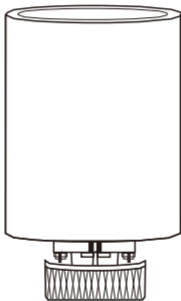


TRV-803 Smart Radiator Thermostat



Welcome

Thank you for your trust and support!

The Intelligent Radiator Thermostat is battery-powered, wiring-free and easy to install for controlling the temperature of water-heated radiators. It reduces energy wastage and saves on heating costs while providing a comfortable temperature.

The product features a built-in low-power Tuya WiFi module. The Tuya WiFi wireless communication module and LCD display can be used on its own, or the device can be added to the Tuya Smart APP, making it a smart thermostat that can be set and viewed in the APP.

Once added to the Tuya Smart APP, users can select modes and set temperature, child lock and frost protection functions in the APP. Meanwhile, any manual adjustments made to the device, such as temperature settings, will be reflected in the Tuya Smart APP.

Main Functions and Characteristics

- 1.3 kinds of working modes: programming mode, manual mode and programming temporary mode.
2. Easy to view: Built-in big-front LCD display screen facilitates check.
3. Low power consumption: Battery's endurance period lasts for one heating season, worry-free.

4.The Tuya WiFi wireless communication protocol is adopted, safe, reliable and convenient

5.Easy connectivity:Keep long press of key + for 3s to join the intelligent system, with simple networking.

6.Anti-freezing function

7.Child lock function

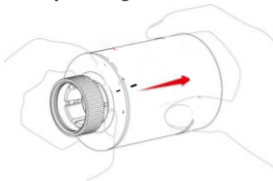
8.Window-opening detection function

Technical Specifications

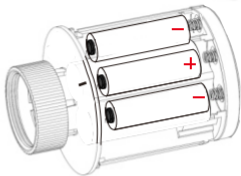
Power Supply:	3 x 1.5 V alkaline AA battery (not included)
Standby Current:	6 μ A Min
Protection Degree:	IP20
Ambient Temperature:	0~50°C
Temperature Accuracy:	$\pm 0.5\sim \pm 10^\circ\text{C}$
Surface Temperature:	90°C Max(at the radiator)
Connection:	M30 x 1.5mm
Linear Travel:	6mm
Dimensions(W x H x D):	54mm x 87mm x 54mm
Weight:	129g

Installation Instruction

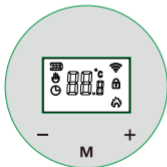
Battery loading



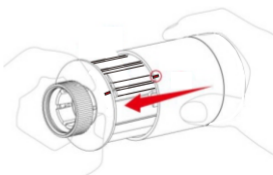
1: Pull out shell with right hand toward the arrow direction.



2: Refer to the polar direction as indicated in battery tank to load 3 AA alkaline batteries.



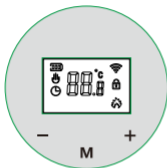
3: Current temperature is displayed when battery is loaded.




4: Load shell as per the position indicated on marker to finish mounting.

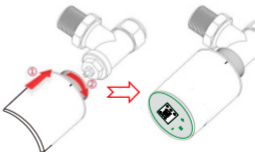
Installation

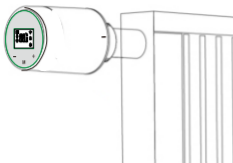
You can install your temperature controller on via three steps.



Before temperature controller is mounted on valve, load 3 batteries as per the polar direction as indicated in battery tank, then cover the shell till the L0 and  occur. In the meantime, you would feel the slight vibration of temperature controller.

Align the interface nut of temperature controller at the heat radiator valve. When slightly pushing forward, clockwise rotate interface nut till tightening, with the maximum moment of $5\text{N}\cdot\text{m}$. After about 10s, current temperature is displayed, and the mounting is finished.





To minimise the effect of the radiator's own heat on the thermostat, it is recommended that it be installed as shown.

Automatic detection

After temperature controller is mounted, the system would be automatically adjusted as per the set program. In this process, you may find that temperature controller carries out the voluntary and repeated heating/cooling, which belongs to the necessary component of automatic detection.

At the specific running time period of temperature controller, the temperature controller would switch off the heat radiator valve, then open it again to detect the exact opening position of valve. The automatic detection function could achieve efficient utilization of calorie and more accurate control of temperature as far as possible.

If necessary, please take out battery and wait for 30s, then reload battery to activate the mounting mode so that temperature controller forcibly runs the automatic detection function.



Schematic Diagram of
Valve A Mounting

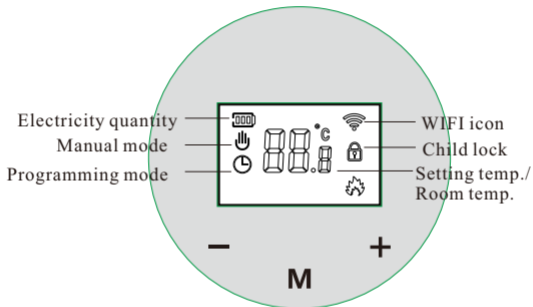


Schematic Diagram of
Valve B Mounting

How to install the adapter correctly?

Applicable to Danfoss valve	Applicable to Danfoss valve	Applicable to Danfoss valve
	H13mm	
Applicable to Caleffi valve	Applicable to Giacomini valve	Applicable to M28 valve
	H8.6mm	H15.3mm H17.3mm H18.8mm H24.3mm

Description of display & icon



Operation Instruction

1.Power on/off

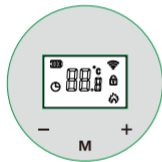
Long press **M** key 3 seconds to turn on/off the thermostat .

2.Set Temperature

Press **+** or **-** to set the temperature

3.Switch modes

Press **M** key to switch between **Manual** and **Programming mode**.



Programming mode

Programming mode refers to the automatic switch to the needed temperature as per different time.

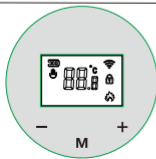
For example,

Set 16°C for 8:00 (after leaving home)

Set 22°C for 17:00 (at home)

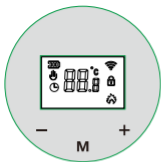
Set 16°C for 22:00 (after sleep)

Programming mode needs to connect WiFi and needs the network support.



Manual mode

Manual mode means that the thermostatic valve will only operate according to the manually set temperature and the set temperature wouldn't switch in different time, Press key **+** and key **-** to set temperature(setting scope of 5~60°C)



In the **Programming mode**, press + or - key to adjust the setting temperature. The device will run at the manually set temperature and resume programming mode when the time reaches the next programmed time point

4. WiFi link

In **power on** state, press and hold the + key for 3 seconds. the Wi-Fi icon flashes on the screen, and the device enters the matching state.

5. Restore factory settings:

In **power off** state, press and hold the + and - buttons simultaneously for 3 seconds. "----" is displayed on the screen, the device will be restored to factory settings

6. Child Lock

In **power on** state, long press - key to activate/deactivate the child lock function.

When the child lock function is activated, the thermostat buttons are locked to prevent children from playing with the thermostat out of curiosity or to prevent accidents due to misuse.

The setting of child lock must be conducted after mounting.

7. Window-opening detection function

In **power off** state, long press the - key, the screen shows **OFF** on behalf of the window-opening detection function is closed, at this time press + to switch **OFF** to **ON** that is to open the window-opening detection function.

When the window opening detection is turned on, the device will automatically identify whether the window is open. When it is detected that there is cold wind, and the temperature drops by more than 3°C within 5 min, the open-window function will be activated. At this time, the device will stop heating.

While the open- window function is activated, following operations will terminate it from taking effect.

1. The detected temperature rises by 3 °C
2. No operation on the APP or device within 48 minutes.
3. Temperature setting operation on the device.

8. Anti-scale function

If the cooling fin's valve isn't completely on one time within two weeks, valve would be blocked due to excessive scale, and the cooling fin won't be used. To guarantee that the cooling fin can be used normally, controller would automatically switch on valve completely one time every two weeks and run for 30 seconds. During that period, screen displays "Ad". After operation, the operation state is recovered.

Phone Port Operation Instruction

Preparation before Wi-Fi connection

APP download and account registration:

1.Download APP

For iOS system: Login in App Store,search “Tuya Smart”,you can download it on your iphone.

For Andriod system: Login in Google Play, search “Tuya Smart” you can download it on your phone.

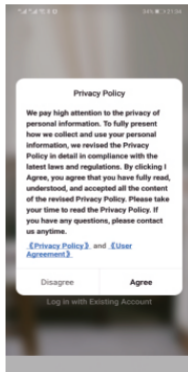
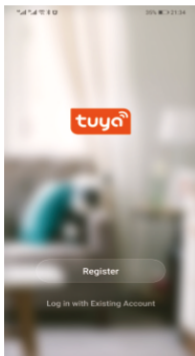
Or scan below code to download:



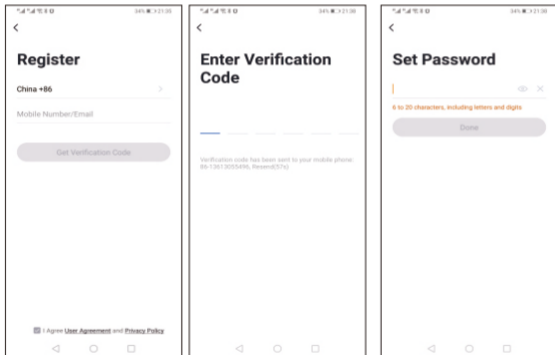
2. Register Account

If you do not have an APP account yet, you can choose to register or log in via SMS verification code. Click “Create a new account”, you will enter the Tuya Smart Platform Privacy Policy page.

After you click Agree, you will officially enter the mobile phone registration page.



The system automatically determines the current country/region. You can also select the country/region manually. After entering your mobile phone number or email address, click “get verification code”. Enter the received verification code, then enter the password, and click “Finish” to register successfully.

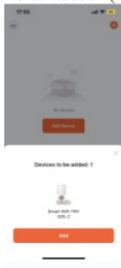


WiFi connection

1. Turn on your mobile phone's Bluetooth and WiFi function. Connect your mobile phone to **your 2.4Ghz WiFi** (please make sure your mobile phone connect to 2.4Ghz Wi-Fi and the 2.4Ghz Wi-Fi name and password contain only numbers and letters and not special symbols)
2. Activate the thermostat WiFi module: When the thermostat is turned on, press and hold the **+** button for 3 seconds, the WiFi icon flashes on the thermostat display, and the thermostat enters the code matching state
3. Add Device

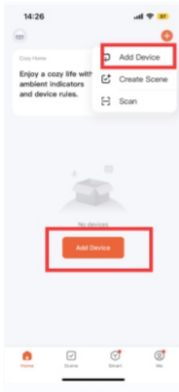
There are 2 ways to add a device

Method 1. Enter the Tuya APP. The main page automatically pops up "Device to be added" (as picture 1) and click "Add".

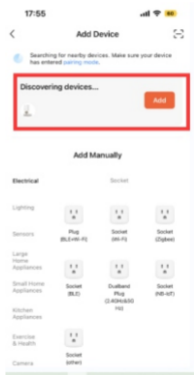


picture 1

Method 2: Enter the Tuya APP, Click "Add Device" or "+" (as picture 2) on the upper right corner of the APP homepage, and enter the "Add Device" interface. It will prompt: find the device to be added (as picture 3) and follow the prompts.



picture 2



picture 3

4. Enter Wi-Fi information

Enter the name and password of the **2.4Ghz Wi-Fi**

If your phone is already connected to WiFi, then the name and password of the WiFi you are connected to will be automatically filled in here

Follow the prompts to the next step, you can see the device is being added, and after a few seconds, you will see that the device is added successfully (the length of time will depend on the strength of the wifi signal).

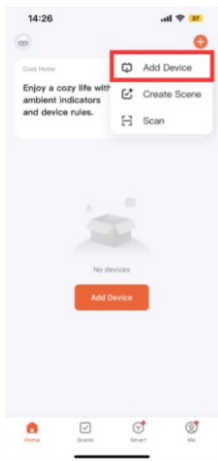


If you can't find the device or the connection fails in the above way. You can try the following steps as follows

1. Turn on your mobile phone's Bluetooth and WiFi function.
Connect your mobile phone to **your 2.4Ghz WiFi**
(please make sure your mobile phone connect to
2.4Ghz Wi-Fi and the 2.4Ghz Wi-Fi name and password
contain only numbers and letters and not special symbols)

2. Activate the thermostat WiFi module: When the thermostat is turned on, press and hold the + button for 3 seconds, the WIFI icon flashes on the thermostat display, and the thermostat enters the code matching state.

Enter the Tuya APP, Click "+" on the upper right corner of the APP homepage, Click "add device" Find the TRV in "Small Home Appliance" (as picture 4)



picture 4

If your phone is already connected to **2.4Ghz WiFi**, then the name and password of the WiFi you are connected to will be automatically filled in here

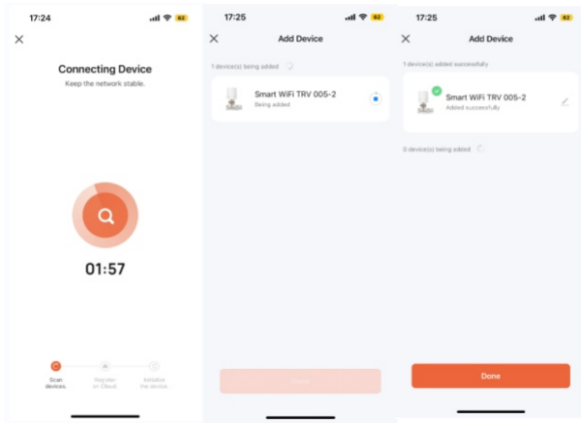
Click “Next”



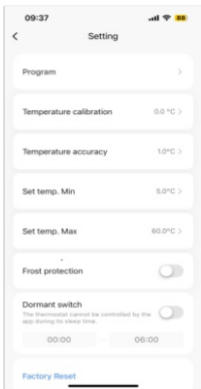
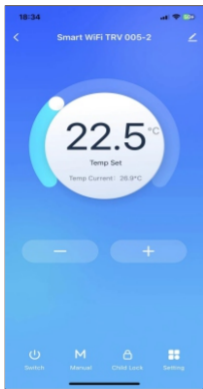
Follow these instructions to continue:



Wait a few seconds, you can see the device is being added, and after a few seconds, you will see that the device is added successfully (the length of time will depend on the strength of the wifi signal).



Display of temperature controller APP interface



If you encounter any problems during the use of the product, please feel free to contact us through the purchase platform, we will try our best to help you.