

## **WTS2000**

### **Programmable Wireless Thermostat**



**EU**

**UK**

**US**

<b>Contents</b> -----	<b>2</b>
<b>Specification</b> -----	<b>2</b>
<b>Quick Use</b> -----	<b>2</b>
<b>Product Description</b> -----	<b>3</b>
<b>Pairing Code</b> -----	<b>4-5</b>
<b>Clock Setting</b> -----	<b>6</b>
<b>Open Window</b> -----	<b>7</b>
<b>Hysteresis(H45)</b> -----	<b>8</b>
<b>Calibration of the current temperature</b> -----	<b>9</b>
<b>Program Setting</b> -----	<b>10-11</b>
<b>Turn on/Turn off P1~P6 programs</b> -----	<b>12</b>
<b>How to switch Heating/Cooling mode</b> -----	<b>13</b>
<b>Working Principle</b> -----	<b>14</b>
<b>Other functions</b> -----	<b>15</b>

This new innovation Programmable Wireless Thermostat is intended for automatic control electrical heating in winter/cold area or control electrical cooling devices in summer/hot area.


It consisted of 2 componets: a Remote Control unit with integrated tempreature sensor and a Plug in Socket unit.  
(One remote thermostat control can be with multiple plug in sockets)

It will automatically turn on/off heating devices as your preset target temperature or preset time range,to maintain a stable room temperature in order to provide comfort and save energy.

## Contents

- 1 x Programmable Wireless Thermostat
- 1 x User Manual

## Specifications

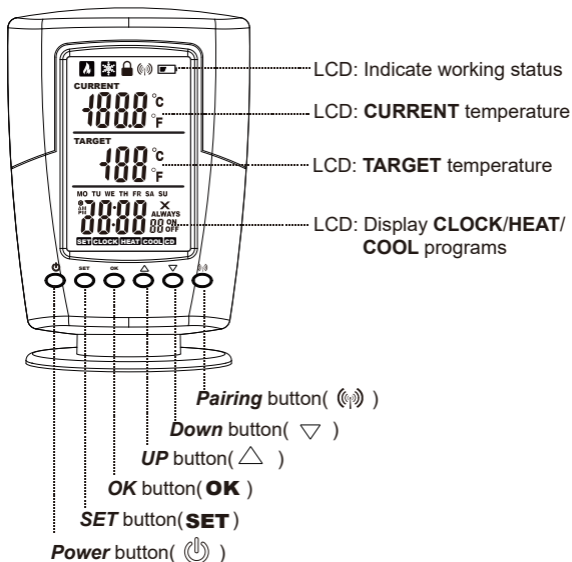
- Temperature Range..... 0~60 °C/32~140 °F
  - Temperature Accuracy..... $\pm 1$  °C/ $\pm 1.8$  °F
  - Current Temp. Resolution.....0.1 °C/°F
  - TARGET Temp. Resolution.....1 °C/°F
  - Power Supply.....3V(2pcs\* 1.5V AA Batteries)
  - Max.Range.....20 meters in open land
  - Transmission Frequency.....433.92Mhz
  - Remote unit demension.....124x82x42mm
  - Remote unit Net weight.....121g
  - New design.....Wall mount holder & Table stand
  - Max.Rating .....230V/16A/3680W (EU)  
.....250V/13A/3250W (UK)  
.....120V/15A/1800W (US)
-  **Danger!!!**  
**Please don't exceed max rating.**
- Plug in socket Dimension.....132x62x76mm
  - Plug in socket Net weight.....127g

## Quick use

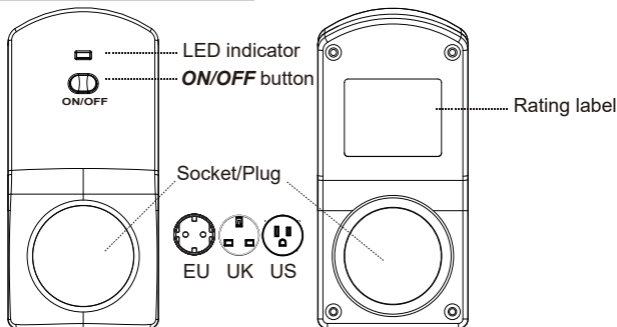
1. Insert 2 AA batteries into Control Unit.
2. Press **POWER** button to turn Control Unit ON, TARGET temperature will be displayed under CURRENT temperature, this is in standard heating/cooling mode.
3. Make Plug Unit into power socket.
4. By pressing **UP/DOWN** buttons on Control Unit select your desired TARGET temperature.(If you want to set different TARGET temperature in different time,please reference the Programm setting in page 7.
5. Plug your heater into Plug Unit.
6. If you wanto to activate child lock,press and hold **UP&OWN** button at the same time for 3 seconds.

