



REFRIGERATED BAKERY DISPLAY CASES

OPERATION INSTRUCTIONS

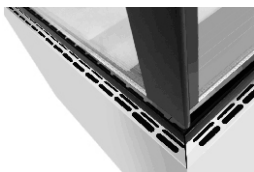


Please read this manual in its entirety prior to equipment set up. This unit is intended for commercial applications only. Residential use voids warranty.

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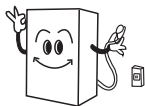
Structure and Parts



Handle and Erection

Handle with care

Unplug the wall socket first.
Never tilt it over 45 degree during handling.



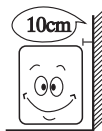
Dry place

Always locate the refrigerator at a dry place.



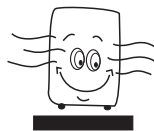
Sufficient space

The distance from both sides and back of refrigerator to wall or other substance must be more than 10cm. The refrigeration capability might be decreased if its surround space is too small to circulate air.



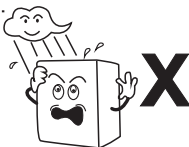
Well ventilation

Always locate the refrigerator at a place with fine ventilation. For the first time use, wait for 2 hours after handling and then plug the wall socket and start it.



Far from heat source

Never place the refrigerator directly under the sunshine. Never locate it nearby any heat source or heater to prevent it from reducing refrigeration capability.



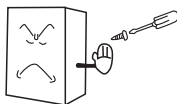
No heavy load

Never put any heavy load on the top of the refrigerator.



No hole making

Never make hole on the refrigerator. Never install other matter on the refrigerator.



Stable location

To avoid the unexpected noise and vibration, Unpacking and locate the refrigerator on a flat and solid place.



Preparation and Power Supply

Exclusive power socket

Normally, the power supply should be 110-120V, 60Hz single phase AC with exclusive single phase three pin receptacle.



No share on socket

Never let the refrigerator share the common socket with other appliance, otherwise the cable becomes hot and fire might be resulted



Protect cables

Never break or damage the cables otherwise current leakage and fire might be resulted.



No water flushing

Never give the refrigerator surface a flush otherwise current leakage might be resulted.



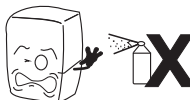
Prevent from flammables and explosive

Never put any flammable or explosive inside the refrigerator such as ether, gasoline, alcohol, adhesive and explosive. Never put dangerous product nearby the refrigerator.



No spray

To spray the flammables such as paint or coating nearby the refrigerator is not allowed, otherwise fire might be resulted.



After power break

After power break or unplugging the refrigerator, always wait at least 5 minutes and then you may plug the refrigerator and start it again.



No medicine

No medicine is allowed to keep inside the refrigerator.

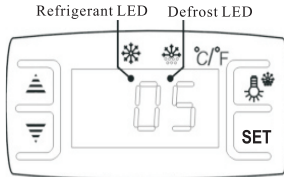


1. Before use:

Plug the refrigerator on 110-120V~ exclusive socket.

After the refrigerator running, put hand on the air suction to confirm it is sufficient cold. Then you may put food inside the cold box.

2. Digital temperature controller



Features of function

It is a mini-sized and integrated intelligent controller and applicable to the compressor of one Hp.

The main functions are :Temperature Display/Temperature Control/Manual,automatic defrost by turning off/illumination Control/Value Storing /Self Testing /Parameter Locking

Front panel operation

1、Set temperature

Press  button, the set temperature is displayed.

Press  or  button to modify and store the displayed value.

Press  button to exit the adjustment and display the cold-room temperature.

2、If no more button is pressed within 10 seconds, the cold-room temperature will be displayed.

3、Illumination: Press button, it lights; Press again, it stops.

Manual start/stop defrost: Press  button and hold for 6 seconds to defrost or stop defrost.

4、Refrigerant LED: During refrigeration, the LED is on; When the cold room temp. is constant, the LED flashes.

5、Defrost LED: during defrosting, the LED is on; When is stops defrosting, the LED is off.

6、Digital controller reset

When display shows "Disorder", press "" button for 2s until buzzer rings, quickly press "" button for 6s until buzzer rings again, the display will flash for 3s and it restores factory setting.

3.Cautions

Shorten the door open time and reduce open frequency is good to keep a cold temperature inside the refrigerator.

Never block the air suction and outlet. Keep air circulation and refrigeration capability.

Do not make food congested as it will influence the cooling effect.

Adjust the rack height for proper food storage.

Cool the hot food down to room temperature before you put it into the refrigerator.

Try to reduce the open times and keep refrigerator inside cold in case the power is cut off.

Only skilled service man is allowed to repair the damaged power cable with special tools.

Never touch compressor to avoid from scald.

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.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

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

The operation manual are not suitable for the persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.

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

During normal operation, the emission noise level does not exceed 70dB(A).

The maximum loading of the Shelf does not exceed 18kg(39.7lb).

The climatic class of the appliance is 4, the Units are suggested to be used at 16°C-32°C (60.8°F-89.6°F) ambient temperature.

To avoid damages or other problems, this product can not be put or stored with any corrosive food .

WARNING: Keep ventilation openings, in the appliance enclosure or in the built-in structure, clear of obstruction.

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.

ADDITIONAL WARNING

Caution: risk of fire. The height of the triangle in the symbol shall be at least 15mm.



Maintenance

1. Notice

Often keep the refrigerator clean and periodical maintenance is necessary.

Always unplug the socket before maintenance.

Never use damaged plug or loose socket to prevent from electric shock or short circuit.

Never flush the refrigerator. Never use alkali detergent, soap, gasoline, acetone or brush.

2. Clean outside

Dip soft cloth in neutral detergent (tableware detergent) to clean the outside of the refrigerator and then wipe it with dry soft cloth.

3. Clean inside

Take rack out for cleaning with water.

Use soft cloth to wipe the box.

4. Shut down refrigerator for a long time

Take all food out and unplug the wall socket.

Clean both inside and outside of the refrigerator thoroughly and open the door for sufficient dry.

The glass breaks easily. Keep the glass far from children.

5. Replacement of lamp in the light box

If the LED lamp is damaged, it must be replaced by the manufacturer, its service agent.

Trouble Shooting

Trouble	Cause and Remedy
No refrigeration	Is the plug in socket well? Is the fuse broken? Is there no power?
Unsatisfactory refrigeration	Is it under the sunshine? Is there any heat source nearby? Is the surrounding ventilation bad? Does the door close well? Does door open for a long time? Is the door seal strip deformed or damaged? Is food congested or too much? Does food block the air suction or outlet? Regulate the temperature controller.
Much noise	The refrigerator does not level. The refrigerator contacts wall or other matter. There is loose part in refrigerator.
Contact local service agent for help if simple trouble shooting does not solve the problems.	

Note

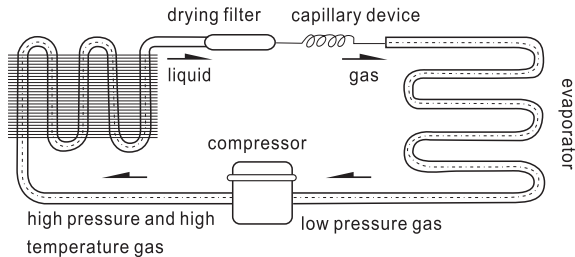
Following phenomena are not troubles

The murmur of water is heard when the refrigerator is working. It is a normal phenomenon as the coolant is circulating in the system.

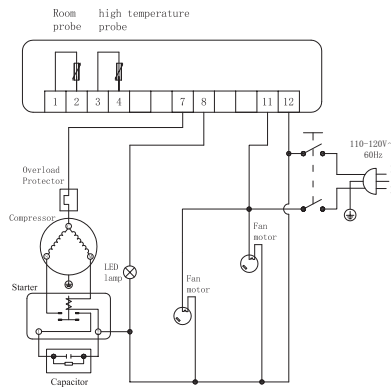
In wet season, condensation might be found on the outside of the refrigerator. It is not a trouble, which is caused by high humidity. Simply use cloth to wipe it.

Principle of Refrigeration System and Electric Circuit Diagram

The principle of compression refrigeration consists of “compression” , “condensation” , “throttling” and “vaporization” . The compression is undertaken by compressor, the condensation is completed by condenser, the throttling valve is executed by capillary and the vaporization is implemented by evaporator. When the coolant is circulating in the closed refrigeration system, the compressor sucks coolant, which has absorbs heat in evaporator, the coolant becomes a high pressure and high temperature gas. In condenser, it dissipates heat in air, while the coolant is re-liquefied and throttled in capillary and then enters into evaporator with low pressure. The liquefied coolant quickly boils and vaporizes into gas when the pressure suddenly drops. Meanwhile, it absorbs heat inside the refrigerator. And the compressor sucks the low pressure and low temperature gaseous coolant. It is circulating in this way up to realization of intended refrigeration.



Circuit Diagram



Major Parameters

Model	29C-012/29C-013	29C-014/29C-015	29C-016/29C-017	29C-018/29C-019
Coolant and injection quantity(g)	R290(100)	R290(130)	R290(130)	R290(150)
General Rated input power(W)	380	420	420	440
Type of climate	4	4	4	4
Refrigeration temperature(°F)	32-53.6	32-53.6	32-53.6	32-53.6
Electric shock protection class	I	I	I	I
Total effective volume(L)	270	370	470	570
Net weight(lb)	297.6	341.7	401.2	496
Rated voltage(V)	110-120~	110-120~	110-120~	110-120~
Rated Current (A)	4.5	4.5	4.5	4.9
Rated Frequency (Hz)	60	60	60	60
Overall dimension (in) (LxWxH)	37x27.1x47.4	48.8x27.1x47.4	60.6x27.1x47.4	72.4x27.1x47.4

Note

1. The electric circuit diagram and parameters on the product nameplate are final ones if they have been changed.
2. The design might be improved without notice.



WARNING : Refrigerant is facility burning of R290, please protect against fire.



Meaning of crossed out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact you local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposals at least free of charge.



2 Year Limited Parts & labor Warranty

Kratos offers a warranty to the original purchaser of new equipment, that the model of equipment will be free of defects in material and workmanship for a period of 2 year from the original date of delivery. The Compressor is covered for the timeframe of 5 years. Equipment must be installed by a qualified installer where applicable. Warranty coverage is only valid in the Contiguous United States & Canada. It is for commercial customers and is not transferrable. Kratos will repair, provide replacement components, replace the entire unit, or refund the purchase price to satisfy the warranty obligation. Not to exceed the original price of the item purchased. Kratos makes no other warranties, express or implied, statutory, or otherwise, and hereby disclaims all implied warranties, including the implied warranties of merchantability and of fitness for a particular purpose.

The 2 Year warranty does not cover:

- Failure to install and/or use equipment within proper operating conditions as specified by Kratos. Improper operating conditions include but is not limited to Residential, outdoor, or mobile applications.
- **For commercial use only, residential use voids warranty.**
- **Mobile applications fall under a different level of coverage as outlined below.**
- **Outdoor use will void the warranty.**
- Issues related to improper installation which are the responsibility of the installer. To include improper voltage, phase, or fuel type.
- Damage caused by power surges, brownouts, or inconsistent voltage such as when connected to a generator. Also to include damage caused by vandalism; improper handling, maintenance, or storage; use of unauthorized parts, impacts by foreign objects, harmful chemicals, fire, flooding, or Acts of God.
- Failure to properly maintain equipment or failure due to lack of routine cleaning.
- Parts deemed by Kratos to be normal wear and tear parts including, but not limited to, casters, hoses, grates, glass, light bulbs, and rubber components.
- Products that have been modified, abused, or misused intentionally or accidentally. Any products that have been exposed to corrosive or other cleaners not intended for use on stainless steel will void the warranty.
- Any products sold outside the contiguous United States OR Canada.

- Any products where the original sale cannot be determined. No order #, invoice or receipt to provide proof of purchase will result in no warranty coverage.
- Service requires prior notice to Kratos and within 30 days of discovery of the defect, not to exceed the length of the warranty following the original date of delivery.
- Repair service must be through authorized Kratos services and not by unauthorized or unqualified persons. Repairs must be completed using parts consistent with Kratos OEM parts, except where permissible by state law.
- Rust or other damage caused by exposure to moisture.
- Freight damage must be made at time of delivery and addressed with the carrier for compensation.
- Kratos will not be liable for any parties that experience loss of product, consequential damage, lost business, or any other expenses.

The warranty does not cover overtime, holiday or weekend rates or other off-hour rates. Kratos reserves the right to deny coverage after a service technician is on site based on the above exclusions. Kratos will not be responsible for any service charges from non-warranty related labor and/or parts.

Food Truck/Mobile Application Warranty

Valid only in Contiguous United States

Kratos warrants all new equipment sold to food truck or other mobile applications for a period of **90 days** from the date of delivery and proper installation. Contact your authorized place of purchase for assistance.

For Warranty Inquiries or Service

Have your model number, serial number, and original order number ready to make an inquiry or claim. If possible, include pictures, a video and description of the problem to help expedite the processing time. Kratos reserves the right to investigate any warranty claim and evaluate the defective product to authenticate the problems found. Failure to permit this investigation and allow access to the defective item will void this warranty. Return authorization must be received from Kratos prior to returning any item. Any item that arrives without prior authorization will be refused and shipping costs will not be covered by Kratos.

- Call 1-800-215-9293
- Email crpcustomerservice@takktfoodservices.com