



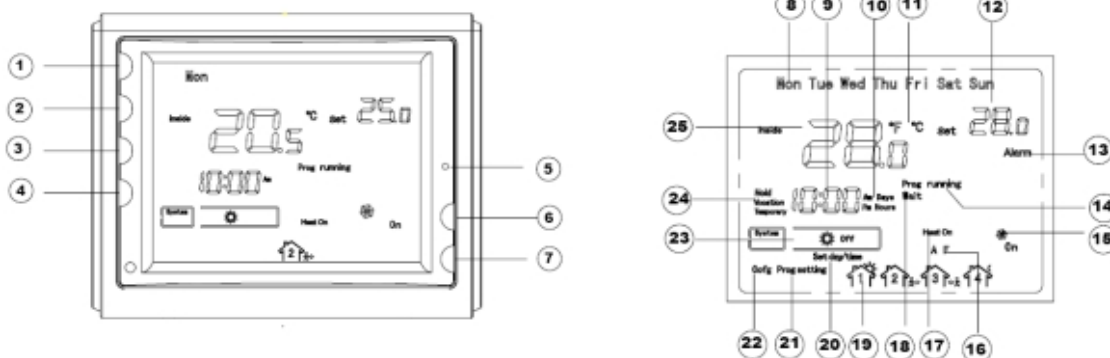
Amuheat Floor Heating Operating Guide

Operating guidelines for Amuheat floor heating
wired to Amuheat AT908B Programmable Thermostat

Getting Started

The Amuheat AT908B Programmable Thermostat is designed for complete control of Amuheat floor heating systems.

Buttons and Display



- 1 Power on/off button
- 2 Floor temperature inquiry
- 3 Program setting button
- 4 Program run confirmation button
- 5 Reset button
- 6 Raise temperature setting button
- 7 Lower temperature setting button
- 8 Shows current day/s being programmed
- 9 Shows current time/s being programmed
- 10 **AM:** Morning **PM:** Afternoon **DAYS:** Nr of days **HOURS:** Nr of hours
- 11 Shows temperature display in C of F
- 12 Setting temperature
- 13 Shows when floor temperature is over limitation in AF mode
- 14 Shows when thermostat is in programming mode
- 15 Shows when thermostat is in pump protection mode (hydronic heating)
- 16 **A:** Room temperature control mode
AF: Room sensor with floor limitation control mode
- 17 Shows when thermostat calls heat
- 18 Wait icon
- 19 Time of day display
- 20 **SET DAY/TIME:** Shows current day and time
- 21 **PROG SETTING:** Shows when thermostat is on program setting mode
- 22 **COFG:** Shows when thermostat is in configuration mode
- 23 Shows current system mode
- 24 **HOLD/VACATION:** Shows when thermostat is in hold/vacation temperature mode
- 25 Shows current room temperature

Specification

Power source	240V
Relay contact	16A
Room temperature setting range	5 to 35 degrees Celsius
Floor temperature setting range	5 to 40 degrees Celsius
Accuracy	0.5 degrees Celsius
Dimensions	W115mm x H90mm x D16mm
Colour	White

Features

- Large LCD display displays set temperature and room temperature simultaneously
- Optional display floor temperature
- Backup battery for user setting and program setting retention after power loss
- 2-sensor control mode
 - MODE A: Room sensor control mode
 - MODE AF: Room sensor with floor limiter sensor control mode
- Separate 5-day (weekday) and 1-day/1-day (Saturday/Sunday) programming with four separate time/temperature periods per day

Control Mode

The Amuheat 908 Programmable Thermostat has two control modes:

- **Mode A: Room sensor control mode**

The thermostat will control the ambient temperature of the room in which it is located via a built in air sensor.
- **Mode AF: Room sensor with floor limitation sensor control mode**

The floor sensor cable must be connected to the thermostat in order for this mode to work. If the sensor is not connected or installed correctly, ALARM will show up on the display and the thermostat will shut down the heat output.

Mode AF is the preferred method of floor heating control. In this mode, the thermostat will determine to activate or deactivate the floor heating system by comparing set temperature and room temperature and preset floor temperature limitation and actual floor temperature.

If the setting temperature is 1 degree higher than the actual room temperature:

- When the floor temperature is between floor minimum temperature limitation and maximum temperature limitation, the heating should begin to operate
- When the floor temperature rises over floor high limitation, the heating will stop and ALARM will blink on the display
- When the floor temperature falls below floor low limitation, the heating will turn on

Configuration

Configuration Menu Overview

The configuration menu allows you to program certain thermostat operations to suit your requirements. The configuration menu chart summarises the configuration options:

Item	Factory default	Press▲▼ to select	Description
01	0	-3 – +3	Select temperature display adjustment higher or lower
02	35°C	18°C – 35°C	Select maximum room setting temperature
03	5°C	5°C – 20°C	Select minimum floor temperature limitation
04	40°C	20°C – 40°C	Select maximum floor temperature limitation
05	°C	°C / °F	Select temperature display to °C or °F
06	FA	FA / SL	Select fast heating or slow heating
07	OO	PP / OO	Select pump protection (hydronic heating) PP Cancel pump protection OO
08	AF	AF / A	Temperature control mode option: A : Room sensor control mode AF : Room sensor with floor limiter sensor control mode
09	09(1)	1, 2, 3	Select display backlight

Configuration Mode

To enter into configuration mode:

- Press **⏻** to turn the thermostat off
- Press and hold **P** for 3 seconds. The display will show the first item in the configuration menu.
- Use **▲▼** to select the item mode.
- Press **P** to shift to the next menu item.
- To revert to factory defaults, press both **▲▼** for 3 seconds. The display will flash 'def' 3 times, then return to menu item 1.
- To exit configuration mode:
 - Press **⏻** to revert to thermostat in off mode.
 - Press **R** to revert to program operation.

Configuration Items Overview

1) Select temperature adjustment 3 LO to 3 HI

The Amuheat 908 Thermostat is accurately calibrated at the factory. You do however have the option to manually calibrate the thermostat. You can adjust the room temperature display up to 3°C higher or lower. The factory default is 0°C.

2) Select maximum room temperature set point

This feature provides a maximum set point temperature. The factory default setting is 35°C. It can be changed between 18°C to 35°C.

3) Select minimum floor temperature limitation

Press ▲▼ to select your desired minimum floor temperature limitation. It can be changed between 5°C-20°C. The factory default setting is 5°C.

4) Select maximum floor temperature limitation

Press ▲▼ to select your desired maximum floor temperature limitation. It can be changed between 10°C-40°C. The factory default setting is 40°C.

5) Select °C or °F readout

Changes the display readout to °C or °F as required. The factory default is °C.

6) Select fast heating or slow heating

Select **FA** to start heating immediately when the set point is 1°C above the room temperature. Select **SL** to start heating only when the set point is 3°C above the room temperature. The factory default setting is **FA**.

7) Select pump protection mode

For hydronic heating installations, it is recommended to activate the pump at least 15 second every 24 hours in order to avoid any seizing. Selecting **PP** will activate pump protection mode. Selecting **00** will cancel the function. When the thermostat is activating the pump, icon 15 on the display will blink. The factory default is **00**.

8) Select temperature control mode

There are 2 temperature control modes: Mode A and Mode AF. The factory default is AF.

- Mode A is room sensor control mode
- Mode AF is room sensor with floor limiter sensor control mode

9) Select display backlight mode

The display backlight improves display contrast in low lighting conditions. Default is 1.

