CT-703 Operation and maintenance instructions

CT-703 Timing electric thermostat   size : 120 X 80 X 14 mm

CT-703 Electric control box
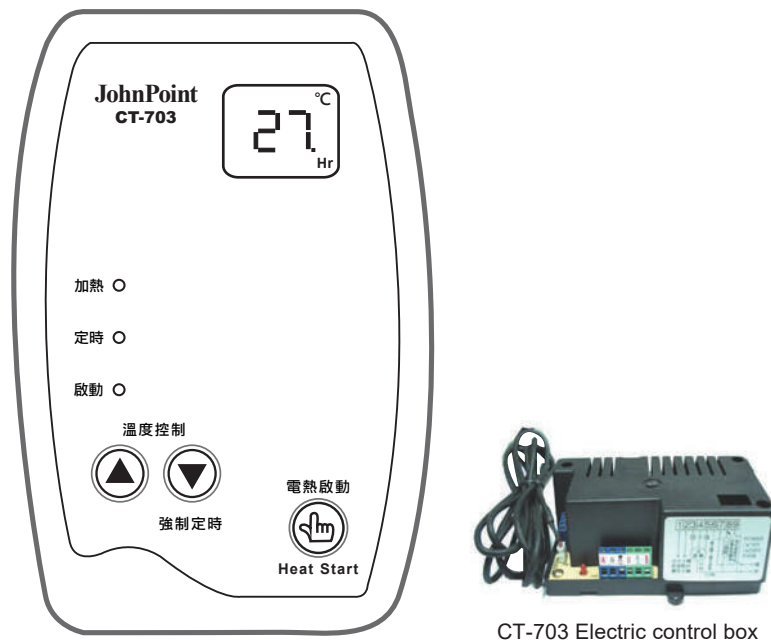
1. Specification

- Applicable places : Suitable for electric energy, heat pump, solar water heater.
- Power source : 110\240VAC 50\60Hz The panel has built-in charging circuit and lithium battery.
- Power consumption : <2VA
- Working temperature : 5 ~ 50℃<85% RH(No condensation)
- Temperature measuring stick can measure and display temperature : 2 ~ 99℃
- Panel wiring : Four signal lines, easy to install and can be pulled to a convenient place outside and inside.
- Special function : It can control the three-stage ON/OFF timing setting function, the temperature is set to 10℃ ~ 85℃, daily preheating, and single forced timing.

2. Setting parameter table

	Parameter	Codename	Factory default	Parameter setting range
1	Temperature setting	SEt	50℃	10~85℃
2	Temperature difference setting	td	2℃	1~9℃
3	Present moment	rt	0.0 hour	0.0~23.5(H/10M)
4	The first ON moment	on1	16.0 hour	0.0~23.5(H/10M)
5	The first OFF moment	oF1	20.0 hour	0.0~23.5(H/10M)
6	The second ON moment	on2	20.0 hour	0.0~23.5(H/10M)
7	The second OFF moment	oF2	20.0 hour	0.0~23.5(H/10M)
8	The third period of ON	on3	20.0 hour	0.0~23.5(H/10M)
9	The third period of OFF	oF3	20.0 hour	0.0~23.5(H/10M)
10	Mandatory timing (single time)	F	4.0 hour	1.0~23.5(H/10M)
11	Temperature correction	tA	0℃	-10~10℃
12	Parameter lock function	Lon/LoF	LoF	Lon->Locked LoF->Not locked

3. Instructions

3.1 After the installation is complete, plug in the power supply. At this time, the seven-segment display and LED indicators are all on, indicating that the controller is normal.

3.2 After three seconds, the display shows the current temperature and the controller starts to work.

3.3 Parameter setting : Press the ▲ key for three seconds, the display shows the first parameter setting code SEt, press the ▲ key or the ▼ key to display the factory settingvalue, at this time you can press the up or down key to set the parameter and the new setting value Will be remembered. Each parameter will automatically switch and appear after three seconds until the parameter setting is exited.

3.4 Press and hold the ▼ key for five seconds to start the forced timing, the forced light will light up, and the heater will run immediately (in this case, the operating temperature has been reached).

3.5 After starting the mandatory timer, press and hold the ▼ key for five seconds to turn off the mandatory timer.

3.6 At oFF, the mandatory light will flash to indicate.

3.7 When the heater is running, the heating indicator lights up to indicate.

3.8 When on1, oF1, on2, on3, and oF3 are 0.0 hours at the same time, the timing function is invalid and the heater will always run (only the temperature control function).

3.9 When the lock function is set to Lon, it can only display parameters, but cannot adjust parameters.

3.10 When the controller is abnormal, the display flashes to show the fault code.

3.11 Relevant time setting : The minimum scale is 10 minutes (e.g.13.5 represents 1:50 pm)

※ This controller has a three-stage on-oFF timing setting function, and its control priority sequence is : on1>oF1>on2>oF2>on3>oF3

4. Error Display

1.1 0P : Sensor open circuit or temperature below 0°C

2.1 SH : Sensor short circuit or temperature above 100°C

5. Parameter Description

1.1 Temp Set : Maximum operating temperature for water heater

2.1 Diff Set : Heater restarts when water temperature drops below (Temp Set - Diff Set)

3.1 Calibration : Compensate for temperature deviation caused by component degradation

Note : During initial power-on, the controller performs a self-test with all segments/LEDs lit. Press and hold any key during self-test to verify relay output.
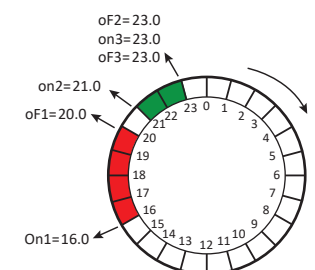
6. Setting Examples

1. Single-stage operation

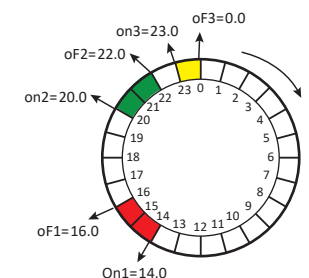on1 = 16.0
oF1 = 20.0
on2 = 20.0
oF2 = 20.0
on3 = 20.0
oF3 = 20.0

oF1 = 20.0
on2 = 20.0
oF2 = 20.0
on3 = 20.0
oF3 = 20.0
on1 = 16.0
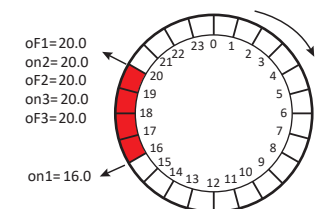
2. Two-stage operation

on1 = 16.0
oF1 = 20.0
on2 = 21.0
oF2 = 23.0
on3 = 23.0
oF3 = 23.0

oF2 = 23.0
on3 = 23.0
oF3 = 23.0
on2 = 21.0
oF1 = 20.0
On1 = 16.0

3. Three-stage operation

on1 = 14.0
oF1 = 26.0
on2 = 20.0
oF2 = 22.0
on3 = 23.0
oF3 = 0.0

oF3 = 0.0
on3 = 23.0
oF2 = 22.0
on2 = 20.0
oF1 = 16.0
On1 = 14.0

4. Constant ON when both ON/OFF settings are identical

on1 = 13.0
oF1 = 13.0
on2 = 13.0
oF2 = 13.0
on3 = 13.0
oF3 = 13.0

on1 = 13.0
oF1 = 13.0
on2 = 13.0
oF2 = 13.0
on3 = 13.0
oF3 = 13.0