

# Constant Wattage Pipe Freeze Protection System Installation Manual

# **1** General Information

This constant wattage pipe freeze protection product has been designed, manufactured and instructions written for the sole use of preventing water pipes from freezing. Improper installation, use and/or maintenance of electrical heating cable can cause fire, electric shock and/ or freezing of pipe.



• If after reading the following instructions, you still have questions regarding installation or operation of this heating cable, call WarmlyYours at 800-875-5285

• Heating cables must be installed in compliance with all National, State, Provincial and Local Codes. Check with your local electrical inspector for specific details.

• These instructions must be saved and made available to the owner and transferred to future owners. Before starting, be sure you have selected the correct length heating cable for the pipe to be protected, see **2 Selection Guide**.

**WARNING:** Use on water pipes only and comply with these important instructions. Minimum pipe length is 3ft (0.91 m).

For additional information regarding any aspect of the Pipe Freeze Protection System, contact:

### WarmlyYours US

590 Telser Rd, Suite B Lake Zurich, IL 60047

WarmlyYours Canada 300 Granton Drive, Unit 4A Richmond Hill, ON. L4B 1H7

www.WarmlyYours.com

# **2 Selection Guide**

To choose the right length of pipe freeze protection cable, cable should be long enough to run along bottom of horizontal pipes and weather side of vertical pipes (including valves) without crossing or spiraling. Never use a cable longer than the pipe it is intended to protect.



• Cable will be applied straight along pipe, and will protect pipes up to 1-1/2 inches (3.81 cm) in diameter.

• For pipe lengths other than standard heating cable sizes, and over 1/4 inch (0.64 cm) in diameter, use two heating cables in parallel on opposite sides of the pipe (see illustration). Maximum "overrun" should not exceed 3ft (0.91 m). **Do not install on pipe shorter than 3ft** (0.91 m) long.

• For Standard Lengths Pipe, to protect the pipe with a standard length of heating cable, apply the cable straight along the bottom of horizontal pipe or the "weather side" of vertical pipe following installation instructions.



• For Non-Standard Lengths Pipe, diameters from 3/8 inches to 3/4 inches (0.95 to 0.91 cm), cable can be up to 2ft (0.61 m) shorter than pipe, diameters from 1inch to 1-1/2 inches (3.81 cm), apply two separate cables on opposite sides of the pipe, starting from opposite ends following installation instructions. **Overrun in the middle of the pipe should not exceed 3ft (0.91 m).** 

Catalog Number	Voltage V	Cable Length/ft (m)	Output W/ft	Watts	Amps	ohms
PTC120-7W-003-WY	120	3 (0.91 m)	7	21	0.2	685.7
PTC120-7W-012-WY	120	12 (3.66 m)	7	84	0.7	171.4
PTC120-7W-030-WY	120	30 (9.14 m)	7	210	1.8	68.6

### **Ordering Information**

**WARNING:** The following nine points must be strictly adhered to. Failure to do so could cause overheating and result in serious fire hazard or electrical shock.

• Never plug in the heating cable while it is coiled.

• Never install so that external heat sources might overheat installation. Do not use heating cable on pipes heated above 149° F (65°C) such as steam lines.

• Never alter this heating cable in any way. If made shorter, it will overheat. Any attempt to physically alter the heating cable will void the warranty. Once cut, the heating cable cannot be repaired.

• The thermostat and the entire heating cable must be in contact with the pipe.

• Never use metal binding to secure heating cable to pipe.

• Do not install the same cable on more than one pipe. This could cause the heating cable to overheat and may result in fire or electrical shock.

• Never allow heating cable to touch, cross or overlap itself at any point. This will cause the heating cable to overheat and could result in fire or electrical shock.

• Never install heating cable in walls, floors or ceiling.

• Combustible material must not be within 1/2 inch (13mm) of completed installation.

