

## ST2402 Instruction



### Description

The digital thermostat is ideal to control the temperature of any room (bedroom, kitchen, etc.) and is very easy to use. Allows for the operation of heating / cooling equipment, when the temperature of the environment to be monitored is lower/higher than a user-preset reference temperature. Very easy installation according to the step by step manual instruction. Mounting and connection can be made either by a technician or any other person.

**IMPORTANT: carefully read the manual of use before the installation and follow the precautions when using the product.**

### Precautions on battery use

- Use only batteries of indicated size and voltage.
- Make sure you plug the batteries observing the correct polarity as indicated in the battery compartment. Battery connection with incorrect polarity may damage the thermostat.
- Do not mix different types of batteries such as an alkaline and a zinc carbon, or old batteries with new batteries.
- If you expect not to use the thermostat for a long period, disconnect it from the equipment and remove the batteries to prevent damage resulting from possible battery leakage.

### Precautions on installation and use of the thermostat

- The digital thermostat is exclusively for indoor use (closed rooms, garages, porches etc.). Do not install outdoor or in locations directly exposed to rain.
- Do not install in places with high humidity.
- The thermostat can operate one device only. The connection of several equipment in cascade or in series (for example, a heater and a fan) does not guarantee the correct functioning of the device.
- Cut off mains power before connecting any device.
- Use the utmost caution when making wiring for connection with equipment and electricity mains: a wrong connection or unreliable shielding of electrical cables may cause damage to the device and jeopardize your safety.

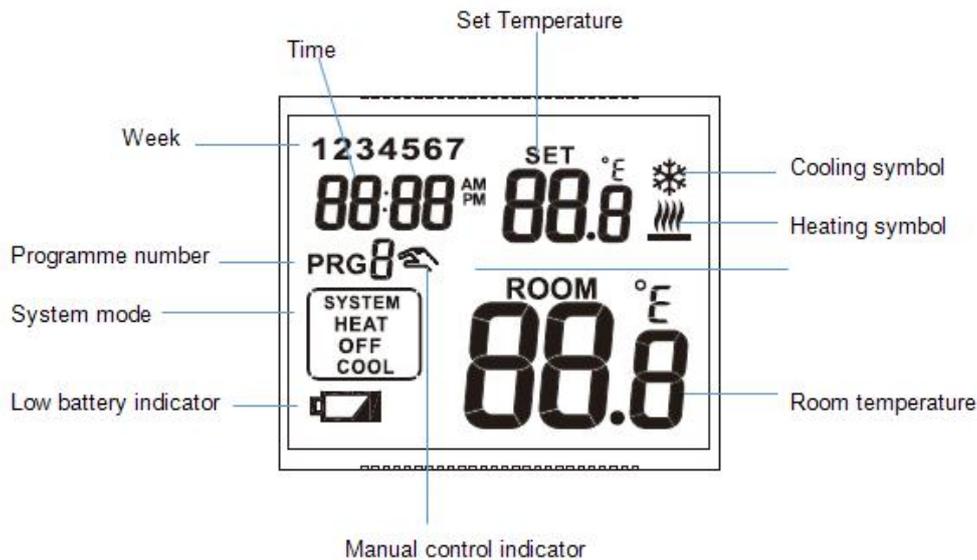
Note: the manufacturer waives any responsibility for damage caused by improper installation or use of the device other than described in this manual.

### Specification

1. Programmability: 7 Day, 5/2 Day and 24 hour Programmable
2. Display Temperature Range: 0°C~40°C (in 0.1°C increments)
3. Adjustable Temperature Range: 5°C~35°C (in 0.5°C increments)

4. Temperature measurement accuracy:  $\pm 1^{\circ}\text{C}$  (at  $20^{\circ}\text{C}$ )
5. Power Supply: DC 2x AAA 1.5V Alkaline Batteries
6. Switchable Current: 6 A (2 A inductive load), 230V
7. Low Battery Indicator: Display “” when battery is less than 2.65V
8. Standby current: <math>70\mu\text{A}</math>, Lighting current  $\leq 7\text{mA}$
9. Backlight colour: White / Blue
10. Dimensions: 120 x 77 x 28 mm

## LCD Display



## Running Mode

Hold  for 5 seconds to access to the mode switch setting. Press + or - to choose different mode between:

HEAT (Heating): adjust the temperature by press + or -

COOL (Cooling): adjust the temperature by press + or -

OFF (Frost Protection): it will start heating when the room temperature is under  $7^{\circ}\text{C}$

Then press  to confirm the running mode or wait for 10 seconds to confirm the setting automatically.

