




**TRV-M2Z**

 **zigbee** ZIGBEE MODEL

# **INSTRUCTION**

# TRV-M2Z Zigbee 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.

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. 8 kinds of working modes: programming mode, manual mode and programming temporary mode, holiday mode, comfort mode, energy-saving mode and so on.

2. Easy to view: Built-in big-front LED display screen facilitates check.

3. Low power consumption: Battery's endurance period lasts for one heating season, worry-free.

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

5. Frost protection function.

6. Child lock function

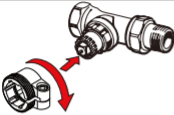
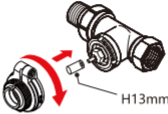
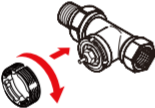
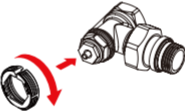
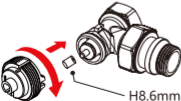
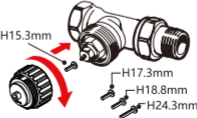
7. Window-opening detection function

## Technical Specifications

Power Supply:	3 x 1.5 V alkaline AA battery (not included)
Standby Current:	6 $\mu$ A Min
Protection Degree:	IP20
Ambient Temperature:	0~50°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 89 mm x 54mm
Weight:	139g

# Installation Instruction

How to install the adapter correctly?

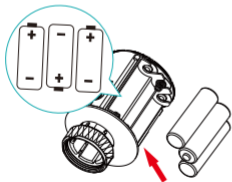
<p>Applicable to Danfoss valve</p> 	<p>Applicable to Danfoss valve</p>  <p>H13mm</p>
<p>Applicable to Danfoss valve</p> 	<p>Applicable to Caleffi valve</p> 
<p>Applicable to Giacomini valve</p>  <p>H8.6mm</p>	<p>Applicable to M28 valve</p>  <p>H15.3mm</p> <p>H17.3mm</p> <p>H18.8mm</p> <p>H24.3mm</p>



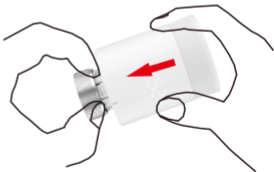
1. Pull the knob in the direction of the arrow with your hand.



2. Pull out shell with the right hand and toward the arrow direction.



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



4. Install the shell and knob at the marked position to complete the installation.

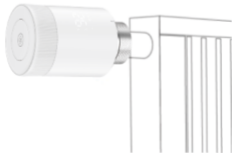
## Installation

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. In the meantime, you would feel the slight vibration of temperature controller. The temperature control valve enters the automatic detection mode.

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 minimize the influence of heat radiator's own calorie on temperature controller it is suggested to mount as per the following method.



## 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.

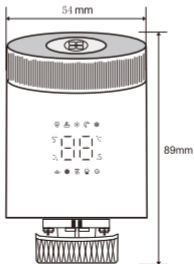
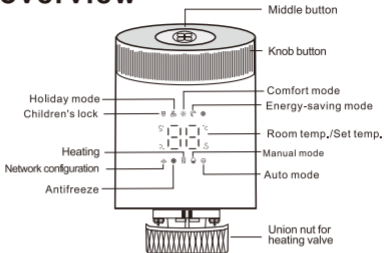
If necessary, please take out battery and wait for 30s, then reload battery to activate the mounting mode so that temperature controller forcibly runs the automatic detection function. At this time, the temperature control valve shows LA.



Schematic Diagram of Valve A Mounting


Schematic diagram of Valve B Mounting

# Device overview




# Operation Instruction


## 1.Power on

Short press  key or turn the knob in the direction of increasing the parameter.

## 2.Power off

Short press  key several times until **OF** appears  
Turn the knob until the set temperature value is minimised, then turn the knob again in the direction of the minus parameter.  
**OF** appears on the screen.

## 3.Display flip function

Under power-on condition. Set the temperature to 35°C, then press and hold the  key for 3 seconds to flip the screen direction to suit reading habits.

## 4.Switch modes

 -manual mode

 -programming mode(Auto mode)

 -ECO mode

 -comfort mode

 -antifreeze mode

 -holiday mode

OF-OFF mode

Short press the  key to switch between these modes.

## -Temporary mode

If you manually change the set temperature in automatic mode, The device will run at the manually set temperature and resume programming mode when the time reaches the next programmed time point.

### Note:

## -Programming mode(Auto mode)

Programming mode refers to the auto 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)

The settings for each time slot of the programming mode need to be done in the APP.

## -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.

Default temperature for each mode:

 -ECO mode:17°C

 -comfort mode:21°C

 -antifreeze mode:8°C

 -holiday mode:12°C

The temperature values for the above modes can be adjusted in the APP as required.

## 5. Network Configuration

① Connect the gateway ② Add device

For details, please refer to page 13 (Network Configuration) and onwards.

## 6. Child Lock

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

## 7. Frost protection function

This function can be turned on or off in the app as required.

When this function is turned on:

When the device is in the off state, if the room temperature is below 5°C, the valve will open to heat the room until the room temperature rises to 8°C, the valve closes and stops heating.

