Blast Freezer

User Manual





Model：EcoBlast 320

Model：EcoBlast 620

Intertek 4003219

Intertek

Please read this instruction manual carefully before use. It contains all safety instructions related to the machine and aims to inform qualified personnel for proper installation, operation and maintenance. Eurodib will not be responsible for any consequences caused by failure to follow these instructions.

Introduction

Quick-freeze is a method of cooling food quickly to prevent bacteria growth, which happens fastest between 8°C (46°F) and 68°C (154°F). Rapid cooling of cooked food, from 90°C (158°F) to 3°C (37°F) within 90 minutes, makes food storage and subsequent consumption safer. This method of food preservation is already common in the catering industry and more recently, due to its characteristics of ensuring food safety and quality, has been popularized in ready-to-eat food. Presently, it mainly appears in small and medium-sized catering operations, bars, restaurants, small hotels, nursing centers and schools.

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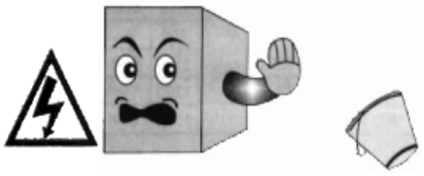
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Safety Instructions

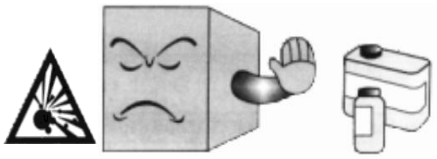
- Before connecting the power to the machine, make sure the voltage and frequency are consistent with those on the rating label of the machine.
- Be sure to connect the machine to a suitable high sensitivity leakage switch (30mA)
- The socket must meet the requirements of current national laws and regulations, and the safety laws and regulations require mandatory grounding of the machine. To protect the machine from electrical overload or short circuit, the power supply is connected through a differential leakage switch with manual reset and high sensitivity
- Be sure to disconnect the power supply before performing any cleaning or maintenance
- Wear gloves for maintenance of the motor and the refrigeration system, located within the machine
- Do not insert a screwdriver or other devices into the protective fence (e.g. heat exchange vent, evaporator, etc.)
- Do not touch electric parts with wet hands or bare feet
- Do not block the heat exchange port of compressor or evaporator to ensure proper operation of the machine
- Must only be operated by properly trained personnel
- Installation, routine, and special maintenance (e.g. cleaning and maintenance of cleaning systems) shall be performed exclusively by authorized technicians who are professionally trained and have sufficient knowledge of refrigeration and electrical systems
- This device is not suitable for use by persons (including children) with physical, sensory, or intellectual deficiencies or lack of experience and knowledge
- Children should be supervised to make sure they don't play around machines
- If the machine’s power supply fails, be sure to ask the manufacturer’s identified professionals to replace (to avoid accidents)
- It is absolutely forbidden to modify or remove the safety devices provided (protective grills, hazard labels, etc.). The manufacturer shall not be responsible for any consequences caused by the violation of this instruction
- In the event of a fire, do not douse with water. Use a carbon dioxide fire extinguisher to cool the motor room as soon as possible
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer
- Do not damage the refrigerant circuit
- Do not use electrical appliances inside the food storage compartments of the appliance, unless they are recommended by the manufacturer
- The refrigerant and insulation gases are flammable. When disposing of the appliance, do so only at an authorized waste disposal center. Do not expose to flames.
- If the power supply cord is damaged, it must be replaced by the manufacturer, its service agent(s) or similarly qualified personnel in order to avoid hazard.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- WARNING: Keep all ventilation openings in the appliance enclosure or in the structure for building-in

clear of obstruction.

- The sound level is below 70 dB(A).
- The appliance must be disconnected from its power source during cleaning or maintenance, and when replacing parts. The operator must have access to all sides and areas of the machine. The plug must remain disconnected to do so.
- The alpha-numeric characters on the label define the climatic class of the appliance as below:
  – 32 °C ± 2 °C on appliances of test room climatic class 0, 1, 2, 3, 4, 6 or 8;
  – 43 °C ± 2 °C on appliances of test room climatic class 5 or 7.
-  WARNING: Risk of fire / flammable materials
- Inner tray holders cannot be loaded more than 5KGS each.

