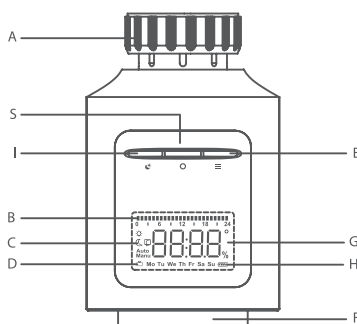


尺寸: 195 x 240 mm , 折叠后尺寸: 65 x 120 mm , 材质: 80g 书纸, 正反双面印刷

## Operating Instructions of RF868MHz Temperature Control Equipment



### 1 Product diagram



- A: Thread adapter
- B: Indicator icon in week programming stage
- C: Manual/automatic mode, icon of window-opening and energy-saving/comfortable temperature
- D: Indicator icon of holiday modes and week
- E: Menu select key
- F: Rotation select
- G: Date/temperature display
- H: Battery power display icon
- I: Key for switching energy-saving and comfortable mode
- S: Confirm key

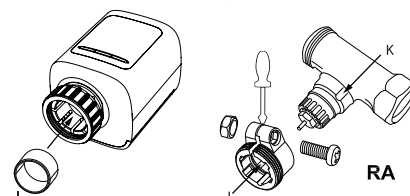
### 2 Power on

1. After LCD full display for 3 seconds;
2. Display equipment version number for 2 seconds;
3. Control valve enters into installation status after displaying ins for 2 seconds.

mounting the radiator thermostat to improve on the stability. The provided adapter is required for installation on Danfoss RA valves. The Danfoss valve bodies have elongated notches (K) around their circumference, which also ensure that the adapter is properly seated when it snaps on.

During installation, please ensure that the pins inside the adapter (J) are lined up with the notches (K) on the valve. Ensure that the adapter is properly clipped on.

Take care during installation that you do not trap your fingers between the two halves of the adapter!



### 4 Adaptive operation

The screen has a scrolling display for "AdA" and "n". Equipment checks assembly during the process; if any problem, the screen will display "F1", "F2" "F3" and "F4" errors; if assembly is correct, equipment will enter into normal display mode.

Notes:

F1—If valve is driven slowly, check whether valve is jammed;

F2—If actuation range is too wide, check whether valve is not installed in place, whether the screw is tightened.

F3—If adjustment range is too small, check whether heating valve is blocked and valve resistance is too large.

F4— The valve is not installed.

### 5 Connecting device

Make sure the phone is connected to WIFI before connecting the

Date and time can be set while the motor returns to its original position. Use rotary knob to modify date and time, and conduct a short press on the confirm key to confirm and jump to the next modification.

Year: (2019-2099) default value is 2019

Month: (1-12)

Day: (1-31) automatically adjust day numbers of this month according to the year and month.

Hour: (0-23)

Minute: (0-59)

If valve fails to enter into installation status after data setting is completed, the screen will have a scrolling display for "InS" and "n", and the screen will display "AdA" after valve enters into installation status.

### 3 Equipment installation, valve assembly

After the screen displays "AdA", equipment shall be installed on water pipe according to assembly instructions;

After installaiton, press confirm key to enter into adaptive state.

Assembly instructions:

The radiator thermostat is easy to install and can be done without draining heating water or intervening in the heating system. No special tools are required, nor does the heating have to be switched off. The union nut attached to the radiator thermostat can be used universally and without accessories for valves of the most popular manufacturers with a thread size of M30 x 1.5 mm.

1. Rotate the thermostat dial to the maximum value The thermostat dial then no longer presses against the valve spindle, making it easier to remove.
2. Remove the mechanical thermostat head. If required, place the supplied support ring or adapter first.
3. Attach the radiator thermostat to the valve.

If required, place the provided support ring (I) into the flange before

device. With a long press on the Temperature Control Equipment of confirm key for more than 5 seconds, the screen will display "pair" for 2 seconds, enter pairing mode.

1. Download and install app: Download from "Google play store" and "apple store", keyword: smart life or tuyasmart.

2. Make sure the gateway has been added to the phone, refer to the gateway manual

3. Click the gateway in the APP device list to add a sub-device. The gateway enters the network pairing state

4. Press and hold the confire key on the device for 3 seconds to enter the network pairing state.

5. The gateway beeps once, and the network pairing is successful. The device enters the APP device list.

### 6 Operating modes

Equipment has 3 operation modes: automatic mode, manual mode and holiday mode, and equipment can be switched into different modes through a short press on mode key.

- When the device is connected to the gateway, all parameters are set by the app, and the device displays the manual mode. The equipment operates according to the parameters of app.

- When the device is used alone, all parameters are set manually by the user.

#### 6.1 Automatic mode

The screen can display target temperature setting value (it can be and changed according to programming setting), week value, automatic operation icon, programmable temperature-rising time scale (0-24 hours), comfortable icon (temperature value is as same as the comfortable temperature value), energysaving icon (temperature value is as same as the energy-saving temperature

value), window-opening icon (window-opening is detected). Rotate the knob right and left to adjust temperature value: range is (0.5°C-29.5°C), with 0.5°C for each rotation step. Equipment will be operated based on the current temperature value after the temperature is set, until the next automatic temperature skipping time is reached.



