

Horizontal Refrigerated Showcase for convenience store

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

Please read this manual book carefully before use and operate according to this manual.
Please keep it well and for your reference.

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1.Product Introduction

①. These products are designed especially for the storage and display of pre-chilled food products for sale in a retail environment. These cabinets are available with either a curved glass or flat glass version, manufactured using high quality parts, elaborate, reliable, elegant and luxury appearance, with complete function. These showcases have compact structure, with sleek, luxury, European style appearance.

②. Back flow refrigeration system to make sure the even temperature; Precise defrosting control system with reliable performance; Adopting natural air defrosting to reduce the power consumption.

③. The length of horizontal showcase is : 1500mm、1875mm. The control temperature is from 0 to 4°C, and are suitable for showing milk, soft drink and other cooked foods, Meat temperature versions are also available. The inside material of the showcase is stainless steel, which is anti-corrosion, easy to clean, simple operation and no pollution to the food.

The showcase uses toughened glass which is solid and reliable with the best showing effect, the appearance is simple but elegant, the curved glass version is easy to open using a hydraulic lifting mechanism to hold the glass in the upright position to aid cleaning and loading of the cabinet.

④. Product features:

- ◆ High quality unit, with an integrated condensing unit, it is low noise, high efficiency and environment friendly and saves energy.
- ◆ Computerized fully automatic temperature control system, easy to operate and precise to control
- ◆ With overall foam technology and environment friendly foam material to realize better power saving.
- ◆ The cold air is evenly spread, with stable temperature inside, the design of the cooling system reduces the drying of the product
- ◆ Pure copper pipe with aluminum evaporator allows more even refrigeration in shorter time
- ◆ PU overall foam with fully sealed design, is safe and saving power, good appearance
- ◆ Refrigeration system adopts famous brand compressor and electronic temperature control, which is very precise and highly efficient.
- ◆ It adopts the drainage and hot gas from the refrigeration system to easily deal with condensed water.





3.Safety sign and notice

Safety: Horizontal showcase should be installed on the suitable solid level surface; the adjustable feet can allow for levelling slightly uneven surfaces if required.


Authorization: All repairs should be done by qualified and authorized professional workers.


Safe operation: In order to avoid possible danger and before operation, all the operators should study manual carefully.


Safety notice: These safety notices are marked specially, in order to avoid danger, they must be abided by.


| | | |
|-------------|--|---|
| Notice! |  | To prevent possible small danger on equipment |
| Be careful! |  | To prevent possible small danger on workers |
| Caution! |  | To prevent possible serious danger on workers |
| Danger! |  | To prevent serious accident on workers |

4.Transportation and unpacking notice

 There are fragile glass panels inside the equipment and the package, please handle with care, when you transport and carry on and move the equipment, do not push on the glass.

 When you unload the equipment from the truck, please use the double fork lift paying full attention, if you use the crane, please fix the specified position with steel rope or cable with diameter above $\phi 10\text{mm}$ to move down it safely.

 When you move the equipment, keep the wood tray under the equipment until it is in its final position, please move equipment stably to avoid any inclining, lying on or reversing.

 Horizontal case, unit and spare parts installation will be done by authorized workers from our company.



You need to open the package carefully to avoid any damage on the case and parts; please don't mix and lose any spare parts inside one package, you should assemble the unit when it is in its final location.

5. Operating Notice:

①. Position



Horizontal showcase must be located inside the room, it cannot be used outdoor, it must be located in the stores, super market, hotel with adequate ventilation to make sure the ambient temperature is below 25°C, humidity 60%, the wind speed less than 0.2m/S and there is no other heat sources around. When the temperature, humidity and wind speed is above these levels, the performance of the horizontal showcase will be affected, if the humidity is above 60%, there will be condensation on the glass, it is a normal occurrence and will disappear when the humidity going down.

Detailed operating requirement:



During the operation, the voltage should be kept stable within $\pm 10\%$ of stated power, if the voltage is not stable, please use the safe and reliable adaptor.



The environment temperature of condensing unit should be below than 30°C, The environment should be clean without sundries and well ventilation; if a remote condensing unit is located outdoors, you should put rain-proofing, sun-proofing and metallic wire protection device.



Horizontal showcase should be installed on the smooth and even ground, keep it horizontal to ensure water drains correctly.




To avoid putting showcase in direct sunshine, light or any other thermal source area.





To avoid putting the showcase near air inlet and outlet, fan or other


door and window which need often open, not to have influence on the air curtain.


1、 Installation


 To take out the spare parts inside the showcase and check them according.

 To install the spare parts on the showcase, to make sure all the parts like shelf, nuts, bolts and spacers are fitted and tightened correctly, avoid overtightening.


 Check the cabinet is level in all directions, use adjustable feet to ensure correct level.


 To check the spare parts and adjust to the right position.


 To clean the showcase outside and inside with alcohol or cleanser, apply stainless steel cleaner to stainless steel panels.


 To transfer the manual book, spare parts to customers and explain the operating notice to customers and make sure customer sign on the project transfer note


1、 Operation

 Please keep some space between displayed food in the showcase to give better air circulation and food storage. Food should be pre-chilled to the correct storage temperature before placing in the display.

 Don't put food beyond or block the fan inlet to prevent the cold air recycle, avoid using tall storage containers in the display area.

 Don't put food near air returning outlet, otherwise it will cause the incorrect temperature inside the showcase.

 Notice: Don't put wrongly the frozen and chilled food in the wrong showcase.

 In order to avoid unnecessary food waste and power waste, the food inside showcase should be covered with the proper packaging and make sure to reduce the open and close

times of the showcase.

2、 Safety Notices:



After powering on, please make sure the temperature inside the showcase going down to the required range, then putting the goods inside.



There should be a suitable individual switched socket for the unit to plug in, extension leads should not be used.



Don't store any inflammable, explosive, volatile gas or liquid inside the showcase.



Before cleaning the showcase, please cut off the main power and make sure there is no power to the unit.



To clean the showcase outside and inside with the soft fabric which is dipped into neutral non-corrosive detergent, after that to wipe them dry, please don't use the acidity, alkaline, and any other corrosive, poisonous liquid to clean the showcase, apply a suitable stainless-steel cleaner to appropriate surfaces.



When you take out or put in the food into the showcase, please do so gently to avoid any damage, avoid using heavy pots or containers which may scratch surfaces.



If the unit is disconnected from the power supply, please wait 5 minutes before reconnecting to the power supply, to avoid damaging the electronic parts inside showcase.



To check the frosting up of the evaporator regularly inside showcase, if there is excessive ice buildup, press the defrost button on the controller for 5 seconds to initiate an additional defrost, if heavily frozen remove products and switch off the unit overnight.



Please assign the workers to check the showcase regularly, to check the temperature changes inside and make records; if you find any abnormal temperatures please check through trouble shooting page.



During the usage, please don't take out food with wet hands to avoid frostbite.

6.Maintenance:

① Refrigeration maintenance

Condenser maintenance: The condenser is the main heat dissipation unit situated underneath the horizontal showcase, the condenser (radiator) will become covered with dust over time and should be cleaned on a monthly basis



Please make sure power off before you start cleaning and there is no power on the refrigeration system.



When you clean the condenser use a soft paint brush starting from the top brushing down to clean and remove the dust, alternatively use a vacuum cleaner with appropriate attachments. DO NOT press too hard onto the condenser as this can damage the fins.



Notice: don't wash and blow towards the fan and condenser.



To check the fan of the condenser and compressor, make sure there is no error on all the electronic parts before powering one.



To check if the foundation of compressor is fastened, or any loose or displacement.



To check the fans, temperature control, defrosting time control,



To check the light, temperature display, condensate vaporising tray including drainage pipework.



To check the electrical voltage and wire connections, including supply cable.



To observe if there is any abnormal noise or situation in the running system.



Notice: Must cut off the power when checking the electronics, only be done by the professional workers.



To check the drainage situation inside and outside the showcase, to make sure there is no dust block or ice block on the outlet.

Troubleshooting

If your appliance develops a fault, please check the following table before making a call to your retailer.

| Fault | Probable Cause | Action |
|---|---|--|
| The appliance is not working | The unit is not switch on | Check the unit is plugged in correctly and switched on |
| | Plug and lead are damaged | Call your agent or qualified technician |
| | Fuse in the plug has blown | Replace the fuse |
| | Power supply | Check power supply |
| | Internal wiring fault | Call your agent or qualified technician |
| The appliance turns on, but the temperature is too high/low | Too much ice on the evaporator | Defrost the appliance |
| | Condenser blocked with dust | Arrange the cleaning of the condenser |
| The appliance turns on, but the temperature is too high/low | Doors are not shut properly | Check doors are shut and seals are not damaged |
| | Appliance is located near a heat source/ high ambient / draughty location | Move the refrigerator to a more suitable location / increase ventilation |
| | Unsuitable foodstuffs are being stored in the appliance | Remove any excessive hot foodstuffs or blockages to the fan |
| | Appliance is overloaded | Reduce the amount of food stored in the appliance |
| The appliance is leaking water | The appliance is not properly levelled | Adjust the screw feet to level the appliance (If applicable) |
| | The discharge outside is blocked | Clear the discharge outlet |
| | The heater is switched off | Switch on the heater switch |
| | The water container is damaged / vaporizing tray heater not working | Call your agent or qualified technician |
| The appliance is unusually loud | Loose nut/screw | Check and tighten all nuts and screws |
| | The appliance has not been installed in a level or stable position | Check installation position and change if necessary |

Electrical Wiring

Appliances are supplied with a 3 pin, BS1363 plug and lead, with a 13-amp fuse as standard. The plug is to be connected to a suitable mains socket, extension leads or plug adaptors should not be used. Appliances are wired as follows:

Live wire (coloured brown) to terminal marked L

Neutral wire (coloured blue) to terminal marked N

Earth wire (coloured green) to terminal marked E

All appliances must be earthed, using a dedicated earthing circuit.

If in doubt consult a qualified electrician.

Electrical isolation points must be kept clear of any obstructions. In the event of any emergency disconnection being required they must be readily accessible.



R290 refrigerant is used for this equipment

Pentland Wholesale Ltd, Blizzard house, Unit17 Walker Park Industrial Estate, Walker Road,
Blackburn, Lancs, BB1 2QE. Tel: 01254 614444, www.pentlandwholesale.co.uk

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.

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.

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:

