

5
YEAR
LIMITED
WARRANTY
★★★★★

RoofMate

ROOF & GUTTER DE-ICING

Installation and Operation Instructions

30
YEARS
OF EXPERTISE
IN ELECTRIC
CABLE HEATING

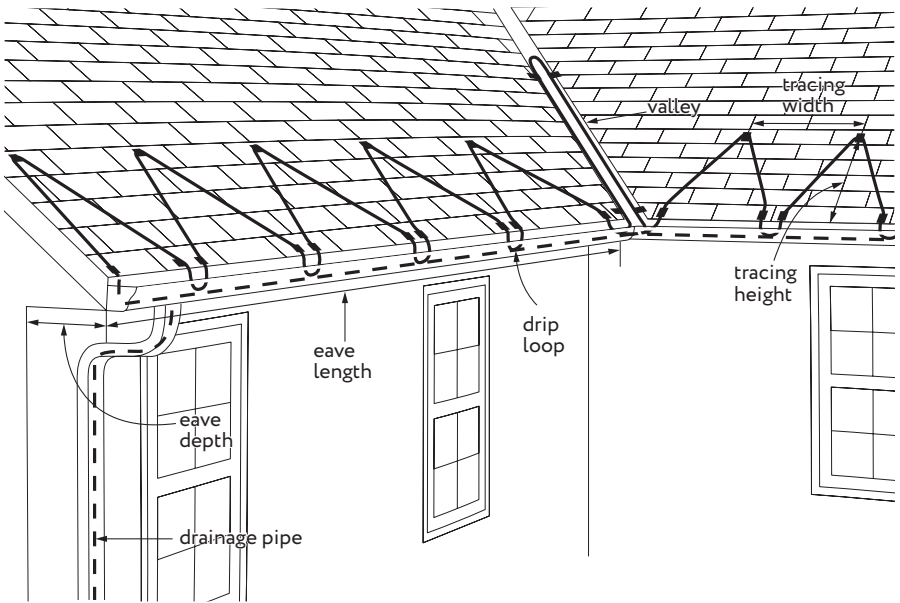


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Thank you for purchasing RoofMate – For roof and gutter de-icing!

Please thoroughly read the manual before installation, operation, and for technical maintenance of the product. Protect yourself and people around you by following the safety requirements. Failing to follow the instructions in this manual may result in personal injury and/or property damage. Retain instructions for future reference. To ensure warranty service, you must follow the requirements outlined here in the Installation Manual. Installation of the heating cable must be carried out by persons authorized to carry out electrical work.



General view of the roof and basic terms

ALWAYS/NEVER

NEVER:

- Install a damaged heating cable
- Allow or use sharp objects to damage/modify heating cables
- Twist the cables
- Use heating cables for purposes other than what's described in the manual
- Place heating cables under roofing material, inside walls or in enclosed spaces
- Connect a heating cable designed for 120 V to a 230 V power source
- Exceed the maximum length of electrical circuit as it will lead to power shutdown during the operation
- Install heating cables on surfaces that can become hotter than 150°F (65°C)
- Turn-on the cable at very low ambient temperatures, as this can overload the circuit
- Try to cut, shorten, or modify a heating cable as it can cause an electric shock or fire

ALWAYS:

- Turn the heating cable OFF at ambient temperatures above 50°F (10°C)
- Before installing the heating cable, make sure the installation location is cleaned of leaves, branches and other debris
- Check the system every season before switching on
- Ensure a bend radius of the heating cable of at least 1-inch during installation and operation
- Make sure that the heating cable is installed by a qualified technician in accordance with this installation manual and a NATIONAL ELECTRICAL CODE (NEC). All electrical connections must be made by a qualified electrician in accordance with all electrical and building codes in your area

1. SAFETY MEASURES

WARNING

Improper installation, use, operation or maintenance of this product may result in personal injury or death from electric shock or fire, as well as property damage. Read and follow the instructions in this manual carefully.

1.1 To reduce the risk of injury/death from electric shock or fire, strictly comply with all electrical and construction requirements for the use of this product (for more information, see the “Electrical System Requirements” section). It is mandatory to use an external 120 V AC outlet that meets all the following requirements:

- It is electrically grounded
- Ground fault protection is provided through the use of a ground fault circuit interrupter (GFCI). Maximum leak current 30 mA
- It is used with appropriate rated current
- It’s protected from the weather
- It’s located within 6-feet of the starting point of the heating cable on the roof

If you are not sure if your electrical outlet meets these requirements, contact a licensed electrician.

1.2 The installation of the heating cable must be in accordance with the National Electrical Code (NEC).

1.3 Make sure that all power supplies are turned off before installing or servicing a cable.

1.4 Do not twist the cable during installation.

1.5 When using on a roof, do not install the cable under roofing materials.

1.6 Do not expose the cable to temperatures above 150°F, as this may damage the cable.

1.7 Do not use extension cords.

1.8 For warranty service, make sure that the heating cable is installed in accordance with the requirements of this manual.

1.9 Do not cut or attempt to change the length of the heating cable, as this may result in a short circuit and electric shock.

1.10 Do not install the heating cable where it may be subjected to additional heating, for example, near ventilation, exhaust openings or a chimney.

1.11 Do not paint the cable or expose it to chemicals such as adhesives or sealants.

1.12 Keep all combustible materials, such as leaves and branches, away from the heating cable. Do not install heating cables on wooden parts of the structure (cannot be used on wooden shingles).

1.14 Do not use a damaged or corrupt heating cable.

Signs of damage include cuts, brittleness, carbonization, cracking, surface discoloration, and bare wires.

2. PRE-INSTALLATION CHECKLIST

2.1 Purpose of the Product

The heating cable is designed to prevent the formation of ice deposits on roofs. Do not install heating cables to remove already-formed ice deposits or to clear the roof of ice and snow. Do not use heating cables for any other purpose, for example, to melt snow on sidewalks or to protect pipes from freezing. We offer other products designed for these purposes. Consult a professional roofer for expert advice.

2.2 Heating Cable Specifications

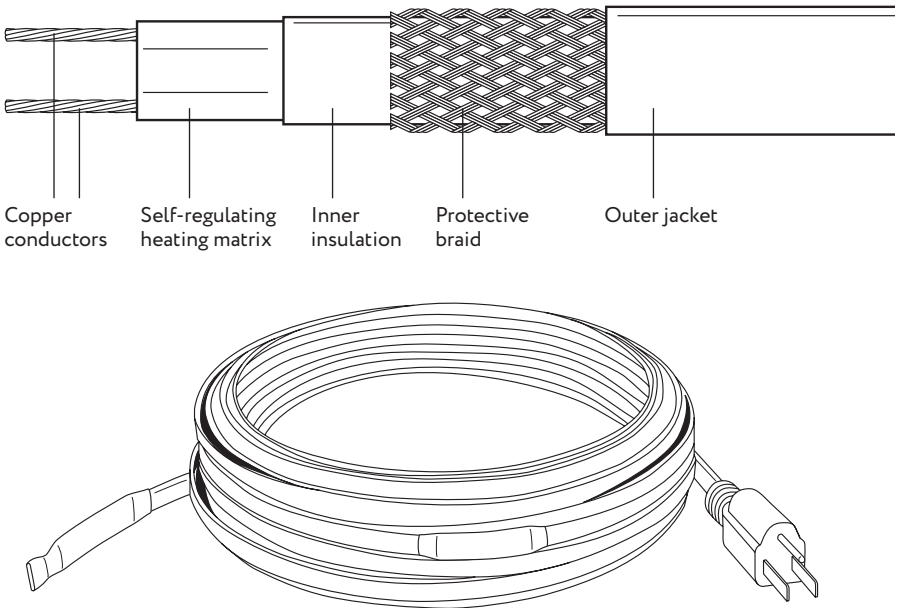


Figure 1. Heating cable description

Table 1. Heating Cable Specifications

Type of heating cable	Self-regulating
Rated voltage, V	110–120 V
Power output at 50°F	7 W/ft
Power output at 32°F	10 W/ft
Length of heating cable	6–150 ft
Dimensions of heating cable	13.0×6.0 mm
Bus wires	16 gauge AWG
Minimum bending radius	1 inch
Outer jacket material	Thermoplastic elastomer
Braid material	Tinned copper
Maximum working temperature	185°F
Power cord	Weatherproof, 10 ft, 3-conductor 14 AWG, with LED-plug

2.3 Consumed Power

Table 2 below shows the power consumed by the pre-assembled self-regulating RoofMate heating cable.

Table 2. Consumed Power

Length, ft.	Power output (watts) at Temperature		RoofMate Model
	50°F (10°C)	32°F (0°C)	
6	42	67	Parallel Pre-assembled self-regulating heating cable 7-RM1-006-10
12	84	134	Parallel Pre-assembled self-regulating heating cable 7-RM1-012-10
18	126	201	Parallel Pre-assembled self-regulating heating cable 7-RM1-018-10
24	168	269	Parallel Pre-assembled self-regulating heating cable 7-RM1-024-10
37	259	410	Parallel Pre-assembled self-regulating heating cable 7-RM1-037-10
50	350	560	Parallel Pre-assembled self-regulating heating cable 7-RM1-050-10
62	435	700	Parallel Pre-assembled self-regulating heating cable 7-RM1-062-10
75	525	840	Parallel Pre-assembled self-regulating heating cable 7-RM1-075-10
87	610	980	Parallel Pre-assembled self-regulating heating cable 7-RM1-087-10
100	701	1120	Parallel Pre-assembled self-regulating heating cable 7-RM1-100-10
112	785	1250	Parallel Pre-assembled self-regulating heating cable 7-RM1-112-10
125	876	1400	Parallel Pre-assembled self-regulating heating cable 7-RM1-125-10
137	960	1535	Parallel Pre-assembled self-regulating heating cable 7-RM1-137-10
150	1050	1680	Parallel Pre-assembled self-regulating heating cable 7-RM1-150-10

2.4 Installers

Installation of the heating cable must be carried out by persons authorized to carry out electrical work.

2.5 When to Install RoofMate

The heating cable should be installed when there is no ice or snow on the roof. Do not use the heating cable to melt the snow and ice that has already formed on your roof. If snow and ice are already on the roof, consult a professional roofer for help. Heating cables should only be installed after the ice and snow have melted and/or are removed. The temperature when installing the cable should be between 32 and 80°F (0 to 27°C).

2.6 Where to Install RoofMate

The heating cable should be installed on areas of the roof where ice deposits, including icicles, can form. Depending on the influence of the sun, the prevailing wind direction and the shape of the roof, cables can be installed both over the entire roof area, and in individual sections.

2.7. Determining Necessary Cable Length

An accurate estimate of the cable length required is very important as it is not possible to alter or modify a cables length. The cable should be installed on the areas of the roof where ice forms. This can be the entire edge of the roof or in individual sections. The cable must also be installed in any nearby gutters, drainage pipes and/or valleys.

If you need to install a cable on a roof with gutters, drainage pipes, valleys and/or attic windows, follow the instructions “A. For Typical Applications.”

If you need to install the cable only in the gutters and drainage pipes, follow the instructions “B. For Installation in a Gutter and Drain Only.”

Use Figure 2 for Tables 3, 4, and 5.

A. For Typical Applications

Step 1. For each area shown in Figure 2, measure the required dimensions and then calculate the necessary cable length (see Figure 2, Tables 3 and 4).

Add the results to determine the total length of the cable.

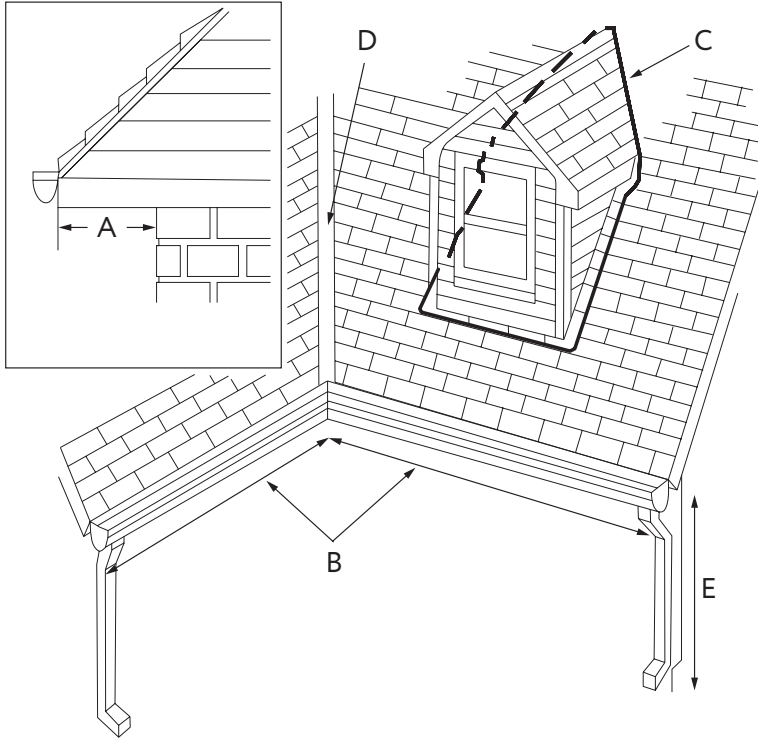


Figure 2.

Table 3. Cable Length Calculation

Location	What to Measure	How to Calculate
Along the roof	Eave depth (A) Eave (Roof) length (B)	Eave length(B) x Multiplier (see Table. 4)
Attic window	The perimeter around the attic windows (C)	Number of attic windows x perimeter (C)
Valley	Number of valleys (D)	Number of valleys x 6-feet
Gutter	Gutter length (B)	Gutter Length x 2
Drainage pipe	Drainage pipe length (E)	Number of drainage pipes x length of drainage pipes x 2

Table 4. Multiplier

Eave depth (overhang), inches	Tracing height, inches	Multiplier
Less than 12	18	2.0
12	18	2.8
24	30	3.8
36	42	4.8
48	54	5.8

Step 2. Use the calculated cable length determined above to select the correct RoofMate cable size. If the length you need is between sizes, choose the longer size cable.

If icing occurs on areas of the roof that are at a considerable distance from each other, you can use a separate cable for each roof area. In addition, if the roof area is large, then separate cables for the roof and gutter should be used.

B. For Installation in a Gutter and Drain Only

If icing occurs only in gutters and drainage pipes, measure the required sizes (see Fig. 2) and calculate the cable length required for each area, as indicated in Table 5.

To determine the total cable length, add the lengths required for each cable.

Table 5. Cable Length Calculation for Gutters and Drainage Pipes

Place		Calculation method
Gutter	Gutter Length (B)	Gutter Length \times 2
Drainage pipe	Pipe Length (E)	Number of drainage pipes \times length of drainage pipes \times 2

Step 2. Use the calculated cable length obtained above to select the correct RoofMate cable length needed. If the length you need is between sizes, choose the longer size cable.

3. ROOF REQUIREMENTS

RoofMate heating cables are designed for use on inclined and flat roofs with non-combustible shingles (for example, asphalt shingles) or rubber coated, and on Standing Seam metal roofs that comply with national building codes.

WARNING

Using this product on any other type of roof increases the risk of ice formation, personal injury, or death from electric shock or fire.

Do not use these heating cables on any other types of roofs, such as:

- Roofs with wooden tiles
- Composite (tar and gravel) roofs.

If you are not sure that your roof meets these requirements, consult a professional roofer.

4. ELECTRICAL SYSTEM REQUIREMENTS

The electrical system supplying power to the heating cables must meet the requirements described below. If you are not sure that these requirements are met, contact a licensed electrician.

WARNING

Failure to do so may result in injury or death from electric shock or fire.

The heating cable must be connected to an external 120-volt AC outlet which is:

- 1) **Grounded.** The heating cable is equipped with a three-pin plug, which has a grounding pin. To reduce the risk of fire and electric shock, the cable must be grounded.

You must connect the plug to a power outlet that is correctly installed and grounded in accordance with all local requirements and regulations.

It is forbidden to modify the plug supplied with the cable in any way. If it does not match the outlet, install a suitable outlet by contacting a licensed electrician.

- 2) **Protected from ground fault** (one of the protection ways is the use of a ground fault circuit interrupter (GFCI)). As a rule, utility outlets installed outdoors are equipped with a GFCI system.

If you are not sure that your outlet is protected against ground faults, consult a licensed electrician. An outlet with ground fault protection reduces the risk of fire or electric shock by stopping the flow of electricity (current)

when current flows through something other than a cable (such as a person or a drainage pipe). Such a current:

- May be caused by damage to the cable;
- May not be large enough to trip the circuit breaker;
- May cause the cable to overheat, which may result in a fire, as well as electric shock.

3) **Belongs to a circuit** that has an appropriate rated current (A). Do not use a cable in a circuit whose circuit breaker or fuse is rated for a current of less than 20 A. It must be ensured that sufficient current is supplied without overloading the circuit.

Overloading the circuit may cause the circuit breaker to trip or a fuse to blow. To prevent overloading the circuit, do not use more than 80 % of the rated circuit power (for example, do not load a 20-amp circuit by more than 16 A and do not load a 15-amp circuit above 12 A).

4) **Protected from the weather.** A connection between plug and outlet should be protected from the rain, snow or weather effects.

5) **Located within 6-feet of the starting point** of the roof cable. The un-heated length of the cable is 10-feet long.

Make sure that the heating part of the cable is completely on the roof.

This will prevent contact with people or equipment that could move or damage it. It is forbidden to use an extension cord to connect the heating cable.

Using an extension cord with a heating cable increases the risk of fire or electric shock. Remember that there may be additional requirements related to local or national regulations. If you are unsure of the correct installation of the outlet or cable, contact a licensed electrician.

5. HEATING CABLE INSTALLATION

WARNING

Failure to follow the rules of handling, location and installation according to this manual may result in injury, or death from electric shock or fire.

5.1 Location of the Heating Cable

Before laying and attaching a heating cable to your roof, it is important to plan how it will be located. To prevent the formation of ice deposits, the layout scheme of the cable should be arranged so that it directs the flow of water without the formation of areas where it may freeze.

In general, you need to use heating cables in the following areas: on the specified roof areas (along the roof line; along the roof area; in problem areas such as skylights), in nearby gutters and drainage pipes.

WARNING

To avoid overheating of the cable and not to increase the risk of fire or electric shock, the heating cable should not pass through the inside of any part of the building, including the attic. For example, do not install a cable in a drainpipe that has a part passing through a building. In addition, it is forbidden to install the cable where its elements can be heated by heat sources, such as an exhaust hole or chimney. Install the cable at least 12-inches apart from such heat sources.

Select a starting point. The starting point of the cable should not be close to any entrance areas, sidewalks, etc., to avoid contact with people or equipment that could move or damage it. If the electrical outlet is already installed in an appropriate place next to the roof eave then this determines your choice. If that is not the case, select a starting point and install an electrical outlet.

Plan the cable layout for your roof. Cable layout methods for various roof areas are presented below.

A heating cable does not have to be installed in all these places. Only install the cable in areas that have been exposed to icing in the past.

Tip: For easier roof installation, mark the layout of where the cable and attachment points will be with chalk prior to installing. It can also be useful to make a drawing of your roof and layout diagrams of the cable on paper.

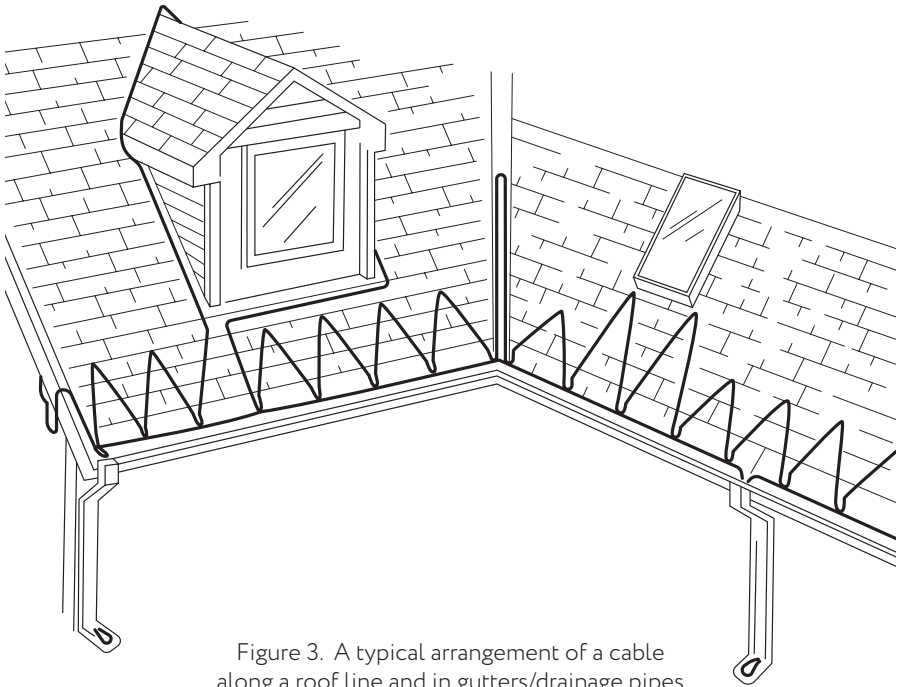


Figure 3. A typical arrangement of a cable along a roof line and in gutters/drainage pipes

