



PLD-RC Roof Clips

Roof Clips for Securing Heat-Line Heating Cables
Roof and Gutter Applications

Installation Instructions

Description

The PLD-RC roof clips are for use with Heat-Line Paladin and cut-to-length self-regulating heating cables. Carefully follow these instructions to ensure a proper installation.

Do not use other hardware or techniques which may damage the heating cable and cause electrical hazard, fire damage or poor performance.

The PLD-RC roof clips are sold in packages of ten and used to secure Paladin and cut-to-length heating cables to roofs and gutters. This includes installations that may utilize fasteners, adhesive, or a combination of both.

Note: Adhesives, if used, are at the discretion of installing trades

EVERSEAL (Surebond) SB190 High Strength adhesive

Approvals

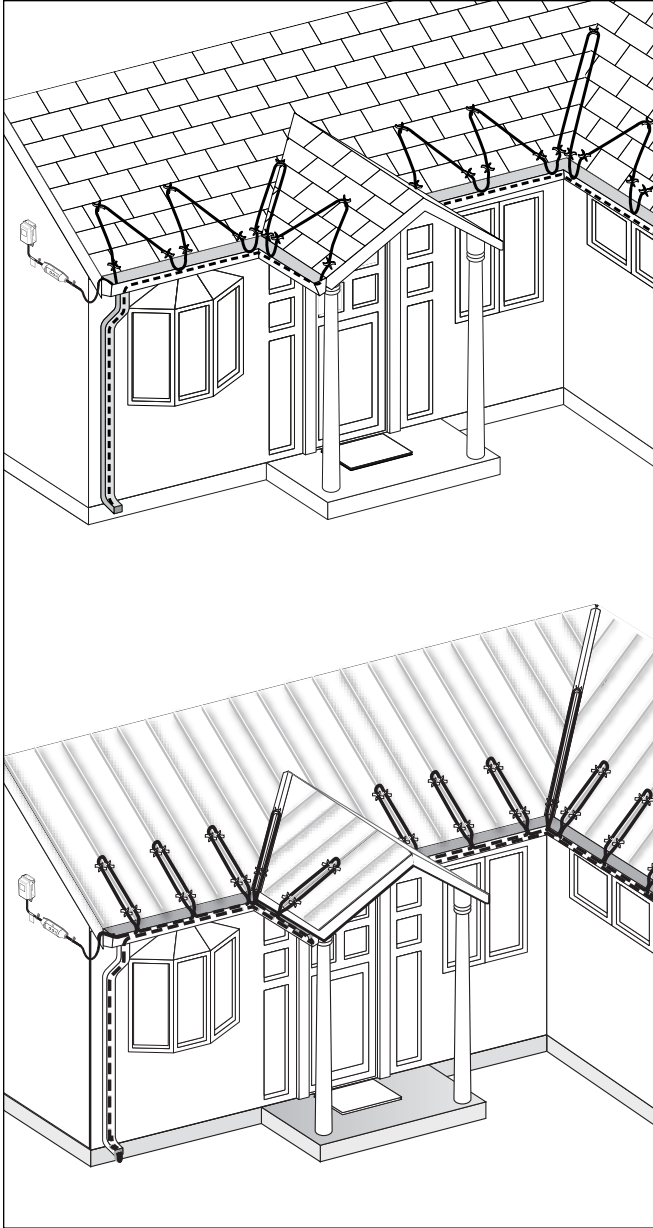


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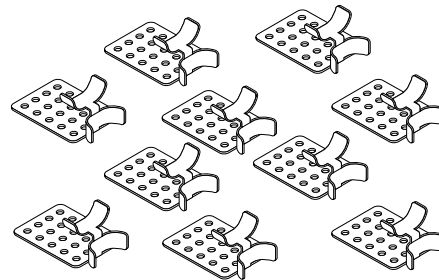
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Tools Required

- Hammer
- Pliers
- Caulking Gun
- Adhesives or Sealants

Kit Contents

PLD-RC Roof clips (package of 10)