# **3 General Installation Instructions**

Important: Tools and materials required Materials:

Electrical tape
1/2-inch (13 mm) fiberglass or equivalent non-flammable pipe insulation with vapor seal
Tools:
Scissors • Tape measure • File • Marking pencil
Eye protection

Automatic Pipe Heating Cable on Metal Water Pipe (See "Special Notes for Plastic Pipes" below.)



**WARNING:** Always wear safety glasses during installation.

1. Read through the entire instruction sheet before you begin. Make sure you have selected the correct length of heating cable.

2. Before applying the heating cable, make sure that the area on and around the pipe is free and clear of sharp edges and combustible materials. Remove old heat tapes before proceeding and use the file to remove any sharp edges.

3. The minimum installation temperature of the cable is -10°C (14°F). Never install the Pipe Freeze Protection System when the cable is colder than this temperature. If heating cable is stiff (due to cold), first uncoil it and then plug it into the rated voltage (120V or 240V) outlet until it is warm and pliable before unplugging it and applying it to the pipe.

4. Make sure there is a properly grounded electrical receptacle close enough to plug in the cable. We strongly recommend the use of a GFCI protected circuit. Use on 120/240 volts and be sure the electrical outlet is not overloaded. This heating cable will consume five amps or less of electricity. If an extension cord is necessary, use only a properly sized, grounded suitable for outdoor service.

5. The thermostat (the splice or end of the heating cable) must be placed tightly against the pipe and secured with good quality electrical tape. The thermostat should be placed on the coldest end of the pipe and turn the cable on and off to provide economical operation.

6. Apply good quality electrical tape at 5.91 inches (15 cm) intervals to secure the heating cable straight along the pipe. Minimum heating cable bend radius is 1 inch (2.54 cm).

**WARNING:** Always use good quality electrical tape with a minimum of 176°F (80°C) temperature rating. Other adhesive tapes may allow the cable to move at normal cable operating temperatures and could result in over heating, fire or electrical shock.

7. Maximum 1/2-fiberglass (including pre-formed fiberglass) insulation must be used over the heating cable for lower temperature protection. Insulation applied over the heating cable must also be applied over the thermostat. Insulation must be protected with an additional waterproof overwrap using opposite spiraling.

**WARNING:** We recommend the use of a ground fault circuit interrupter (GFCI) receptacle or circuit breaker to reduce the danger of fire or electrical shock from a damaged or improperly installed heating cable. Electrical fault current caused by a damaged or improperly install cable MAY NOT BE LARGE ENOUGH to trip a conventional circuit breaker. If you DO NOT know whether your electrical circuit is protected by a GFCI, ALWAYS consult an electrician. NOTE: Many mobile home heat tape receptacles are NOT protected by a GFCI.

**WARNING:** Never use more than 1/2 inch (13 mm) of fiberglass or other non-flammable insulation made for pipe application. Over-insulation can cause the heating cable to overheat and cause serious fire hazard or electrical shock.

8. Before operating the heating cable, the installer should complete the record of purchase form. **Special Notes for Plastic Pipe Installation** 

**WARNING:** Never install heating cable on plastic pipe unless pipe is filled with water at all times. Use plastic (including PEX tubing) piping material suitable for residential water applications. Never spiral heating cable on pipes. Keep the heating cable straight along the pipe. In order to obtain even heat distribution, we recommend wrapping plastic pipes with aluminum foil before applying the heating cable.

## 4 Maintenance

1. At the beginning of the heating season and monthly during operation, inspect the heating cable and its connection to the electric power source. Discontinue use and remove any unit that has been cut, damaged, immersed in water, shows any evidence of charring or cracking, or has deteriorated for any reason. Other conditions to look for are chewing by animals, debris thrown from lawnmower or any physical abuse. This cable does not contain any serviceable parts.

2. Heating cable may remain on the pipe year round, but we recommend always turning off or disconnecting the power at the end of the season (when air temperatures remain above 50°F (10°C). The thermostat turns the heating cable on when exposed to temperatures below 37.4°F (3°C). It will shut the heating cable off when the pipe has been heated to a temperature of approximately 50°F (10°C).

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