

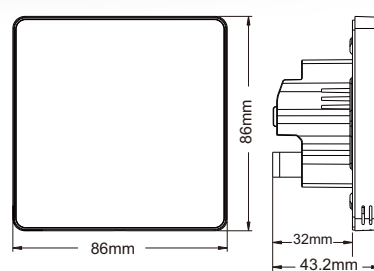
SAS965FHL-7-WIFI(TY) manual

Features

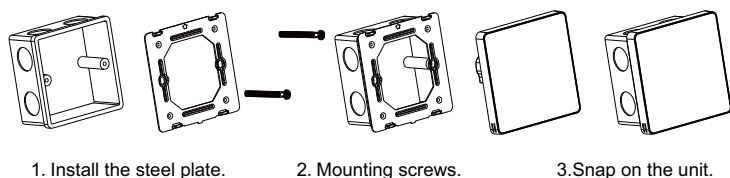
- 480*480 pixel 4-inch color screen display
- Energy consumption monitoring function
- Anti-freeze function
- Preheating function
- Multi-language menu optional
- 7-day programming control
- Multiple control system optional: dual temperature control, room temperature control, floor temperature control

Specification

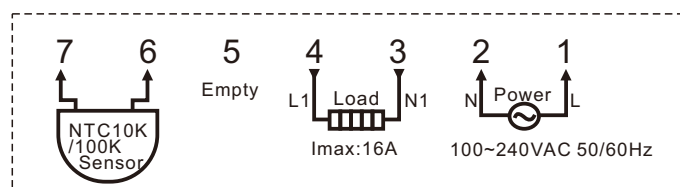
- Power source: AC100~240V, 50/60Hz
- Current temperature display range: 0°C~50°C
- Floor temperature display range: 0°C~70°C (NTC external sensor measuring range)
- Current temperature setting range: 5°C~70°C
- External sensor control range/Floor temperature protection range: 5°C~70°C
- Accuracy: 0.1°C
- External sensor: NTC 10K / NTC 100K
- Storage temperature range: -20°C~70°C; 5~95% (no condensation)
- Network frequency: 2.4GHz WIFI
- Screen: 4-inch IPS screen, capacitive touch screen (71.86* 67.96mm, 480*480)
- Dimensions: 86x86x12mm
- IP Rating: IP21



Installation

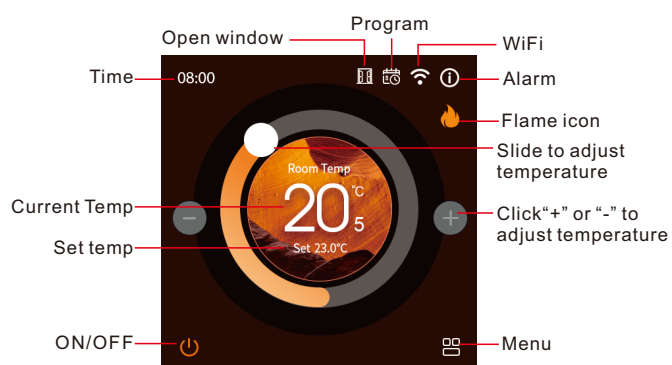


Wiring diagram



Note: The relay in this device supports a maximum load of 16A. However, heating cables and similar end devices may produce inrush currents at startup. To ensure the relay's longevity, a load of no more than 13A is recommended under normal conditions. Exceeding this may reduce the relay's service life.

Display



Touch anywhere on the screen to light up the screen.

WiFi icon

Connected Internet: always on.
Disconnected: Hidden

Alarm

White icon indicates no alarm information.
Yellow icon indicates alarm information

Time

Factory default time is 08:00 on January 1, 2025.
(Note: Setup is required after factory reset.)

ON/OFF button

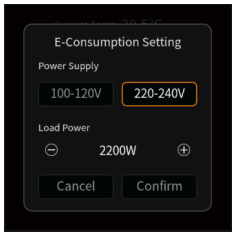
Touch to enter the power off mode (display the current temperature);
On power off mode, touch the power on icon in the middle of the screen to return to the power on mode.

Temporary mode

Keep flash. The programming will switch to programming in next schedule.

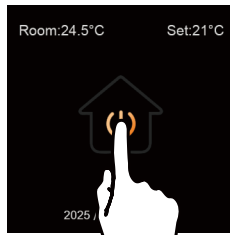
Initial setup

Note: Factory reset will be considered to initial setup.