Example of Heating Cable Layout on the Roof:

The heating cable laid along the edge of the roof is laid out in accordance with Figure 4. To determine the height of the triangles, measure the width of the eave depth. The height of the triangle should be several inches higher than the width of the eave depth. The base of each triangle should have a width of about 24-inches.

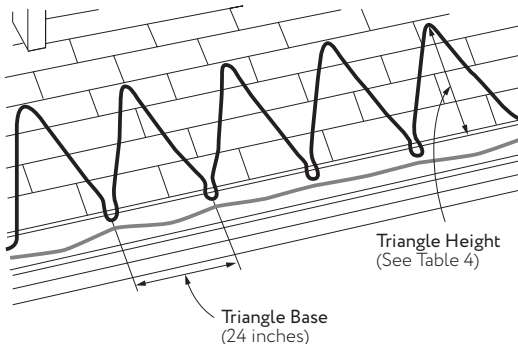


Figure 4. An example of the layout of the cable on the roof: as a triangles along the roof line.

Example for Roof with Skylights:

Problem areas of skylights are also handled using the triangular pattern approach. However, the height of the triangles below the skylight may need to be greater than the height of the triangles along the roof line. The triangles below the skylight should get as close to the base of the skylight as possible without exceeding 20-feet in height. The base of the triangle is kept at 24-inches.

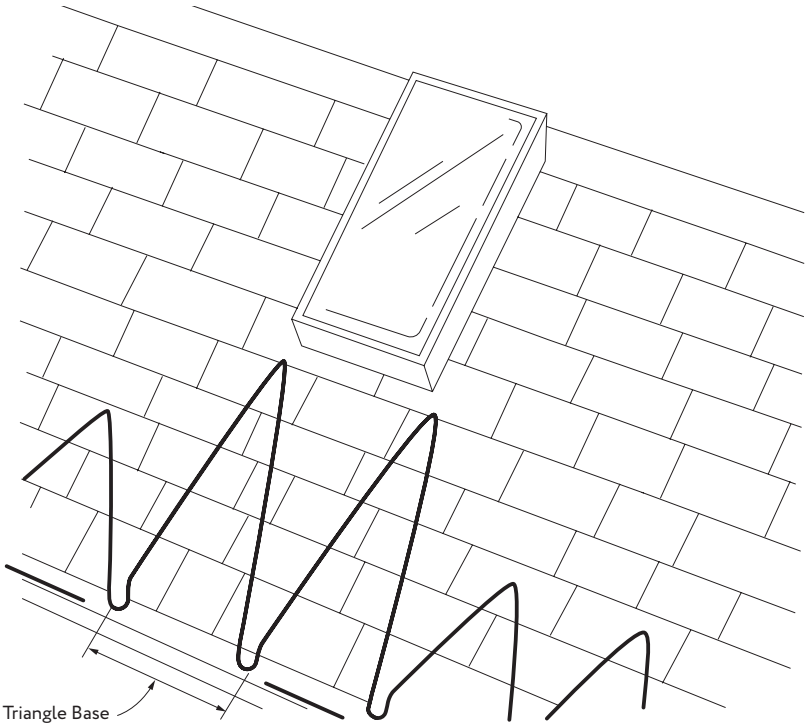


Figure 5. The height of the triangles near the skylights

Example for Valleys:

The cable should be laid up and back down at least 3-feet, as shown in Figure 6.

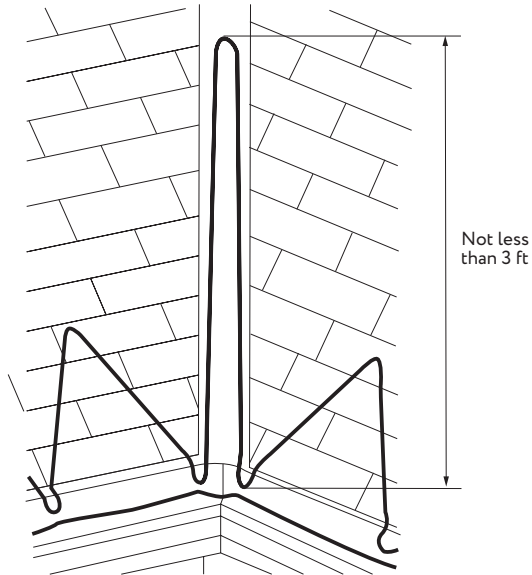


Figure 6. An example of the location of the cable in the valley

Example for Attic Windows:

The cable should be laid up and around all attic windows, as shown in Figure 7.

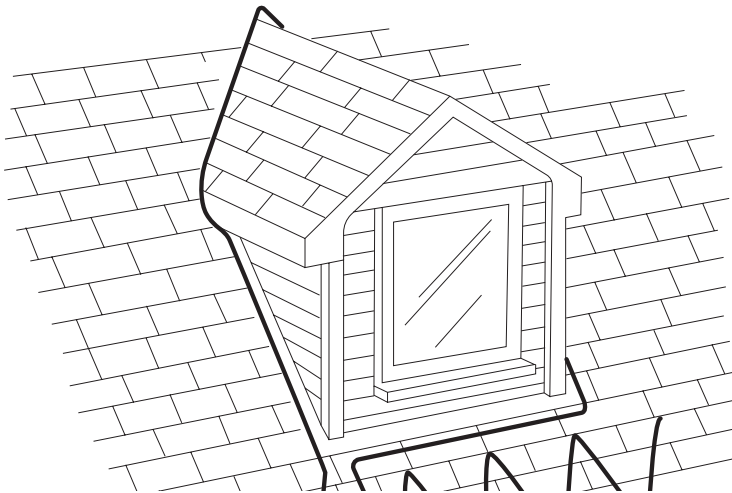


Figure 7. An example of the location of the cable around the attic window

Example for other Roof Areas:

Other problem areas of the roof, not previously described, can also be equipped with a heating cable to prevent ice formation. The triangle layout, like the one used for the roof edge, can also be used for installation in these problem areas. When dealing with the problem areas, the height of the triangles may be greater than those on the roof edge. The height of the triangle should not exceed 20-feet.

Plan the layout of the cable in the gutters and drainage pipes.

