RT226-C14
FLOOR HEATING THERMOSTAT

Contents

Dimension: 86*86*41MM

Instructions

[Product Overview]

These series of digital heating thermostat, applying the most advanced and international standardized microcomputer control chip, measures the temperatures through the in-built and external high-precision sensor. It can make a real-time comparison with the parameters set by the user, automatically start and stop the heating equipment to maintain the room in a certain temperature point. It can set 6 time periods and corresponding temperature every day, and can select manual control or temporary manual control. The particular double sensor control function reinforces temperature detection on the heating equipment while detecting the room temperature. When the temperature of heating equipment exceeds the maximum setting temperature, the thermostat will automatically stop heating to protect the electric heating equipment; While the room temperature is lower than the minimum protected temperature, it will restart the electric heating equipment and keep it working under reasonable temperature range, which will prolong the service life of equipment and enable the system to be safer, more reliable and energy-saving.

[Alternative Working Modes Table]

Optional functions

RT226-C14-□□□□□□□□

- A: Water heating system; B: Electric heating system
- S: External sensor
- T: Clock chip
- L: Backlight function
- P: 7 days programmable
- N: RS485 communication function
- GJ: Passive contactor
- J: Host machine linkage

[Technical Data]

Power self-consumption: ＜1.5W

Timing error: ＜1%

Power voltage: 220VAC 50/60HZ

Load current: GA: 3A GB: 25A

Temperature control range: 5℃-35℃ Temperature accuracy: ±1℃

Dimension: 86mm*86mm*41mm (height x width x thickness)

[Display and Function Description]

: Manual working mode. Under the manual mode, the heating equipment can be controlled through resetting its current temperature manually..

: Programmable working mode. The thermostat runs automatically according to the setting time period and temperature point.

Programmable working mode: 7-day programmable is divided into two periods, respectively "12345"/"67" 5+2 programmable working mode. Each working mode is subdivided into six periods and six corresponding temperature settings.

: Getting up in the morning, the first period

: Going out in the morning, the second period

: Back home at noon, the third period

: Going out at noon, the fourth period

: Back home in the evening, the fifth period

: Sleeping at night, the sixth period

: Temporary manual working mode: under the current programmable working mode period, switching to the temporary manual state for a while, and it will automatically switch back to the programmable period control state when the next period approaches (temperature set under the temporary manual working mode will not be stored).

Press "M" to switch over to the manual mode.

: Button locking state. Press ▲ and ▼ at the same time for at least 5s to lock the thermostat buttons, and then press them meanwhile for at least 5s for unlocking.

: Heating state. When the icon glitters, it means that the heating source exceeds the Max limited temperature and the load is cut off. If powered off, the icon may also glitter when the antifreezing protection starts the load.

External temperature: floor temperature. It can only display on the screen after finishing selecting in-built and external temperature sensors. After selecting "AI" for the sensor type in the senior options, keeping pressing ▲ , the screen will display double sensor temperature. If you release it, the screen will go back to the previous state 3 seconds later. (Optional: this option is only available to double sensor configuration)

[Button Description and Operation]

: Power on/off button for selecting to turn on or off thermostat. If it's on, the LCD will display its working data and the thermostat will operate under one of the below three working modes: manual mode, programmable working mode and temporary manual working mode. If it's off, the LCD will display none. And the working state and senior parameters before powered off will be stored. "M:" model button. It refers to the switchover between manual model and 7-day programmable model. It is ineffective under the communication mode.

Clock programming button. Press it to adjust the clock in sequence: minute adjustment→ hour adjustment→week adjustment→back to original state. Switch over them respectively. Keep pressing it for 3s to enter into the 7-day programmable mode and adjust it in sequence: adjustment of timing point for the first period from Monday to Friday→adjustment of temperature for the first period from Monday to Friday→ timing point and temperature for the second period→...→ adjustment of timing point and temperature for the sixth period from Saturday to Sunday (refer to the following attached table).

After each parameter is finished setup, press to switch to next parameter setup. Press ▲ and ▼ to adjust the glittering parameter (time adjustment with 15 minutes step; " ▼ " sets temperature drop or adjusts the set value of work mode. " ▲ " sets temperature rise or adjusts the set value of work mode.

[Setting Time and Temperature Program]

(Attached table)

Period Display	Workday (Monday to Friday)		Weekend (Saturday to Sunday)	
	Time	Temperature	Time	Temperature
1	06:00 getting up	20℃	06:00 getting up	20℃
2	08:00 working	15℃	08:00 working	20℃
3	11:30 noon break	15℃	11:30 noon break	20℃
4	13:30 working	15℃	13:30 working	20℃
5	17:00 off work	22℃	17:00 off work	20℃
6	22:00 rest	15℃	22:00 rest	15℃

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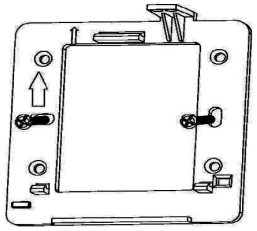
[Senior Options]

When it is powered off, keep pressing "M" and "◷" to enter into the senior option setup model to calibrate temperature, select sensor type, setup starting temperature difference, open low-temperature and high-temperature protection, choose the rest weekend type, lock options, and set 485 communication IP high order position as well as 485 communication IP low order position. After entering the model, press "M" to switch over among all options. After finishing adjustment, the thermostat will automatically confirm parameters when it turns on again..

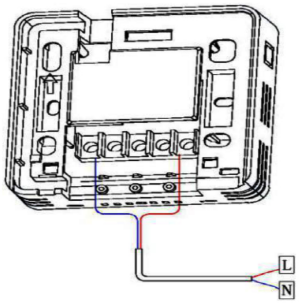
Display Number.	Selection Content	-"▼" button or "▲" button
1	Temperature compensation for inbuilt sensor	-9℃ to +9℃
2	The starting temperature difference	1℃-5℃ When the setup temperature is higher than or equal to the sum of room temperature and the starting temperature difference, the heating equipment will start; when the room temperature is higher than or equal to the sum of the setup temperature and the starting temperature difference, the heating equipment will shut off. E.g. when the starting temperature difference is equal to 2 ℃, the setup temperature is 25℃ and the room temperature is 24℃, the heating equipment will not start; when the temperature low down to 23℃, the heating equipment will start.
3	Selection of sensor type	IN: inbuilt sensor (indoor sensor subject to temperature control and limit) OU: External sensor (outdoor sensor subject to temperature control and limit) AI: all (inbuilt and external) sensor (inbuilt sensor for temperature control and external sensor for temperature limit) Note: please select the right sensor type. If it is wrongly selected or the sensor is damaged, the LCD will display ERR, and the thermostat will stop to work until the fault is eliminated.
4	Setup of low-temperature protection	5-10℃. At the Max setup temperature 10℃, press the button ▲ to display again, it displays "--" which mean to cancel the low-temperature protection function. If the room temperature is lower than the setup low-temperature protection point the heating equipment will be forcibly restarted. The default point is 5℃.
5	Setup of high-temperature protection	35-70℃. At the Min setup temperature 35℃, press the button ▼ again, it displays "--" which means to cancel the high-temperature protection function. If the room temperature is higher than the setup high-temperature protection temperature, the heating equipment will be forcibly shut off. The default point is 45℃.
6	Button locking option	0: under the locking state, buttons are locked except the power on/off button. 1: under the locking state, all buttons are locked including the power on/off button.
7	Rest weekend selection (optional)	Two-day weekends: 1234567 One-day weekend: 123456 and 7 --: to cancel the 7-day programable
8	Reset	Press ▼ and ▲ for 5s for confirmation.
9	485 communication IP high order position (optional)	00-FF
10	485 communication IP low order position (optional)	01-FF

[Installation Instruction]

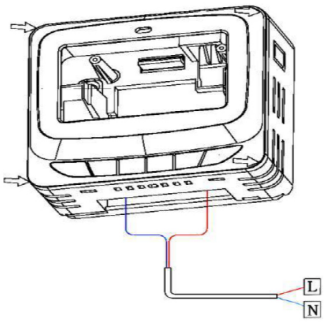
Please follow the instructions to make the correct instllaion.



Step 1: Take out the screws and board from the box, then fix the board on the wall the same as the pictures.



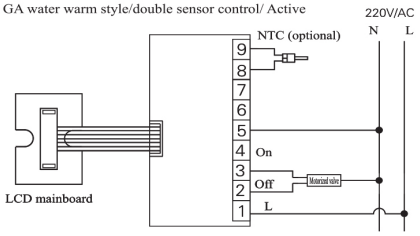
Step 2: Connect the wires the same as the picture.
The detailed connect way refer to the wiring diagram.



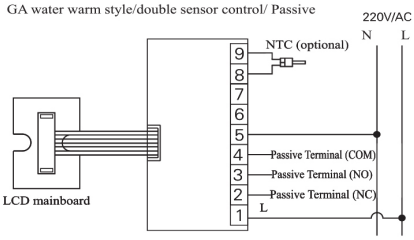
Step 3: Mount the themostat onto the board the same as the arrow direction.

[Wiring Diagram]

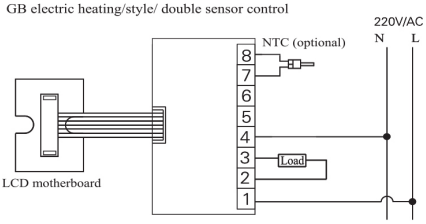
GA water warm style/double sensor control/ Active



GA water warm style/double sensor control/ Passive



GB electric heating/style/ double sensor control



Remarks: this figure is only for reference. The exact wiring way is subject to the wiring diagram on the back of the power box.

[Description of Infrared Remote Controller and Function (Optional)]

◷---Power on/off

M---Mode

📖---7-day programmable

◷---Clock function

▲--- Temperature setup "+"

▼--- Temperature setup "-"

[Cautions]

- ★ Please connect wires in strict compliance with the installation wiring diagram;
- ★ Please install a thermostat correctly in strict compliance with the installation diagram
- ★ Do not pull the cable forcibly, or it may be damaged;
- ★ Do not squeeze the LCD or scratch the LCD surface during the installation;
- ★ During the installation, do not knock those electronic components on the circuit board, and do not drop or deform the back cover
- ★ If hard plastic lines are used during the installation, do bend it into a appropriate angle firstly
- ★ Do not drop it into construction mud..

[Malfunction disposal]

Statement: Only professional technical personnel can maintain the products of our company.

Malfunction	Disposal
Boot-strap error	★ Check L.N power and the wiring connection ★ Check the power on/off button; ★ Change the control board, or change the power supply board ★ Check the connection of wiring between the control board and the power supply board
LCD garbled	★ The back shell may be deformed during the installation, loose the two fixation screws
No output with right display	★ Change the control board and then change the power plate ★ Power control panels and connecting cable may be damaged
Remote failure	★ Check whether there is a remote battery power ★ Change the remote
Temperature display abnormal.	★ The temperature hasn't been calibrated.