⚠ WARNING:

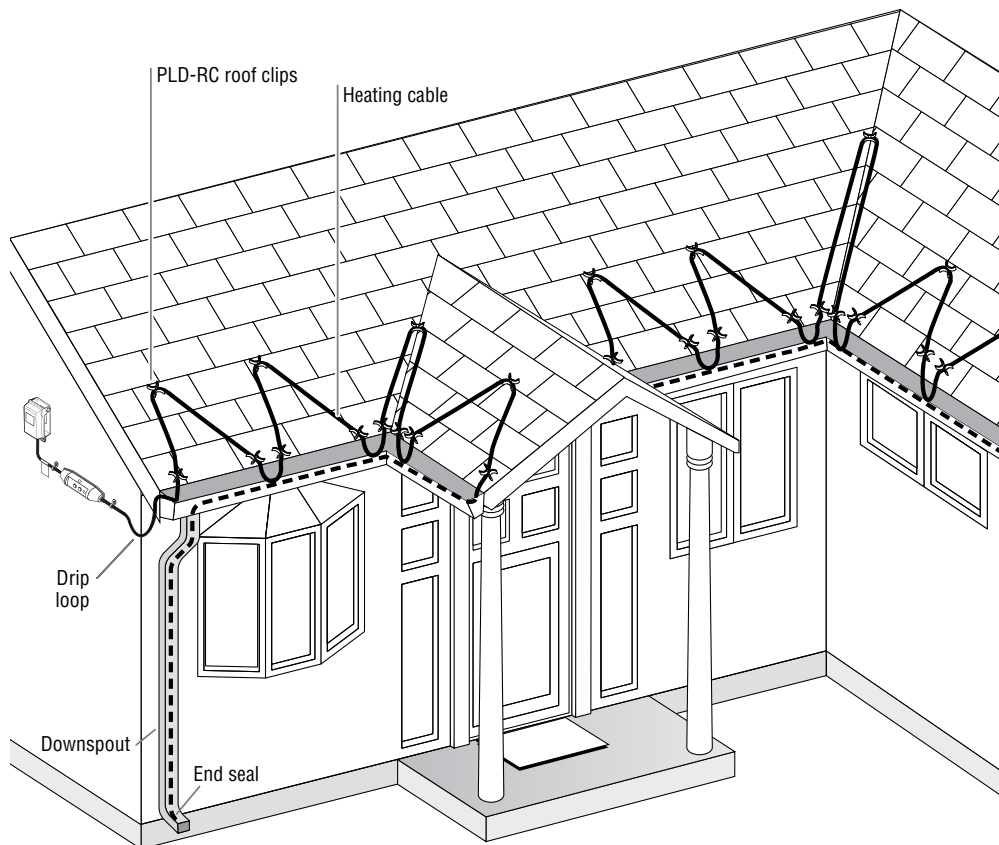
Important Safety Instructions and Rules for Safe Installation and Operation

- A. Read these rules and instructions carefully. Failure to follow them could result in serious bodily injury and/or property damage.
- B. Check your local building and electrical codes before installing. You must comply with their rules.
- C. To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of the national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit.
- D. Damaged heating cables can cause arcing or fire. Do not energize damaged heating cables. Repair or replace damaged heating cables before applying power.
- E. When using pliers to close clamps on the heating cable, ensure the cable is not crushed or altered in any way.
- F. The PLD-RC roof clips are not designed for installation on slate or tile roofs. Always consult the roofing manufacturer for approved components, cleaners, and adhesives specific to the roof material.
- G. Component approvals and performance are based on the use of specified parts only. Do not substitute parts.
- H. Leave these installation instructions with the user for future reference.
- I. For additional installation questions, support, or replacement parts contact Heat-Line at (800) 584-4944.

WHEN PERFORMING WORK OR REPAIRS ON YOUR ROOF BE SURE TO DE-ENERGIZE YOUR HEATING CABLE SYSTEM.

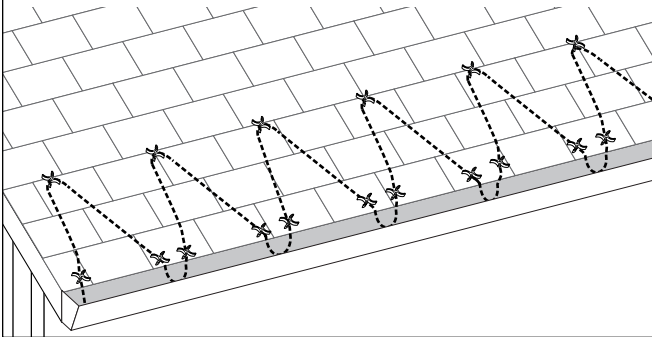
Standard Roof Installation

- Finished example of heating cable attached to roof in the Standard Roof (serpentine) installation method.
- Perform an annual inspection each year of the following:
 - Check visually to ensure no physical damage has occurred to the heating cable or that roof clips have become unsecured.
 - Check and test the ground-fault protection device for proper operation.
 - Make sure that gutters/eavestroughs and downspouts are free from leaves and any other debris.
 - If a control device is installed make sure its operates correctly before each winter season.



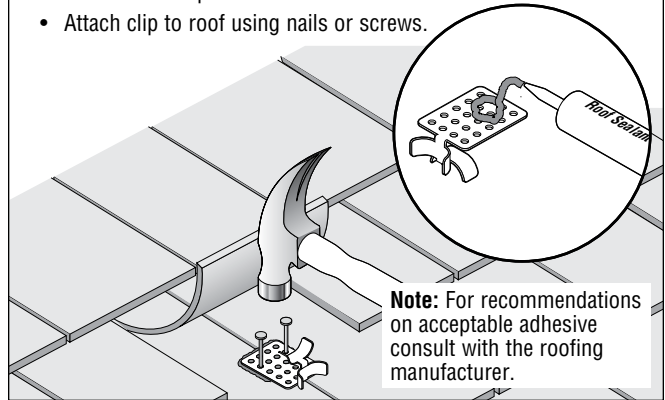
1 Standard Roof Installation

- Position and attach roof clips on the roof so they are ready to accommodate heating cable.
- Install roof clips in a manner that will allow the heating cable to serpentine on the overhang area of the roof. This is the part that extends past the building wall.
- Roof clip layout is based on tracing pattern required.



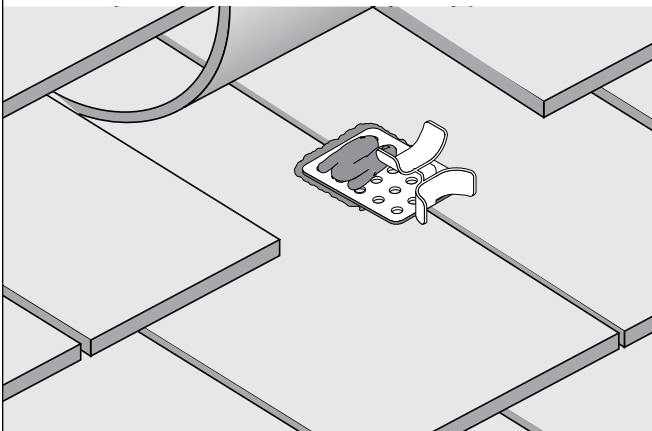
2 Standard Roof Installation

- Lift up shingle to apply roof clip.
- Apply adhesive, appropriate for your roof, to back side of clip where nail or screw will be used.
- Position the clip as needed.
- Attach clip to roof using nails or screws.



