

## Microcomputer temperature controller (STC-200) instructions

This product is cooling, heating, alarm output mode conversion functions, temperature control use the way of return difference, the user parameters and managers parameters set respectively, and has the compressor delay adjustable, temperature correction, fault alarm, sensor faults according to preset programs running after compressor etc. Function. Is a universal performance, high performance, used in refrigeration, seafood machine, water heaters and equipment and the place of simple control mild alarm products.

Specifications and technical parameters:

- ◆ The machine size: 77.0 x 34.5 x 65.5 ( mm)
- ◆ The mounting holes size: 70.5 x 28.5 ( mm)
- ◆ The running environment temperature: -5 °C ~ 60 °C
- ◆ The storage temperature: -30 °C ~ 85 °C
- ◆ The relative humidity: 20% ~ 85% (not knot dew)

The main technical parameters:

- ◆ The power supply voltage:  
220 VAC ±10% (12 V ±10% optional)
- ◆ Power consumption: ≤5 W
- ◆ Temperature measurement range: -50 °C ~ 99 °C
- ◆ Resolution: 1 unit
- ◆ Temperature measurement and control
- ◆ precision: ±1 °C
- ◆ Relay contacts capacity: 10 A / 250 VAC

**The indicator that state:**

Indicator	State	represents meaning
WORK Indicator	Down	compressor stop
	Flashing	compressor delay
	Bright	compressor work
SET Indicator	Down	Work normally
	Bright	in setting state

**Parameter to check:**

- ◇ The set state press "▲" button to display the temperature setting, 5 seconds, then display the current temperature;
- ◇ Press the "▼" button to display the return difference temperature, after 5 seconds display the current temperature.

**Parameter set:**

- ◇ **Into user Settings state:** The set condition, press the "SET" button more than 3 seconds, into the user Settings state, this time setting indicator, digital tube display the current temperature value.
- ◇ **Temperature setting:** in the user Settings state, press the "▲" or "▼" keys can be adjusted up or down the temperature value. Each click

the adjustment 1 °C, hold 2 seconds above, to adjusted quickly.

**A manager menu Settings menu:**

Symbols	Project	Set range	Set out of the factory
F0	Sent back to set	1 °C ~ 16 °C	3 °C
F1	compressor delay	0 ~ 9 minutes	3 minutes
F2	temperature setting toplimit	-50 °C ~ setting temperature	-20 °C
F3	temperature setting lowerlimit	set temperature - 99 °C	20 °C
F4	model choose	1: refrigeration	1
		2: heating	
		3: alarm	
F5	temperature correction	-5 °C ~ 5 °C	0 °C

◇ **Exit users SET condition:** User Settings state, press the "SET" button 3 seconds, or more than 20 seconds without the key operate, keep the temperature of the display system set value, and return to the normal condition.

◇ **Into managers menu:** The Non set state, press "SET" and "▲" key more than 3 seconds, into the managers menu settings state. This time setting indicator, digital tube display Settings F0 item.

◇ **Change set item and into the arameters set state:** In setting of state, press the "▲" or "▼" keys can be adjusted up or down set F0 ~ F5, when the set item is F0, press the "▼" key is invalid, when the set item is F5, press the "▲" key invalid; change a parameter value can click on the "▲" or "▼" key adjust to a corresponding setting, press the "SET" button to enter parameters change state, this time the digital pipe showed the parameters of the current value.

◇ **Change parameter value and return the set state:** in the parameter value state, press the "▲" or "▼" keys can be adjusted up or down parameter value, when the parameter value for minimum press "▼" key is invalid, when the parameter value for maximum, press "▲" key is

invalid, the parameters SET according to the "SET" button after a change to return to SET state, this time the digital tube display the current setting project.

◇ **Parameters save and exit of the set state:** in the setting state or parameters state, press the "SET" button above 5 seconds or within 20 seconds without operation, the system will save the current parameters value and exit the SET condition.

**Output relays, absorb and suck off:**

Operation state, press the power key 3 seconds of above, can shut down the thermostat. In the closed position, press the power key once, can open the thermostat.

**Refrigeration (refrigeration mode)**

◇ when compressor delay time more than the seting delay time or sensor temperature higher than setting temperature + return difference temperature relay absorb and begin to refrigeration.

◇ when sensor temperature below the set temperature relay disconnect stop refrigeration.

**Heating (heating mode)**

◇ when delay time more than set delay time or sensor temperature below the setting temperature the relay absorption;

◇ when sensor temperature higher than setting temperature + return difference temperature relay disconnect.

**Alarm output (alarm mode)**

◇ When sensors temperature higher than setting temperature + return difference temperature or sensor temperature below than the setting temperature, relays suck, alarm output.

◇ **Sensor fault alarm:** when sensor openning, LED flashing display "E1", buzzersounding; when Sensor short-circuit, LED flashing display "E2," buzzer sounding.

◇ **Super range alarm:** when the emperature sensor is greater than +99 °C + or less than -50 °C, machine show "HHH" or "LLL" respectively .

◇ **Sensor fault:** at this time, compressor will be in accordance with the operation 15 minutes and stop 15 minutes way of peration.

**Checking before using and installation requirements:**

◇ Power supply voltage should be conform with the voltage that labelled in the machine.

◇ Banned to use in the moisture environment and high temperature, strong electromagnetic interference, strong corrosive environment.

◇ Sensor lead, power lines and output relays lead, should strictly distinguish, can not be connect wrong; relays can not overload.

◇ To avoid the introduced interference, suggest sensor electrode and the power cord keep proper distance.

◇ Sensor installation, should as far as possible from the vent air to ensure the accuracy of the temperature.