and sealed to ensure efficient drainage and width of the edge.

- For additional support such as project quote, layout and bill of materials, contract 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