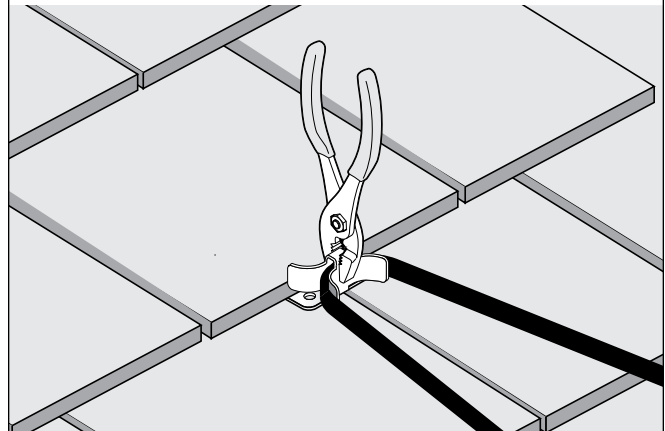
3 Standard Roof Installation

- Spread sealant on top of nail or screw heads and then cover attachment area of clip with roofing material such as shingle.



4 Standard Roof Installation

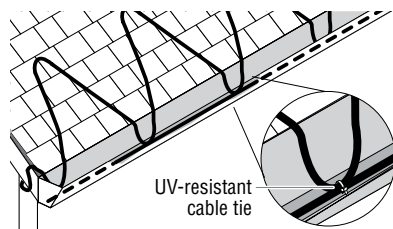
- Install heating cable by gently laying it in the roof clip. Do not pull the heating cable over sharp edges or use excessive pulling force during install.
- Use pliers to close clamps, but do not crush the heating cable.



5A Standard Roof Installation

Roofs with gutters:

- When laying the heating cable in the clips, extend the bottom of each heating cable loop over the roof edge (approximately 6 inches) and, using a UV-resistant cable tie, connect the bottom of each loop to the cable running in the gutter to ensure a drainage channel off the roof and into the gutter and downspout.
- For residential and small commercial applications a single run of heating cable is often enough. The cable running in the gutter should remain against the bottom of the gutter. No attachment in the gutters is normally required but roof clips may be used every 2 feet (0.60 m) in the gutter to secure heating cable if needed.

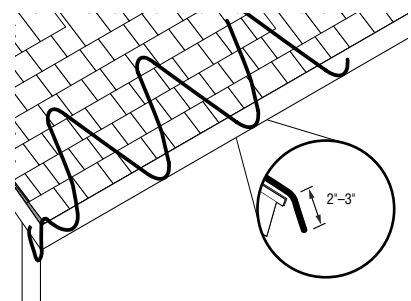


5B Standard Roof Installation

Roof without gutters:

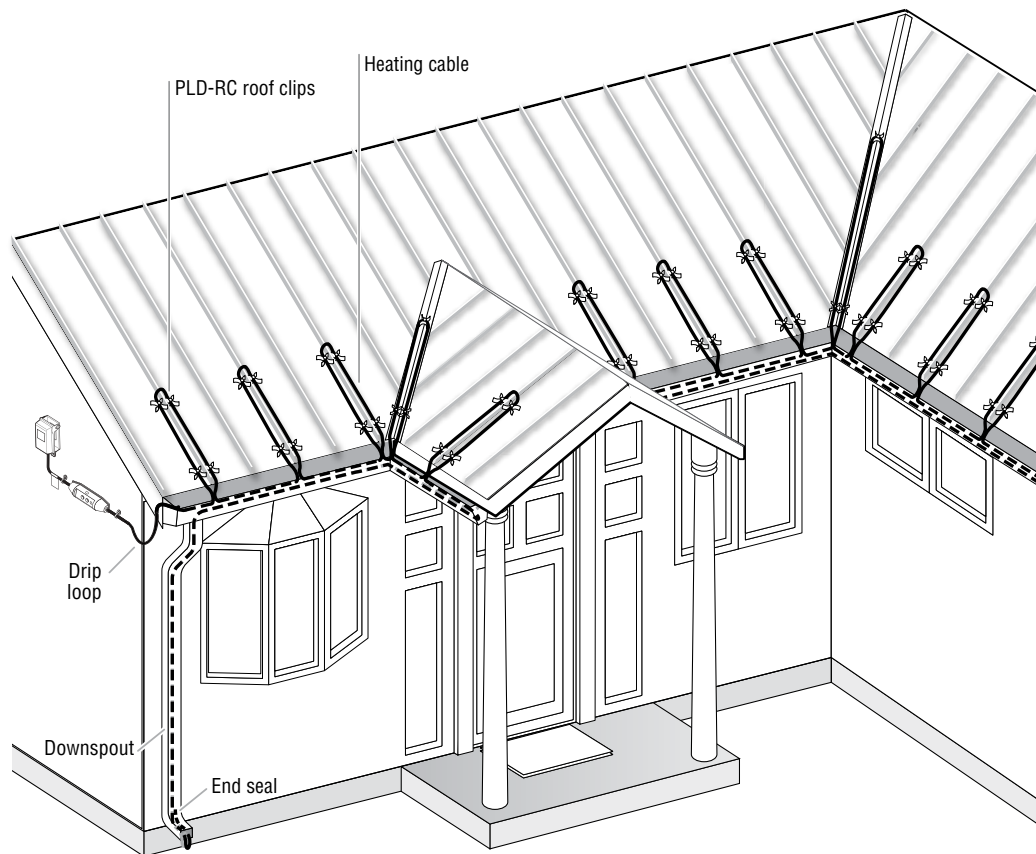
- Route the heating cable to extend the top of each loop beyond where the wall joins the roof and extend past the roof edge slightly. The heating cable running beyond the roof edge creates a drip loop for water to drip free from the roof.

