



# Rizer-Line®

## Internal and External Freeze Protection System for Automatic Waterer

### Installation Instructions

#### General Information

Rizer-Line systems provide internal (in-pipe) and external (on-pipe) freeze protection in one system to automatic livestock water systems and other similar applications. These are high performance products designed to work in extreme cold and harsh environments.

It is recommended that the Rizer-Line installation be made by a qualified tradesperson. This will ensure that optimum performance is achieved in each installation.

- A. This heating cable set shall be installed in accordance with the National Electrical Code (USA), and or the Canadian Electrical Code.
- B. It is imperative that for all installations where the pipes are exposed to the outside ambient temperature that weatherproof insulation be used. (Wall thickness ½ inch minimum). Heat-Line offers closed cell foam types, foil/air bubble type and others. Other types of weather-proof insulations may also be used.
- C. Rizer-Line can be used even when there is no water in the pipe. Rizer-Line WILL NOT melt your water pipe. In the event of power failure your system may freeze. The system will however re-energize immediately following power restoration and will thaw out again. In most cases no damage to pipes will be encountered.

**Rizer-Line is a technically advanced product. Handle it with proper care and be sure not to damage the outer sheath or jacket of the cable.**

**Read the Safety Instructions and Installation Instructions completely before installing this product.**

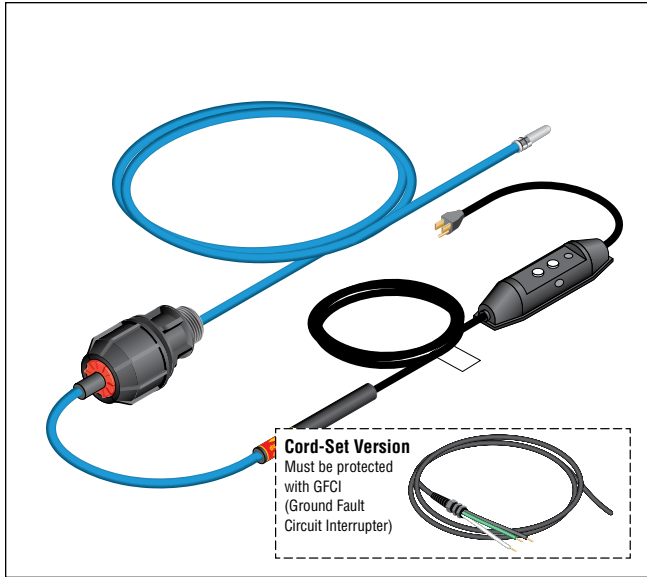
#### Additional Tools/Materials Required

- Adjustable wrench
- Cable ties and/or fiberglass tape
- Teflon tape or thread sealant compound
- Potable lubricant (optional)

#### Approvals



Usage P and X  
Installation Type D USA



**Cord-Set Version**  
Must be protected with GFCI (Ground Fault Circuit Interrupter)

#### Kit Contents

Qty	Description
1	Rizer-Line (GFC shown)
1	Optional Cord-Set (CS) power connection

#### Optional Accessories

<b>HLA-120</b>	NEMA 1 General Purpose 120V only plug-in Thermostat
<b>MA-10</b>	GFCI/ELCI Electrical Equipment Protection Device
<b>INSUL-1.00</b>	Closed cell polyethylene insulation sleeve for 1" ID pipe (6' long, 1 5/8" ID, 3/4" thick wall)

#### Table of Contents

<b>Rizer-Line Typical Cross Section</b> .....	<b>2</b>
<b>Rizer-Line Ordering Chart</b> .....	<b>2</b>
<b>Rizer-Line Installation Instructions</b> .....	<b>3</b>
<b>Thermostat Sensor Location and Insulation Installation</b> .....	<b>5</b>
<b>Electrical System Connection</b> .....	<b>5</b>
<b>Seasonal Inspection by User</b> .....	<b>7</b>
<b>Limited Warranty</b> .....	<b>7</b>
<b>Extended Warranty Application Form</b> .....	<b>9</b>

#### ⚠ WARNING:

##### Important Safety Instructions and Rules for safe Installation and Operation

- A. Read these rules and instructions carefully. Failure to follow them could result in serious bodily injury and/or property damage.
- B. Before installing this product have the electrical outlet checked by an electrician to make sure it has been installed in accordance with the National Electrical Code and Canadian Electrical Code. Be certain all electrical connections are protected from rain and other water (dry location). The heating

cable must be ground fault protected (included in GFC models, required on site for CS models).

