

# LTC-800 Instructions

A new product especially designed for Refrigerated Cabinet、Refrigerated Display Cabinet with elegant appearance, panel separates from control box. LTC-800 can drive compressor 2HP directly. User's menu is isolated from the handler's., which is convenient for the user's simple operation. Meanwhile, this can make the handler deal with varieties of states of the equipment flexibly. Double sensors, one can control the defrosting temp. and has a limit to the adjustment of the upper and lower temp. limits, preventing the user's improper operation. Fan's operation modes optional, continually work; start/end together with the difference in temp. between the storage temp. and the evaporator's. Light control、defog、temp. calibration、power dormancy and so on. The keyboard can be locked.

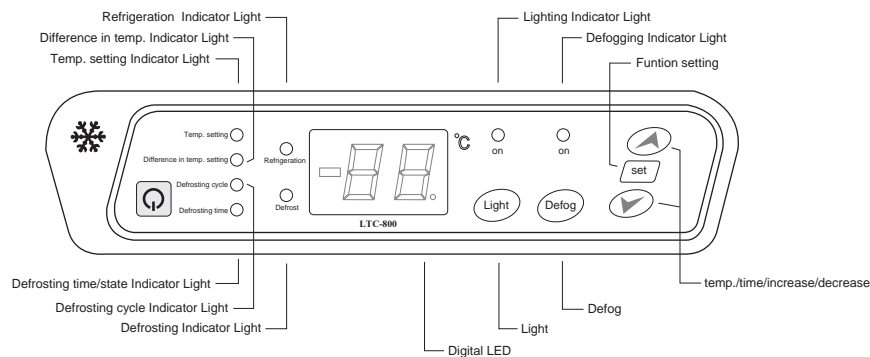
### Specifications and Technical Parameters:

- ◆ Panel Size: 170×40mm
- ◆ Installation Size:140×33×27mm
- ◆ Environment Temp.Range:0℃~60℃
- ◆ Humidity Range:20%~85%(Not Allowed to Frost)

### Parameters:

- ◆ Power Supply: 220VAC±10%/110VAC±10%
- ◆ Power Consumption: <10W
- ◆ Measuring and Controlling Range: -40℃~+40℃
- ◆ Resolution:1℃
- ◆ Accuracy: < ±1℃
- ◆ Compressor Output Contact Capacity: 20A/250VAC
- ◆ Defrosting Electrical Heating Output Contact Capacity:20A/250VAC
- ◆ Fan Output Contact Capacity: 10A/250VAC
- ◆ Light Output Contact Capacity: 10A/250VAC
- ◆ Defrosting Output Contact Capacity: 10A/250VAC
- ◆ Alarming Output Contact Capacity: 5A/250VAC

### Front Panel Diagram and Operating Instruction:



- ◆ On/off: switch the unit on by pressing the ON/OFF key, the display will illuminate with the reset indication.
- ◆ Defog: Defogging Output starts/ends (the Defogging Indicator Light ON/OFF) with pressing "Defog" key for 3 seconds continuously
- ◆ Light: Light Output starts/ends (the Lighting Indicator Light ON/OFF) with pressing "Light" key for 3 seconds continuously
- ◆ Defrosting sensor temp.: can check the Defrosting sensor temp. with pressing the "Defog" and "light" keys for 3 seconds simultaneously
- ◆ "▲"key: Manual Defrost or Defrost eliminates with pressing "▲"key for 3 seconds continuously
- ◆ "▼" key: Manual Refrigeration or Refrigerate eliminates with pressing "▼"key for 3 seconds continuously
- ◆ Keyboard Locked/Unlocked: Press "▲" and "▼"keys for above 3 seconds simultaneously, keyboard locked when LED displays "OF", unlocked when displaying "ON"
- ◆ Set: Under unsetting state, enter the user's setting options with pressing "set" key for 3secs continuously, the temp. setting light is on; can shift the menu with pressing "set" key and adjust the parameters with pressing "▲" or "▼"key
- ◆ Notice: System will keep the parameters and return to normally working state 10 seconds after the parameters setting