- Select 1 the light will turn on when any button of the thermostat is touched
- Select 2 the display will keep the light off
- Select 3 the display will keep the light on continuously

Operation

Set current day and time

- Press **⊖**. The display will show the hour flashing
- Press and hold either **▲▼** until you reach the correct hour and AM/PM designation. (AM begins at night, PM begins at noon)
- Press **⊖** once again. The display will only show minutes flashing
- Press and hold either **▲▼** until you reach the correct minute
- Press **⊖** button once again. The display will show the day of the week flashing
- Press **▲▼** until you reach the correct day of the week
- Press button **R** once. The display will show the correct day of the week and the time
- If no keys are pressed within 20 seconds, the thermostat will revert to program operation.

Manual Operation

1) Activate anti-freezing mode/Switch off the Thermostat

Quickly pressing button **⊖** will activate the anti-freezing mode. The display only shows Clock time, Weekday and Room temperature. The default set temperature for anti-freezing mode is 5°C. During anti-freezing mode, if room temperature falls below 5°C, the thermostat will activate the floor heating until the room temperature reaches to 9°C.

2) Switch off the Thermostat

Press power button **⏻** for 3 seconds to turn the thermostat off

3) Program mode operation and Hold temperature operation

Momentarily press button **R**, the thermostat will control the heating system by preset program. **PROG RUNNING** shows when the thermostat is in program operation.

4) Temperature Hold operation

Press button **R** for 3 seconds to enter into hold temperature operation. The thermostat will hold the room temperature at the selected setting temperature. **HOLD** shows when thermostat is in hold temperature operation.

5) Temperature override operation

During program operation, Press **▲▼** until the temperature you want is displayed. The thermostat will override the current programming and keep the room temperature at the selected temperature until the next program period begins. Then the thermostat will automatically revert to the program.


6) Vacation Temperature hold

During program operation press **P** for 3 seconds until the display shows Vacation. Use button **⊖** to increase **P** to decrease the number of the days. Use **▲▼** to adjust the setting temperature during your holiday. Push button **R** to revert to program operation.

7) Reset operation





Press the Reset button by using a fine probe such as a straightened paper clip to gently push the Rest button. This will reset the thermostat.

8) Inquiry for the floor temperature

Press button  for 3 second. The floor temperature will display. If the floor sensor is not installed or damaged, display will show Er when inquiry for floor temperature. The function for inquiring for floor temperature is canceled in room sensor control mode (A mode)

Planning your Program




The Amuheat 908 Thermostat is pre-programmed with times and temperatures as shown in the table below.




Period	Weekdays (5 day)		Saturday		Sunday	
	Start Time	Temp	Start Time	Temp	Start Time	Temp
	6.00AM	21°C	6.00AM	21°C	6.00AM	21°C
	8.00AM	16.5°C	8.00AM	16.5°C	8.00AM	16.5°C
	5.00PM	21°C	5.00PM	21°C	5.00PM	21°C
	10.00PM	16.5°C	10.00PM	16.5°C	10.00PM	16.5°C

To change the pre-programmed times and temperatures, follow these steps:

Determine the time periods and temperature for each period

Step 1 - Press button **P** once. **PRGM SETTING** will show on the display.

Step 2 - Press button  once. The programmed temperature will flash. Press   to change the displayed temperature for the 1st program heating period.

Step 3 - Press button  once. The programmed time will flash. Press   to change the displayed time for the 1st program heating period.

Step 4 - Press button **P** once to move onto next program heating period.

Step 5 - Repeat Step 1 & 2 to select the start time and heating temperature for the 2nd heating program period.



Step 6 - Repeat steps 3 through 5 for the 3rd and 4th program heating periods

Step 7 - Press button **P** once. "SA" (indicating Saturday program) will show on the display, along with the start time and temperature for the 1st program heating period .

Step 8 - Repeat steps 3 through 7 to complete Saturday heating programming.

Step 9 - Press button **P** once to change to "SU" (Sunday), and repeat steps 3 through 7.

When you have completed entering your heating program, press R.

Revert to Defaults - Press **P** the   for 3 seconds. "Def" will flash, then press **R**.



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