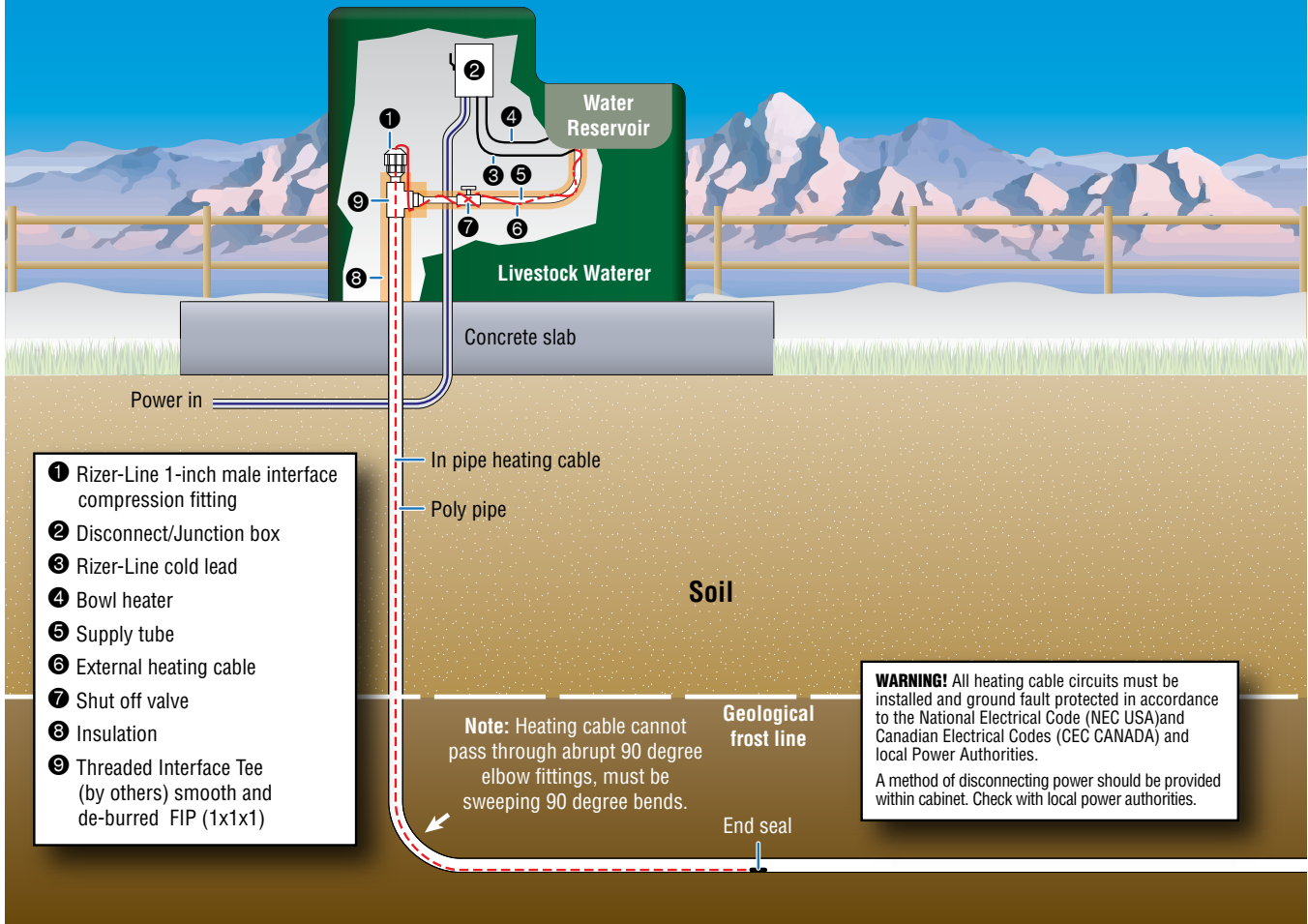
- C. Check your local building, plumbing and electrical codes before installing. You must comply with their rules. Rizer-Line is cCSAus Drinking Water NSF/ANSI 61 approved for use in Canada and the USA.
- D. Before installing or servicing your Rizer-Line BE CERTAIN that the power source is disconnected.
- E. Do not use extension cords.

F. Rizer-Line is NOT approved or designed for use in sewer or waste systems. For sewer and waste systems use Heat-Line Paladin, EXT Series, Retro-DWS, Retro-FM or CARAPACE systems.