## 8. Window-opening detection function

This function can be turned on or off in the app as required.

When the window opening detection function 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 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.

### 9.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.

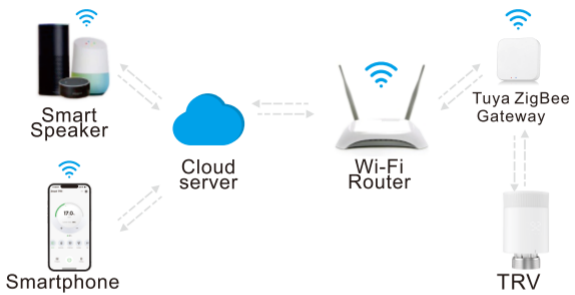
### 10.Restore Factory Settings

In power off state, press the  button 4 times quickly and continuously. "--" appears on the screen to indicate a successful reset.

## Troubleshooting Maintenance

Error Code	Problem
E1	stroke fault detection (Need to be installed on the valve)
E2	low battery (Need to replace the battery)
E3	temperature sensor abnormality
E4	reminder to open the window
E5	indoor low temperature alarm

# Network Configuration



## Preparation before Network Configuration

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.

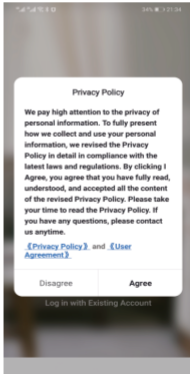
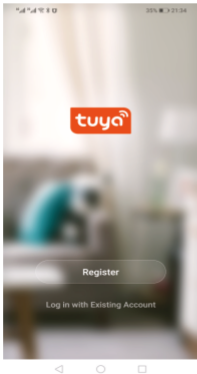
Or scan below code to download:



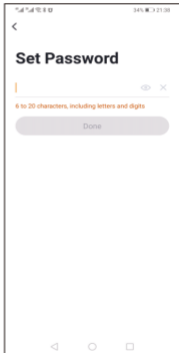
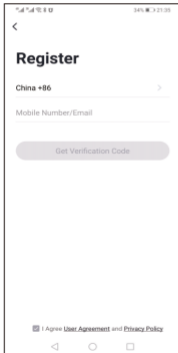
## 2. Register Account

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.



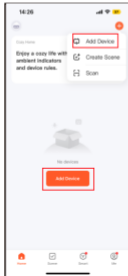
## Network Configuration

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. Power on your Zigbee gateway, and enter the pending configuration state.

3. Connecting to the Gateway

Enter the Tuya APP, Click "Add Device" or "+" on the upper right corner of the APP homepage, and enter the "Add Device" interface. Find the wireless Gateway (Zigbee) in "Gateway Control".



Confirm your 2.4Ghz WiFi information, 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. Then click “Next”

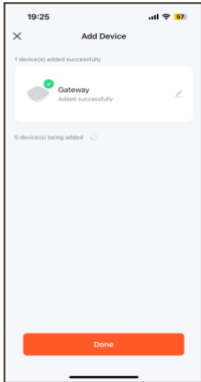
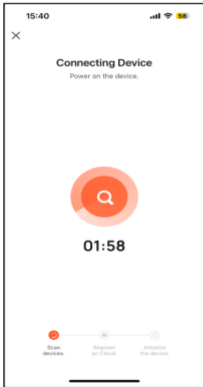
If the phone is not connected to WiFi please follow the prompts to connect, and then continue the process.




Re-confirm that your gateway is in the pending configuration state and follow the instructions below.



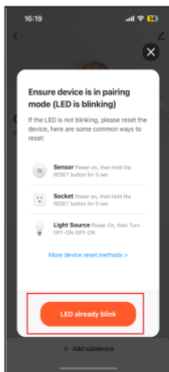
Wait for the connection, after a few seconds it shows that the gateway is successfully connected (the length of time required depends on the strength of the signal)



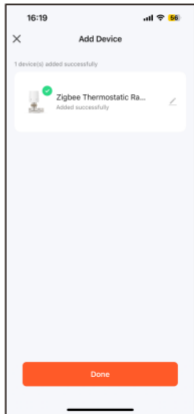
#### 4. Adding thermostatic valve equipment

In the **power off** state, press and hold  for 3 seconds, the blinking WiFi symbol appear on the screen. Indicates that the thermostatic valve is in the pending pairing state.

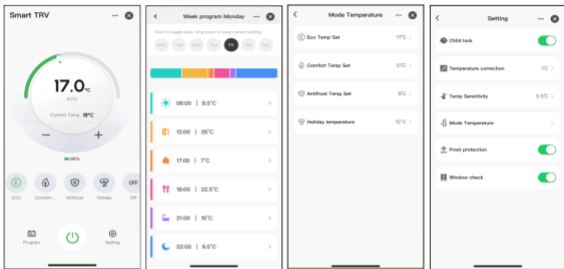
Enter the main page of the gateway and click “Add subdevice”  
Then add thermostatic valve equipment according to the following instructions.



Wait a few seconds for the device to be added successfully!



## Display of 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.