## How to set the time

1. Press  once until the week symbol is flashing, use + or - to adjust from 1~7.
2. Press  once until the hour symbol is flashing, use + or - to adjust from 0~23.
3. Press  once until the minute symbol is flashing, use + or - to adjust from 0~59.
4. Press  to confirm changes or wait for 15 seconds to automatically confirm and return to the Run Mode.

## How to set the program

1. Hold **PRG** until the week symbol is flashing (1,2,3,4,5,6,7).
2. Press + or - to select the setting week in "1 2 3 4 5" or "6 7" (5/2 day mode), "1,2,3,4,5,6,7" (7 day mode), "1 2 3 4 5 6 7" (24 hour mode).
3. Press **PRG** once, display P1 and the time will flash, use + or - to adjust the first time to required setting (in 10 minutes increments).
4. Press **PRG** once and the temperature will flash, use + or - to adjust the temperature (in  $0.5^{\circ}\text{C}$  increments).
5. Press **PRG** once, display P2 and the time will flash, repeat steps 3 to 4 above until all 6 time and temperature settings has been set for Monday (the week choosed).
6. Once Monday's time and temperature has been adjusted to desired settings and 1(Monday) is flashing, press

**PRG** again to repeat steps 2 to 4 until all 7 days of the week has been set to desired times and temperatures.

7. When all 7 days, time and temperature has been set to desired settings, press  to confirm settings or wait for 60 seconds to automatically confirm and return the programmer Run Mode.

8. Press **PRG** to view the programming setting parameters under normal running status, use + or - to view different weeks.

9. The factory pre-set settings:

Week 1~Week 5 (Mon~Fri):

P1: 6:00 20°C      P2: 8:00 15°C      P3: 12:00 15°C

P4: 14:00 15°C      P5: 17:00 21°C      P6: 22:00 15°C

Week 6 ~Week 7 (Sat~Sun):

P1: 7:30 20°C      P2: 9:30 20°C      P3: 11:30 20°C

P4: 13:30 20°C      P5: 16:30 21°C      P6: 22:30 15°C

### How to set the temperature by manually

Press + or - to set temperature, and then press  to confirm or wait for 15 seconds to automatically confirm. This setting temperature will running until next program or exit by press .

### How to set the permanent temperature (Hold mode)

Press + or -, the temperature will flash, then press  to access the Hold mode. Press + or - to set the desired temperature. Then press once the  button to confirm or wait for 15 seconds to automatically confirm. This setting temperature will running permanently until exit by press .

### How to set the Holiday mode

Press + or -, the temperature will flash, then press  to access the Hold mode, then press  again to access the Holiday mode and d:1 flashing. Press + or - to set the desired days from d:1~d:99. Then press once the  button to confirm or wait for 15 seconds to automatically confirm. This setting temperature will running until the setting time is out, or to exit directly by press .

## Technical Settings

### Calibrate the temperature

Hold  for 5 seconds to access to the mode switch setting, then press  to access the interface of temperature calibration "CAL" (in -3.0~+3.0, in 0.5°C increments); Press + or - to set the desired value, then press the  button to confirm.

### Backlight

The backlight will be turns on by press any buttons and turns off when there is no activity after 15 seconds.

### How to replace the batteries

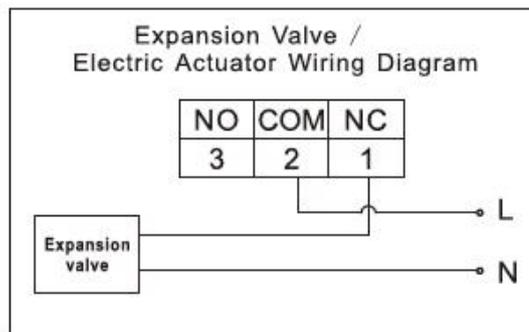
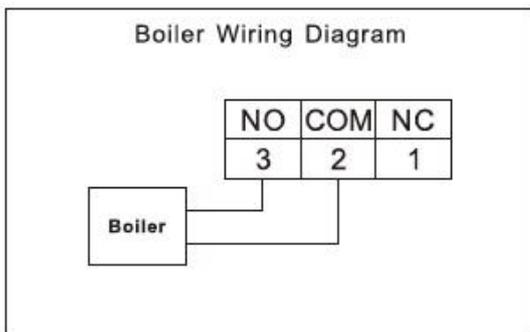
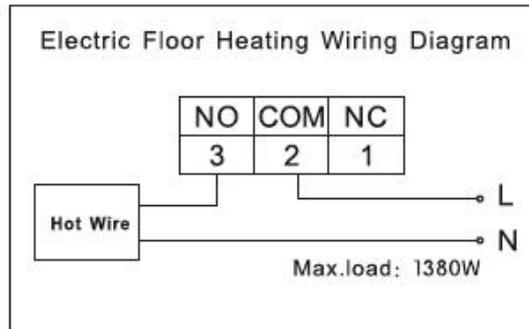
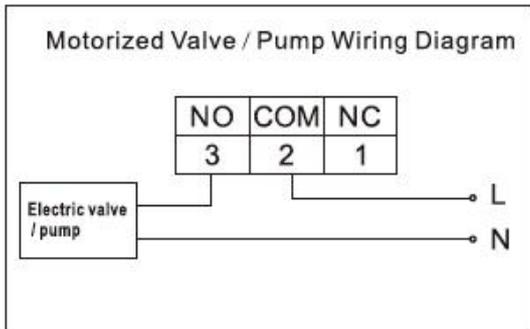
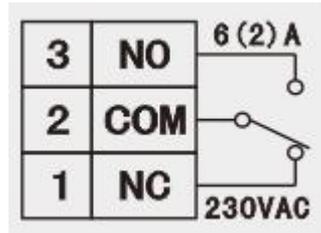
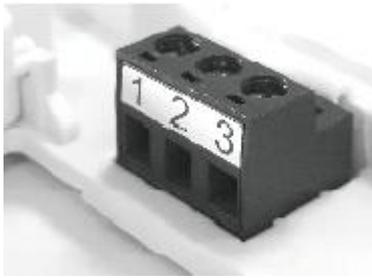
The average battery life is 1 year, but the frequent use of the backlight can reduce this time considerably. If the icon  indicating low battery voltage appears on the display, the batteries must be replaced.

### Lock Buttons

Press the **PRG** button for 5 seconds, and the "LOC" (lock key) or "UNLO" (unlock key) is displayed on the screen. The buttons are disabled if set to LOC and doesn't workable by press, press **PRG** for another 5 seconds to unlock.

### How to Wiring

1(NC),2(COM),3(NO)



**Heating / Cooling:** connect the two connection wires of the device to be controlled to terminals No. 3 (NO) and No. 2 (COM), i.e. to the normally open terminals of the relay

- To prevent electric shock, replace the inner cover removed for the connection of wires after the assembling process has been completed.

**The device must be installed and connected by a qualified professional. Always follow the manufacturer's instructions when connecting the thermostat to any heating or cooling appliance.**

The voltage appearing at terminal No. 1, No. 2 or No. 3 depends only on the system being controlled, therefore the dimensions of the wire are determined by the type of the device to be controlled. The length of the wire is of no significance.

**Restoring thermostat to factory default**

Remove the back cover and put the batteries in, press  on the front case and hold it for 3 seconds until the screen is full displayed, release the button now to restore the factory default settings.