Note: The drip loops at the edge must hang below the lip of the roof.



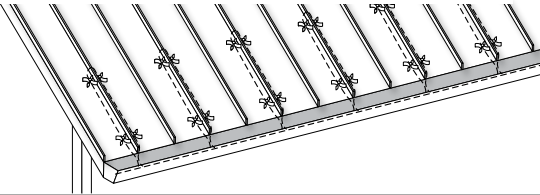
Standing Seam Roof Installation

- Finished example of heating cable attached to roof in the Standing Seam Metal Roof installation method.
- Perform an annual inspection each year of the following:
 - Check visually to ensure no physical damage has occurred to the heating cable or that roof clips have become unsecured.
 - Check and test the ground-fault protection device for proper operation. For GFC model Paladin system refer to the electrical system check section of this guide.
 - Make sure that gutters/eavestroughs and downspouts are free of leaves and any other debris.
 - If a control device is installed make sure its operates correctly before each winter season.



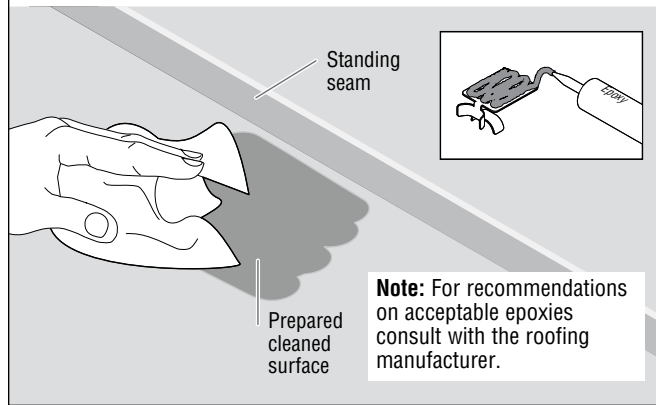
1 Standing Seam Roof Installation

- Position and attach roof clips on the roof so they are ready to allow the heating cable to run up one side of the seam and down the other.
- Install the roof clips in a manner that the heating cable will run up the seam at least 12 inches beyond the non-heated overhang section of the roof, and then so it will run back down and overhang the leading edge of the roof.
- Heating cable is required every other seam on standing seam roofs with seam spaced equal to or less than 24 inches. For seams spaced greater than 24 inches run heating cable up and down each seam.



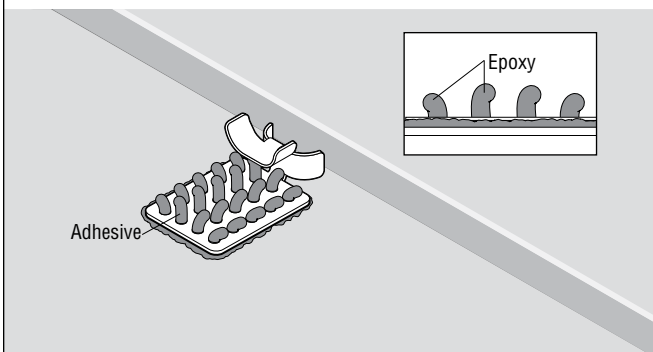
2 Standing Seam Roof Installation

- Prepare roof surface per epoxy manufacturer's specifications
- Apply a liberal amount of epoxy to back side of clip



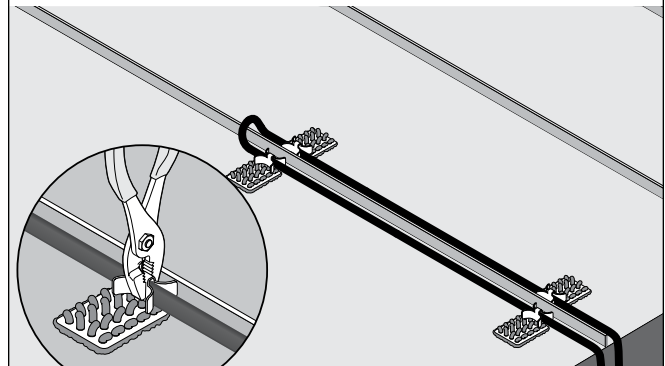
3 Standing Seam Roof Installation

- Place clip on prepared surface. Press down to ensure epoxy flows through holes.
- Do not trim back epoxy beads as they help hold the clip down.
- Allow epoxy to cure per manufacturer's specifications.



4 Standing Seam Roof Installation

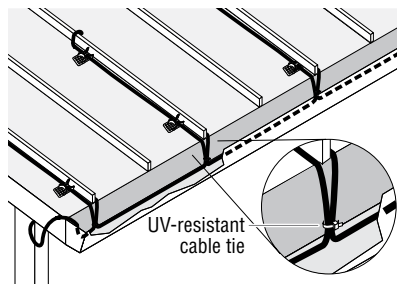
- Install heating cable by gently laying it in the roof clip. Do not pull the heating cable over sharp edges or use excessive pulling force during install.
- Use pliers to close clamps, but do not crush the heating cable.
- Repeat on each standing seam.



5A Standing Seam Roof Installation

Roofs with gutters:

- When laying the heating cable in the clips, extend the bottom of each heating cable loop over the roof edge (approximately 6 inches) and, using a UV-resistant cable tie, connect the bottom of each loop to each other to ensure a drainage channel off the roof and into the gutter and downspout.
- For residential and small commercial applications a single run of heating cable is often enough. The cable running in the gutter should remain against the bottom of the gutter. No attachment in the gutters is normally required but roof clips may be used every 2 feet (0.60 m) in the gutter to secure heating cable if needed.

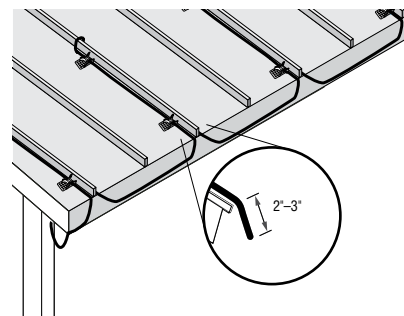


5B Standing Seam Roof Installation

Roof without gutters:

- When laying the heating cable in the clips, route the heating cable to extend the top of each loop beyond where the wall joins the roof and extend past the roof edge slightly. The heating cable running beyond the roof edge creates a drip loop for water to drip free from the roof.

Note: The drip loops at the edge must hang below the lip of the roof.



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