For each area of the roof where the heating cable is installed, the corresponding gutter and drainage pipe (if any) must also be lined with a heating cable.

After placing the cable on the roof edge, it will need to be installed in the opposite direction in the gutter. For the drainage pipes, install the cable all the way down the pipe and back up along the inside.

If the cable is not long enough, you can install it only one-way, down the inside of the pipe. The cable should end at the bottom of the drainage pipe to prevent the formation of ice.

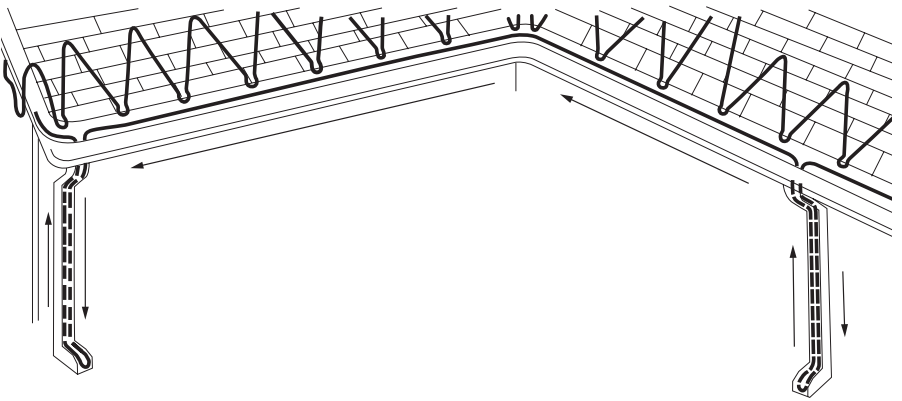


Figure 8. Cable installed along the roofing line in the gutters and drainage pipes

If ice formation only occurs in the gutters, the cable should be laid only in the gutter and drainage pipes in two threads.

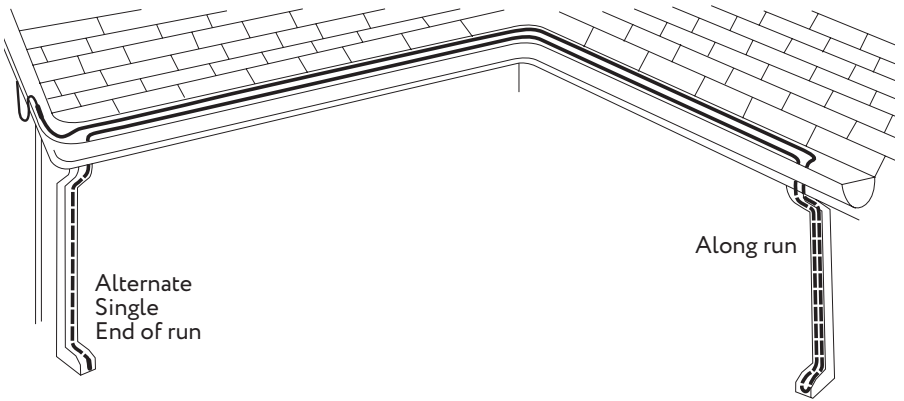


Figure 9. Cable installation through the gutter or drainage pipe in two threads

If individual sections of the roof are processed, then it may be more practical to use several separate heating cables. When planning the location of the cable, think about how each cable will be laid.

In addition, you can use one cable for several areas of the roof.

The cable can be routed from one area to another, either in the gutter or horizontally attached to the tile.

In case of shortage or excess cable length you can:

- 1) Use the excess cable length to make triangles higher (up to 20-feet in height) or increase the length of cable loops in the valleys.
- 2) With a shorter cable, the triangle height can be reduced in areas less sensitive to ice formation.
- 3) With a shorter cable, if there is a drainage pipe at the end of the treated roofing line, you can lay the cable down the pipe only once and not, as recommended, down and back up. In any case, the cable should terminate at the bottom of the drainpipe.

5.2 Proper Handling and Maintenance of the Heating Cable

WARNING

Improper handling of the heating cable can cause damage to the cable and the formation of ice, as well as personal injury or death from electric shock and fire.

Rules for Handling and Caring for the Heating Cable:

- Do not step on the cable
- Avoid sharp bends of the cable. Sharp bends can damage the heating element
- Do not cut, splice or modify the heating cable in any way
- Do not cover any part of the cable
- Do not paint or expose the cable to chemicals such as adhesives or sealants

5.3 Testing the Heating Cable

Before installation, it is necessary to check the operation of the cable. To do this, unwind it completely so that no parts intersect or overlap.

Do not plug in the cable until it is completely untwisted.

Once you plug in the cable wait about 5 minutes and it should be slightly warm to the touch. Then disconnect the cable.

5.4 Roof, Gutters, and Drainage Pipes Preparation

It is necessary to do the following before heating cable installation:

1. Remove all existing heating cables or heating devices, clamps, and cable routing from the installation area.
2. Remove all debris from the roof, gutters and drainage pipes, such as leaves, pine needles, seeds, etc.
3. Inspect the installation site for sharp or jagged edges along gutters and drainage pipes that could damage the cable.

Eliminate sharp or jagged edges by either sawing or bending them down.

5.5 Mounting on Roof

WARNING

Improper handling of the heating cable can cause damage to the cable, formation of ice, as well as personal injury or death from electric shock and fire.

This section describes the use of clamps and cable spacers for attaching the heating cable to the roof and routing it through gutters and drainage pipes.

Do not attempt to stitch or nail the cable or fasten the cable with materials such as adhesives or sealants.

While the cable is laid on the roof, it is recommended that clamps and spacers be freely fixed so that changes to the layout can be made if necessary.

Unwinding the Cable:

- To properly attach the cable, it should lay flat on the roof.
- To do this, it is necessary to unwind the cable so that it is not twisted or tangled. If the cable is not properly unwound, it will be difficult to attach it to the roof.

Securing the Cable at the Starting Point:

Attach the cable to the edge of the roof near the outlet using the clamps as shown in Fig. 10 and 11. Do not plug the cable into the power outlet until the installation is complete. Route the cable as planned on the roof and/or in the gutters and drainage pipes. For details on clamps and spacers, see the following sections.

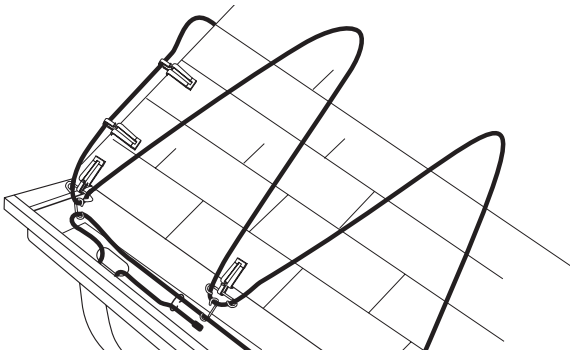


Figure 10. The starting point of the routing near the edge of the roof.

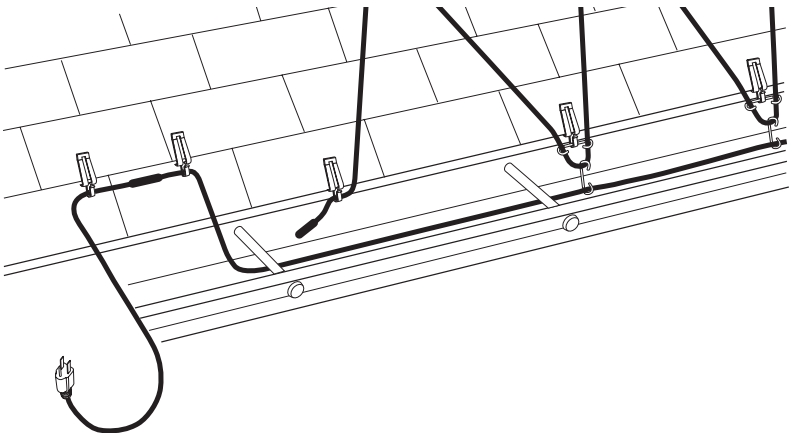


Figure 11. The starting point of the routing along the gutter edge.

Attach cable to the roof with clamps and cable spacers.

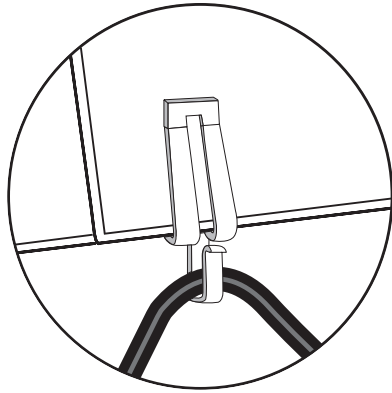


Figure 12. Fixing the clamps to the shingle at the top of the triangle.

At the bottom of the triangles, along the edge of the roof at the gutter, form a “drip loop” above the edge of the roof to direct melt water into the gutter or to the ground. There should be at least 2-inches between the bottom of the drip loop and the bottom of the gutter.

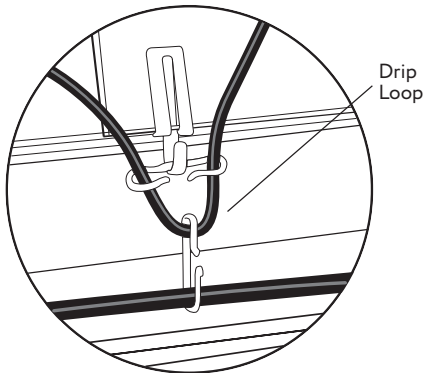


Figure 13. Fixing clamps to the edge of the roof with gutters.

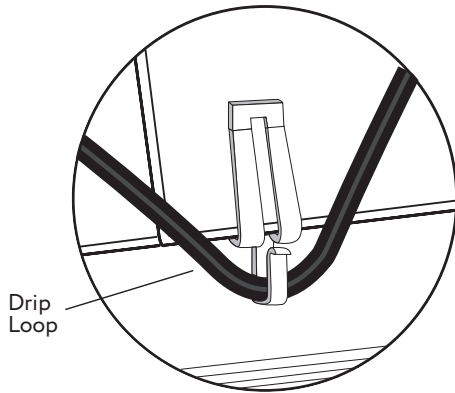


Figure 14. Fixing clamps to the edge of the roof without gutters.

For triangles that are more than 3-feet high, also attach clips every 3-feet along the height of the triangle.

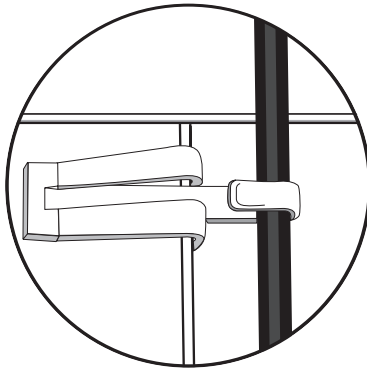


Figure 15. Fixing the clamps to the roof as the height of the triangle increases.

Fig. 16 shows how to use a clip to secure the cable when it extends vertically around the attic window.

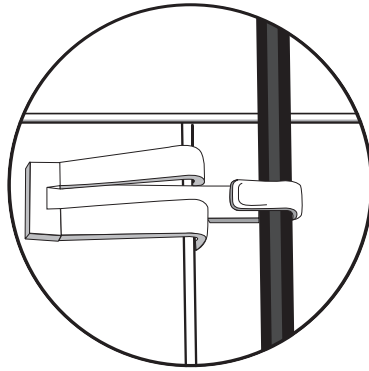


Figure 16. Fixing clamps to the roof next to the attic window.

The triangles of the cable are mounted near the attic windows in the same way as shown in Figures 12, 13 and 14. If the attic window is high on the roof (and cable triangles are higher than 3-feet), then the clamps should be fastened every 3-feet along the height of the triangle, as shown in Figure 15.

Fig. 17 – The use of clamps for securing a cable in a gutter.

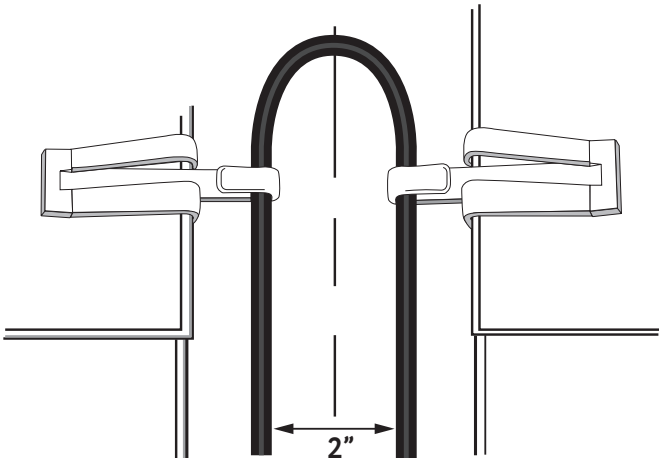


Figure 17. Clamp fastening along the gutter.

Route the cable along the gutter using cable spacers. When routing the cable in the groove, the spacers can be tightened with your fingers or pliers. If you use pliers, gently squeeze and be careful to avoid crushing, crimping, cutting, or otherwise damaging the cable.

Do not use a hammer to tighten clamps and spacers.

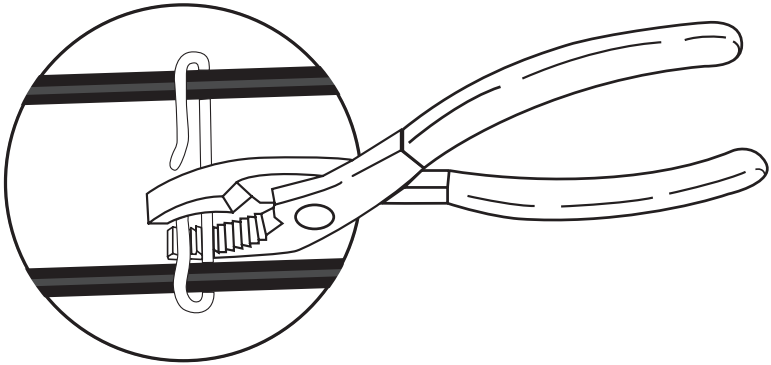


Figure 18. Squeezing the spacers with pliers.