- G. Never tamper with or alter the electrical apparatus associated with your Rizer-Line system.
- H. Check unoccupied residences regularly to ensure that all systems are operating properly.

**WHEN PERFORMING WORK OR REPAIRS ON YOUR WATER SYSTEM BE SURE TO UNPLUG YOUR RIZER-LINE SYSTEM FROM THE POWER SUPPLY.**

**Typical Cross Section**  
(hard wired version)



**Ordering Chart**

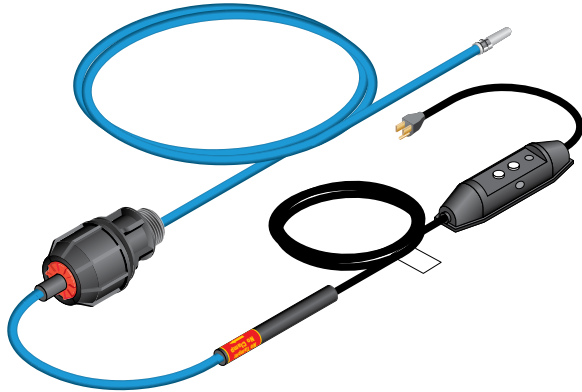
**Rizer-Line Product Code**

Example: **RL - 100 - 012FLG**

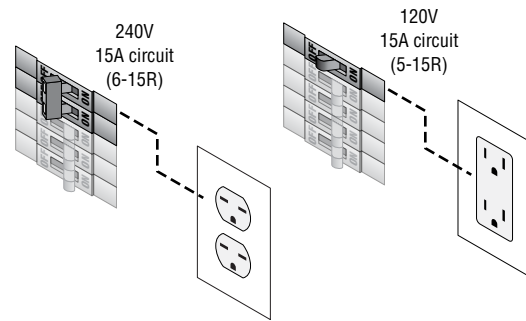
<b>Product</b>	RL      120 volt Rizer-Line RL2     240 volt Rizer-Line	<b>Cord-Set Type</b>	FLG    Ground fault protected FLC    Cord connected (No GFCI)
<b>Thread Size</b>	100    Male adapter thread size 1"	<b>Length of Heater</b>	12 feet

1

- Carefully remove your Rizer-Line system. It comes complete with all parts as required pre-assembled.

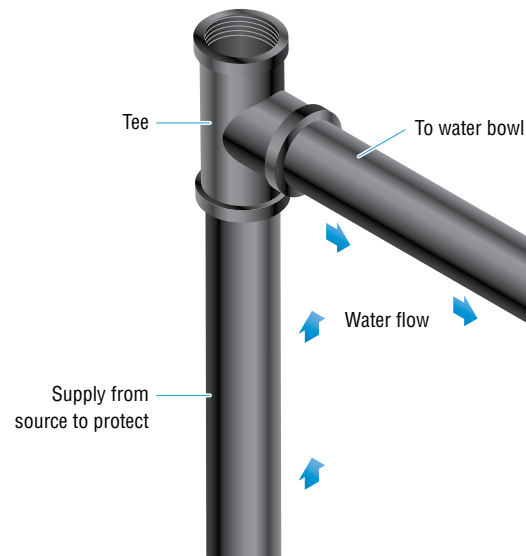


- It is recommended that a single circuit (15 amp) be installed by a qualified person for dedicated use of the Rizer-Line system. **Do not use extension cords.**



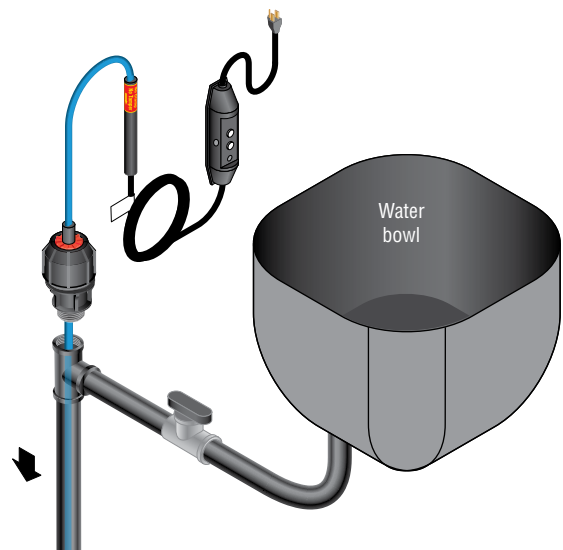
2

- Install tee fitting with appropriate female thread (1 inch FPT) to interface to supplied Rizer-Line (1 inch MPT) thread.
- Smooth and deburr all connections, tube and pipe.
- It is recommended that the heating cable be installed straight through the tee as shown (water flows through at 90 degrees) instead of installing heating cable through branch.