### Parameter Descriptions and Setting Range:

Purview	Function	Setting range	Unit	Default
User's parameter	Temp. setting	-40-40	℃	-18
	Difference in temp. setting	1-15	℃	2
	Defrosting cycle	0-99	hour	6
	Defrosting time	0-99	minute	30
Handler's parameter	Temp. upper limit setting	-39-40	℃	-15
	Temp. lower limit setting	-40-39	℃	-20
	Set alarming values when exceeding the temp. limits	0-20	℃	10
	Temp. calibration	-5-5	℃	0
	Defrosting end temp.	0-35	℃	10
	Set relative difference in temp. values	0-5	℃	1
	Compressor delay start	1-7	minute	3
	Alarming output switch	00Off/1on		00
Fan's operation mode	00Continually run 01Start/stop with temp.			

### State Indicator Light Description:

Refrigeration	Light on	Compressor works normally
Refrigeration	Light flashes	Compressor delay start
Defrost	Light on	Auto-defrost
Defrost	Light flashes	Manual-defrost

### Main Functions Instruction:

- ◆ Refrigeration:
  - ◇ Refrigerate when storage temp. exceeds the setting temp. limit and the setting value of difference in temp.; Calculates when storage temp. equals or less than the setting temp. limit and the setting value of difference in temp.; Compressor will start/stop as per to the portion time of the procedure (15 minutes each) when sensor errors
  - ◇ Manual Refrigeration: manual refrigeration when still needs being refrigerated below the refrigerating time
  - ◇ Compressor Delay Start Protection Function: time between the compressor ending and starting again should equal or exceed the compressor delay start time under any situation
- ◆ Defrost:
  - ◇ Defrost starting: Defrost when compressor adding-up running time comes to the Defrosting cycle
  - ◇ Defrost calculating: when using up the setting temp. of defrosting or when the Defrosting Sensor Temp. exceeds the setting value
  - ◇ Manual defrost: Manual defrost when still needs continuous defrosting less than a defrosting cycle
  - ◇ Defrost Elimination: Defrost eliminates when either the Defrosting Time or the Defrosting Cycle is "0"
- ◆ Fan:
  - ◇ Continually run mode: continually run with defrosting after the machine sets on
  - ◇ Start/stop with temperature: Fan starts when the difference between the storage sensor temp. and the Defrosting Sensor Temp. exceeds the relatively setting value of difference in temp.; stops when it equals or less.

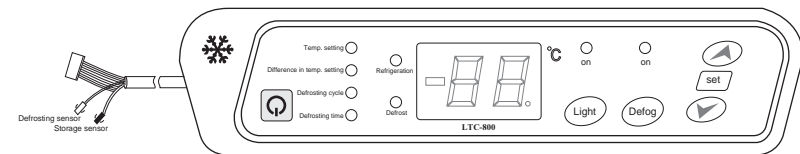
### Alarming Description:

- ◆ Alarm when sensor errors:
  - ◇ LED displays E1,Buzzer loud when Storage Temp. Sensor errors
  - ◇ LED displays E2,Buzzer loud when Defrosting Temp. Sensor errors
  - ◇ LED displays E1 and E2intervally,Buzzer loud when Storage and Defrosting Temp. Sensors error
- ◆ Storage Temp. Exceeding Alarming:
  - ◇ LED displays E3,Buzzer loud when Storage Temp. exceeds
  - ◇ LED displays E4,Buzzer loud when Storage Temp. exceeds temp. limits
- ◆ Alarm Elimination:
  - ◇ Eliminate alarming by the switch options of the alarming output of the inside managing parameters
  - ◇ The alarming sound and alarming output calculate simultaneously with alarm eliminating, LED still displays code errors

### Detect Before Using and Fixing Requires:

- ◆ Power Supply must coherent with the voltage marked on the machine, the stability should be guaranteed
- ◆ Don not use it in the water or too wet environment ,no use when it is in high temp.,interfered by strong electromagnetism and strongly rotted
- ◆ Interfaces of Power and Relay should be distinguished from each other. Otherwise, the Relay will be overloaded
- ◆ The sensor should be kept away from the Defrosting Heating Machine to make sure of the accuracy of the storage temp. setting and prevents early end of defrosting

### Product Diagram:



Notice:Interface of Defrosting Sensor with white mark.

### Electric principle and Elementary Diagram:

