SELF-REGULATING HEATING CABLES
The Paladin and EXT Series systems employ the unique performance and operating characteristics of advanced self-regulating heating cable technology. The heating cable is built around a conductive polymer core, which automatically adjusts its heat output to match heat loss at every point throughout the system length. As the temperature increases, Heat-Line products automatically decrease their heat output, and vice versa. The result is energy savings.

INSULATION
A thermally insulated pipe requires much less heat to protect and is not as susceptible to freezing. Heat-Line products are designed to be used with thermal insulation to reduce heat loss and greatly improve energy efficiency. When the warmth generated by the heating cable system is captured by insulation, the amount of energy consumed by the heating cable is vastly reduced.

THERMOSTATS AND TIMERS
Thermostats and timers are used to control the ON/OFF operation of the heating cable reducing the amount of energy consumed by the device. This helps to reduce the amount of energy consumed and thus increasing your energy savings by as much as 80% when combined with insulation.

PALADIN/EXT AT A GLANCE
- cCSAus certified for direct earth burial and wet location
- Can also be installed inside both metallic and non-metallic gravity fed drains, pipes and culverts to create an internal melt water path
- Self-Regulating heating cable
- 5 year warranty with optional 10 year
- Can be fully insulated to decrease operating costs
- Thermostats and other control devices optional
- Will never melt or burn pipe, even if pipe is dry
- Can be installed on all pipe materials both metallic and non-metallic including PEX, ABS, Polyethylene, PVC, Copper, Steel, Iron, and many more
- Suitable for most pipe diameters when properly insulated

SPECIAL REQUIREMENTS
Since 1988 Heat-Line has been specializing in freeze protection of all types. If you have a special application of any kind, give us a call. Special system designs are common to us. We manufacture many other innovative products not mentioned in this brochure.
ABOUT PALADIN
Paladin is a cCSAus approved job-ready freeze protection system designed for installation on the outside of both metallic and non-metallic pipes both in indoor and outdoor applications. Paladin is certified for both wet locations and direct earth burial making it suitable to be installed inside non-pressurized, non-potable pipes such as drainage pipes. The Paladin system is easily adapted to a variety of applications including cottages, homes, resorts, farms and commercial/industrial buildings.

- cCSAus approved (Canada and USA)
- Certified Usage W and S Canada
- Installation Type A USA
- Approved for Wet Locations and Direct Earth Burial
- 120 Volt - 5 watt/ft at 50°F, min. circuit length of 120 feet
- 240 Volt - 5 watt/ft at 50°F, max. circuit length of 240 feet
- GFC model - 27 milliamp ground fault circuit interrupter plug-in device
- CS model - 14 AWG SJEOOW supply cord for direct hard wire

For longer length systems refer to EXT5R.

ABOUT EXT SERIES
The EXT5R and EXT3T systems are cCSAus approved for external pipe freeze protection. Installed in similar applications to the Paladin, the EXT5R provides the added option of greater circuit lengths and the EXT3T provides an advanced fluropolymer outer heating cable jacket. The EXT3T product is an excellent choice for harsh environments as it is compatible with select corrosive, organic or inorganic materials.

EXT5R & EXT3T Series
- cCSAus approved (Canada and USA)
- Certified Usage W Canada
- Installation Type A USA
- Approved for Wet Locations and Suitable for Direct Earth Burial
- GFC model - 4 ft supply cord with 27 milliamp ground fault circuit interrupter plug-in device
- CS model - 6 ft 14 AWG SJEOOW supply cord for direct hard wire

EXT5R Only
- 120 Volt - 5 watt/ft at 50°F, min. circuit length of 130 feet, max. circuit length of 220 feet
- 240 Volt - 5 watt/ft at 50°F, min. circuit length of 250 feet, max. circuit length of 540 feet

For shorter length systems refer to Paladin. 3 and 8 W/FT available by special order.

EXT3T Only
- Fluropolymer outer heating cable jacket
- 120 Volt - 3 watt/ft at 50°F, max. circuit length of 250 feet
- 240 Volt - 3 watt/ft at 50°F, max. circuit length of 550 feet

5 and 8 W/FT available by special order.

INSTALLATION
As Paladin and EXT Series systems are high quality products, they are installed in a different fashion as compared to traditional style heat tape products. With Paladin and EXT Series systems, the heating cable is simply applied on to the pipe in a single run in most applications; reducing overall length of product by as much as 60%. For extreme cold weather areas or for pipe diameters greater than 2 inch, a dual trace installation may be required. Example, 100 ft of heating cable for a 50 ft long pipe.

END SEAL TECHNOLOGY
Paladin and EXT Series systems are end-seal terminated with an exclusive and proprietary process developed by Heat-Line and certified by cCSAus for wet locations and suitable for direct earth burial.

For more information refer to www.heatline.com or contact Heat-Line.