

## Keep Gutters and Downspouts Flowing all Winter Long with Frost King® Roof De-icing Cable

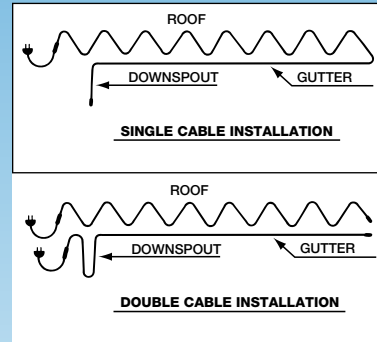
Roof and gutter de-icing cables help end costly ice damage by preventing ice dam formation and promoting the free flow of water through gutters and downspouts to ground level.

This product is for the sole intended use of preventing ice dams from forming on inclined roofs with tab shingles, in gutters and in downspouts. This roof de-icing cable is not intended for use as a snow-melting system to clear roof of ice and snow. **Never install on a flat roof. Never install on combustible materials. Not suitable for use on metal roofs: contact Frost King for appropriate cable solutions.**

*Includes:* De-icing Cable, Shingle Clips, Cable Spacers, Installation Instructions and Electrical Panel Labels.

### Cable Installation Patterns

One cable may cover both roof and gutter areas, or separate cables can be used.



RS-2

## DESIGNING A SYSTEM

- Sun exposure, prevailing weather direction and roof shape may result in different conditions at different points on a roof. Several controls and shorter cable runs may be appropriate. If only one control is used, it should be located to respond to the worst icing conditions.
- The length of roofline alone does not determine cables/controls needed. Consider: roof design and size; gutter and downspout location; number of sides of a typical, peaked roof to be protected.
- Use of a temperature and moisture sensing control, such as the Frost King RS-2 Roof Sentry, is highly recommended. Using a proper control will ensure the system is automatically energized only when needed. Use one RS-2 for each Frost King cable installed.
- Use a ground fault protection device or outlet.
- Weather-proofed outlets of sufficient quantity and amp rating are required within six (6) foot cord-set length of the cable/control starting point.

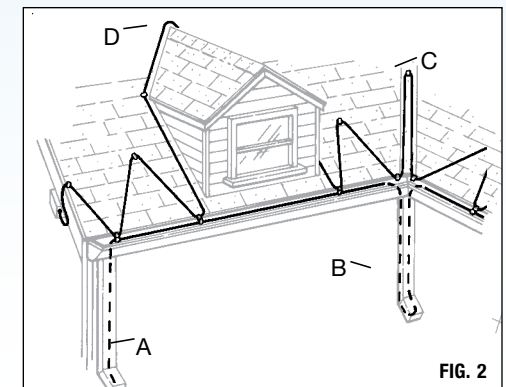
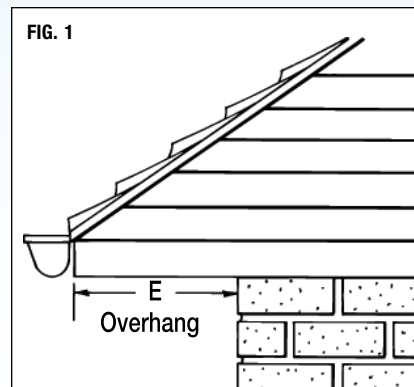
## DETERMINE ROOF DE-ICING CABLE NEED

### Measure Roof Overhang

Install cable over unheated portion of roof — normally roof area above overhang. This helps to ensure that water flowing onto the unheated roof area will be able to flow to the ground. Installing cable in valleys, gutter and downspouts as well creates an ice-free pathway for water to drain completely from eaves and gutter. For your de-icing cable requirements, determine the roof overhang (E in figure 1) with corresponding multiplier as follows:

MULTIPLIER TABLE			
Roof Overhang	Overhang Multiplier*	Roof Overhang	Overhang Multiplier*
12" / 30 cm	4.0	48" / 120 cm	8.1
24" / 60 cm	5.3	60" / 150 cm	9.6
36" / 90 cm	6.8	72" / 180 cm	11.2

\*Length of cable required per foot of roof length. Note: Multiplier shown includes 1 foot of gutter cable for each foot of roof edge.



### Measure Length of Roof

- 1 Measure horizontal roof length to be covered by cable; multiply by Overhang Multiplier to determine total cable length for roof area.
- 2 Add cable for downspout (A in figure 2). NOTE: If a downspout is located anywhere *other than* at the end of the cable routing, that downspout will require double length of cable (B in figure 2).
- 3 Add extra cable for valleys (6' per valley, C in figure 2) and around dormers (D in figure 2).

**Example:** 24 feet of roof, 24 inches overhang (therefore using Overhang Multiplier of 5.3), 2 downspouts at 10', one at end of cable run, and one at midrun, 1 valley, 1 dormer with 30' perimeter.

Cable length =  $(24 \times 5.3) + 10 + 20 + 6 + 30 = 193.2$  feet

*In this example, select HC200 (200'), as it is closest to 193.2 feet. Use excess cable in valley or downspout.*

Compare your total to standard lengths available from your retailer. Specify closest product possible to your total need. **De-icing cable cannot be cut or altered; doing so voids the warranty.** Once cut, it cannot be repaired.

120 VOLTS		
CATALOG NUMBER	LENGTH	WATTS
RC30	30' ( 9 m)	150
RC60	60' (18 m)	300
RC80	80' (24 m)	400
RC100	100' (31 m)	500
RC120	120' (37 m)	600
RC160	160' (49 m)	800
RC200	200' (61 m)	1000
RC240	240' (73 m)	1200

ACCESSORIES	
CSP1	Replacement Clips & Spacers



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# Electric Roof De-icing Cable

## Stop Damaging Roof-Ice Buildup

### MEASURE

- Horizontal length of each roof section to be protected, in feet. \_\_\_\_\_
- Depth of overhang for each roof section, in inches. \_\_\_\_\_
- Each dormer — up, over and down — per diagram, in feet. \_\_\_\_\_
- Length of each downspout, in feet. \_\_\_\_\_
- Note number of roof intersection valleys. \_\_\_\_\_

### CALCULATION BY SECTION

- For each section overhang depth, find the multiplier table. \_\_\_\_\_
- If the section has no gutter, subtract 1.0 from the multiplier. \_\_\_\_\_
- Multiply length of each roof section by its overhang multiplier. \_\_\_\_\_
- Total all the section dormer measurements. \_\_\_\_\_
- For each downspout with cable running down and back up, typically all but the last one on a cable run, multiply length by 2 and add together. \_\_\_\_\_
- Total length of downspouts with cables running down only, typically the last one in a cable run. \_\_\_\_\_
- Multiply the number of valleys by 6. \_\_\_\_\_

TOTAL ITEMS C-G

*Frost King products are provided with a LIMITED WARRANTY: see owner's manual or contact Frost King for complete terms and conditions.*



- PREVENT ROOF DAMAGE AND LEAKING
- KEEP GUTTERS & DOWNSPOUTS FLOWING
- PREASSEMBLED READY-TO-INSTALL