E-Consumption Setting

Select your power supply and load power, then click "Confirm"



Power off interface, press button in the middle to switch on.



Main interface

Adjust temperature

Adjust the temperature with the dial or by "+" and "-" button. Temperature can be adjusted in increments of 0.5 degrees. The factory default heating is 21°C.



Slide to adjust temperature

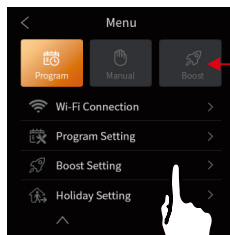
Click "+" or "-" to adjust temperature

Boost setting

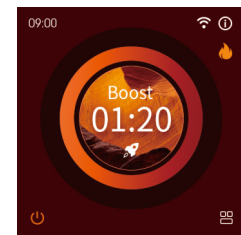
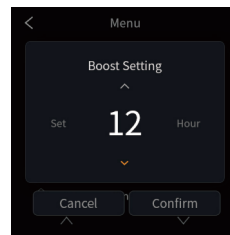
Boost Function

Default setting: OFF.

The adjustable range is from 1 to 12 hours, in 1-hour increments. Factory default: 1 hour.



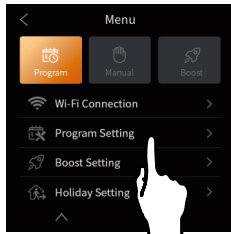
Click the icon to activate "Boost function"



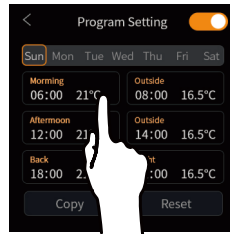
Boost function is enabled.

Program setting

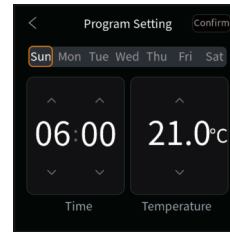
Default setting: Manual mode at 21°C. (Factory default: ON)



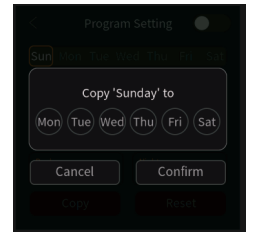
Click "Manual/program" button "Program/Manual" can activate manual mode/Program mode.



Click the target period to set the time and temperature.
Tips: Copy programmable setting by clicking "Copy" icon.



Time and temperature setting interface



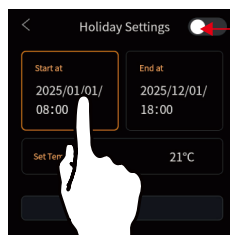
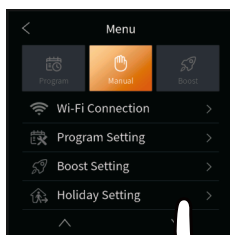
Press "copy" icon to copy program interface. Select the day you want to copy.

Default heating programming (6 period programming)

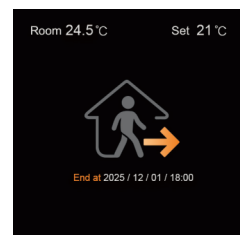
Programming function is OFF in factory default.

Week	Periods	Morning	Outdoor	Back home	Outdoor	Back home	Sleep
Monday to Sunday		6:00 21°C	8:00 16.5°C	12:00 21°C	14:00 16.5°C	18:00 21°C	22:00 16.5°C

Holiday mode setting



Swipe the icon to right "Holiday" to activate Holiday mode.



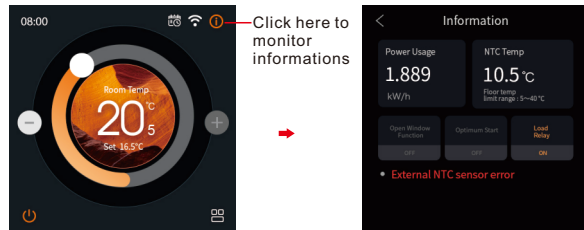
Holiday mode interface

Click the corresponding button to set the start time, end time, and temperature. Default temperature set to 21°C.

Alarm information

Monitor alarm information: NTC temperature, energy consumption, open window state, optimum start state, load relay state.

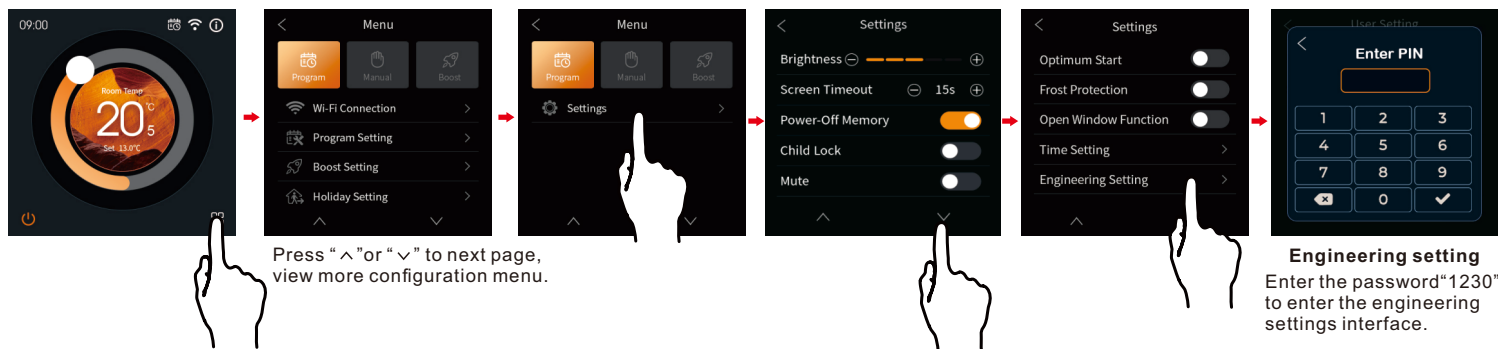
Note: NTC temperature, temperature data is available only when NTC is connected)



APP alarm code	Local alarm prompt	Meaning	Heating State
E1	Built-in temperature sensor failure	Built-in temperature sensor failure.	OFF
E2	External NTC sensor failure	Fault detection is only enabled under dual temperature dual control or floor temperature control systems.	OFF
E3	High temperature alarm (floor temperature is higher than the protection temperature)	In dual temperature dual control mode, the floor temperature exceeds the floor protection maximum limit.	OFF
E4	Low temperature alarm (floor temperature is lower than the protection temperature)	In dual temperature dual control mode, the floor temperature is lower than the floor protection minimum limit.	ON
	Display open window icon " "	To save energy, if the thermostat detects a sharp drop in room temperature, it will shut down heating. Please check if a window is open.	OFF

Setting

This is a collection of functions and parameters available to the device user. They allow the controller's operation to be tailored to individual preferences and needs.



Item	Default	Description
Brightness	Level 3	Adjusting the display brightness allows you to adjust the luminance level to ambient conditions and user preferences.
Screen timeout	15s	The screen blanking function allows you to automatically turn off the display after a specified period of time. This allows the device to save energy and reduce unnecessary lighting, especially at night.
Power-Off memory	ON	The controller is equipped with a settings memory function, thanks to which the saved configurations are retained even after the power supply is disconnected.
Child lock	OFF	The Child lock function allows you to protect access to the controller settings against unauthorized changes by children.
Mute	OFF	This function mutes the sound produced when operating the controller screen.
Optimum start	OFF	The optimum start adjust the starting time for home heating according to user program setting. User program the time that it should come on desired temperature in correct time.
Frost protection	OFF	When the user is away for an extended period, the room temperature may drop significantly, potentially causing damage to home devices due to freezing. To prevent this, the thermostat will automatically turn on heating when the room temperature falls below 5°C, and turn it off when the temperature rises to 8°C.
Open window function	OFF	To save energy, if the thermostat detects a sharp drop in room temperature, it will shut down heating. Please check if a window is open.
Time setting	ON	ON:24-Hour Clock OFF:12-Hour Clock
	ON	ON:Time Sync OFF:Manually adjust the time
Engineering setting	/	The password “1230”
Language setting	English	Chinese/English

Engineering parameter table

Item	Default	Description
Control system	Dual	Dual/Room/Floor Dual:The thermostat controls based on the actual room temperature detected by the internal sensor and compares it to the floor temperature limit. If the floor temperature exceeds the limit of "Max floor temp set," the system stops working. If the floor temperature is lower than the limit of "Min floor temp set", the system will force heating. Room: The thermostat is controlled by an internal sensor and displayed as room temperature. Floor:The thermostat is controlled by an external sensor and displayed as room temperature.
Sensor selection	100K	10K/100K
Switch differential	1.0°C	0.5~5°C(Step 0.5°C)
Min room temp set	5.0°C	5~20°C(Step 1°C)
Max room temp set	35.0°C	28~70°C(Step 1°C)
Min floor temp set	5.0°C	5~20°C(Step 1°C)
Max floor temp set	40.0°C	21~70°C(Step 1°C)
Temp correction	0.0°C	-5~5°C(Step 0.5°C)
E-consumption setting	Power supply: 220~240V Load power:2200W	When the power supply voltage is selected as 100~120V, the load power setting range is 100~1700W (setting step is 100W,default value: 1100W) When the power supply voltage is selected as 220~240V, the load power setting range is 100~3500W (setting step is 100W,default value: 2200W)
Restore factory default	/	After selecting the confirm button, all parameters will be restored to factory default values.

Link with APP

Registration and login:

1 Click App store(click Android application market)

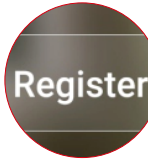


2 Search "TuyaSmart" and download.



3 Click the "Register" to create account.

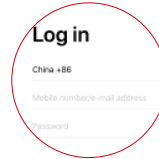
When you finish the register, log in your mailbox and click on the link to activate your account, then can login APP.



Register



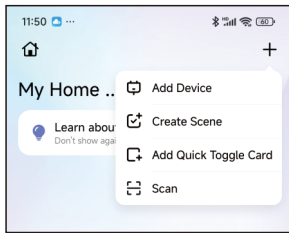
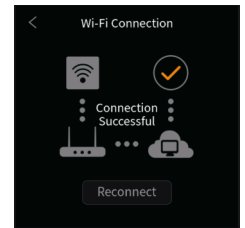
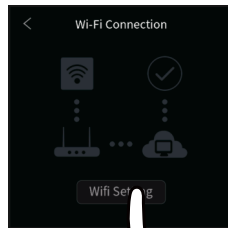
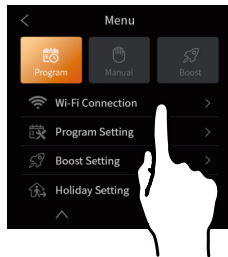
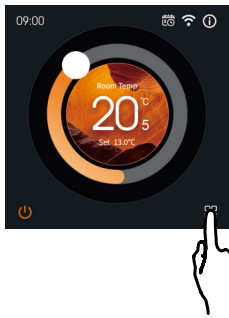
Create account



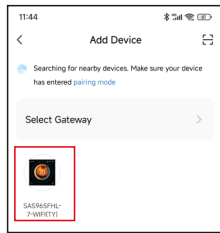
Login

Tips: Turn on the Wifi and Bluetooth of your smartphone.

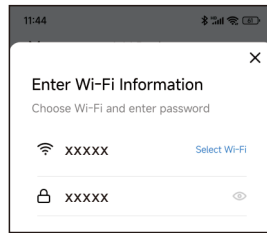
For the device :



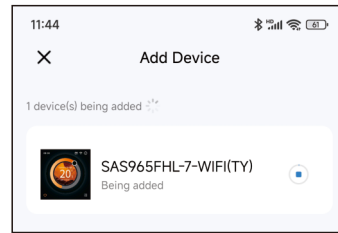
1. Click "+", click "Add Device".



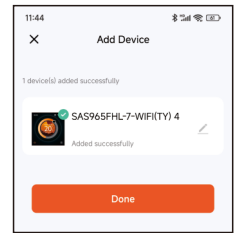
2. Click your device.



3. Enter your wifi account and password, click "Next"

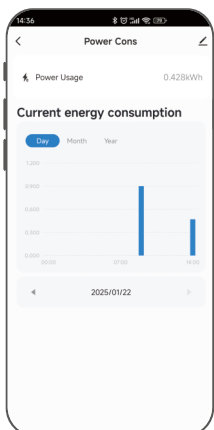


4. Adding...



5. Click "Done", it means device added successfully.

APP interface



Click to view current energy consumption

Holiday mode
(Only display when activated)
Open window
(Only display when activated)

Boost output
(Only display when activated)

ON/OFF



Click to enter device information interface

Click to set programming

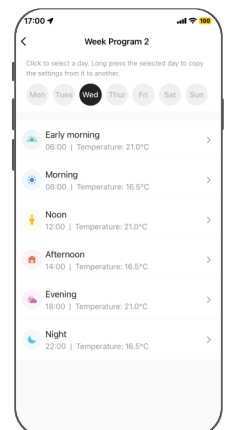
Click to activate child lock function

Slide to adjust temperature

Heating output

Click "+" "-" to adjust temperature

Program mode
Click to switch "Manual" mode



Programming setting interface