C17 Programming Heating Thermostat

User Manual

[ General ]
- Heating Thermostat with weekly programming adopts the latest single-chip computer control technology.
- It has the high reliability and powerful anti-jamming, It can realize energy-saving and comfortable living environment.
- The application is the electric heating equipment and Water heating system of electric heating or actuator control.
- According to the preset temperature, the thermostat will automatically start and stop the controlled object (valve, floor heating, the heating wall, electric heater etc).
- Multiple time modes: 5+28+17/days, the heating equipment supports different temperature setting accordingly with 6 time-modes daily. Users are free to choose manual mode or full automatic mode for different purposes.
- Using flame resistance material, the heating equipment is safe and reliable, its appearance is stylish and its mirror screen would be very easy to clean. Curved surface, one face design. Anti scratch the surface.
- The clock would continue to run even if power was cut off and it will not affect the period setting value.
- Keypad locking function is designed to prevent the children from missing.
- Capacitive touch screen technology and Iron plate installation, do not need to split the thermostat.

[ Technical parameters ]
- Power Supply: 85-250VAC 50/60 Hz
- Internal sensor measurement range: 0 - 40°C
- Setting range: 5 - 35°C (factory settings: 25°C)
- Inside sensor: NTC B=3380 10k @25degrees Celsius
- Display resolution: 0.1°C Setting Unit: 0.5°C/step
- The maximum switch power: 3A [ C17.GH1 ]
- The maximum switch power: 16A [ C17.GH3 ]
- External sensor measurement range: 0 - 99°C
- Setting range: 5 - 95°C (factory settings: 50°C)
- Extra sensor: NTC B=3380 10k @25 degrees Celsius, length=3 meters (optional)

[ Operation Guide ]

[ On and off ]
Press keys you can turn on or turn off the thermostat.
The display would be as following.
When turning on:

[ Children Lock ]
Press key for 2 seconds at the same time, the controller keypad would be locked. Screen would show or 
Press the at the same time for 2 seconds under the locked status, keypad would be unlocked.

[ Temperature control mode ]
According to the sensor setting of thermostat, there are three different control modes, enter the advance function to set.
Internal control (IN): Only enable built-in sensor temperature measurement, the temperature control is based on the built-in temperature sensor. It is suitable for the detection of air temperature or the room temperature.
External control (OUT): Only enable external sensor to temperature measurement, the temperature control is based on the external sensor; it is suitable for the detection of the heating body temperature.
Dual temperature control (ALL): Temperature control is based on the built-in temperature sensor and an external temperature sensor (over-temperature protection). It is suitable for the detection of room temperature and heating body whether over temperature monitoring. If the external sensor is over temperature, thermostat will shuts down the heater.

[ System time ]
How to set the system time: Keep pressing for 5 seconds, it will enter into the time setting. The current visible object will flash and display. Press and choose time you want to revise (week / hour / minute), press or to modify the current setting. If you need to modify the previous parameters, please press key. After the modified minutes can you press to exit the system clock settings.

[ Display three kinds of temperature ]
The thermostat works for temperature control in mode IN and mode ALL. The main screen shows air temperature or room temperature when AIR icon lit, the vice-monitor would set temperature every 5 seconds and alternatively display current time.
When the thermostat is in OUT mode, the FLOOR icon will be lit. The main screen will display floor temperature or external sensor location.
When the temperature is in mode ALL, press and can detect floor temperature or external sensor location, and the FLOOR icon will be lit. The main screen will automatically display air temperature 5 seconds later after the AIR icon lit.

[ Automatic / manual switch ]
Press you can choose the manual mode or automatic mode.
- Manual mode: System will control temperature under the set value without any change.
- Automatic mode: System would control temperature according to the preset temperature values in different time. The icon will lit, which means that the system is running under automatic mode. The week and Stage icon would alternately display every 5 seconds, 1-7 is systematic reuse. When screen shows WEEK, 1-7 would display the values of the week. When screen shows STAGE, 1-6 would display the current values.

[ Setting the periods of time modes ]
The periods setting can realize the control of temperature and time under automatic mode. Once setting up, the values could be saved and reused in the thermostat forever. The thermostat can’t quit when you set the periods and it will automatically save data and exit when all setting is finished.
The thermostat can save three kinds of schedules (5+2 / 6+1 / 7) in 6 periods. One week for a cycle.
Each data is saved as the start time (hours: minutes) and the temperature values of this period. The end time of the period would be saved as the start time of next period. You can also shut down a certain period according to your needs.
Press the for 5 seconds, you will enter into the period setting interface. The number is blinking in WEEK area, it means the mode of your set (5+2 or 6+1 or 7). You can press button to select the object you want to modify the period start time: hours, minutes and set temperature. Press or to modify the value. If you want to turn off a period, please press or the OFF shows.
For example: in the 5+2 mode, the period setting sequence:
Press 5s, the week area will blinking 1-5, Reference on the right Image

P1: hr:min>setting value – P2: hr:min>setting value – P3: hr:min>setting value – P4: hr:min>setting value...
> P6: hr:min>setting value
The week area will auto change 6-7 and blinking.
P1: hr:min>setting value – P2: hr:min>setting value – P3: hr:min>setting value – P4: hr:min>setting value...
P6: hr:min>setting value
Total setting value is 12 sets (<5>P1-P6, <2>P1-P6), you will setting 12X3 values. If you want skip the setting item you can press . You can use the to back to the previous setting.
The automatic default mode of the machine factory is 5+2 mode, Time specific data see the following table, You can modify when you enter the programming interface:

<table>
<thead>
<tr>
<th>Periods</th>
<th>ID</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday to Friday</td>
<td></td>
<td>06:00</td>
<td>08:00</td>
<td>11:30</td>
<td>12:30</td>
<td>17:00</td>
<td>22:00</td>
</tr>
<tr>
<td>Start time</td>
<td></td>
<td>22°C</td>
<td>15°C</td>
<td>15°C</td>
<td>15°C</td>
<td>22°C</td>
<td>15°C</td>
</tr>
<tr>
<td>Set value</td>
<td></td>
<td>06:00</td>
<td>08:00</td>
<td>11:30</td>
<td>12:30</td>
<td>17:00</td>
<td>22:00</td>
</tr>
<tr>
<td>Set value</td>
<td></td>
<td>22°C</td>
<td>15°C</td>
<td>15°C</td>
<td>15°C</td>
<td>22°C</td>
<td>15°C</td>
</tr>
</tbody>
</table>

For example: When the system time is Friday 08:20 under automatic mode, display would show as STAGE 2 and the setting temperature value would be 15 degrees.
The thermostat can’t quit when you set the periods, it will automatically exit when all setting is finished.
[The error and solution of common system]

1. Fault phenomenon: Display rupture
   Reason & solution: Display encounters hard objects or sudden force, no replacement warranty

2. Fault phenomenon: Display a black screen
   Reason solution: If the display surface temperature is too high, please note whether there is a heater nearby. If so, please remove.

3. Fault phenomenon: Display ER0 or ER1
   Reason solution: If built-in sensor is abnormal, please pay attention to whether the small black dot in the temperature sensing window was damaged during removal.

4. Fault phenomenon: Display 0 degrees
   Reason solution: It is normal if thermostat display 0 degrees when the actual environment is below 0 degrees.

5. Fault phenomenon: No pen on LCD
   Reason solution: Please check whether the iron plate is deformation when installation. If it is deformation, please correct it.

6. Fault phenomenon: No backlight
   Reason solution: Please check whether the backlight lamp connection is broken when removing in the panel.

7. Fault phenomenon: Backlight always bright
   Reason solution: The ON is set in the system menu bL. If it is damaged, please replace it.

8. Fault phenomenon: Large deviation of measurement temperature and the actual temperature
   Reason solution: The thermostat should be installed at ventilated place. It can not be installed at the place in direct sunshine or nearby the heater.

9. Fault phenomenon: Display 0 degrees
   Reason solution: It is normal if thermostat display 0 degrees when the actual environment is below 0 degrees.

The above is some of the most common errors, if you can’t solve, please contact the local dealer!

[Dimension in mm]

[Installation guide]

This thermostat belongs to precision electronic equipment, please be careful when installation.

- Insert the screwdriver (4MM--) into the groove on the top of the thermostat (B) and turn it 10 degrees lightly. Press the iron plate lightly to separate the iron plate from the thermostat.
- Let the iron plate is fixed in a wall box use 2pcs F4X25, keep the iron plate level.
- Connect the wire according to the wiring diagram of the thermostat back, check the diagram correct.
- Push the thermostat into the mounting hole of the iron plate and press down, You will hear the sound "DI!", indicating that the thermostat has been installed.

If you need disassembly thermostat from wall, you can insert screwdriver (4MM--) into the groove on the top of the thermostat (B) and turn 10 degrees lightly. Keep the screwdriver up and push the thermostat up to 4MM. Pull out the thermostat and use the screwdriver to release the screw on terminal, so that the thermostat and the wire are separated.