

Refrigerated display cabinet

Original instructions

Please read this manual book carefully before use and operate
according to this manual book

Please keep it well and for your reference

Upright cake showcases

cake showcases

Installation, Operation & Maintenance Manual
(HC Gas R290 used)

Danger!

Risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained service personnel. Do not use mechanical devices to defrost refrigerator. Do not puncture refrigerant tubing.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children should be supervised to ensure that they do not play with the appliance.

Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

WARNING: Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

WARNING: Do not damage the refrigerant circuit.

WARNING: Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.

Precaution for Use

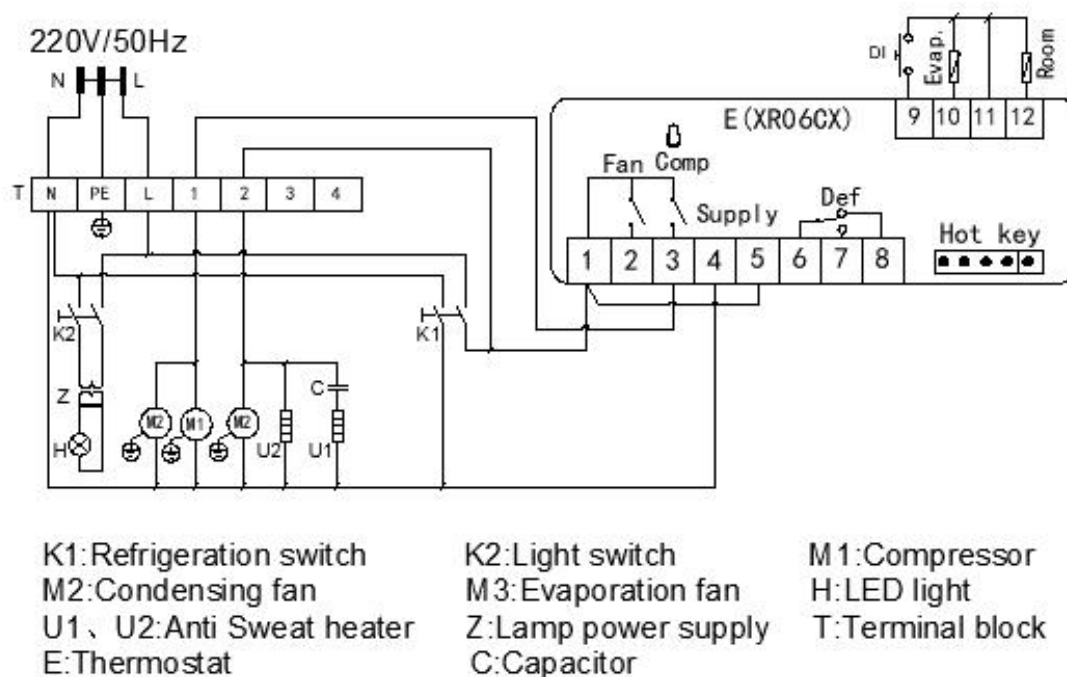
- The display cases shall be used in proper environment with ambient temp. $<25^{\circ}\text{C}$, relative humidity $<60\%$, higher temperature and humidity will affect cabinet's running.
- The leakage protection device must be installed and make sure to ground adequately. Running voltage can be changed within $\text{AC } 220\text{V} \pm 10\%$, if the voltage is unstable, choose stabilizer with proper capacity.
- Do not let cabinets close to heat source or under sunshine directly, around passages and vent shall be closed to avoid damaging air curtain and affecting refrigeration effect.
- It's a normal phenomenon that when the cabinet is defrosting, the internal temperature will rise in a short time.
- The needle type valve is used for system test and refrigerant filling-up, so do not open it except professional people to prevent refrigerant leakage.
- Do not store inflammable, explosive, volatile fluid or gas.
- The shelves can stand not more than 20kg/m^2 , or the shelf may be damaged.

- Put goods in and out carefully, do not throw goods to avoid damaging cabinets.
- Reserve a certain place when arranging the foods, do not put foods in air return, or it will affect air flow in cabinet and affect storages effect and increase the energy consumption.
- Regularly change foods place according to the principle “first in, first out” to avoid out –of-reach foods overdue or deterioration.
- Clean food scraps timely to avoid block defrosting drainage and lead to ice clogging.
- Every foods has its shelf life, do not store it indefinitely.
- On the sake of clean, tidy and underlying, the foods shall be provided with good package.
- Plug-in case has large tonnage, users shall discharge water at times.
- Have circuit inspection for temperature every 2 hours and record it.

Caution

- the A-weighted emission sound pressure level is below 60 dB(A).
- **Not:** The leakage protection device must be tested once a month. Ask professional people to maintain the cabinet if it is not running normally, Before maintaining it, cut down the power source, also you must wear security suits and use special tools.

Circuit Diagram



Main Characteristics

• Illumination

There are LEDs in the Cabinet, whose On and Off is controlled if you need. It can be lighted when dark, also it can be closed when the light sufficient or in non-business hours to reduce energy consumption. All the illumination equipment adopt standard parts, so they can be changed if they fails. Please cut off the power before changing, change it according to maintenance instruction.

• Defrosting

When the display case is frosted, its cooling capacity will degrade, so the frost shall be removed at intervals. The frequency of defrosting is usually 6 times/24h, with duration of 18min (these settings are only for your information, the user may ask professional people to make reasonable according to the exact conditions). It is normal when defrosting, the temperature will rise and not affect normal use.

• Temperature control

In display case EC-box there has a temperature controller, the user can change internal temperature by setting temperature controller (let professional people do it, wrong setting will damage compressor).

Daily cleaning and maintenance

The performance and lifespan of the equipment is directly related with the daily maintenance and cleaning. The regular maintenance of the display case and its parts and components can lengthen their lifespan and reduce the cost for use and maintenance.

Check: List for maintenance and cleaning (general)

Interval	location	Content, method and instruction for maintenance and cleaning
Clean in time	Outside components	Use soft cloth with water to rub away water stain, dust, blot, rusting, trace of adhesive tape, etc. Neutral detergent may be used, if necessary. The yellow stain left by the detergent shall be rubbed away with water. Note that the place around the food containing salt shall be rubbed at times all the more.
	Shelf for goods	Remove the food scrap and other foreign matter in time. Use soft cloth with water to rub away water stain and blot. Not that every corneal be cleaned to keep off bacteria
Once/month	Inner surface and attachment of display case	Remove the remnant use, food scrap and other foreign matter in the case, use soft cloth with water to rub away water stain, dust, blot, rusting, use neutral detergent and cleaning solution that does not damage the surface of the display case or pollute the food to wash the inner surface and attachment, then use water to clean.
	Lighting device	Use self-cloth with water to rub away water stain, dust, blot, use neutral detergent if necessary, then use dry towel to clean, dry clean maybe used when dirt is not much. Note that the power shall be cut off before cleaning.
	Water spout	Clean and remove the dirt deposited at the filtering web of the water spout, and use clean water to wash the filtering web. Note that the dirt can only be taken out. Flushing the dirt into the drainage is not allowed, or it may block the sewage

Check: List for maintenance and cleaning (content)

Interval	Location	Content, method and instruction for maintenance and cleaning
Once/1-3 months according to real conditions	Beehive net at the air discharge	Use clean and soft cloth dipped with neutral cleanser to clean beehive net surface dirt, then use clean water to rinse it, after air-drying, assemble it as before. Note: if the air-dry not finished, do not run the cabinet, or the ice scraps will block beehive net

		holes.
	Plug-in compressing rack	Clean compressing rack completely, especially for compressor, or it will down cabinet refrigerating speed, decrease refrigerating capacity and increase internal temperature long time no cleaning will lead to compressor burned out. Note: Do not let water on the fan motor, or it will burned out
Once/2-4 months according to real conditions	Air return net	Clean out food scraps and residues and remnant ice, remove air return net if necessary, special cleaning for those places we often omitted. Note: Scraps and residues are agreed to take out, not allowed to rinse into drainage.
	Condensing fan Motor	Clean depositions on the condensing fan motor, if necessary, remove it to clean, and re-assemble according to the opposite order. Do not let water on the fan motor.

Note:

Do not use polishing gaskets and agents, or it will damage the surface.

Do not use amino cleansers or corrosive cleansers, or it will damage parts permanently

Do not let fluid touch e-parts.

Be sure to cut off the power source before cleaning.

Daily maintenance and cleaning Guidance for cleaning and maintenance

- Clean internal surface and evaporator

- Cut off the power source, stop running.
- Take out foods stored in cabinets, and put them in other proper cases.
- Disassemble bottom bracket, bottom shelf, etc. and clean them.
- Clean bone body: move scraps out the case, then clean. Do not use water to rinse because of its evaporating system, or dirt will enter evaporating water box and lead to copper tubes corruption.
- Reassemble all parts in correct order.
- Switch on the cabinet after all parts are drying.
- Start refrigeration function.
- Put foods in the cabinets when its temperature is reasonable.

• **Clean water spout**

- Discharge the dirt and scraps into prepared water box.

Note: Dirt only allowed to take out, do not let them enter drainage or it will block drainage.

- Pour proper water to the cabinet, if not flows smoothly, it means the main water pipe blocked, tell the local maintenance company.

Note: Do not use high-pressure water to rinse the cabinet to avoid danger.

Installation

- Disassemble wooden package, move the cabinet to the appointed position.
- Check packing list to conform goods.
- For plug-in case, fix L/R Kick plates under L/R side panels.

Maintenance

Preventive maintenance

- Prepare a regular cleaning plan according to the summary of this instruction, to let employees learn the importance of cleaning and maintenance and follow the recommended rules. Before cleaning and checking electrical appliances, switch off the display case, because water on the parts may cause electrical shock and personal casualty.
- When cleaning display case, clean fan blades and coils, Ensure there has no dirt and dust on the fan blades and coils exposed, as deposited dirt on the fan blades may cause faults of the motor.
- Check electrical equipment and parts regularly, Find and manage the small problems in time to avoid serious accident.
- Keep the drainage clean and no scraps or its blockage will degrade cooling capacity and damage the motors.
- Ammonia or amino detergents can damage electrical parts, so do not use them.

- Check the adiabatic layer of the suction pipeline and repair its breakage, to ensure pipeline adiabatic function.
- Make sure the load is appropriate, avoid use large posts in it, do not let goods block or occupy the air channel. Put goods tidy and clean.
- If there has air flow with opposite direction compare with air curtain, it will has unbenefited influence on cooling capacity, also too strong lighting will affect its cooling capacity.

Note: Be sure to cut off the power source, use professional tools and wear protecting clothes and gloves!

This equipment is intended for the storage and display of non-potentially hazardous packaged products only

R290 refrigerant is used for this equipment.



WARNING; — Risk of fire / flammable materials

Caution!

Consult repair manual/owner's guide before attempting to install or service this product. All safety precautions must be followed. Dispose of properly in accordance with federal or local regulations. Risk of fire or explosion due to puncture of refrigerant tubing. Follow handling instructions carefully.

Disposal



EU regulations require refrigeration product to be disposed of by specialist companies who remove or recycle all gasses, metal and plastic components.

Consult your local waste collection authority regarding disposal of your appliance. Local authorities are not obliged to

dispose of commercial refrigeration equipment but may be able to offer advice on how to dispose of the

equipment locally.

All packaging materials should be disposed of in an environmentally friendly way.

The cardboard may be used as scrap paper. The protective foil and the foam cushions are CFC-free.

Do not allow children to play with the packaging and destroy plastic bags safely.



Environmental protection

Discarded electric appliances are recyclable and should not be discarded in the domestic waste! Please actively support us in conserving resources and protecting the environment by returning this appliance to the collection centers (if available).

Compliance

Parts have undergone strict product testing in order to comply with regulatory standards and specification set by international, independent, and federal authorities.

Products have been approved to carry the following symbol:

