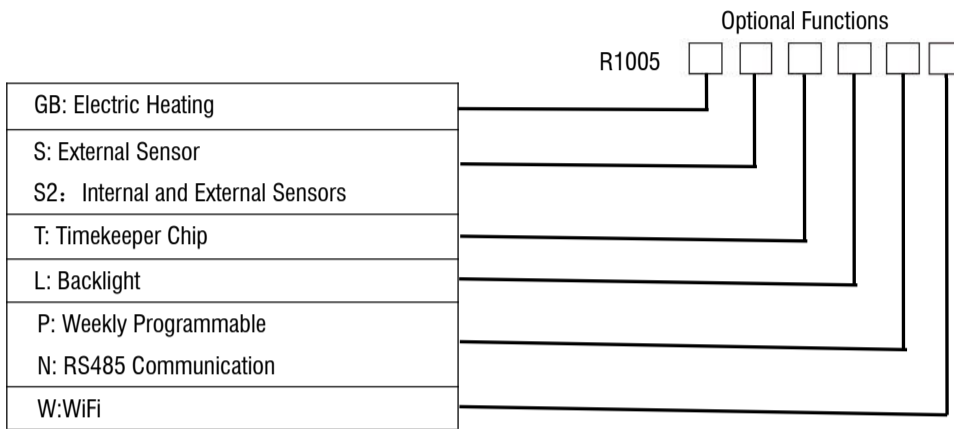## Instruction Sheet

General

R1005 series digital heating thermostat, adopting world-advanced microcomputer chip, automatically open and close load (electric heating equipment or valves) according to the comparison between set-point and ambient temperature which is measured by internal or external NTC sensor. In this case, constant room temperature can be well kept. 6 periods and corresponding set-point for weekly programming can be set every day. Besides, it provides user with manual control and temporary manual control. With dual-temperature control function, temperature of heating equipment and ambient temperature are measured simultaneously. When temperature of the load (usually the floor temperature) is higher than maximum limit temperature, thermostat stops heating to prevent the load from overheat; when ambient temperature is lower than the set-point and temperature of the load is lower than minimum limit temperature, thermostat opens load for anti-frost in order to lengthen the lifespan of the load.

WIFI version provides user with internet remote control via Tuya "Smart Life" App anytime at anywhere.

Model Definition

Optional Functions

R1005

GB: Electric Heating
S: External Sensor
S2： Internal and External Sensors
T: Timekeeper Chip
L: Backlight
P: Weekly Programmable
N: RS485 Communication
W:WiFi

Technical Data

Power Consumption: <1.5W

Timing Error: <1%

Power Supply: 200~240VAC   50/60Hz

Load Current: GB: 16A

Temperature Range: 5~35℃   Accuracy: ±1℃

Size:86mmx86mmx13mm （H x W x T）

Function and Display

🖑:Stands for Manual Mode. Thermostat controls the on/off of the load according to the current manual setting temperature.

🕙:Stands for Weekly Programming Mode. Thermostat runs according to the preset time and setting temperature during this mode. Weekly Programming consists of two working period (if set to 5+2 day programming mode) which are "1,2,3,4,5" (Mon.-Fri.) and "6,7" (Sat.-Sun.). 6 period start time and corresponding setting temperature can be set during each working mode.
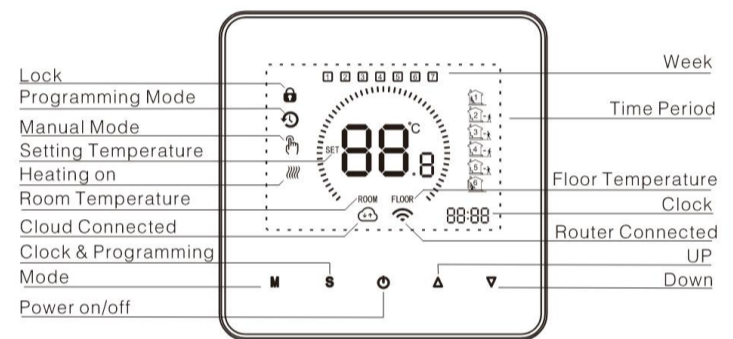
🕙🖑:Stands for Temporary Manual Mode. During Weekly Programming Mode, press △ or ▽ key to switch to Temporary Manual Mode. Thermostat runs according to the temporary setting temperature during this mode and will return to Weekly Programming Mode when next period start time comes (setting temperature in the Temporary Manual Mode will not be stored). Press "M" can switch to Manual Mode.

