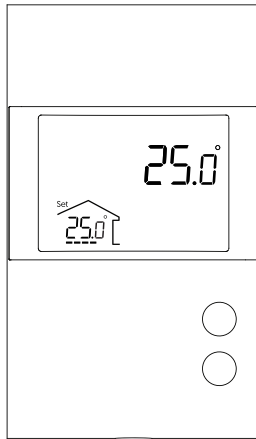




# TRM-FH-Bronze

## Installation Guide



Non-programmable floor heating thermostat

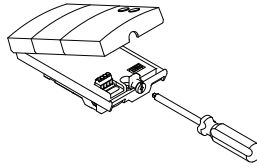
### Warnings

The installation of this thermostat must be performed by a certified electrician and comply with the national and local electrical codes and regulations.

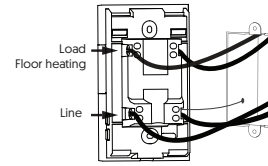
Before starting the installation of your new thermostat, make sure that the breakers for your heating system are off at the main electrical panel!

### INSTALL YOUR THERMOSTAT

- 1 Unlock and lift the thermostat cover.

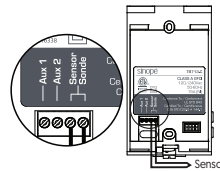


- 2 Connect the heating cable(s)/mat(s) [Load] wiring and electrical supply [Line] feed to the load / line wire connectors located on the back of the thermostat. Connect the ground wire to the screw in the electrical box intended for this purpose.

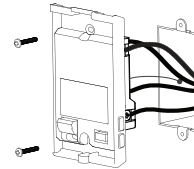


The thermostat installer MUST ensure to firmly secure all wiring connections prior to installation of the thermostat in the junction box; failure to properly connect the thermostat wiring may lead to a site hazard/liability being created.

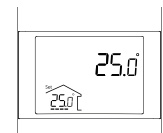
- 3 Connect the 10 kohm floor sensor as shown below:



- 4 Use the supplied screws to secure the thermostat to the electrical junction box. Replace the cover and lock.



- 5 Power up the thermostat. After performing a test sequence, the thermostat should display the floor temperature. If not, refer to the troubleshooting guide in this manual.



### Increasing or lowering the temperature

To adjust the temperature, press  $\downarrow$  or  $\uparrow$ . The requested temperature will blink to confirm the new setpoint.

### Placing the thermostat on standby

Press and hold the  $\downarrow$  and  $\uparrow$  buttons simultaneously for 3 seconds to place the thermostat on standby. The LCD display will not be blank; the  $\text{⏻}$  symbol will be displayed.

When the thermostat is on standby, press  $\downarrow$  or  $\uparrow$  to turn back ON the thermostat. The thermostat will resume operation under its last program settings.

A thermostat that is placed on standby before a power failure will be on standby by default when power is restored.

### USER SETTINGS

#	Name	Parameters & settings	Display
1	Display	Temperature format °C or °F (default: °C)	°C
2	Backlight	Backlight control ON or OFF (default: OFF)	OFF
3	Control	Control mode A (Air), F (Floor) (default: F)	F
4	Setpoint Min	Minimum setpoint 5 °C to 36 °C (default: 5 °C)	5.0°
5	Setpoint Max	Maximum setpoint 5 °C to 36 °C (default: 36 °C)	36.0°
6	Limit Air Max	Maximum ambient temperature <small>[Visible only in F mode]</small> 5 °C to 36 °C (default: OFF)	OFF
7	Limit Floor Max	Maximum floor temperature <small>[Visible only in A mode]</small> 5 °C to 36 °C (default: OFF)	OFF
8	Limit Floor Min	Minimum floor temperature <small>[Visible only in A mode]</small> 5 °C to 36 °C (default: OFF)	OFF
9	Sensor	Floor sensor 10K or 12K (default: 10K)	10
10	Aux	Assignment of auxiliary output OFF, EXP, 15 sec, 15 min (default: OFF)	OFF

### 3) The thermostat offers 2 temperature regulation modes:

**F mode (default):** Regulates the floor's temperature by means of an external temperature sensor with the possibility to limit ambient temperature.

**A mode:** Regulates the ambient temperature with the possibility to limit floor temperature by means of an external temperature sensor.

### 6) Maximum ambient temperature limit (F mode)

The thermostat limits floor heating to ensure that the ambient temperature does not exceed the selected limit.

### 7) Maximum floor temperature limit (A mode)

The thermostat limits floor heating to the set temperature to ensure it does not exceed the selected limit: ideal for protecting engineered wood floors.

### 10) Assigning the auxiliary output (F mode):

The thermostat provides an auxiliary output that has one function which is set from the user settings.

**EXP function:** Auxiliary output to connect several heating floors (Expansion unit sold separately)

### Assigning the auxiliary output (A mode):

The thermostat provides an auxiliary output that has three functions which are set from the user settings.

**15 sec function:** Short cycle auxiliary output (15 seconds): used for a heater controlled through an electronic relay [SSR].

**15 min function:** Long cycle auxiliary output (15 minutes): used for a heater controlled through an electromechanical relay or equipped with a fan.

In the 15 sec and 15 min functions, the thermostat controls the ambient temperature with the floor. Once the floor temperature has reached its limit, if the desired ambient temperature is not reached, the auxiliary output activates the heating device to reach the set temperature. (The auxiliary output acts as a second heating stage.)

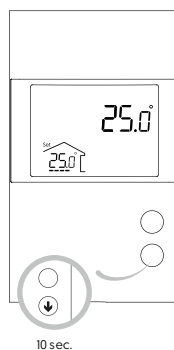
**EXP function:** Auxiliary output to connect several heating floors (Expansion unit sold separately)

### USER SETTINGS

Get the setpoint to its minimum and hold the  $\downarrow$  button for 10 seconds to access the menu.

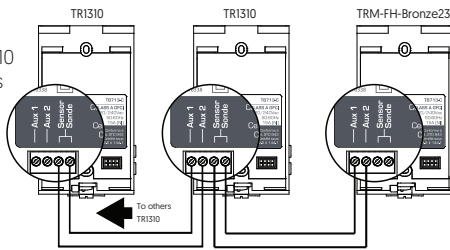
Press the  $\downarrow$  or  $\uparrow$  button to change the setting.

Press the  $\downarrow$  and  $\uparrow$  buttons simultaneously to save and go to the next parameter. Continue to press until the end of the list to exit the menu.



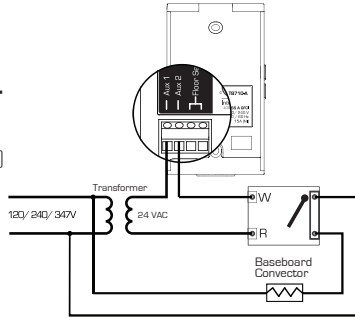
## CONNECT AN EXPANSION UNIT (TR1310)

It is possible to connect up to 10 expansion units to the same device.  
[EXP function]



## CONNECT THE AUXILIARY OUTPUT

Second heating stage  
(15 sec / 15 min functions)



## GROUND FAULT PROTECTION

The thermostat is equipped with a ground fault protection that can detect a current leakage of 5 mA. When a current leakage is detected, the ground fault protection is triggered and quickly interrupts the power supply to prevent any serious injuries.

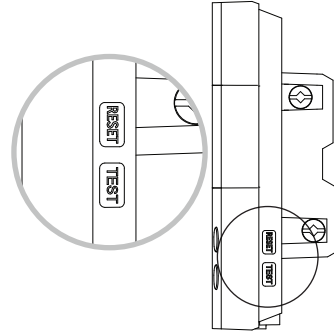
### Resetting the ground fault protection

The RESET button warning light turns ON (red) when the ground fault protection is triggered. If the RESET button warning light turns ON during normal operation of the thermostat, simply press the RESET button to reset the ground fault protection. The light will turn OFF. If, for any reason, this situation occurs again, cut the power to the heating system from the main electrical panel and ask a qualified electrician to verify the installation.

### Testing the ground fault protection

This thermostat has an Auto Test which periodically verifies the correct operation of the protection circuit. You can also do this manually:

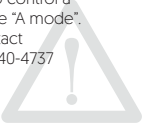
- 1) Press the TEST button. If the RESET button's, red warning light does not turn ON, the test has failed. Cut the power to the heating system from the main electrical panel and ask a qualified electrician to verify the installation.
- 2) Press the RESET button to restart the thermostat's base.



## TROUBLESHOOTING GUIDE

### What should I do if the EIF code appears on my thermostat's display?

The EIF code means that the thermostat is in "Floor" mode and there is no connected sensor. If your thermostat is not intended to control a heated floor, change the thermostat's control mode for the "A mode". If an error code is displayed, or for more information, contact TRM Heating Cables' customer service by phone at 905-940-4737 or by email at [info@trmheatingcables.com](mailto:info@trmheatingcables.com).



## TECHNICAL SPECIFICATIONS

**Operating voltage:** 120/208/240 Vac, 50/60 Hz

**Auxiliary output:** 24 Vac/Vdc/0.1 A

### Maximum load:

1800 W @ 120 V / 15 A

3120 W @ 208 V / 15 A

3600 W @ 240 V / 15 A

**Setpoint range floor:** 5 °C to 36 °C [41 °F to 97 °F]

**Setpoint range ambient air:** 5 °C to 36 °C [41 °F to 97 °F]

**Display range:** 0 °C to 50 °C [32 °F to 99 °F]

**Resolution:** ± 0.5 °C [± 1 °F]

**Storage:** -20 °C to 50 °C [-4 °F to 122 °F]

**GFCI protection:** Class A [5mA]

## WARRANTY

A THREE (3) YEAR LIMITED PRODUCT WARRANTY FROM THE DATE OF PURCHASE IS AVAILABLE ON THE FOLLOWING INTERIOR FLOOR WARMING THERMOSTAT PRODUCT:

- TRM-FH-Bronze

The (3) year Limited Warranty shall be valid for products purchased and installed by an appropriate electrical installer within the United States or Canada.

If it is suspected that a defect arose in the Product during the (3) year Warranty period:

1. TRM will assist the site electrician over the phone to troubleshoot and confirm that any alleged product issue covered by this Limited Warranty actually exists and occurred in the course of proper and normal use and was not caused by accident, misuse, neglect, alteration or improper installation, operation, maintenance, repair or testing by an unlicensed or otherwise unqualified electrician or such other cause outside of the responsibility of TRM under this Limited Warranty.
2. If a defect/issue is confirmed during the thermostat troubleshooting process, TRM will supply a new replacement thermostat (of the same model type); a valid purchase receipt is required to qualify the thermostat purchase/installation/warranty date.
3. TRM may request return of the original thermostat, or photographs of the original thermostat device to confirm manufacturing information; to be determined/requested at the time of troubleshooting by TRM; All shipping charges to have the requested materials returned to TRM shall be paid for by the end user, unless otherwise determined by TRM.

The (3) year Limited Warranty does not apply:

1. To installations, alterations or repairs that have been carried out by an unlicensed or otherwise unqualified electrician, or to installations performed by someone other than a qualified installer.
2. To products subject to misuse, neglect, vandalism, fire, lightning, water damage, alteration, improper installation, incorrect floor construction or the use of incorrect materials, or such other act or omission not attributable to TRM.
3. To products obtained via an unauthorized reseller.
4. To products subject to unauthorized modification or alteration—either directly or indirectly—by the installer, the end user, or a third party.

TRM shall in no case be liable to any party for any loss of profit, loss of business, loss or damage to goodwill, or increased costs or for any indirect, special, punitive or consequential losses or damages, howsoever arising. In the event of the warranty being invoked, contact TRM and present the completed Warranty Registration Form, Commissioning Form and purchase invoice. The Buyer may have legal rights under the applicable national legislation governing the sale of consumer goods. Those rights are not affected by the present warranty.



If an error code is displayed, or for more information, contact TRM Heating Cables' Customer Service by phone at 905 940-4737 or by email at [info@trmheatingcables.com](mailto:info@trmheatingcables.com).