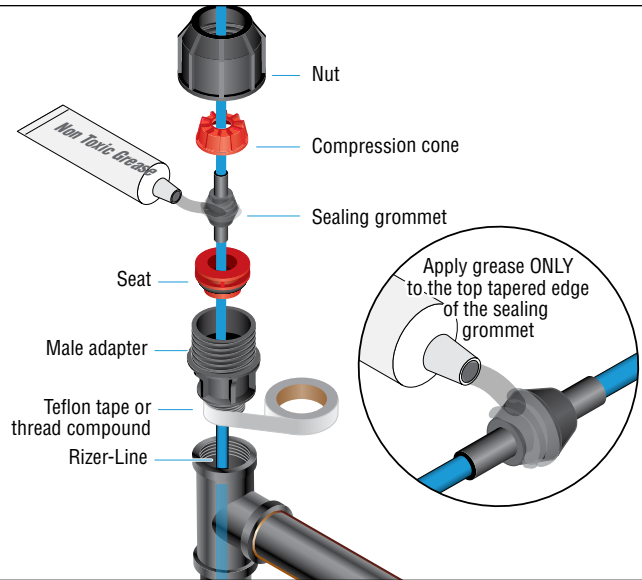
3

- Slowly push the Rizer-Line into the pipe until the Philmac fitting comes up tight.
- Do not use sharp instruments.**



4

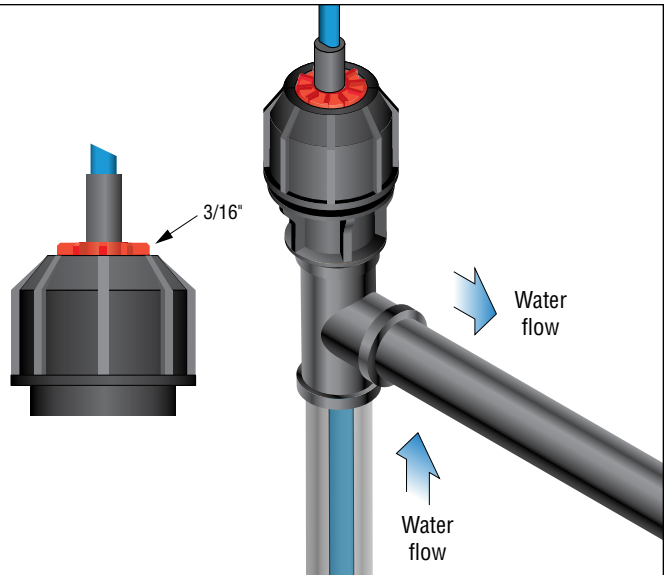
- Remove nut from male adapter body
  - Install Teflon tape or thread compound on thread
- CAUTION:** Be sure there are no sharp edges - deburr all.
- Thread male adapter body into tee fitting
  - Apply non-toxic lubricant or grease to tapered top section of rubber sealing grommet.
  - Slide remaining heater into pipe and tighten nut onto adapter.



5

- Tighten nut until compression cone stands proud 3/16".

**Note:** Do not over tighten. Do not allow rubber sealing grommet to twist as you tighten. Should be tightened by hand however a wrench can be used if assistance is required.



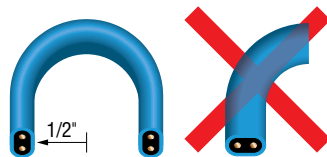
6

- If your Rizer-Line external cable portion is the same length as the pipe, run it straight along the pipe. If you have excess heater in comparison to the length of pipe you can pitch or spiral the heater evenly along the pipe length.
- To provide extra heat at valves and other fitting areas, simply wrap cable at these areas.
- Fasten the cable using quality fiberglass tape or plastic cable ties.
- **It is now time to energize your Rizer-Line system. Carefully follow the Electrical System Check instructions on Page 5.**

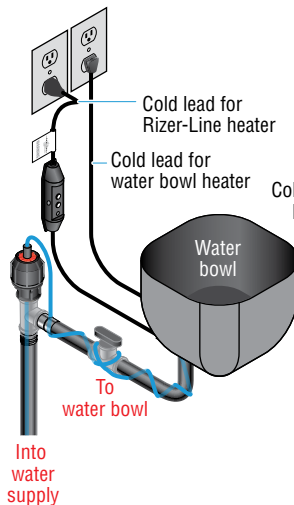
**Bending the Cable**

When positioning the heating cable on the pipe, do not bend tighter than 1/2" radius.

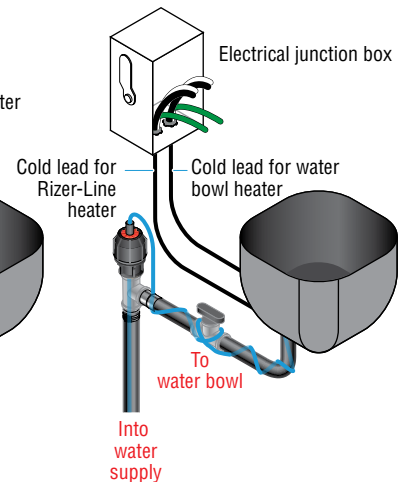
The heating cable does not bend well on a flat plane. Do not force such a bend as heating cable may be damaged.



**Ground-faulted plug-in (GFC) model shown**



**Cord set (CS) model shown. GFCI circuit protection required.**

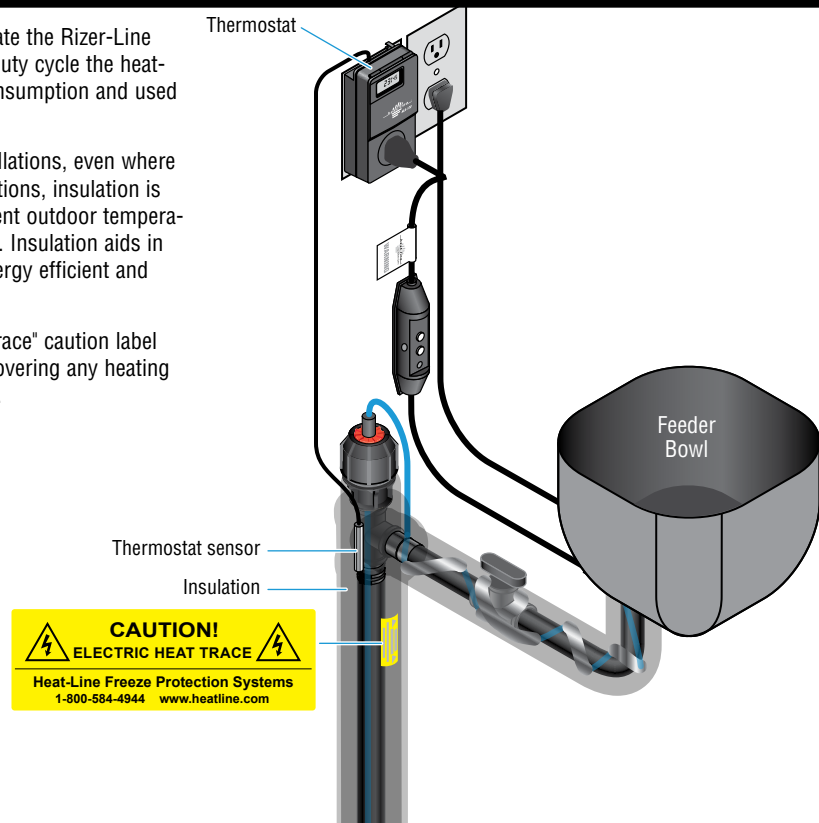


## Thermostat Sensor Location and Insulation Installation

Thermostats and timers are not required to operate the Rizer-Line system. A thermostat however can be added to duty cycle the heating cable in an on/off operation saving power consumption and used to maintain a certain pipe temperature.

Insulation is recommended for all new pipe installations, even where the pipe is to be buried. For existing pipe applications, insulation is only required where the pipe is exposed to ambient outdoor temperatures, and/or where the pipe is above the ground. Insulation aids in heat retention making the heating cable more energy efficient and providing cold weather reliability.

**Note:** As per NEC and CEC apply "Electric Heat Trace" caution label on the outside of all insulation and/or cladding covering any heating cable at 10 foot (3m) intervals on alternate sides.



## Electrical System Connection

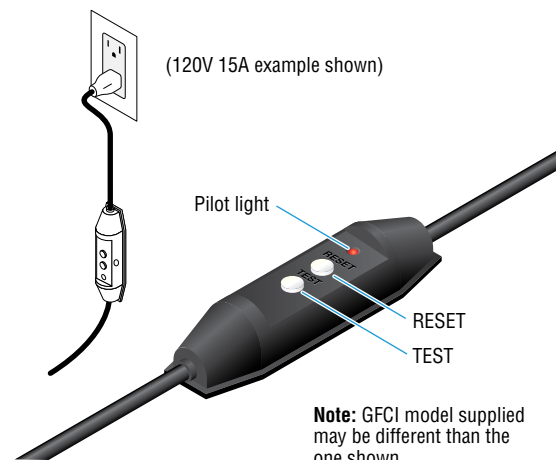
### Electrical Connection for GFCI (Ground Fault Plug-in) Models

- Unpack the Rizer-Line system plug from its protective package.
- Plug into your dedicated outlet. 120V 5-15R outlet for 120V systems or 240V 6-15R outlet for 240V systems.
- Push reset button on the cord set ground fault device until light comes ON. If light does not illuminate check power to outlet. Do not remove or tamper with the cord set. If used with a thermostat it may be necessary to bypass the thermostat control and plug directly into receptacle to perform test.
- Push test button and light will go OFF. This indicates that the electrical circuit is intact and fully protected.
- Push reset button again and light will come ON. This indicates that your Rizer-Line is working.
- Follow this test procedure before each season and monthly while in use.

#### Your Rizer-Line is now fully functional.

If at any time your Rizer-Line system fails to work call your local electrician or Heat-Line for assistance at 1-800-584-4944.

#### Unplug when not in use.



### Electrical Connection for CS (Cord-Set) Models into Junction Box

**Note:** The “CS” version is designed to be installed by a qualified electrician and must be inspected by the governing electrical authority following completion of installation.

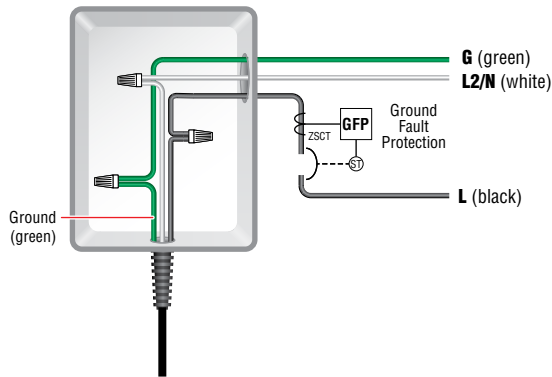
- A. Ensure the Rizer-Line system will be operated on a dedicated ground fault protected circuit with over-current protection appropriate for the circuit conductor size and heating cable length.
- B. Confirm power is disconnected at the power supply prior to proceeding.
- C. Remove approved junction box cover.
- D. Route the Rizer-Line cord-set wires into box with the supplied strain relief fitting.
- E. Connect appropriate wires together using approved wire nuts. Match wires white to white, black to black, and green to green. In the case of a metal junction box/enclosure, match green to ground screw and confirm screw is tight and secured afterward.

- F. Double check that the wires have been connected correctly and tight.
- G. Install junction box cover.
- H. Establish power to the circuit and test/reset the ground fault device for proper operation.
- I. Test the GFCI at the breaker before each season and monthly while in use.

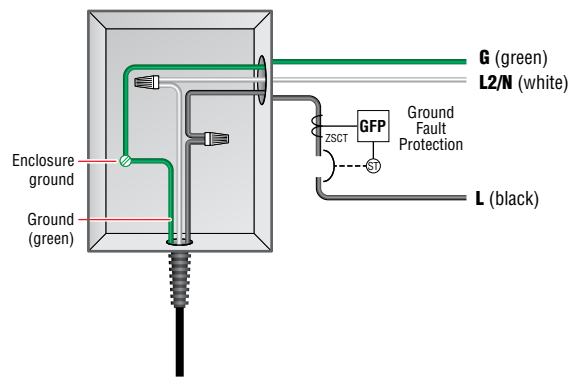
**Your Rizer-Line system is now fully functional.**

If at any time your Rizer-Line system fails to work call your local electrician or Heat-Line for assistance at 1-800-584-4944.

#### Non-Metal Junction Box



#### Metal Junction Box



### Seasonal Inspection by User

**IMPORTANT:** While the Rizer-Line cable can be left energized year round, it will use less energy if you turn it off during non-freezing weather. Each season before you energize it, make the following inspection:

1. Check the entire system for signs of damage (may be evidenced by damage to insulation).
2. Inspect the exposed portion of the cable for evidence of cuts, nicks, abrasions, gnawing by animals, or other physical damage.

3. If there is damage, immediately replace the cable. Do not attempt to repair any part of the cable.
4. After a thorough inspection, complete the **ELECTRICAL SYSTEM Connection for GFC (Ground Fault Plug-in) models.**
5. Ground fault device should be stored in dry location off of concrete floors or the ground (GFC models).

**Unplug when not in use (GFC models).**

## Limited Warranty

During the time periods and subject to the conditions hereinafter set forth. Heat-Line will repair or replace to the original user any portion of your Rizer-Line product which proves defective in materials or workmanship of Heat-Line. Contact Heat-Line or your installer for warranty service.

At all times Heat-Line shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts or components. **Damage due to natural events or conditions beyond the control of Heat-Line are NOT COVERED BY THIS WARRANTY.**

**STANDARD WARRANTY PERIOD:** 60 months from date of purchase or 63 months from date of manufacture, which ever occurs first.

**EXTENDED WARRANTY PERIOD:** 120 months from date of purchase or 123 months from date of manufacture, which ever occurs first.

**ACCESSORIES, COMPONENTS, ELECTRONICS:** Not manufactured by Heat-Line, are warranted only to the extent of original manufacturer's warranty.

**LABOUR, COSTS, ETC.:** Heat-Line shall in **NO EVENT** be responsible or liable for the cost of field labour or other charges incurred by any customer in removing and/or reaffixing any Heat-Line product, part or component thereof.

### **THIS WARRANTY WILL NOT APPLY:**

- (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided,
- (b) to failures resulting from abuse, accident or negligence;
- (c) to normal maintenance services and
- (d) to parts not used in accordance with applicable local codes, ordinance and good trade practices;
- (e) if the unit is moved from its original installation location or
- (f) if the unit is used for purposes other than for what it was designed and manufactured,
- (g) to the integral ground fault device and related electronics.

**PRODUCT IMPROVEMENTS:** Heat-Line reserves the right to change or improve its products or any component thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such change or improvement.

**WARRANTY EXCLUSIONS:** As to any Heat-Line product after the expiration of the time period of the warranty applicable thereto as set forth above. There will be no warranties including any implied warranties of merchantability or fitness for any particular purpose. No warranties or representations at any time made by any representative of Heat-Line, shall vary or expand the provisions hereof.

**LIABILITY LIMITATION:** In no event shall Heat-Line be liable or responsible for consequential, incidental or special damages resulting from or related in any manner to any Heat-Line product or parts thereof. In the absence of suitable proof of the purchase date, the effective date of this warranty will be based upon the date of manufacture plus 90 days.

---

**Heat-Line Freeze Protection Systems**

1095 Green Lake Road  
Algonquin Highlands, ON Canada  
KOM 1J1  
Tel: 1-705-754-4545  
1-800-584-4944  
Fax: 1-705-754-4567  
info@heatline.com  
[www.heatline.com](http://www.heatline.com)

Heat-Line and Rizer-Line are registered trademarks of Heat-Line Corporation.  
Philmac is a registered trademark of Philmac Pty Ltd.

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. Heat-Line a Division of Christopher MacLean Ltd. makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. Heat-Line's only obligations are those in the Heat-Line Standard Terms and Conditions of Sale for this product, and in no case will Heat-Line be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, Heat-Line reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.



**Rizer-Line<sup>®</sup>**  
**Warranty Form**

**CONGRATULATIONS!**

You have just purchased the most advanced internal freeze-protection system available on the market, backed by the finest warranty offered in the industry. Your Rizer-Line system comes with a standard 5 year limited warranty with an optional 10 year limited warranty available.

~ The warranty applies only to the original purchaser of the product and is not transferable at any time for any reason. The warranty form must be filled out and returned to Heat-Line within 6 months of invoice date or unit manufactured date plus 9 months to be eligible for the 10 year extended warranty. ~

**OWNER MAILING ADDRESS**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 City \_\_\_\_\_  
 Prov/State \_\_\_\_\_ Postal/ZIP \_\_\_\_\_  
 Country  Canada  USA  Other: \_\_\_\_\_  
 Home Phone \_\_\_\_\_  
 Email \_\_\_\_\_

**INSTALLATION ADDRESS (if different than mailing)**

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 City \_\_\_\_\_  
 Prov/State \_\_\_\_\_ Postal/ZIP \_\_\_\_\_  
 Country \_\_\_\_\_  
 Work/Cell \_\_\_\_\_

**PRODUCT INFORMATION**

Product Cat.# \_\_\_\_\_  
 Serial # \_\_\_\_\_

Installation Type:  
 Private/hobby farm  
 Cattle farm operation  
 Horse stables business  
 Other: \_\_\_\_\_

**WARRANTY INFORMATION**

5 Year Limited Warranty: **INCLUDED!**

10 Year Limited Warranty: \$45.00

**PAYMENT DETAILS FOR 10 YEAR LIMITED WARRANTY**

**Taxes and Currency**

**If Canadian Address:**  
 Subtotal: \_\_\_\_\_  
 Provincial Tax %: \_\_\_\_\_ Tax Due: \_\_\_\_\_  
 Total in CDN Currency:

**If U.S. Address or Other Country:**  
 No Taxes Apply  
 Total in US Currency:

**PAYMENT METHOD**

Cheque

Enclose and make out to Heat-Line for full amount

Credit Card:

Mastercard or  Visa

Name on Card: \_\_\_\_\_

Card Number: \_\_\_\_\_

Expiration Date: \_\_\_\_ \_\_\_\_

## **LIMITED WARRANTY**

During the time periods and subject to the conditions hereinafter set forth. Heat-Line will repair or replace to the original user any portion of your Rizer-Line product which proves defective in materials or workmanship of Heat-Line. Contact Heat-Line or your installer for warranty service.

At all times Heat-Line shall have and possess the sole right and option to determine whether to repair or replace defective equipment, parts or components. **Damage due to natural events or conditions beyond the control of Heat-Line are NOT COVERED BY THIS WARRANTY.**

**STANDARD WARRANTY PERIOD:** 60 months from date of purchase or 63 months from date of manufacture, whichever ever occurs first.

**EXTENDED WARRANTY PERIOD:** 120 months from date of purchase or 123 months from date of manufacture, whichever ever occurs first.

**ACCESSORIES, COMPONENTS, ELECTRONICS:** Not manufactured by Heat-Line, are warranted only to the extent of original manufacturer's warranty.

**LABOUR, COSTS, ETC.:** Heat-Line shall in **NO EVENT** be responsible or liable for the cost of field labour or other charges incurred by any customer in removing and/or reaffixing any Heat-Line product, part or component thereof.

### **THIS WARRANTY WILL NOT APPLY:**

(a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with printed instructions provided,

- (b) to failures resulting from abuse, accident or negligence;
- (c) to normal maintenance services and
- (d) to parts not used in accordance with applicable local codes, ordinance and good trade practices;
- (e) if the unit is moved from its original installation location or
- (f) if the unit is used for purposes other than for what it was designed and manufactured,
- (g) to the integral ground fault device and related electronics.

**PRODUCT IMPROVEMENTS:** Heat-Line reserves the right to change or improve its products or any component thereof without being obligated to provide such a change or improvement for units sold and/or shipped prior to such change or improvement.

**WARRANTY EXCLUSIONS:** As to any Heat-Line product after the expiration of the time period of the warranty applicable thereto as set forth above. There will be no warranties including any implied warranties of merchantability or fitness for any particular purpose. No warranties or representations at any time made by any representative of Heat-Line, shall vary or expand the provisions hereof.

**LIABILITY LIMITATION:** In no event shall Heat-Line be liable or responsible for consequential, incidental or special damages resulting from or related in any manner to any Heat-Line product or parts thereof. In the absence of suitable proof of the purchase date, the effective date of this warranty will be based upon the date of manufacture plus 90 days.

## **PROOF OF PURCHASE**

If a proof of purchase copy is submitted with this warranty application form, the warranty period will be effective as of invoice date. In the absence of suitable proof of purchase, the effective date of this warranty will be based upon the date of unit manufacture plus 3 months.

Proof of purchase (invoice) attached:  Yes  No

By signing below you acknowledge you have read and understand the full limited warranty document.

Signed: \_\_\_\_\_

Dated: \_\_\_\_\_

The warranty form must be filled out and returned to Heat-Line within 6 months of invoice date or unit manufactured date plus 9 months to be eligible for 10 year extended warranty.

Heat-Line and Rizer-Line are registered trademarks of Heat-Line Corporation.

**Heat-Line Freeze Protection Systems**

1095 Green Lake Road / Algonquin Highlands, / K0M 1J1 / info@heatline.com / [www.heatline.com](http://www.heatline.com)  
ON Canada