BriskHeat®

FREEZE PROTECTION RESIDENTIAL GUIDE

SAFEGUARDING YOUR HOME IN COLD WEATHER

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YOUR GUIDE TO SAFEGUARDING YOUR HOME IN COLD WEATHER

Weather can be unpredictable, making it crucial to prepare your home for extreme conditions, especially during the coldest months. Anticipating freezing temperatures and protecting your property against freeze damage is a vital part of any annual home assessment. A good freeze protection plan includes steps for inspection, preventative maintenance, and timely corrective actions before the onset of cold weather.

This guide is designed to make winterizing your home easy, helping you prevent costly damage and ensure your family's comfort and safety.

This guide contains checklists and recommended products to checlists to prepare your home for winter's harsh weather. BriskHeat is here to make sure your home remains protected during those freezing conditions.

FOR OUR FULL LINE OF FREEZE PROTECTION SOLUTIONS, SCAN THE QR CODE TO VISIT OUR FREEZE PROTECTION CENTRAL ONLINE!

FROZEN PIPES

ICE DAMS & ICICLES

FROZEN FAUCETS

UNDERSTANDING THE THREAT OF FREEZING TEMPERATURES

While we often think of water freezing at 32°F (0°C), the impact of cold weather on your home can be more complex. Freezing temperatures can lead to various issues, from burst pipes to inefficient appliances. Understanding how cold affects your home's systems is the first step in effective protection.

WHAT FREEZES AND WHERE?

COMMON HOUSEHOLD VULNERABILITIES

Water Pipes (Exposed & Unexposed): Pipes in unheated basements, crawl spaces, attics, garages, exterior walls, and outdoor hose bibs are highly susceptible. Even pipes behind cabinets or in poorly insulated areas can freeze.

Drain Lines: Condensate lines from furnaces or AC units can freeze if exposed to cold.

Roof and Gutters: Melting snow can refreeze at colder eaves, forming ice dams that prevent proper drainage and force water back under shingles, causing leaks and structural damage.

Outdoor Faucets: Often forgotten, these require specific attention as they are directly exposed to the elements.

Water Heaters & Boilers: While generally indoors, if located in unheated spaces, their supply lines can freeze.

Wastewater lines: Wastewater lines need to be buried below frost lines or heated. This is especially true for RVs, motorhomes, and cottages.

THE BASICS OF HOW COLD AFFECTS YOUR HOME

Beyond pipes, valves, and containers, many types of equipment used outdoors or in low temperature environments can significantly benefit from targeted freeze protection. Keeping these components at an optimal operating temperature not only prevents damage but also ensures consistent performance, improves efficiency, and extends their lifespan.

RECOMMENDED SOLUTIONS FOR PIPE LINES & VALVES

SPEEDTRACE SELF-REGULATING HEATING CABLE

SpeedTrace heating cables are ideal solutions for easy-to-install pipe freeze protection and safe thawing of metal and plastic pipe & valve assemblies. They may be used on metal and plastic pipes. No temperature control is required although BriskHeat® does recommend pairing this with the THERMO-CUBE, a temperature controlled outlet adapter.

Suitable for extreme cold conditions as low as -40°F (-40°C).

- Ideal for freeze protection and thawing conents of metal or plastic pipes and valves
- Pre-assembled with NEMA 5-15 plug (110-120 VAC) or bare wire leads (208-277 VAC)
- Safe to overlap and insulate

PART NO. 110-120 VAC	PART NO. 208-277 VAC	CABLE LENGTH FT(M)
FFSL1-12	FFSL2-12	12 (3.7)
FFSL1-24	FFSL2-24	24 (7.3)
FFSL1-50	FFSL2-50	50 (15.2)
FFSL1-75	FFSL2-75	75 (22.8)
FFSL1-100	FFSL2-100	100 (30.5)

**Other lengths available upon request.*

XtremeFLEX® RKP WITH PRESET THERMOSTAT

BriskHeat's RKP silicone tapes are an alternative solution to traditional heating cable. Providing a portable, ulta-flexible plug-and-play option ideal for freeze protection, these tapes have a low watt-density of 6W/ft to provide safe operation and avoid overheating.

- Ideal for freeze protection and process control heating
- Pre-assembled with a choice of plug and built in pre-set temperature control
- For indoor & outdoor use
- Lengths from 2 ft to 200 ft

RECOMMENDED SOLUTIONS FOR PIPE LINES & VALVES, CONT'D

INSUL-LOCK

CUSTOM CLOTH INSULATORS

PIPE INSULATION

Essential for enhancing the efficiency of heating cables and preventing heat loss, pipe insulation creates a thermal barrier around pipes. This reduces energy consumption by trapping heat, ensuring your heating solutions work optimally to prevent freezing.

INSUL-LOCK® CLOSED CELL PIPE INSULATION

- Easy to install with hook and loop fasteners
- Long service life-typically 10+ years
- Indoor and outdoor models and custom shapes and sizes

CUSTOM CLOTH REMOVABLE INSULATORS

- Easy to install with locking adhesive flap
- Double seal technology
- Mold and mildew resistant, non-porous, fiber-free foam insulation

THERMO-CUBE TEMPERATURE CONTROLLED OUTLET ADAPTER

This power-saving ambient temperature sensing outlet is suitable for indoor and outdoor use. Turning on when air temperature drops below 35°F (2°C) and turning off when air temperature exceeds 45°F (7°C), Thermo-Cube saves energy, money and extends the life of the heater.

- Compatible with 120VAC NEMA 5-15 outlet
- To be used with GFCI protected circuit
- Two receptacles for more than one electrical device at a time

Combine with SpeedTrace Roof & Gutter Kits for automated on/off to precent the formation of ice dams on rooftops.

RECOMMENDED SOLUTIONS FOR ROOF & GUTTER DE-ICING

When gutters and downspouts freeze, major damage can occur to your building's roof and facade. BriskHeat® recommend roof & gutter self-regulating heating cable as the solution.

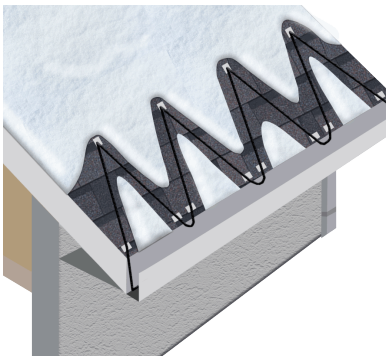
SPEEDTRACE ROOF & GUTTER KITS

BriskHeat's SpeedTrace Roof & Gutter De-Icing Kits are designed to prevent the formation of ice dams and icicles on rooftops by using an electric self-regulating heating cable system. The heating cable melts away excessive ice and snow from the roof, gutters, and downspouts to ensure proper draining.

KIT INCLUDES:

- SpeedTrace Roof & Gutter Heating Cable (pre-assembled with power plug)
- Heavy-Duty Roof Clips
- Downspout Hanger Brackets
- UV Resistant Cable Ties

PART NO. 110-120VAC	PART NO. 208-277VAC	CABLE LENGTH FT(M)	ROOF CLIPS	DOWNSPOUT HANGERS	CABLE TIES	CAUTION LABELS
FFRG15-50	FFRG25-50	50 (15.2)	30	2	15	2
FFRG15-75	FFRG25-75	75 (22.8)	50	4	20	2
FFRG15-75	FFRG25-75	100 (30.4)	60	4	25	2
FFRG15-75	FFRG25-75	125 (38.1)	80	4	30	2
FFRG15-75	FFRG25-75	150 (45.7)	100	6	40	2



MEASURING HEATING CABLE LENGTH FOR ROOF & GUTTER DE-ICING

Use the equation below to calculate heating cable length:
Cable Required for Roof = (RxM) + G + D

(R) roof edge linear length, (M) multiplier from table below, (G) gutter length, (D) downspout length (x2 if heating cable returns back to gutter)

ROOF OVERHANG (EAVE/SOFFIT)	STANDARD ROOF	STANDING SEAM ROOF, 18 IN (45 CM) SEAM	STANDING SEAM ROOF, 24 IN (60 CM) SEAM
None	2.0	2.5	2.0
12 in (30 cm)	2.5	2.8	2.4
24 in (60 cm)	3.0	3.6	2.9
36 in (90 cm)	4.0	4.3	3.6

RECOMMENDED SOLUTIONS FOR EMERGENCY DE-ICING

XtremeFLEX® HEATING TAPES WITH ADJUSTABLE THERMOSTAT

It is always a good idea to have a few flexible multi-purpose heaters on hand in the event of an emergency de-icing need. XtremeFlex® flexible heating tapes with built-in adjustable temperature controls are ideal to prevent freezing or thaw frozen valves, pipes, and many other objects.

Unlike blow torches or heat guns, these heaters are safe, make direct contact with the object to be heated, and are moisture and chemical-resistant. With proper installation of the thermostat, these tapes can be runned unsupervised. These tapes are available in 120V or 240V, in a variety of lengths and widths.

TIPS:

- Have at least one of each size on hand so that you have the correct size when you need it! Shorter lengths are typically for valves, bearings, pumps, and actuators. Longer lengths are typically used for pipe runs.
- When estimating heating tape lengths, keep in mind that the heating tape cannot be overlapped upon itself as this will cause damage to the heater.

RECOMMENDED OPTIONS:

- MSTAT-Series; Up to 160°F (71°C)
- HSTAT-Series; Up to 425°F (218°C)

RECOMMENDED SOLUTIONS FOR EMERGENCY DE-ICING, CONT'D

MSTAT XTREMEFLEX HEATING TAPE W/ ADJUSTABLE CONTROL - UP TO 160°F (71°C)				
Part No. 120VAC	Part No. 240VAC	Heating Tape Width IN (MM)	Heating Tape Length FT (M)	Wattage
MSTAT101002	MSTAT102002	1 (25)	2 (0.6)	144
MSTAT101004	MSTAT102004	1 (25)	4 (1.2)	288
MSTAT101006	MSTAT102006	1 (25)	6 (1.8)	432
MSTAT101008	MSTAT102008	1 (25)	8 (2.4)	576
MSTAT101010	MSTAT102010	1 (25)	10 (3.1)	720
MSTAT101020	MSTAT102020	1 (25)	20 (6.1)	1200
MSTAT101030	MSTAT102030	1 (25)	30 (9.1)	1440
MSTAT101040	MSTAT102040	1 (25)	40 (12.2)	1440
MSTAT101050	MSTAT102050	1 (25)	50 (15.2)	1440

Other lengths available upon request.

HSTAT XTREMEFLEX HEATING TAPE W/ ADJUSTABLE CONTROL - UP TO 425°F (218°C)				
Part No. 120VAC	Part No. 240VAC	Heating Tape Width IN (MM)	Heating Tape Length FT (M)	Wattage
HSTAT101002	HSTAT102002	1 (25)	2 (0.6)	144
HSTAT101004	HSTAT102004	1 (25)	4 (1.2)	288
HSTAT101006	HSTAT102006	1 (25)	6 (1.8)	432
HSTAT101008	HSTAT102008	1 (25)	8 (2.4)	576
HSTAT101010	HSTAT102010	1 (25)	10 (3.1)	720

Other lengths available upon request.

GENERAL FREEZE PROTECTION CHECKLIST

Planning ahead is key to preventing freeze damage and ensuring safety. These are general freeze protection planning steps provided by application engineers and field experience notes. These steps are not all inclusive and we recommend that you consult a trained professional if you have additional questions.

	PREPARATION STEPS	DATE COMPLETED
☐	Roof and gutter: Inspect, remove debris, and patch/repair (if needed): roof drains, scuppers, canals, gutters, downspouts before the first frost. If roof and gutter heat trace system is installed, inspect and functionally test the system. Apply heat in susceptible areas.	
☐	Identify and test main water supply cutoffs for your home. Ensure these areas are readily available to emergency personnel responding to freeze/thaw incident. Apply heat in susceptible areas.	
☐	Check and place antifreeze used in cooling systems as necessary.	
☐	Protect heating system power and temperature controls against inadvertent deactivation.	
☐	Inspect insulation on piping. Look for damage and vulnerable areas that might be exposed to freezing conditions. Add or replace insulation as needed.	
☐	Identify areas where personal safety is at risk due to icy conditions. Develop a slip prevention maintenance plan. Apply heat in susceptible areas.	
☐	Have a plan in place to remove emergency de-icing heaters after the cold weather season.	

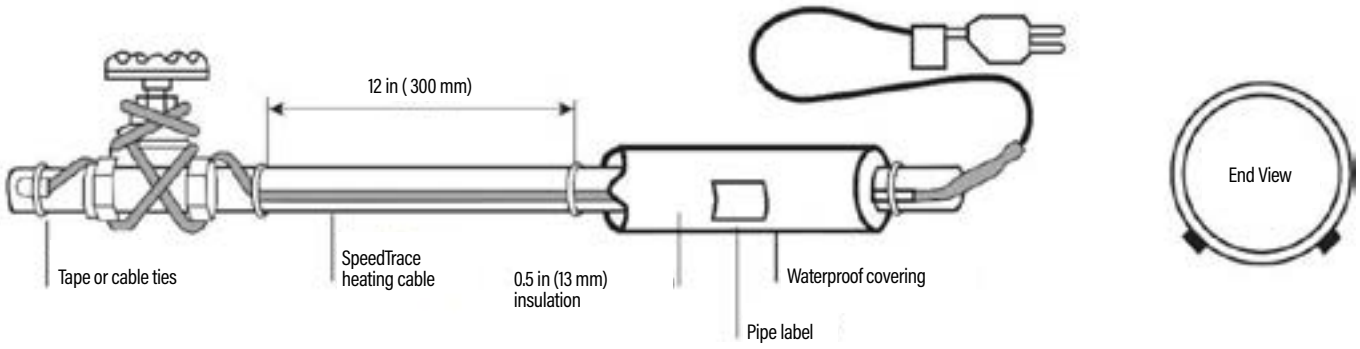
TIP: Think about materials that might be delivered during the cold season in unheated vehicles. BriskHeat offers plug-and-play portable heaters that easily wrap around and heat drums, pails, and tanks to thaw frozen or slow-flowing materials.

PIPE LINES AND VALVES EXPOSED TO FREEZING CONDITIONS CHECKLIST

Use this checklist to identify the pipe lines and valves that need heat. Your local distributor or BriskHeat will help you determine the proper type and amount of heat, insulation, and accessories necessary for your application.

PIPE/VALVE LOCATION WHERE HEAT IS NEEDED	LENGTH OF PIPE OR SIZE OF VALVE WHERE HEAT IS NEEDED	OUTSIDE DIAMETER OF OBJECT TO BE HEATED	INSULATION IS NEEDED? (Y/N) INSULATION THICKNESS?

EXAMPLE OF HEATING CABLE INSTALLATION



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PN: FPRG2025