## 6.2 Manual mode

The screen displays target temperature setting value, week value, manual operation icon, comfortable icon (temperature value is as same as the setting comfortable temperature value), energy-saving icon (temperature value is as same as the energy-saving temperature value), window-opening icon (window-opening is detected).

Rotate the knob right and left to adjust temperature: range is (0.5°C-29.5°C), with 0.5°C for each rotation step. After temperature is set, equipment will be operated based on the current temperature value.

## 6.3 Holiday mode

If the temperature needs to be kept at constant temperature within a period of time (such as during a trip or party), holiday function can be used.

Conduct short press repeatedly on mode/menu key, until the screen displays suitcase symbol ( ).

Use control wheel to set duration of constant temperature and conduct a short press on confirm key to confirm.

Set starting date of constant temperature and conduct a short press on control wheel to confirm.

Set the temperature that you want to keep and conduct a short press on confirm key to confirm.

Temperature will be kept until the setting duration is completed. However, radiator and thermostat will be switched back to automatic mode.

# 7 Menu and settings

Long press MODE button. The screen displays "PRO", and also can

display" PRO→dAt→dSt→Aer→toF→rEs→Pos" in turn through rotating knob and pressing confirm key. If there is no operation for 30 seconds, the screen will be returned to the previous interface.

## 7.1 PRO Week programming function

The default setting for each working day is 5 segments, and up to 9 segments can be set, and the temperature setting must include the whole time from 00:00 to 23:59 at selected programming data.

In default mode, there are 2 temperature-rising stages (5 setting values).

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- The first stage (00:00) ----06:00 default value is 17°C.
  - The second stage 06:00----09:00 default value is 21°C.
  - The third stage 09:00 ----17:00 default value is 17°C
  - The fourth stage 17:00 ----23:00 default value is 21°C
  - The fifth stage 23:00 ----(23:59) default value is 17°C
- Note: date in bracket is hidden data, without setting up it.

Lod screen displays "dAy" and the setting value can be selected for a certain day in a week/workday/ weekend/a whole week through rotary knob, and then it can be confirmed through conducting a short press on "confirm" key.

Set the expected temperature value starting from 00:00 and conduct a short press on "confirm" key to confirm.

Set the temperature jump point time, and rotate knob to adjust the time point (step forward every 15 minutes), and then conduct a short

press on "confirm" key to confirm.

Set the expected temperature value after temperature jump point time, conduct a short press on "confirm" key to confirm.

The setting will be ended automatically after 9 setting values are set through repeating the step A and B or inputting 24:00 when setting temperature jump point time will artificially end the setting.

## 7.2 dAt—Data and time modification function

Operation is as same as that of the 4th point in the section "power on".

After minute setting, it can be returned to previous interface through conducting a short press on "confirm" key.

## 7.3 dst—Selection of daylight-saving time and standard time

Daylight-saving time and standard time can be adjusted automatically through selecting enabling and closing state in menu.

LCD screen displays "off", indicating that automatic adjustment is closed, and it displays "ON", indicating that automatic adjustment is enabled.

Rotate knob to switch between "ON" and "OFF". Conduct a short press on "confirm" key to confirm and return.

## 7.4 Aer Window-opening function

- When the device is connected to the gateway

The door/window detector senses that the window is open, and the

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app will start the setting of window opening temperature.  
- When the equipment is used separately

When the temperature is dropped rapidly, indoor temperature drops by 5 degrees in 5 minutes, equipment will automatically determine whether window of the room is open for ventilation; in order to reduce heating cost, temperature will be dropped for some time (15°C for factory initialization), and when the function is enabled, LCD will display window-opening icon.

Rotate the knob right and left to adjust temperature value: range is (0.5°C-29.5°C), with 0.5°C for each rotation. Conduct a short press on "confirm" key to confirm.

Rotate the knob right and left to adjust duration, (0-60 minutes), step forward every 1 minutes. When duration is set as 0, it can be considered that window-opening function is closed. Conduct a short press on "confirm" key to confirm and return.

## 7.5 toF—Setting drift temperature

When measuring the equipment temperature, if the room temperature is not evenly distributed, in order to adjust the difference, maximum ±5.5°C temperature drift value can be set. If nominal temperature is 20°C, but room temperature is 18°C, it needs to set -2°C temperature drift value.

Rotate the knob to select the expected temperature (-5.5°C--5.5°C). Conduct a short press on "confirm" key to confirm and return.

## 7.6 rES - Factory reset function

Use control wheel to select menu item "rES", then conduct a short press on control wheel to confirm.

The screen will display "COntF". Conduct a short press on control wheel to confirm.

If the function is selected, previous personal settings will be lost.

## 7.7 Pos function

Display the position of the valve as a percentage. The smaller the value, the lower the valve opens.

Note: When the parameters are set, press the "I" button in the diagram to return to the main interface.

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In the manual mode, rotate the knob to right until the screen displays "On", indicating that equipment enters into power-saving mode.

In non- manual mode or in manual mode, rotate the knob to left until the temperature on the screen is reached, indicating that equipment exits the power-saving mode.

## 8.4 Setting of anti freezing mode

If it is not necessary to provide heating for room, equipment can enter into antifreezing stopping mode. In this mode, heating valve is closed, unless there is risk of frost (when the temperature in users' room is dropped to 0°C, temperature controller will open the valve automatically, until the temperature rises to 5°C).

Anti-calcification protection remains effective.

- In the manual mode, rotate the knob to left until the screen displays "Off", indicating that equipment enters into anti-freezing mode.
- In non- manual mode or in manual mode, rotate the knob to right for exiting anti-freezing mode.

## 8.5 Child safety lock

Press "mode/menu" and "comfortable/energy-saving" key at the same time to open child safety lock, and the screen displays "LOC" letter.

Press "mode/menu" and "comfortable/energy-saving" key at the same time once again to close child safety lock, the screen doesn't display "LOC" letter.

## 8.6 Anti-calcification (descaling) protection

If valve has not switch action within a week, valve will be automatically opened and closed once at 00:00 every Saturday, and the function can protect the valve from getting stuck, so as to ensure normal operation of valve.

## 8.7 Battery icon display

It shall be displayed in 5 stage according to the current battery power:



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# 8 Other functions

## 8.1 Rapid temperature-rising function

Sometimes, person may come back earlier than usual, thus rapid temperature rising function can warm up the room. After enabling this function, heating valve will be open 80% for 15 minutes. When heating time exceeds 15 minutes, equipment can be shut down immediately.

- In normal mode, conduct a short press on "confirm" key to enter into rapid temperature-rising function.
  - Display remaining time on lcd screen; start the countdown from the "b900", reduce 1 per second until "b000".
  - After 15 minutes, equipment will be returned to previous mode.
  - When conducting a short press on "confirm" key, immediately end rapid temperature-rising function, and then return to previous mode.
- Note: when rapid temperature-rising function is enabled, window opening function is disabled.

## 8.2Setting of comfortable temperature and energy-saving temperature function

Set comfortable temperature and energy-saving temperature through "comfortable/energy-saving" key. In the factory default mode, comfortable temperature is 21°C, energy-saving temperature is 17°C.

Press the key(Key for switching energy-saving and comfortable mode) for 5 seconds, enter setting interface.

Rotate the knob to select the expected temperature and conduct a short press on "confirm" key to confirm.

Screen can display "energy-saving" icon and current energy-saving temperature value.

Rotate the knob to select the expected temperature and conduct a short press on "confirm" key to confirm.

Note1: even in automatic mode, comfortable temperature and energy saving temperature will be kept effective through conducting a short press on "comfortable/energy-saving" key, until the next temperature skipping time point is reached.

Note2: Comfortable mode and energy-saving mode can only be used in manual mode and automatic mode.

## 8.3 Heating-stopping (power-saving) mode

In summer, enter into heating-stopping mode to save power; when this mode comes into effect, heating valve will be fully open.

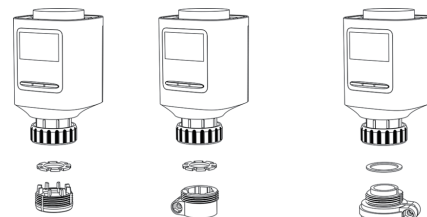
Anti-calcification protection remains effective.

## Troubleshooting:

1. in the first installation, if the screen indicate F1 and can not enter main menu of display screen, how can we do?  
Try more times to take off the battery and insert the battery to reset the eTRV to see if it result the problem.
2. in the first installation, if the screen indicate F2 and can not enter main menu of display screen, how can we do?  
Try more times to take off the battery and insert the battery to reset the eTRV to see if it result the problem.
3. in the first installation, if the screen indicate F3 and can not enter main menu, how can we do?  
Add the cap accessories in the bearing of valve and fix the eTRV again to result the F3 issue.
4. in the first installation, if the screen indicate F4 and can not enter main menu, how can we do?  
Loosen the thread for one or two strokes, not fix the adaptor too tight with Valve when we install the eTRV in first time. To see if the problem is result. If the problem continue, loose the eTRV and add one/two spacer(1mm) to the adaptor with valve. The problem will be result.

In some case(where the valve pin have different taller than 14mm, and when we install the adaptor, we need fit a spacer inside the base ring, the spacer comes in two thickness, 0.5mm and 1mm. the base ring and spacer allow your eTRV to fit different size of taller valve.

When we use the base ring spacer: if we see the F4 in display screen and can not enter the main menu of display screen. Remove the eTRV from the valve, insert the spacer 0.5mm or 1mm if it is not enough two spacer together with 1.5mm thickness. And insert the battery again to restart the auto detect process till eTRV can enter the main display menu and no F4 appear again.



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