🔒:Stands for locked status. Press △ or ▽ key simultaneously for 5 seconds to lock the thermostat, press them again to unlock.

〰:Stands for "Heating On". During normal working, the icon is lighted when the load outputs.

When it is flickering, load is cut off due to overheating (exceeds the overheating protection temperature). During power off, the icon is lighted as well when the anti-frost protection function（lower than anti-frost temperature）is activated to open load.

FLOOR:Stands for floor temperature (the temperature measured by external sensor which is placed on the floor). It works when "∩Ξ" is selected in Sensor Types of Advanced Options. Press "M" for 3 seconds to display the floor temperature temporarily during normal working mode. Release the key, the previous display will return in 3 seconds.

Lock		Week
Programming Mode		Time Period
Manual Mode		
Setting Temperature		
Heating on		Floor Temperature
Room Temperature		Clock
Cloud Connected		Router Connected
Clock & Programming		UP
Mode		Down
Power on/off		

Keys Functions and Operation

⏻: Power on/off. Press this key to turn on/off the thermostat. During power on status, thermostat runs according to the following working mode: Manual Mode, Weekly Programming Mode or Temporary Manual Mode.

M: Mode. Press "M" to switch between Manual Mode and Weekly Programming Mode.

S : Clock & Programming. Press "S" to adjust the clock. Operation sequence: Clock minute adjusting→ Clock hour adjusting →Week adjusting→Return to the original state. Press △ or ▽ to set the value.

Press and hold "S" for 3 seconds to enter into the Weekly Programming Mode Setting (1 2 3 4 5 will show at the top of the screen). Press "S" and use △ or ▽ to set the start time (1st period). Press "S" and use △ or ▽ to set the temp. (1st period). Press "S" and use △ or ▽ to set the start time (2nd period). Press "S" and use △ or ▽ to set the temp. (2nd period). Repeat this process for period 3, 4, 5 and 6.

Press "S" once more to enter into the Saturday and Sunday schedule settings (6 7 will show at the top of the screen). Repeat the above process to set the period and temp.

Press "S" once more to confirm and exit.

△: Temperature up or adjust parameters.

▽: Temperature down or adjust parameters.

Default Settings for Weekly Program Schedule

Time Period Display	WEEKDAY (MONDAY-FRIDAY) 1 2 3 4 5 shows on screen		WEEKEND (SATURDAY & SUNDAY) 6 7 shows on the screen	
	START TIME	TEMPERATURE	START TIME	TEMPERATURE
Period 1	6:00	20℃	6:00	20℃
Period 2	8:00	15℃	8:00	20℃
Period 3	11:30	15℃	11:30	20℃
Period 4	13:30	15℃	13:30	20℃
Period 5	17:00	22℃	17:00	20℃
Period 6	22:00	15℃	22:00	15℃

WIFI Configuration

Step 1: For IOS devices, search for "Smart life" in Apple Store and download. For Android devices, search for "Smart life" in Google Play and download. Alternatively, scan the relavant QR code here (Fig 1-1).

Step 2: Connect your smart phone to WIFI SSID of good signal (Please do not directly use any hidden SSID or public hotspots. It's only valid in 2.4Ghz network) .

Step 3: Open "Smart life" App, register a new account and log in.

Step 4: Click "➕" at the top right corner of App, then click "⬓" at the right top corner to scan the WIFI Configuration QR code (Fig 1-2). Choose 2.4GHz WIFI SSID which your smart phone has already connected and enter the relevant password of this SSID. Then

QR code for downloading App   QR code for WIFI Configuration

Fig 1-1   Fig 1-2

follow the tips shown on the App for operation.

Step 5: There are 2 kinds of network configuration methods, please click "⇌" at the right top corner to choose.

(1) AP mode (Compatibility mode): Connected to power, turn off the device by touching power button. Press and hold "△" for 3 seconds. When "☺" is blinking, click "Confirm the indicator is blinking slowly" and "next" on the app.　Connect the WIFI of smart phone to SSID "Smart Life-XXXX". Then return to App to wait for adding device. Tip will appear when successfully connected. At the mean time, "☺" on the device will disappear. Turn on the device, "☺" "📶" will display on the device screen simultaneously, which stands for device has been connected to the network.

(2) EZ mode (It's default mode): Connected to power, turn off the device by touching power button. Press and hold "▽" for 3 seconds. When "☺" "📶" indicators are blinking on the device screen simultaneously, click" Confirm the indicator is blinking rapidly" and "next" on the app, it starts adding device. Tip will appear when successfully connected. At the mean time, device indicators will disappear. Turn on the device, "☺" "📶" will display on the device screen simultaneously, which stands for device has been connected to the network.
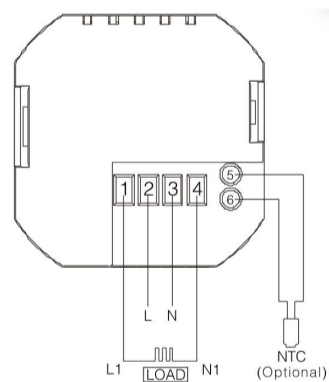
Notice: Please place your WIFI router, smart phone and device as close as possible, and make sure that your smart phone and device stays in the same SSID network. If WIFI configuration fails, please turn off the device and then turn on it again. Follow the above procedures to configure the WIFI connection again.

Setting the Functions and Options

Enter into system advanced setting mode by pressing and holding "M" and "S" simultaneously for more than 5 seconds during power off. Then press "M" to scroll through the below available functions, and use "△" or "▽" to change available options. All settings will be confirmed automatically after power on.

Code	Functions	Setting and Options	Default
S1	Temperature Compensation	-9℃ ~ 9℃	-1
S2	Deadzone Temperature	1℃ ~ 5℃	1
S3	Button Locking	0: All buttons are locked except power button. 1: All buttons are locked.	0
S4	Power-down Memory	0: When power is back, resume working status which is before power-down. 1: When power is back, set to power-off status. 2. When power is back, set to power-on status.	0
S5	Duration of Backlit	5 ~ 30 seconds	10
S6	Min. Set Temp.	1℃ ~ 10℃	5
S7	Max. Set Temp.	20℃ ~ 70℃	35
S8	Anti-frost protection	1℃~10℃,When up to max. 10℃，press "△" to cancel the function, LCD display"- -".	5
S9	Overheating protection	20℃~70℃,When lower to min. 20℃，press "▽" to cancel the function, LCD display"- -".	45
SA	Sensor types	⊓1:Internal Sensor(to control and limit temperature) ⊓2:External Sensor(to control and limit temperature) ⊓3:Internal/External Sensor(Internal Sensor to control temperature, External Sensor to limit temperature) Remark:Please make sure to choose the right sensor, if sensor is chosen wrong or broken, LCD will display "Err" and stop working until the failure is eliminated.	⊓3
Sb	Weekday and Weekend Setting	0: Two-day Weekend: 1 2 3 4 5 and 6 7 1: One-day Weekend: 1 2 3 4 5 6 and 7 2: No Weekend: 1 2 3 4 5 6 7	0
Sc	Automatically Calibration Temperature	-9℃ ~ 0℃	-3
Sd	Restore factory settings	When screen displays "Ro", press and hold "S" for 5 seconds to restore factory settings.	

Wiring Diagram

GB Electric Heating

Note: The above picture is only for reference, subject to the actual wiring diagram on the back side of Power Unit.

Suggestion

Because this product only provides intelligent temperature energy-saving control function, and the external heating components (such as heating cable, the electrothermal film, carbon crystal heating panel, etc.)have different security features, we suggest factory to match overheat protector or other safety protection device for the safe use of the product.

Notice

★ Please strictly follow the installation wiring diagram for wiring;

★ Please strictly follow the installation diagram for proper installation;

★ Do not pull cable hard, otherwise it will cause damage;

★ During the installation process, be careful not to put pressure on the LCD, or scratch LCD surface;

★ During the installation process, be careful not to bump circuit board components, do not fall or deform back-cover of the lower panel;

★ During the installation process, if use hard plastic cable, it must first be bent appropriately;

★ Do not fall into slurry.

★ This product with temperature calibration function will need to use different calibration value due to different installation place in practical application.

Troubleshooting:

Note: The maintenance of our company's products is limited to professional and technical personnel.

phenomenon	handling
Power but no display	★Check if the L, N power supply is normal, and the wiring is reliable or not ★Check if the Turn-on/off Key is flexible and workable or not ★First replace the control panel, and then the power board ★Check if the cable connected to LCD motherboard and power board is loose or not
LCD Error	★The back-cover is deformed while installation,please release one or two fasten screws;
Normal Display but no Output	★First replace the control panel, and then power board; ★The cable connected to control board and power board is broken
Remote malfunction	★Check if the batteries of remote controller still have power or not ★Replace the remote controller;
Temperature display is not normal	★If temperature is not calibrated, please calibrate it directly from panel.