# Product description

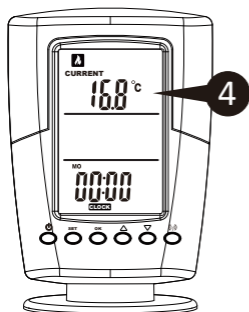
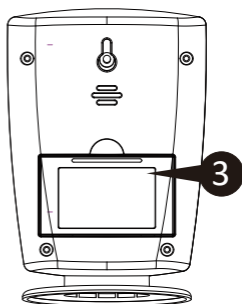
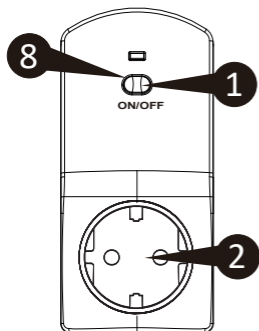
## Remote Control Unit



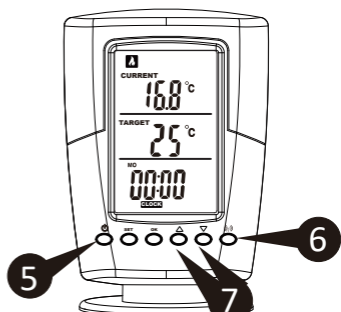
## Plug Unit



## Pairing code



**Standby mode**



**Standard Mode**

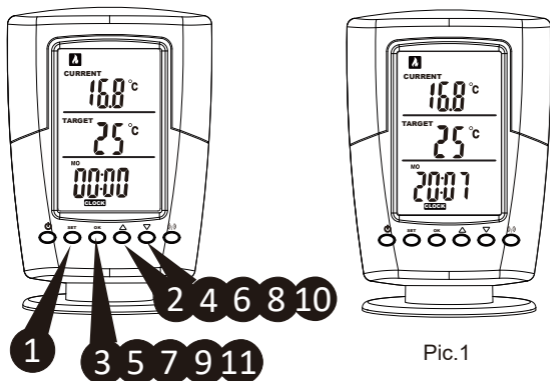
- 1 Connect the plug unit into home socket, and press **ON/OFF** button for 3 seconds. the LED indicator will be flashing, it is in pairing mode now.
- 2 Plug your heating devices into plug unit.
- 3 Remove the battery cover, and load into 2pcs\*AA batteries observing the battery polarity, replace cover.
- 4 Now, the remote control unit is in standby mode. Only display current temperature and CLOCK.

- 5 Press **Power** button to turn on this device, enter into standard heating mode.
- 6 Press **Pairing** button to send the pairing code at once. The LED indicator will be stop flash and firm lighting. It means the pairing is successful.
- 7 Press **UP/DOWN** button to adjust the TARGET temperature. If you want to set different TARGET temperature in different time, Please reference Programm setting in page 7.
- 8 Press **ON/OFF** button to turn off plug unit, then the remote control unit can't control plug unit, you have to manually turn on plug unit once again when you want to use it next time, then remote thermostat can control plug unit.

**Remark:**

- \* *After pairing successfully, don't need to do this pairing when you connect power next time or even the mains is cut off. The plug unit will memorize the pairing code.*
- \* *If you want to change new remote control unit, repeat the above steps using other new remote control unit.*
- \* *If need to add more plug unit in this control system, repeat the above steps, one remote control unit can control unlimited plug units.*

## CLOCK Setting



Pic.1

- 1 Press **SET** for 3 seconds, enter into setting mode
- 2 Press **UP/DOWN**, set weekday (**MO, TU, WE, TH, FR, SA, SU**)
- 3 Press **OK**
- 4 Press **UP/DOWN**, choose 12/24HR
- 5 Press **OK**
- 6 Press **UP/DOWN**, set the hour
- 7 Press **OK**
- 8 Press **UP/DOWN**, set the minute
- 9 Press **OK**, second set to 0
- 10 Press **UP/DOWN**, set temperature unit °C/°F
- 11 Press **OK**, set **OPEN WINDOW**, choose to turn ON or turn OFF this function by **UP/DOWN** button (details check next page)
- 12 Press **OK**, set **Hysteresis**, change the value by **UP/DOWN** rang 1~5 °C, default is 1°C
- 13 Press **OK**, make the temperature calibration, change the value by **UP/DOWN**, rang -3~3 °C, default is 0
- 14 Press **OK**, exit setting, or auto exit by waiting for 10seconds

*For example*, we set **CLOCK** as 20:07 at Monday (see Pic.1).

## Open Window

When the operator opens the window in winter, the room temperature drops rapidly within a short time.

After closing the window, the heat stored in the room ensures a slight increase in temperature.

If the room thermostat detects a drop in temperature by more than 2.0 ° C within 2 minutes, the thermostat will switch off the heating or prevent the heating from switching on.

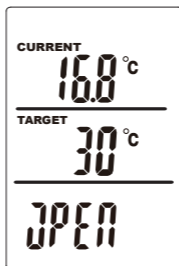
The display shows OPEN(see Pic.2)

If the temperature rises again by 0.5 ° C, the thermostat returns to the previous mode.

After 30 minutes, the window open mode is automatically ended, the thermostat returns to the previous mode.

Note: This automatic termination of the window off mode after 30 minutes serves to save energy.

This feature is required by the EU Eco-design Directive



Pic.2

**OPEN WINDOW**  
**working interface**

## Hysteresis(H45)

When Target temperature is reached, the thermostat turns off the Heater and turn it back on when the room temperature falls by the set hysteresis value, Range: 1~5 ° C, Default is 1°C.

**Example:** If the target temperature is 25 °C and the preset hysteresis is 2 ° C, This thermostat turns off the heater source when reach 25 °C and turns on again when temperature drops to 23 ° C(see Pic.3), Recommended setting for: 1 °C.

### Mark:

*If you use °F(Fahrenheit temperature), please convert into °C(Centigrade degree), this function is only in °C, 1°C=1.8°F*

*For example,*

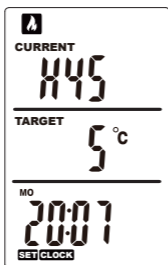
*Hysteresis is 1 or 2°F--->Set the Hysteresis as 1°C*

*Hysteresis is 3 or 4°F--->Set the Hysteresis as 2°C*

*Hysteresis is 5 or 6°F-->Set the Hysteresis as 3°C*

*Hysteresis is 7 or 8°F-->Set the Hysteresis as 4°C*

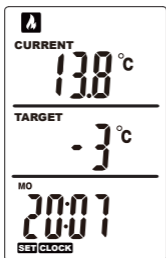
*Hysteresis is 8 or 9°F-->Set the Hysteresis as 5°C*



Pic.3

## Calibration of the current temperature

It is used to correct the measured temperature in this plug in thermostat. It is recommended that you do this after 12 operating hours. Measure the temperature in the room with a conventional thermometer. If the temperature deviates from the temperature at the thermostat, set the correction. Setting  $-3^{\circ}\text{C}$  to  $+3^{\circ}\text{C}$  with the **UP/DOWN** button in Clock setting mode, see Pic.4, Default is 0.



Pic.4

*Mark:*

*If you use °F(Fahrenheit temperature), please convert into °C(Centigrade degree), this function is only in °C,  $1^{\circ}\text{C}=1.8^{\circ}\text{F}$*

*For example,*

*Calibration (-) 1 or 2°F-->Set calibration as (-) 1°C*

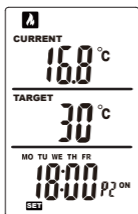
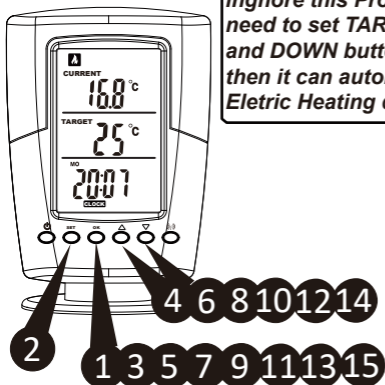
*Calibration (-) 3 or 4°F-->Set calibration as (-) 2°C*

*Calibration (-) 5 or 6°F-->Set calibration as (-) 3°C*

*It is the same as above if need to decrease the CU temperature.*

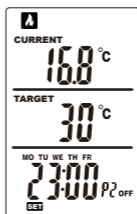
## Program setting

If you don't need to set program, you can ignore this Program setting. You only need to set TARGET temperature by UP and DOWN button in Standard heating, then it can automatically control your Electric Heating devices.



