Operation Instruction

For Refrigerator and Freezer

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Dear Customer:

Thank you for choosing our product!

Please read this manual carefully before you use a stainless steel refrigerator, freezer and working table, glass door display series and marble cake showcase, So you can obtain satisfactory results.

Chapter one: Installation and Precautions

1. Installation and Precautions

1. Cake display coolers, drink coolers with Automatic evaporation and drainage; Open display cooler and split type cooler, it needs to pour away the water by hand every day! Just open the bottom motor and take out the stainless pot to pour away the water.
2. Please pay attention to using the voltage range in order to avoid damaging electrical parts or other accidents, we use 110V, 220V or 380V these three voltage types. When voltage is not stable, please use more than 5 times the power voltage regulator.
3. We use 10A or 16A plug, socket must safety ground and the air leakage switch; high-power unit and split type direct connect with air switch.
4. The ambient temperature for the refrigerated unit is around 30°C, RH≤85%, the open display cooler should be below 25°C, and the wind speed cannot be more than 1m/SEC.
5. Equipment should be put flat, do not push on the rugged place, in order to avoid damaging the caster wheel and other components. When handling the equipment shall not be greater than 30 degree, so as not to cause compressor and system failure. Installation should be avoided as far as possible to communicate with contactor, transformers, etc Accessories to decorate too close. Stay away from a strong electromagnetic environment, avoid unnecessary interference, and affect the machine to work properly.
6. Should not be put in larger mechanical shock or vibrate near the equipment
7. Please maintain regularly, every month must clean the condenser; make sure the equipment works well as safely.
8. First time please run the product 1-2 hours till the product achieves steady state, then switch off the products
9. Don't put medical products, flammable and explosive, corrosive substance, volatile chemicals in the cabinet
10. Showcase should not be placed in direct sunlight or near heating devices or humid or rainy places
11. Don't sprinkle water towards outside and inside of the cabinet avoid leakage and other failures
12. Don't switch on and off too often and should wait 5 minutes before starting again after switching off each time.
13. Condenser should be cleaned monthly or as need when there is heavy dust or degrease build-up, otherwise it will effect the cooling and shorten the life of the condenser
14. When defrosting Room-cooling freezer, cut the power and remove frozen goods to let temperature rise naturally, then wipe off the water by soft cloth when frost gets mild

2. The Performance of Products:

1. It is reliable, protective with automatic microcomputer control and digital window display temperature and humidity.

2. The main accessories of refrigeration & electrical are imported with high quality and rigorous testing. High efficiency refrigeration, stability, power saving.
3. Air-cooling, air cooled circulation, cooling speed, temperature is even.
4. High humidity to keep cake fresh & delicious.
5. Automatic demist function

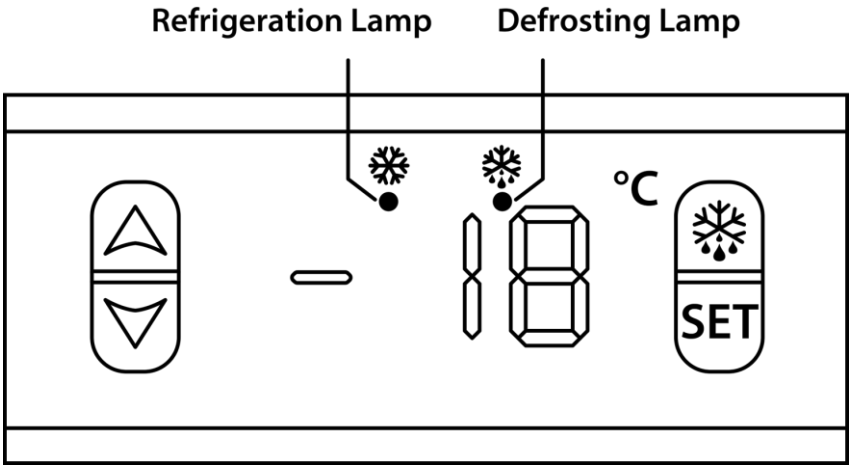
3. Equipment Installation

1. Install the shelf(layer network, baking rack or glass)
2. Plug Power (make sure voltage);
3. Power switch (red), the lamp switch (green); anti-fog switch (yellow)

Chapter Three: Freezer--Operation, Parameter and Setting of Thermostat

This Microprocessor Temperature Controller is used for the freezer (-12-18°C), with easy operation. It uses the French original temperature sensor, High precision temperature control, and complete advanced functions can meet the needs of different users. This controller with humanization design, we will set down the temperature range, when the machine turns on, it will work automatically. The controller output is relay switch output, when it works with LED light instruction together. It can show the machine working situation well, and the users can operate it well and safely.

1. Keyboard Panel Figure (see as below)



2. Operation:

1. Control temperature control (stop-work temperature): Press "SET" flashing, it shows the temperature, then press ▲ or ▼ change data and save. Press "SET" Again exit, it will

show the temperature of the machine again; if no action, after 6 seconds it will recover. (Control temperature control range: refer to E1-E2 as below)

2. Defrosting: press ❄ for 6 seconds, then it can start defrosting or stop.
3. Sensor temperature of defrosting: press △ 6 seconds, light flashing and show the sensor temperature, after 10 seconds recover the machine temperature.
4. Refrigeration indicator light: In the process of refrigeration, lights on; temperature constant state, lights off, when in the process of the delay, lights flashing; Timing stop-work, lights flashing.
5. Defrosting indicator light: In the process of defrosting, lights on; finish defrosting and some time delay, lights flashing;
6. Parameter setting:
    - Press "SET" for 6 seconds, enter for setting, light flashing and shows "E1";
    - Press again "SET" To change the parameter, It will show E2, E3, E4, E5, E6, FO, F1, F2, F3, F4, F5, Cl one by one.
    - Press △ or ▽ you can change the data and save.
    - In 6 seconds no any action, it will recover.

Parameter	Function	Range	Factory Set
E1	Minimum Temperature Control	-4 5°C Temperature Control	-18 °C
E2	Maximum Temperature Control	Temperature Control~45°C	20 °C
E3	Temperature Difference	1 ~ 1 0 °C	6 °C
E4	Delayed Starting Time	0 ~ 1 0 Minutes	2 Minutes
E5	Machine Temperature Of Sensor Adjusting	5 ~ 5 °C/°F	0 °C
E6	Defrosting Temperature Of Sensor Adjusting	5 ~ 5 °C/°F	0 °C
F0	Defrost Type	0 - Electrical Defrost 1 - Hot Gas Defrost	0
F1	Time Of Defrost	1 ~ 6 0 Minutes	12 Minutes
F2	Defrost Interval	0 - 24 Hours	2 Hours
F3	Defrost Termination Temperature	0 ~ 20 °C 32 ~ 68 °F	15 °C
F4	Temperature Display When Defrosting	0 - Normal Temperature Display Of Cabinet 1 - temperature At The Start Defrosting	0
F5	Fan Control	0 = Compressor Synchronization 1 - has Been Running (But Defrosting)	1

Parameter	Function	Range	Factory Set
C1	Temperature Unit	0 = °C 1 = °F	0

3. Data Change Lock:

Press ▽ and last 6 seconds, light flashing and shows "off", that means locked; if shows "on" that means unlocked. After locking, data just for seeing can not be changed.

Chapter Two: Refrigerator--Operation, Parameter and Setting of Thermostat

This microprocessor temperature controller is used for refrigerators (4-10°C), with easy operation. It uses the French original temperature sensor, High precision temperature control, and complete advanced functions can meet the needs of different users. This controller with humanization design, we will set down the temperature range, when the machine turns on, it will work automatically. The controller output is relay switch output, when it works with LED light instruction together. It can show the machine working situation well, and the users can operate it well and safely.

1. Keyboard Panel Figure (See As Below)

2. Operation:

1. Control temperature control (stop-work temperature): Press "SET" flashing, it shows the temperature, then or press △ or ▽ change data and save. Press "SET" again exit, it will show the temperature of the machine again; if no action, after 6 seconds it will recover. (Control temperature control range: refer to E1-E2 as below)

2. Refrigeration indicator light: In the process of refrigeration, lights on; temperature constant state, lights off, when in the process of the delay, lights flashing; Timing stop-work, lights flashing.
3. Parameter setting:
    - Press "SET" for 6 seconds, enter for setting, light flashing and LED shows "E1";
    - Press again "SET" to change the parameter, It will show E2、 E3, E4, E5, E1 one by one.
    - Press ▲ or ▼, you can change the data and save.
    - In 6 seconds no any action, it will recover.

Parameter	Function	Range	Factory Set
E1	Minimum Temperature Control	-4 5°C Temperature Control	4 °C
E2	Maximum Temperature Control	Temperature Control~45°C	20 °C
E3	Temperature Difference	1 ~ 1 0 °C	6 °C
E4	Start Delay Time	0 ~ 1 0 Minutes	2 Minutes
E5	Machine Temperature Of Sensor Adjusting	-1 0 ~ 1 0 °C	0 °C

3. Data Change Lock:

Press ▼ and last 6 seconds, lights flashing and LED shows "off", that means locked; if shows "on" that means unlocked. After locking, data just for seeing can not be changed.

4. Function Description:

1. Temperature Controller:
    - Power on and current delay, the machine inside temperature is higher than (controlling temperature + temperature difference)
    - To protect the compressor, the start time of each compressor must be more than delay time(refer to E4)., so that it can restart.
2. Scheduled Stop for defrosting.
    - When it works for a certain period of time (refer to F2), the compressor will stop working, and then after some time (refer to F1), enter refrigeration.
    - If the defrosting time difference is set as "0 0", it will cancel the defrost function.
    - Press "SET" and ▼ same time and for 6 seconds, enter to data setting, light flashing and shows "F1", Press "SET" again, it will show F2, F1; press ▲ and ▲, you can see the data and can be changed and saved.
    - In 6 seconds no any action, it will recover.

Parameter	Function	Range	Factory Set

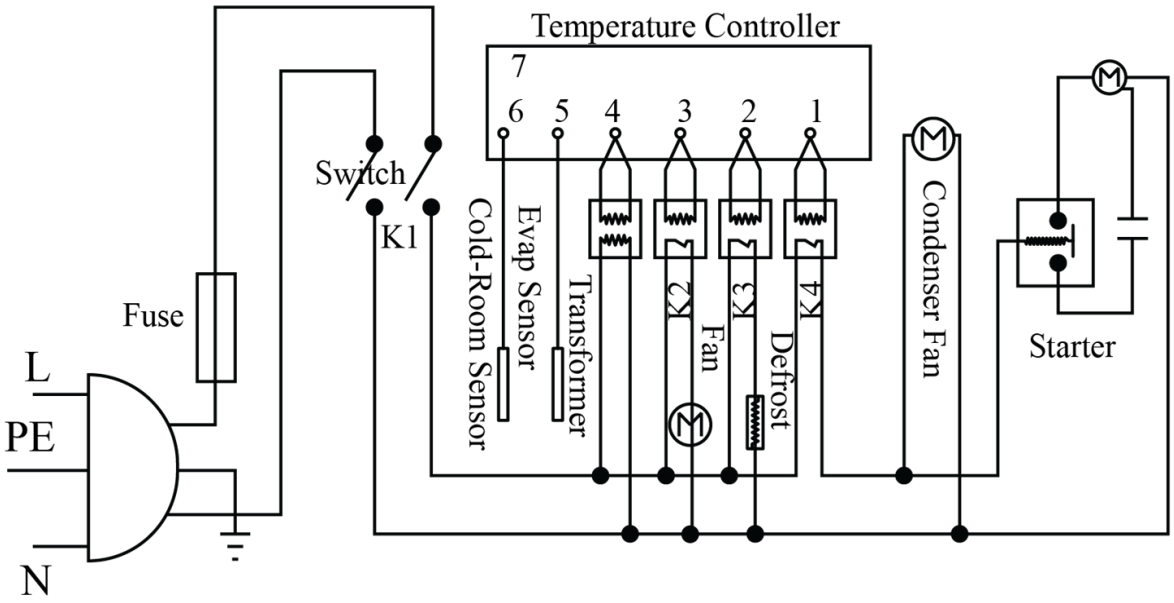
F1	Time Of Defrost	1 ~ 90 Minutes	10 Minutes
F2	Defrost Interval	0 - 24 Hours	2 Hours

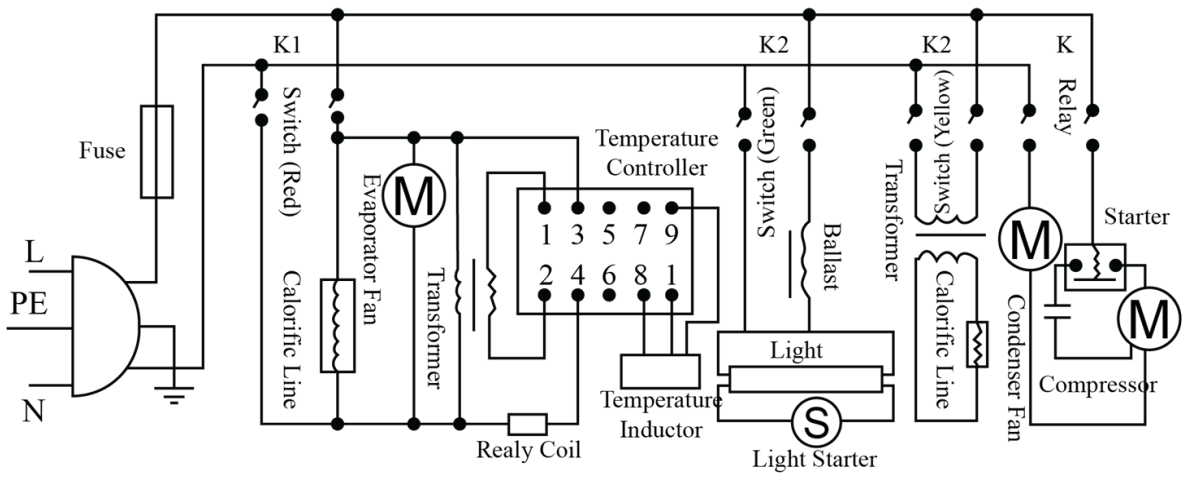
3. Abnormal work situation:
   The sensor has temperature short out or high temperature over than 99°C, LED shows "HH"; Sensor short out or low temperature over than -45°C, it shows "LL".

4. Function Description:
   1. Temperature Controller:
      - Power on and current delay, the machine inside temperature is higher than (controlling temperature + temperature difference)
      - To protect the compressor, the start time of each compressor must be more than delay time(refer to E4)., so that it can restart.
   2. Defrosting method: data F0-0, it means heater wire defrosting::F0=1, it means hot gas defrosting.
      - Heater wire defrosting: when it defrost, compressor stops working, connects with heating wire, and then defrosts light on; when it finishes, breaks off the heater wire. After two minutes of dripping water, exit the frosting, and the compressor starts, one minute delay and then fan works.
      - Hot gas defrosting: when it defrost, defrosting light on, break off compressor and fans. After one minute connect with the change-over valve, and then start the compressor in one minute. When the defrosting finishes, the compressor stops working, via delay time to break off the change-over valve, restart compressor, then fans work after one minute.
      - Condition of enter to defrosting: when the defrosting sensor temperature is lower than frosting ending (refer to F3), and then it can enter to defrost.
      - Condition of exit defrosting: when the defrosting sensor temperature is higher than frosting ending, or defrosting time out, it will exit defrosting.
      - When the defrosting period is set to "0 0", it will cancel the automatic defrosting function.
   3. Locked machine temperature show when defrosting:
      When the data F4-1, machine temperature will be locked in the process of defrosting, it will show the
      temperature of the beginning of the defrosting. After finishing defrosting, machine temperature will recover in 20 minutes later (or reach the control temperature), light flashing when it delays.
   4. Abnormal work situation:
      The sensor of temperature short out or high temperature over than 99°C, LED shows "HH":

Sensor short out or low temperature over -45°C, it shows "LL". At this time into the timing work mode, the compressor running for 45 minutes, stop for 15 minutes

Chapter Four: Wiring Diagram





Glass Door Display, Cake Showcase, Vertical Chiller:

Chapter Four: Wiring Diagram

Appearance	Reason for Failure	Approaches
Failure to refrigerate, indicator lamp off, compressor is failure to operate	1.Temperature controller is wrongly set	1.Reset temperature controller
	2.Self-protection of compressor and condenser fan motor is broken	2.Check if the ambient temperature is over high, if so, reduce it and replace condenser fan motor
	3.Power supply voltage is over low	3.Increase the power supply voltage
	4.Compressor is Damaged	4.Replace the compressor
Failure to refrigerate and indicator lamp off	1.Check if the power supply plug correctively connects with socket	1.Please connect correctively
	2.Check if the fuse in cabinet is normal operation	2.Please replace the fuse
	3.Check if the refrigeration switch is normal operation	3.Please replace the switch
Dew is found on surface of glass	1.Glass fuse is fail to emit heat	1.Restart de-dew switch
	2.Cool temperature is over low	2.Reset the temperature in cabinet
	3.Ambient humidity is over high	3.Keep away from humidity source

	4.Supply voltage of glass fuse is over low	4.Improve the supply voltage of heating (adjusted by specialist)
Rotating shelf is fail to rotate	1.Not switch on the rotating motor	1.Switch on power supply
	2.Safety switch in door frame not switch off, the door is not close as normal	2.Check if the door is closed as normal an closed it
	3.Driving motor of rotating is destroyed	3.Replace the motor or assembly
Indicator lamp off	1.Lamp tube is destroyed or the starter is broken	1.Replace it
	2.Moisture proof socket has loose contact	2.Re-install it and press the two ends tightly
	3.The switch is destroyed	3.Replace it
Some times refrigerate, some times not	1.Temperature controller adjust improperly	1.Reset the temperature
	2.Power supply voltage is over lower or over high	2.Improve the power supply voltage or shorten the length of power supply circuit
Poor performance in refrigerating and reducing temperature	1.Frost generated on surface of evaporator	1.Defrost manually
	2.Evaporator fan motor is broken	2.Repair or replace the evaporator fan motor
	3.Dust accumulated on surface of condenser impedes the air ventilation	3.Clear up the dust on surface of condenser in consequent direction of blade
	4.Ambient temperature is beyond the normal application scope	4.Reduce ambient temperature or increase the wind flow of condenser