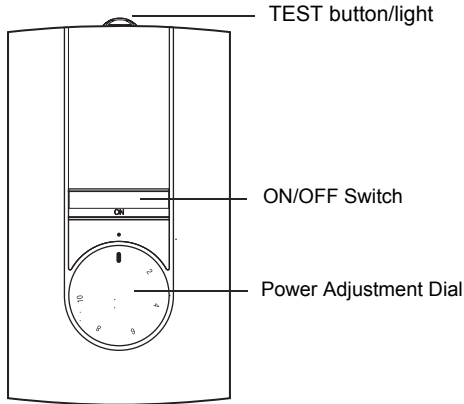




### 1 Introduction



The TH113-R-GA regulator has a built-in Ground Fault Circuit Interrupter (GFCI) and has been specifically designed for use with WarmlyYours floor warming systems. The TH113-R-GA operates like a dimmer allowing you to adjust the amount of power output by your heating system. The ON/OFF switch is used to turn the regulator off when the latter is not in use (e.g. in the summer).

### Supplied Parts

- One (1) regulator
- Two (2) screws
- Four (4) solderless connectors for copper wires

**NOTE:** Special CO/ALR solderless connectors must be used for connecting aluminum conductors.

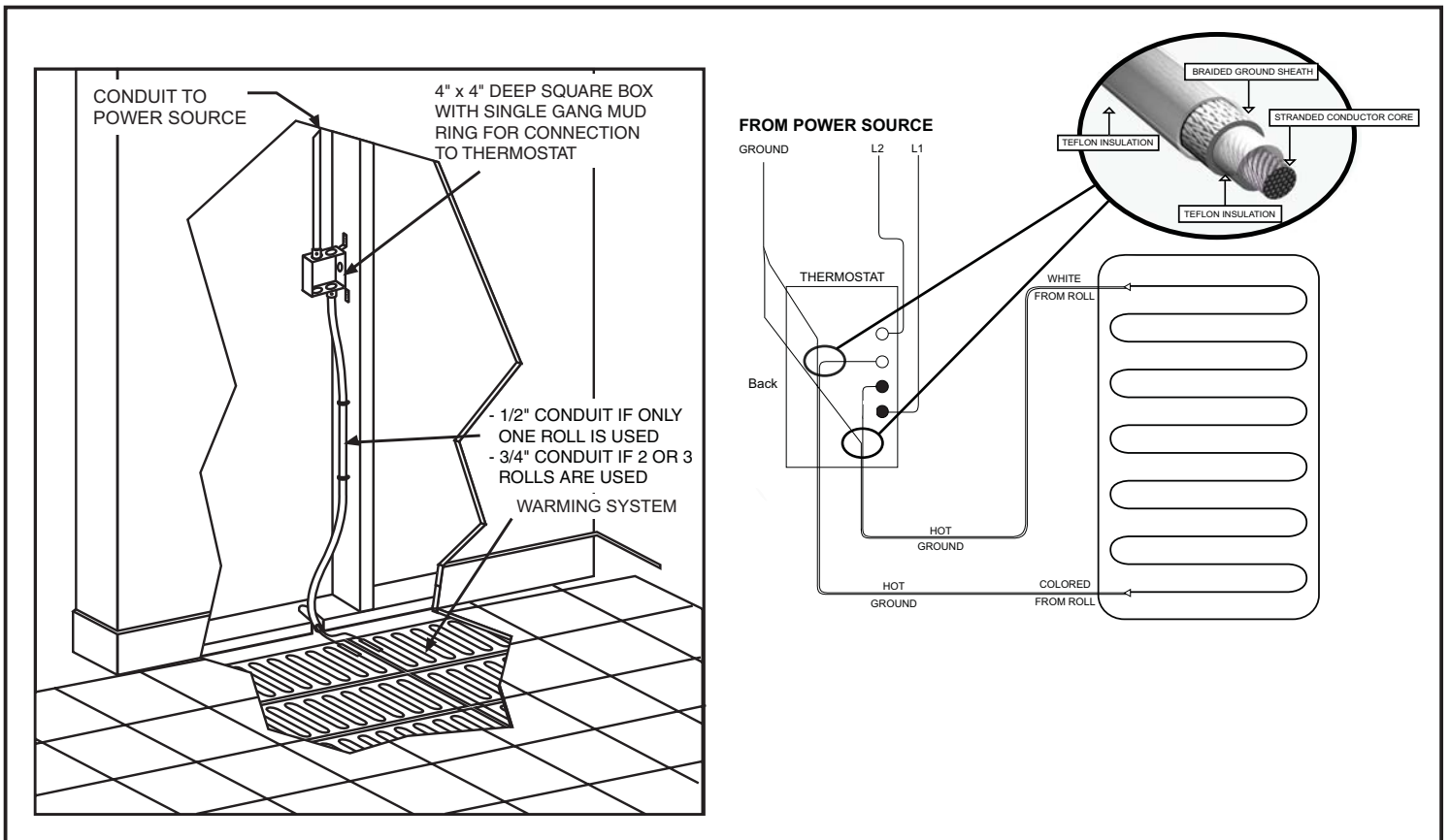
### 2 Installation

- ▶ Turn off power to the heating system at the main electrical panel to avoid electrical shock. The installation should be carried out by a licensed, qualified electrician and must comply with local electrical codes.
- ▶ Install the regulator on a deep 4" x 4" (double gang) electrical box with a single plaster ring.
- ▶ Do NOT install the regulator in an area where it can be exposed to water.
- ▶ For a new installation, choose a location approximately 5 ft. above the floor.

#### 1 Connect the regulator to the power supply:

**120 VAC:** Connect **L1** of regulator to the **black** wire of power supply and **L2** of regulator to the **white** wire of power supply.

**240 VAC:** Connect **L1** of regulator to the **black** wire of power supply and **L2** of regulator to the **red** wire of power supply.



- 2 Trim any excess leads coming from the floor.
- 3 Strip the outer insulation of the lead wires, exposing the ground sheath. Gather the sheath wires together (TempZone Floor Warming System only).
- 4 Strip 1 inch of the inner insulation away from the inner conductors of the lead wires.
- 5 Connect the inner conductors of the lead wires to the floor warming system to the LOAD wires of the regulator.
- 6 Connect the ground wire or ground sheathing of the floor warming system to the house electrical ground.
- 7 Push the excess length of the wires into the electrical box.
- 8 Secure the regulator to the electrical box using the provided screws.
- 9 Apply power to the floor warming system by switching on the power at the main electrical panel and placing the switch of the thermostat in the **ON** position. Verify the installation by ensuring that the floor warming system can be turned on and off by turning the dial to 10 (100%) and to 0 respectively.
- 10 Test the GFCI.

**NOTE:** Keep the regulator's air vents clean and free from obstructions.

### 3 Operation

The TH113-R-GA regulator operates on 15-minute heating cycles. For example, if the dial is set halfway, the system will heat for 50% of the cycle; it will be ON for 7.5 minutes and OFF for 7.5 minutes. The following table shows the cycle duration based on the dial's position:

Position and equivalent %	1 0%	2 20%	4 40%	6 60%	8 80%	10 100%
<b>ON</b>	0 min	3 min	6 min	9 min	12 min	15 min
<b>OFF</b>	15 min	12 min	9 min	6 min	3 min	0 min

### 4 Ground Fault Circuit Interrupter (GFCI)

The TH113-R-GA regulator has a built-in Ground Fault Circuit Interrupter (GFCI). In the event of a ground fault, the GFCI trips and quickly stops the flow of electricity to prevent serious injury.

#### 4.1 Definition of a Ground Fault

Instead of following its normal safe path, electricity passes through a person's body to reach the ground. For example, a defective floor heating mat can cause a ground fault.

The GFCI **does not protect** against circuit overloads, short circuits, or electrical shocks. For example, you can still receive an electrical shock if you touch bare wires while standing on a non-conducting surface such as a wood floor.

#### 4.2 Resetting the GFCI

When the GFCI trips, the TEST light is On (red). To reset the ground fault protection, switch the regulator to OFF and back to ON. The TEST light will go off.

If the **TEST** button illuminates during normal operation, check if the fault has been caused by an external interference such as a halogen light or an electric motor. In this case, reset and test the GFCI. However, if the fault occurs again for unknown reasons, cut power to the floor warming system from the main electrical panel and have the installation verified by an electrician.

### 4.3 Testing the GFCI

To ensure the GFCI is always in working order, test it once the regulator is installed and on a monthly basis thereafter.

- 1 Place the regulator dial at 10 (100%).
- 2 Wait for 5 seconds and then press the TEST button.
  - If the TEST button does NOT illuminate, **the test has failed.** Cut power to the heating system at the main electrical panel, have an electrician verify the installation and, if necessary, replace the regulator. (Call WarmlyYours for assistance at (800) 875-5285.)
  - If the TEST button illuminates, continue the test.
- 3 Switch the regulator to OFF, then back to ON.
  - If the TEST light goes off, **the test has passed.** Set the regulator back to the desired position. The test is now completed.
  - If the TEST light remains on, **the test has failed.** Continue with the rest of the procedure.
- 4 Switch the circuit breaker (at the service panel) of the heating system to off, then back to on.
- 5 Repeat the test. If the test fails again, cut power to the heating system at the main electrical panel, have an electrician verify the installation and, if necessary, replace the regulator. (Call WarmlyYours for assistance at (800) 875-5285.)

### 5 Technical Specifications

Supply	Max. Load	Wiring	GFCI
120 VAC, 60 Hz	15 A (1800 W)	4w/DP	5 mA
240 VAC, 60 Hz	15 A (3600 W)	4w/DP	5 mA

**Power setting range:** 0 to 100%

**Storage:** -4°F to 120°F (-20°C to 50°C)

**Size (H • W • D):** 4.89 x 2.76 x 0.91 in. (124 x 70 x 23 mm)

#### Warranty

WarmlyYours warrants this product to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, WarmlyYours shall repair or replace it (at WarmlyYours's option).

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact WarmlyYours. WarmlyYours will make the determination whether the product should be returned, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by WarmlyYours that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

WarmlyYours's sole responsibility shall be to repair or replace the product within the terms stated above. WARMLYYOURS SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces and states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY WARMLYYOURS MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY. Some provinces and states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary from province or state to another.