Pic.5

P2 Start time



Pic.6

P2 End time

- 1 Press **OK** for 3 seconds, enter into P1~P6 program setting
- 2 Press **SET**, switch between P1~P6, for example we choose P2
- 3 Press **OK**, TARGET is flashing

- 4 Press **UP/DOWN**,set the **TARGET** value(00-60)
- 5 Press **OK**
- 6 Press **UP/DOWN**,choose(**MO,TU,WE,TH,FR,SA,SU,MO-FR,MO-SA, SA-SU, MO-SU**)
- 7 Press **OK**
- 8 Press **UP/DOWN**,set hour of **P2 ON**
- 9 Press **OK**
- 10 Press **UP/DOWN**,set minute of **P2 ON**
- 11 Press **OK**
- 12 Press **UP/DOWN**,set hour of **P2 OFF**
- 13 Press **OK**
- 14 Press **UP/DOWN**,set minute of **P2 OFF**
- 15 Press **OK**, back to program switching interface, at this time, you can press **SET** button switch to P1, P3,P4,P5,P6, repeat above steps to set other programs.

**For example**, we set as **30°C,MO-FR,18:00~23:00**,show in Pic.5 and Pic.6. It means, from Monday to Friday, 18:00 to 23:00, **TARGET** temperature change to 30°C,in other time, keep in 25°C (Standard heating mode,see Pic.1)

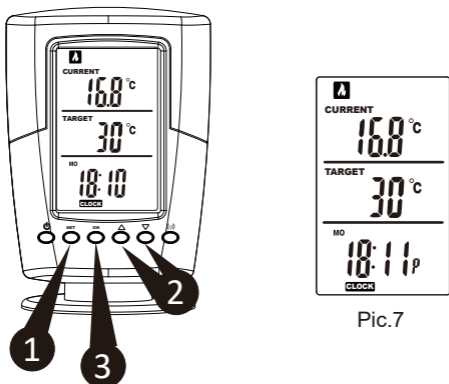
**Remark:**

**\*HEATING programs contain P1,P2,P3,P4,P5,P6**

**\*During setting, if you don't want to set, press POWER button to exit.**

**\*During setting, if no operation for 10 seconds,automatically save and exit.**

## Turn on/Turn off P1~P6 programs



Pic.7

We can set the P1~P6 program, but we also can deactivate or activate all programs by below steps:

**1** Press **UP** button, enter programming ON/OFF selection, ON or OFF(default is OFF, program is deactivated) symbol is flashing.

**2** Press **UP/DOWN** to select the ON,or OFF.

**ON:** turn on all programming at once,**P** display next to the time,the P1~P6 program is working(see Pic.7).

**OFF:** turn off all programming at once,**P** disappear, only standard heating is working.

**3** Press **OK**

### **Remark:**

*When P1~P6 program is working, you can't change the TARGET temperature in that time range,because it is your preset value in P1~P6 programs. Only can change the TARGET temperature when it is not in P1~P6 time range or P1~P6 is not working.*

## Working principle

1. When **CURRENT+Preset Hysteresis < TARGET**, it will be in ON status, the flame symbol (🔥) will display in LCD, turn on connected heaters, start to warm the room, so the room temperature is rising.
2. As current temp. rising, current reaches target temperature **CURRENT=TARGET**, it will be in OFF status, the flame symbol (🔥) will disappear, remote control unit will send OFF commands to turn off all connected heaters.
3. The current temperature will be decreasing, when current temp. decreased as preset **Hysteresis(1-5°C)**, it will turn on all connected heaters once again, then infinite loop.

So remote control unit will automatically keep the room temp. in below range:

**Target Temp.-Preset Hysteresis ≥ Room Temp. ≥ Target Temp.**

### For example,

Current temp. is 16.8°C, Target Temp. is 30°C, Hysteresis is 3°C,

**Heating working:** Target(30°C) > 16.8°C + 3°C, send ON commands to turn on connected heaters

**Heating stopped:** Current temperature rise to the same as target temperature, 30°C, turn off all connected heaters

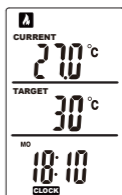
**Heating again:** Current temperature drops 3°C to be 27°C, turn on all connected heaters, heating again.



Heating working

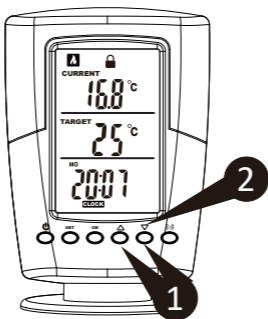


Heating stopped




Heating again

## Other functions



### 1 Children Lock

In any mode, child lock can be activated by Press **UP&DOWN** button at some time for 3seconds, the child lock symbol(  ) will appear in the top of LCD display. This is prevent children from Wrong operation for control unit. Press **UP&DOWN** button for other 3 seconds to disengaged child lock.

### 2 Reset

Press **DOWN** button for 3 seconds.  
The green backlight will flash 3 times,  
all setting will be deleted, and back to factory default setting.

**Professional in Energy Saving Products**

