

Micro-computer Temperature Controller Instructions of STC-8000B

Features:

- ◆ Italian minitype design. Incorporated SMT&THT. Small and light. Universal mode.
- ◆ Adopt USA Microchip-PIC. Strong ability to antiinterference. Stable and reliable.
- ◆ Multifunctions, applied in a wide range of refrigerant industries which need temperature control, such as icebox, refrigerator, display-box and refrigerator car.

Specifications:

- ◆ Outer Shell: ABS fireproof plastic
- ◆ Size:
 - ☆ Panel size: 34.5mm(height) x 75mm(length)
 - ☆ Recommended installing hole size: 30mm(height) x 71mm(length)
- ◆ Safeguard Level: IP65
- ◆ Operating circumstances:
 - ☆ Operating temperature: -5°C ~ +55°C
 - ☆ Stored temperature: -10°C ~ +65°C
 - ☆ Relative humidity: 20% ~ 95% (No condensate)
- ◆ Main Technical Parameters:
 - ☆ Power supply: 220VAC ± 10%, 50 ~ 60HZ
 - ☆ Power consumption: < 3VA
 - ☆ Measuring range: -40°C ~ +50°C
 - ☆ Resolution: 1°C
 - ☆ Compressor output contact capacity: 25A/240VAC
 - ☆ Alarming output: Buzzer + LED blinking
 - ☆ Delay protection time: 3 minutes
 - ☆ Temperature calibration range: ± 5°C
 - ☆ Exceeding limit alarm temperature adjustable: 0°C ~ 50°C
- ☆ Sensors: NTC
- ☆ Defrost cycle: 0 ~ 99 hours adjustable
- ☆ Defrost time: 0 ~ 99 minutes adjustable

Descriptions of Indicator Lights:

☉ Refrigeration Indicator Light	Light on	Auto refrigeration status
	Light flashes	Start-up delay status
☉ Defrost Indicator Light	Light on	Auto defrost status
	Light flashes	Manual defrost status
☉ Set Indicator Light	Light on	Parameters and in the setting status

Key Functions:

- ◆ Check parameters setting mode (in the state of non-setting)
 - ☆ Press ▲ to display the set maximum value, and display current temperature after 2s.
 - ☆ Press ▼ to display the set minimum value, and display current temperature after 2s.
 - ☆ Press SET to display defrost time and cycle each for 2s. Then display current temperature.
- ◆ Parameter setting mode:
 - ☆ Press SET for 3s to enter the preferences mode, and set indicator light on. LED displays the parameters adjusted last time.
 - ☆ Press ▲ or ▼ to choose parameters. After the selection of parameters, the value of corresponding parameter is displayed by pressing SET.
 - ☆ Press SET, and ▲ or ▼ simultaneously to set the value of parameters. Press ▲ or ▼ and hold on the value will increase or decrease quickly.
 - ☆ Press ▲ or ▼ to alter other parameters after the setting of one parameter value. Just repeat the above-mentioned steps.

- ☆ Press RST to confirm and restore after all parameters are set. The set indicator light is off. Confirmation, storatation and restoration of parameters will be done with set indicator light off if no key operations in 30s.

Refrigeration, defrost and calibration of temperature:

- ◆ Refrigeration and defrost:
 - When measuring temperature of sensor is above the set maximum value and running out of delay protection time, refrigerant relay will connect and refrigerant compressor will start. When measuring temperature of sensor is below the set minimum value, refrigerant relay will disconnect and refrigerant compressor will stop.
- ◆ Manual defrost:
 - When the set defrost time and cycle is available to defrost, press ▼ for 3s for manual defrost. Press ▼ for another 3s to exit.
- ◆ Cancellation of defrost:
 - Set the defrost cycle or time as "0" to cancel defrost.
- ◆ Temperature calibration:
 - When there is error between actual temperature and the temperature measured by controller, temperature calibration function will work. Press SET for 3s to enter into setting status, and press ▲ or ▼ to adjust till LED displaying F3. Press SET and ▲ or ▼ simultaneously and choose the proper value within the range of ± 5°C. Displayed value after calibration = displayed value before calibration + calibration value.
- ◆ Delay protection:
 - Refrigeration will delay for 3min to start after electrified. The interval of connecting twice of refrigerant relay is no less than three minutes when electrified.

Alarming:

- ◆ Sensor error alarm:
 - When sensor open circuit or short circuit occurs (non-connection with mainframe included), temperature controller will alarm-buzzer works and LED blinkingly displays 44. Press any key to cancel alarming sound. Alarming will continue until error eliminated if no key operation.
- ◆ Exceeding temperature limit alarm and cancel:
 - Exceeding temperature limit alarm ranges from 0-50°C. When sensor measuring value is no less than maximum value + setting alarming temperature or no more than minimum value - setting alarming temperature, temperature controller alarms, buzzer works and LED blinks. Press any key to cancel alarm, otherwise, alarm will continue until temperature back to normal range.
- ◆ Indication of exceeding measuring range:
 - Measuring range of temperature controller is -40°C ~ 50°C. Temperature ≥ 50°C, LED displays "HH", temperature ≤ -40°C, LED displays "LL".

Notice:

- ◆ Fire and damage may occur if refrigeration output overload.
- ◆ Make sure that wire and terminals are connected in a stable way.
- ◆ Please read through manual carefully.

Warranty:

- ◆ Please present warranty manual and invoice in case of repair.
- ◆ Warranty period: valid in one year dated from the day of purchase.
- ◆ Restrictions of warranty:
 - ☆ Improper repairs of customers.
 - ☆ Modification or misuse of customers without prior notice.
 - ☆ Operating circumstances is beyond the stipulation of the manual.
- ◆ Normal wear and tear is excluded.

Description of Parameters:

Code	Functions	Parameter setting ranges	Default	Unit	Description
F1	Temp. upper limit	-39 ~ +50	-18	°C	Temp. controlling upper limit
F2	Temp. lower limit	-40 ~ +49	-22	°C	Temp. controlling lower limit
F3	Temp. calibration	± 5	0	°C	Calibrate when there is a difference with actual temp.
F4	Defrost cycle	0 ~ 99	6	Hour	Interval between two defrost
F5	Defrost duration	0 ~ 99	30	Minute	Duration of defrost each time
F6	Exceeding temp. limit alarm	0 ~ 50	10	°C	Alarm when exceeding temp. limit for a set value

Electric wiring diagram:

