

# Desktop Refrigeration Showcase User Manual

## Operation Manual

 Please read the user manual before use so that you can use it correctly and keep it for reference.

## 1. Description

1) . Welcome to use the desktop refrigeration showcase manufactured by our company. It is designed for sites like various gourmet corners and hotels and mainly used for refrigeration and show of articles. The refrigeration temperature is 2—8℃.

2) . The product is designed scientifically and properly in structure with insulating glass lapping closely on upper part of the cabinet, insulating glass sliding door installed on its back and LED lamp used with extremely good show effect. Product of this series features good-looking appearance, practicality, proper design, fast refrigeration, low power consumption, low noise, healthiness, easy cleaning and uniform temperature.

3) . All the materials, components and refrigeration units for the products are from internationally professional famous brand manufacturer in order to ensure their quality.

Please read the manual carefully before use so that you can better use our product to have longer service life of it.

## 2. Main Technical Parameters

Model	Climate type	Protection grade of electric shock	Storage temperature(℃)	Voltage / frequency	Input power (W)	Dimensions (mm)
GN-660RT/CT	3	I	2-8℃	220-240V/50 Hz	250W	660x530x730
GN-900RT/CT					350W	900x530x730
GN-1200RT/CT					360W	1200x530x730

## 3. Installation & Placement Conditions and Requirements for Freezer

- 1) . Recommended ambient temperature  $\leq 28^{\circ}\text{C}$ , relative humidity  $\leq 60\%$  and ambient wind velocity  $\leq 0.2\text{m/S}$  (wind of air conditioners and fans around the freezer cannot be directly blown to the freezer).
- 2) . Must use separate single-phase triple-pole power socket with the socket earth port (E) reliably earthed. Note: do not take running water or gas pipe as the earthing terminal. External socket connection line diameter should be no less than  $0.75\text{mm}^2$ , or once electric system has troubles, there will be no earthing protection, which will threaten personal and property safety. **Remember that our company will not bear any responsibilities for accidents and losses caused by electric damage due to non-compliance with the abovementioned requirement when operating and using.**
- 3) . Do not directly put the power line on the passage. There should be a trough plate with certain strength for shielding or groove with cover plate to avoid damage from heavy load and sharp tools.
- 4) . Never put hazards which are volatile, corrosive, radioactive, flammable, explosive, poisonous and polluting the food in the box.
- 5) . Do remember to cut off the power before cleaning the product or changing lamp. Do not rinse it in case of electrical appliance being affected with damp, soaking or having other accidents.
- 6) . once the product has electric and refrigeration system troubles, non-professional electricians and personnel without sufficient refrigeration technology and rich experience shall not randomly fiddle with, disassemble and repair it in case of causing more serious accidents and even danger, which will lead to more losses.
- 7) . First use and adjustment of the freezer must be operated by professionals in refrigeration and installation in order to ensure correct installation and performance of the freezer and prolong service

life of it.

## 5. Use and Maintenance

- 1) . The freezer can work automatically after installation and debugging. However, professionals are needed to have routine observation and periodic maintenance on it.
- 2) . The product should be placed in the area which is ventilated, cool, dry, kept away from heat and dust. Direct sun exposure should be avoided in case of affecting refrigeration effect and the ground should be even and firm. Distance of the cabinet's periphery from walls and other objects should be no less than 10 cm in order to ensure good radiating of condenser.
- 3) . Proper power supply for the product is 220-240V/50Hz. If the voltage does not meet requirement, please install power transformer with corresponding capacity and if voltage has too large fluctuation (exceed the scope of 187V--242V), please install power regulator with corresponding capacity. Plug in and start only after confirming the voltage. After power on for 20 minutes, check whether electrical appliance works normally and refrigeration effect remarkable or not.
- 4) . Before first use or reuse after long-time disuse, clean the inside of the freezer before running the empty cabinet. Only when it reaches set temperature can the food be put in one by one.
- 5) . Prerun the product for a certain time when using every time in order to confirm refrigeration system working normally. Only when the temperature in the box is reduced to that meeting normal requirement can the food be put into food tray for refrigeration.
- 6) . Food should be put into freezer neatly and in order to prevent food from jamming air inlet and outlet, which will affect cold air circulation inside.
- 7) . Do not put too much food in the showcase in case of generating over charge instantaneously. Weight of food on shelf should be no more than 5Kg and over height will cause damage to the shelf, thus affecting air flow in the showcase.
- 8) . Adjust storage temperature in the showcase by using the temperature controller mounted on the switch panel of showcase back.
- 9) . Time interval of starting the refrigeration units should be no less than 3 minutes otherwise compressor will be easily damaged or its service life shortened.
- 10) . Check whether freezer temperature normal or not no less than two times every day. Once abnormalities found, report to professionals in a timely manner for check.
- 11) . When freezer is ready for disuse for a long time, cut off the power, take out the food, wipe the inside and outside of showcase with clean rag, then dry by airing and put it in the dry, cool and ventilated area. Check it often (we recommend trial operation once a month). Before reuse, strictly check the electric lines and only when professionals make sure that there are no troubles, freezer can be restarted for use.
- 12) . Periodically clean and sterilize the inside of the showcase to kill the bacteria which will affect food hygiene. Before cleaning and sterilizing, cut off the power and wrap electrical elements with plastic film. Do not directly rinse the inside of the showcase.
- 13) . Observe often running conditions of refrigeration compressor units. Too much dust in the condenser will affect ventilation and refrigeration effect, clean up the dust in a timely manner. We suggest user should clean the condenser once per one to three months.

Method of cleaning the condenser: 1. cut off the power and wrap the electrical elements with plastic film. 2. Blow away with compressed air or rinse with running water the dust in the condenser (note: if rinse with running water, power on only after the system drying up by airing)

## 6. Common Troubles and Troubleshooting

Troubles	Reasons	Check	Troubleshooting
No electric input	Poor contact between plug and socket	Whether there is looseness between plug and socket.	Repair or change the socket
	Input control line fault	Check control circuit	repair control circuit fault location
Over high temperature in the showcase	Equipment close to heat source	Check peripheral heat source of equipment	Remove the heat source
	Too thick frosting of evaporator	Observe evaporator	Timely defrosting and shorten refrigeration-defrosting period
	Store too much articles in the showcase	。 Check whether articles block the air outlet, which will affect cold air flow.	Take out part of articles
	Refrigerant leaks out	Check welding point and fill opening	Reweld and fill refrigerant
	Too much dust in condenser, affecting radiating	Check condenser	Clean the condenser
Too much noise	Breakdown of condensate fan and evaporating fan	Check the fan	Repair or change the fan.
	Showcase not laid steadily	Check whether castors firmly supported or not	Adjust castors.
compressor not work	Fixing screws of fan and compressor loose	Whether screws fixed firmly or not	Tighten screws
	Voltage exceeds permissible fluctuation scope	Check power supply voltage	Use voltage regulator and connect to proper power supply to ensure normal running of the equipment
	Open circuit of temperature controller output control circuit	Check output control circuit and find the open circuit point	Make-up of the circuit
	Breakdown of temperature controller		Repair or change temperature controller
light off	Breakdown of the compressor		Repair or change the compressor
	Power master switch not on or light switch not on		Switch on
	Poor contact of lamp bracket plug	Check whether loose or failing-off	Unplug and plug in again, fix the plug.
	Electronic line board breakdown of the lamp bracket	Check whether there is voltage output in lamp base. If not, then electronic line board breaks down.	Replace the whole lamp bracket
	Lamp damaged	Dismount the lamp tube and measure resistance of its pin to check having resistance value or not. If not, then not damaged.	Replace the lamp tube

## 7. Following are normal not troubles

1) . When compressor runs, its surface will feel hot: when compressor works normally, its surface

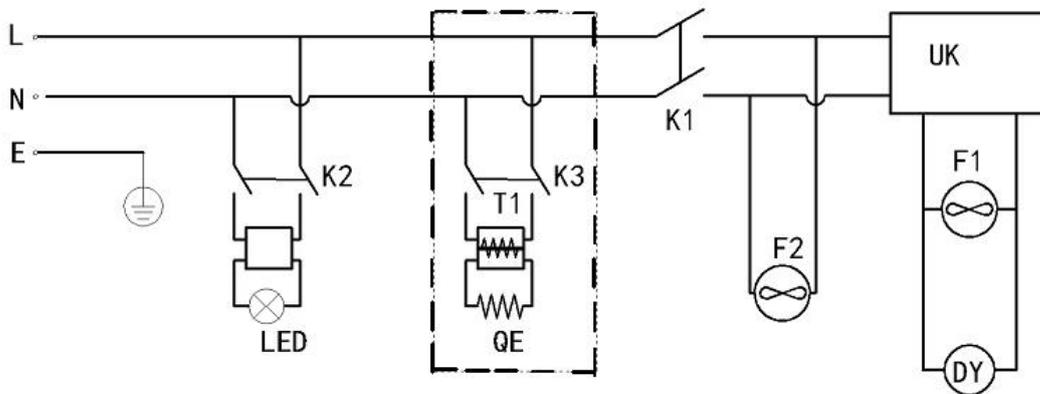
temperature is higher and it is normal. Do not touch with hands.

- 2) . Dewing on glass surface: when ambient temperature and humidity is higher, surface of the glass will easily have dew. Please wipe dry with soft cloth.
- 3) . When room temperature is lower than that controlled by temperature controller, compressor will not run: this is because data collected by temperature sensor not enough to start the compressor when room temperature is lower than that controlled by temperature controller

8. Cautions

- 1) . Do not put upside down or lie on the side when carrying the freezer. When inclining, its inclination angle should be no more than 30°.
- 2) . The freezer should be put in the area well ventilated, cool, dry and without corrosive gas around. Do not get close to heat source and avoid direct exposure to the sunlight.
- 3) . Do not use flammable gas near the freezer and do not put flammable and volatile chemicals like alcohol, thinner, butane and binder within the freezer.
- 4) . If abnormal gas, smog and temperature rising, etc. are found within the freezer when using, please immediately cut off power and inform professionals for check.
- 5) . Non-professionals shall not randomly open and replace members, electrical elements in the freezer and refrigeration units.
- 6) . Do not put sundries on the top face of freezer as it may affect operation and deformation under pressure.

9. Electrical Schematic Diagram



F1	Condensating Fan	LED	LED Light
F2	Evaporating Fan	K1/K2/K3	Switch
DY	Compressor	T1	Transformer
UK	Digital Thermostat		
QE	Heating		