To fasten the cable in the gutter along the roof line, use the clamps, securing the cable to the bottom of each drop loop that you have formed.

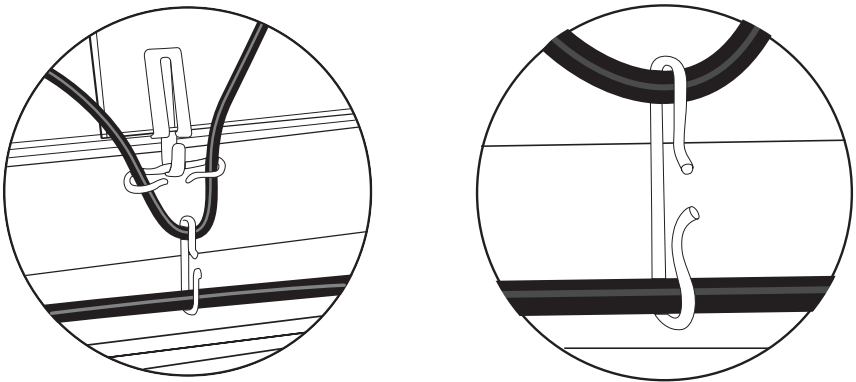


Figure 19. Fixing clamps in gutters.

When installing the cable in gutters and drainage pipes, use the “double run” of the cable. Clips should be attached every 12-inches. Spacers should be installed every 3-feet along the roof. The cable should be suspended at the bottom of the gutter.

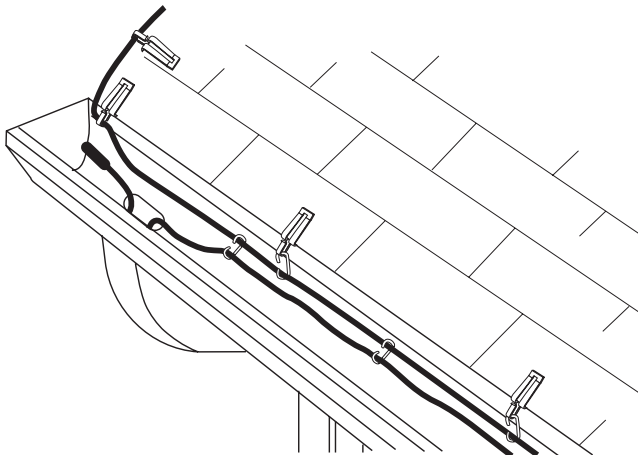
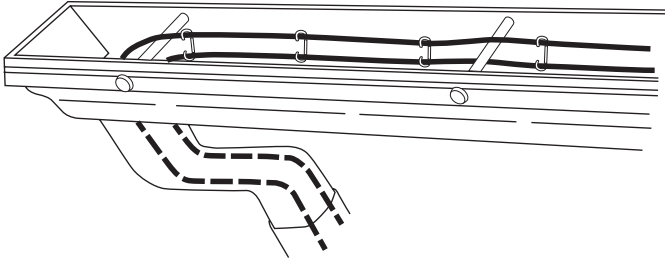


Figure 20. Cable double run inside the gutter.

Figure out first the total cable length required for installation in the drainage pipe.

It is important to determine the cable length as accurately as possible, because it should be flush with the end of the drainage pipe. Several different methods can be used for doing that:

- 1) Tie a small object (for example, a washer) to a cord or thread and lower it into the drainpipe. As soon as the washer exits through the bottom of the drainpipe, mark the location at the top of the thread to measure the length of the drainage pipe.

You will need twice the cable length. (Note: For accurate results, use a cord that does not stretch when attaching a small object).

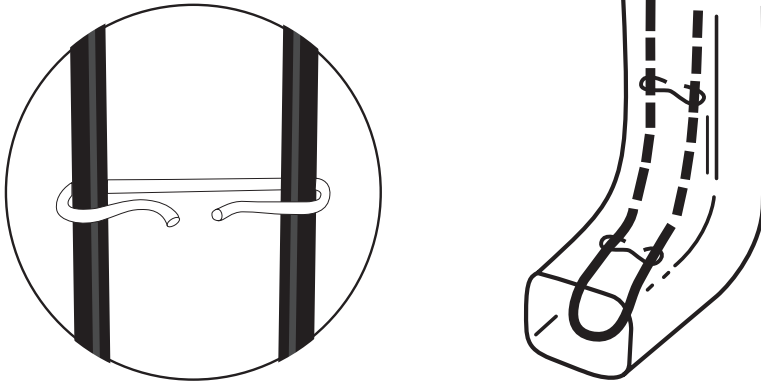


Figure 21. Laying the cable in the drainpipe in two threads.

- 2) You can use a tape measure to measure the length of each cable required for installation in a gutter. When calculating the required cable length, multiply the pipe length by 2.

Once you know the required cable length, the next step is to install the spacers and feed the cable inside the drainage pipe. Spacers must be attached to the cable every 6-inches so that the cable does not come into contact with itself in the pipe. Tighten the spacers before the cable is installed in the drainage pipe.

This can be done manually or with pliers. When using pliers, be careful not to pinch, crimp, cut, or otherwise damage the cable. Lower the cable into the gutter with the thread with a load.

If there is a drainage pipe at the end of the roofing line, it is recommended that the cable be directed down the inside of the pipe and back up.

Do not wrap the cable around the drainage pipe.

5.6 Final Steps of Installation

Make sure that the cable has not been moved from its intended position.

The heating part of the cable should be located entirely on the roof and should not have twisted sections.

6. HEATING CABLE USE AND TECHNICAL MAINTENANCE

For the cable to operate correctly, both proper installation and regular maintenance are necessary.

6.1 Pre-Season Inspections

At the beginning of the winter season it is necessary to:

- Remove all debris from the roof, from gutters and drainage pipes, such as leaves, pine needles, seeds, etc.
- Make sure that the cable has not been moved from its intended position.
- Inspect cable for damage without removing it from the roof.

Stop use and disassemble the cable if it shows any signs of damage or deterioration, including cuts, charred parts, cracks, discolored surfaces, or bare wires. If there seems to be an issue inside the drainage pipe, carefully pull out the cable to check it.

If there is no damage, plug the power cable into the outlet. Position the cable so that a drip loop is obtained using a spacer.

The purpose of the drip loop is to prevent melt water from entering the power outlet through the cord.

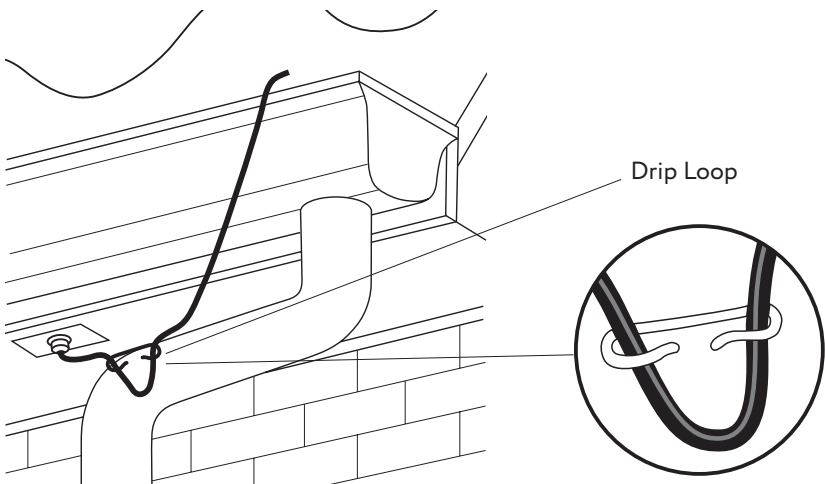


Figure 22. Making a drip loop before turning on the cable.

Check all ground fault protection devices.

6.2 Turning the Heating Cable On and Off

During the winter season, turn the cable on only when weather conditions are favorable for ice formation. A cable should only be used when:

- Snow or ice on the roof melts and the ambient temperature is between 15°F and 35°F (-9°C to 2°C)
- When the temperature rises above 35°F (2°C), the cable must be disconnected. The cable should be kept turned off until the weather conditions suitable for melting/freezing water reappear.

6.3 Checking the Operation and Condition of the Heating Cable

During the winter season and during snow melt, make sure that melt water can drain off the roof. The heating part of the cable and gutters should not be clogged with ice and snow. Icicles should not form on the edge of the roof.

If icing persists, you will need to adjust the layout of the cable to better suit the roof conditions.

To adjust the cable wiring diagram, first unplug it from the outlet.

- Then find places where there is an excess of cable length. If the cable length is insufficient, it can be obtained in those places where there was an excess of cable length during initial installation, or the roof covering area can be reduced where it is not so prone to icing.
- Remove the cable by opening the clamps and spacers with pliers.
- Reposition and feed more cable to the correct places as needed.

During operation, the ground fault protection device may trip if the cable is damaged or as a result of water entering the outlet.

Before setting up a ground fault protection device, disconnect the plug from the outlet and check the entire cable for damage. Remove and discard the cable if it shows any signs of damage or deterioration, including cuts, charred areas, cracks, discolored surfaces, or bare wires.

Do not use a damaged cable. If you do not see damage on the cable, reset the grounding protection device. If the device trips again and there is no other explanation for this, call a licensed electrician to check the cable and circuit.

If necessary, during the winter season disconnect the power cable to check for the presence and removal of debris, such as leaves, pine needles, seeds, etc. from the roof, gutters, and drains. About once a month during the winter season, disconnect the power cable and perform the same checks as in the “Pre-Seasonal Check” section.

Do these inspections in suitable weather conditions.

6.4 Actions in Case of Circuit Breaker Trip or a Blown Fuse

During operation of the heating cable, in the event of a circuit breaker tripping or a fuse blowing, stop using the cable immediately.

The cable must be disconnected and checked for damage, only under suitable weather conditions. Remove and discard the cable if it shows any signs of damage or deterioration including cuts, charred areas, cracks, discolored surfaces, or bare wires. Do not use a damaged cable.

6.5 Off-Season Use

The RoofMate heating cable can remain on the roof year-round. However, to avoid overheating the cable and increasing the risk of fire or electric shock, do not operate the cable when the air temperature is above 50°F (10°C) (i.e. at the end of the winter season), make sure that you unplug it from the utility outlet.

7. REMOVING THE HEATING CABLE

Before replacing a roof shingle or starting repair of a roof, the heating cable must be removed. Other roof work, such as installing antennas, flagpoles, etc., may also require dismantling the cable. Dismantling the cable may also be required for its inspection or layout modifications.

The dismantling of the cable should only be carried out in suitable weather conditions. Disconnect the heating cable from the power source. Unclench the clamps with pliers and remove the cable. Be careful when removing the cable from the drainage pipe to avoid damaging the cable.

Inspect the entire cable before installing it on the roof. If the cable is in good condition (there are no signs of cuts, charred spots, cracks, discolored surfaces, bare wires or other damage), it can be installed on the roof, according to the instructions.

Use only new fasteners. Do not use the clips that were used on the previous cable.

8. WARRANTY LIMITATION AND RESPONSIBILITY

The Seller guarantees the first owner and/or the original buyer (Buyer) of the product that its electric self-regulating heating cable (Product) will not have defects in materials and workmanship for 5 years from purchase date.

The warranty card must be registered with the Seller within 14 days from the date of purchase with a copy of the dated receipt.

In accordance with this limited warranty, the Seller provides the following: If the company determines that the product has defects in materials and workmanship and was not damaged as a result of misuse, improper use or design changes, the Seller will refund the price of the Product declared by the manufacturer at the time of purchase.

The maximum liability of the Seller in no case shall exceed the list price for a Product that will be deemed defective.

The warranty conditions require that the installation be carried out in strict accordance with the rules set forth in this Installation Manual. Failure to comply with these rules will void the warranty completely. The Seller is not responsible for damage to the product which it considers the result of careless handling, misuse or lack of maintenance.

The Buyer is responsible for the costs associated with the installation, dismantling and re-installation of the product, including labor and delivery costs incurred in returning the product to the Seller.

To apply, you should:

- a) Provide the Seller with sufficient information regarding the nature of the defect, installation, operation history and any repair work that has been carried out.
- b) Send the Product to the Seller at the expense of the Buyer of the Product.
- c) Provide confirmation that the Product has been installed in accordance with this Installation Manual.
- d) Provide evidence that the Product has been installed in accordance with the National Electrical Code (NEC) or the Canadian Electrical Code or all applicable local building and electrical codes.
- e) Provide a receipt of sale or proof of purchase.

This limited warranty does not apply to the following:

- a) Any incidental or consequential damages, including inconvenience, loss of time or loss of income.
- b) Any labor or material required to repair or replace the Product.

- c) Any costs associated with the transportation or delivery of the Product to or from our enterprise.
- d) Any costs connected with the analysis necessary to detect or diagnose a potential problem with the cable system.
- e) The Seller is not liable for consequential losses incurred in connection with the product for any reason.

Send the completed warranty card to the address:
 10457 Roselle St, Ste E, San Diego, CA 92121

You can also register a purchase on the website of the Seller:
 warmbridge.shop

Model number:	
Buyer's Name:	
Installation Address:	
Date of purchase:	
Installation date:	
Installer name and license number:	

My signature below confirms that I have read, fully understand and accept the limited warranty agreement.

Date _____

Signature: _____

Must be returned within 30 days from the date of purchase with a copy of the dated receipt.

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