

## 1 Description

The TH115 programmable thermostat has three temperature control modes:

- A mode:** controls the ambient air temperature

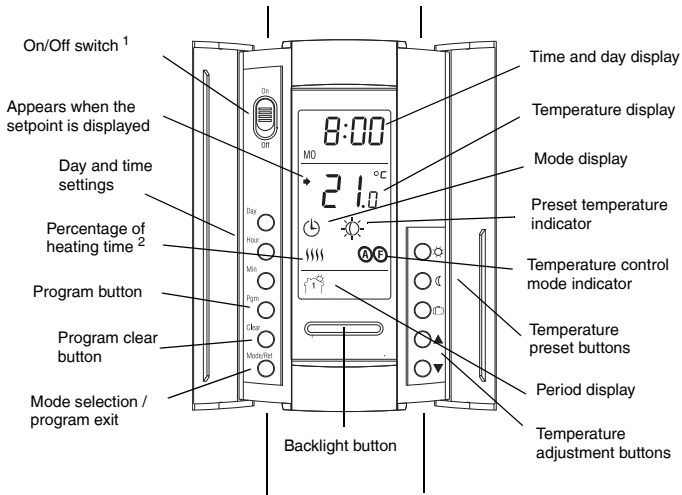
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- F mode:** controls the floor temperature using an external temperature sensor

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- AF mode:** controls the ambient air temperature maintains the floor temperature within desired limits using an external temperature sensor

Keep the thermostat's air vents clean and unobstructed at all times.



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<sup>1</sup> Place the switch to Off to cut power to the heater when not in use (e.g., in the summer). This will not affect the time and temperature settings.

<sup>2</sup> The thermostat displays the percentage of heating time required to maintain the desired temperature. For example,  $\text{SS}$  is displayed when heating is activated 40 percent of the time.

Display	$\text{S}$	$\text{SS}$	$\text{SSS}$	$\text{SSSS}$	$\text{SSSSS}$
% of heating time	1 to 24%	25 to 49%	50 to 74%	75 to 99%	100%

## 2 Clock and Day Setting

- 1) Press the **Hour** button to set the hour.
- 2) Press the **Min** button to set the minutes.
- 3) Press the **Day** button to set the day.
- 4) Press the **Mode/Ret** button to exit.

## 3 Backlight

The display illuminates for 12 seconds when the backlight button is pressed. When either of the  $\blacktriangle/\blacktriangledown$  buttons is pressed, the display also illuminates for 12 seconds. The setpoint temperature appears for 5 seconds, then the actual (measured) temperature is displayed.

## 4 Temperature Adjustment

### Setpoint Temperature

The thermostat normally displays the actual (measured) temperature. To view the setpoint, press one of the  $\blacktriangle/\blacktriangledown$  buttons once. The setpoint will appear for the next 5 seconds.

To change the setpoint, press one of the  $\blacktriangle/\blacktriangledown$  buttons until the desired temperature is displayed. To scroll faster, press and hold the button.

### Preset Temperatures

The thermostat has 3 preset temperatures:

- Comfort temperature ☀
- Economy temperature ☾
- Vacation temperature ☰

To use a preset temperature, press the corresponding button. The corresponding icon ☀, ☾ or ☰ will be displayed. The following table shows the intended use and the default setting of each of the preset temperatures.

Icon	Intended use	A/AF modes	F mode
☀	Comfort (when at home)	21 °C	24 °C
☾	Economy (when asleep or away from home)	17 °C	16 °C
☰	Vacation (during prolonged absence)	10 °C	10 °C

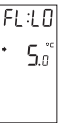
To store a preset temperature:

- 1) Set the desired temperature using the  $\blacktriangle/\blacktriangledown$  buttons.
- 2) Press and hold the corresponding button until the corresponding icon is displayed.

### Floor Temperature Limits (AF mode only)

**NOTE:** To avoid damaging your floor, follow your floor supplier's recommendations regarding floor temperature limits. The minimum and maximum floor temperature limits are 5 °C and 28 °C by default. To modify these limits, proceed as follows:

- 1) Switch the thermostat to Off.
- 2) Press and hold the ☀ button.
- 3) Switch the thermostat back to On.
- 4) Release the ☀ button when the minimum temperature limit (FL:LO) appears.
- 5) Set the minimum temperature limit using the  $\blacktriangle/\blacktriangledown$  buttons.
- 6) Press the ☀ button to display the maximum temperature limit (FL:HI).
- 7) Set the maximum temperature limit using the  $\blacktriangle/\blacktriangledown$  buttons.
- 8) Press Mode/Ret to exit.



## 5 Modes of Operation

The thermostat has 3 modes of operation.

### Automatic Mode

The thermostat follows the programmed schedule. To place the thermostat in this mode, press **Mode/Ret** until ☺ is displayed. The data of the current schedule period are also displayed.

#### Temporary Bypass

If you modify the setpoint temperature (by pressing the ▲▼, ☼ or ☾ button) when the thermostat is in automatic mode, the new temperature will be used until the beginning of the next period. ☺ flashes during the bypass. You can cancel the bypass by pressing **Mode/Ret**.

#### Programmed Schedule

The schedule consists of 4 periods per day which represents a typical week day. You can program the thermostat to skip the periods that do not apply to your situation. For example, you can skip periods 2 and 3 for the weekend.

**NOTE:** If you wish to use only 2 periods, set the periods "1 and 4" or periods "2 and 3". Early Start will not work if you set periods "1 and 2" or periods "3 and 4".

Period	Description	Associated temperature setting
☺	Wake-up	☼
☺☾	Away from home	☾
☺☼	Return home	☼
☺☾	Sleep	☾

The Comfort (☼) temperature is used in periods 1 and 3 and the Economy (☾) temperature is used in periods 2 and 4. For example, when the period changes from 1 to 2, the setpoint automatically changes from Comfort (☼) temperature to Economy (☾) temperature. You can have a different program for each day of the week; i.e., each period can start at different time for each day of the week. The thermostat has been programmed with the following schedule.

Period	Setting	MO	TU	WE	TH	FR	SA	SU
☺	☼	5:30	5:30	5:30	5:30	5:30	6:00	6:00
☺☾	☾	8:00	8:00	8:00	8:00	8:00	9:00	9:00
☺☼	☼	18:00	18:00	18:00	18:00	18:00	18:00	18:00
☺☾	☾	21:30	21:30	21:30	21:30	21:30	21:30	21:30

To modify the schedule:

- 1) Press **Pgm** to access the programming mode. Period 1 is selected.
- 2) Press **Day** to select the day to program (hold for 3 seconds to select the entire week).
- 3) Press **Hour** and **Min** to set the start time of the selected period, or press **Clear** if you want to skip the period (--- is displayed).
- 4) Press **Pgm** to select another period, or press **Day** to select another day. Then repeat step 3.
- 5) Press **Mode/Ret** to exit the programming mode.

**NOTE:** If no button is pressed for 60 seconds, the thermostat will automatically exit the programming mode.

### Manual Mode

The programmed schedule is not used. The temperature must be set manually. To place the thermostat in this mode:

- 1) Press **Mode/Ret** until ☺ is displayed.
- 2) Set the temperature using the ▲▼, ☼ or ☾ button.

### Vacation Mode

In this mode, the thermostat uses the vacation preset temperature. There are two ways to place the thermostat in Vacation mode:

- Press the ☺ button on the thermostat. When the Vacation mode is activated this way, the ☺ icon appears on the screen without flashing.
- From any remote control device (if connected at installation). When the contact closes, the thermostat is placed in Vacation mode and the ☺ icon flashes on the screen. All buttons on the thermostat are locked. When the contact opens, the thermostat returns to the preceding mode.

**NOTE:** When the Vacation mode is activated from a remote control device, it can only be deactivated using the device.

## 6 Error Messages

- LO** The measured temperature is below the thermostat's display range. Heating is activated.
- HI** The measured temperature is above the thermostat's display range. Heating is deactivated.
- Er** Verify the thermostat and sensor connections.

## 7 Technical Specifications

**Supply:** 208/240 VAC, 50/60 Hz

**Maximum load:** 15 A (resistive only)

**Connection type:** 4 wires, double pole

**Display range:** 0 °C to 70 °C

**Ambient setpoint range (A/AF modes):** 5 °C to 30 °C

**Floor setpoint range (F mode):** 5 °C to 40 °C

**Floor limit range (AF mode):** 5 °C to 40 °C

**Display resolution:** 0.5 °C

**Operating temperature:** 0 °C to 50 °C

**Storage temperature:** -20 °C to 50 °C

**Heating cycle length:** 15 minutes

**Remote input:** Dry contact

**Size (H • W • D):** 124 x 70 x 23 mm

**Data backup:** In the event of a power failure, most settings are saved. Only the time must be re-adjusted if the power failure lasts more than 6 hours. The thermostat will return to the mode that was active prior to the power failure.

**Certifications:** 

## 8 Warranty

### WARMUP HEATING SYSTEMS NZ LTD FIVE (5) YEAR WARRANTY

This product is warranted against defects in material and workmanship under normal conditions of use for a period of five years from the date of purchase. During this period, WARMUP will repair or replace the product, if it is defective in normal operating conditions in terms of materials or workmanship, with a new product of equivalent quality at WARMUP's option.

The warranty does not cover costs of transportation, removal, installation or damage caused by misuse or accident. In no event will WARMUP be liable for consequential loss resulting from the installation of the product. Any defective product should be sent with the original invoice to the original installer, or shipped prepaid, insured and sent to the following address:

**WARMUP New Zealand Ltd**

Copsey Business Park  
20 Copsey Place,  
Avondale, Auckland.

## 9 Customer Assistance

**Phone:** 0800 WARMUP (927-687)

**Email:** info@warmup.co.nz

**Website:** www.warmup.co.nz