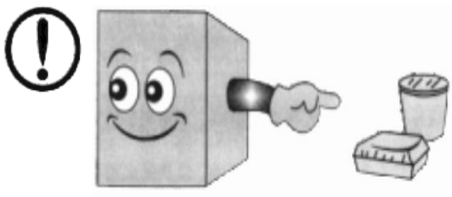


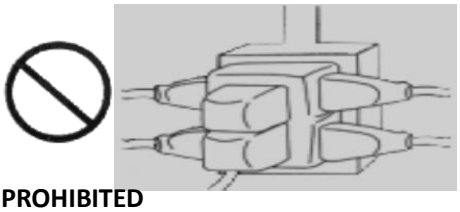
WARNING: Electric Shock



CAUTION: Burst



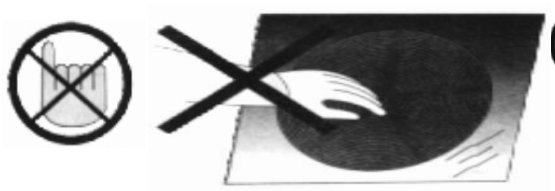


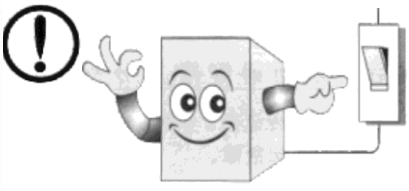


PROHIBITED



DO NOT TOUCH





CAUTION

Installation, Transportation, Storage and Demolition

Packing and Shipping

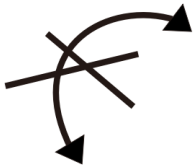
- Packed in wooden cases, the machine should be transported with appropriate equipment, do not move manually
- When using a lifting system, such as forklifts or pallets, pay special attention to balance and prevent tipping
- Normally, the machine should be fixed on wooden pallets to ensure safety during transportation and storage
- Warning symbols shall be printed on the package to ensure that the machine will not be damaged during loading, unloading and transportation.



fragile



upward



Do not turn



Stay dry

Stacking limit

- When storing or handling machines, the maximum stacking quantity is two machines, unless otherwise specified on the appropriate sticker.
- As the center of gravity of the machine is not consistent with the geometric center, take care not to tilt during handling.

Unpacking

- Due to the packing of wooden cases, please use appropriate tools for unpacking. After unpacking, if any damage is found, please inform the carrier immediately.

Installation

- Do not push or pull the machine during handling to avoid capsizing or damaging parts
- Do not lean the machine against the door
- The machine should be placed in a well-ventilated place, and away from heat sources, and explosive objects
- The installation plane must be flat
- The minimum gap ≥100mm (4") must be maintained to ensure adequate operating performance, ventilation and maintainability, and the back of the machine must be placed against the wall for use.
- Before connecting power to the machine, make sure the voltage and frequency are consistent with those on the rating label. To allow normal voltage variations of +/-10%, the machine must be connected to a valid ground connection.

Storage

- Turn off the power and unplug the machine
- Empty the refrigerated bin and clean it carefully
- Keep the door slightly open to ensure ventilation and avoid mildew or odors

Demolition

Temporary storage of special wastes may be permitted before disposal or final disposal
In all cases, the applicable environmental laws of the user's country must be complied with.

	Correct Disposal of this Product
	This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

Functional Specifications

Quick-Cooling Program

This program can quickly reduce the temperature of cooked food (from +90°C to +3°C in 90 minutes) to avoid being in the critical range of +8°C to +68°C, thus preventing spoilage.
Quick-cooled cooked food can be stored in refrigerator at +3°C for up to five days

Quick-Freezing Program

Quick-freeze (reduced from +90°C to -18°C in 240 minutes) prevents the formation of ice crystals in foods, thereby reducing loss of juice and vitamins.
This procedure applies to cooked and raw foods. Frozen cooked and raw foods can be stored at -18°C for up to 2 months and 12 months respectively.

Save Program

At the end of each quick-cooling or quick-freezing program, the machine will automatically enter the preservation program, and keep the food center temperature.

Food storage

For optimal storage results, please follow the following instructions:

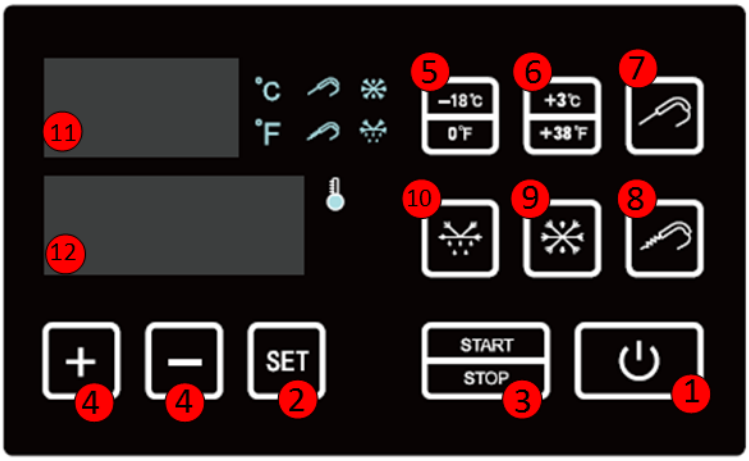
Save Program Stage

- Do not place hot food or uncovered liquids in the machine
- Wrap or protect foods, especially if they contain aroma. Avoid splashing/spilling. Avoid using lids which close the containers completely.
- Arrange your food properly so that it doesn't block air flow. Avoid placing food on paper trays, cardboard, or wooden boards, which may hinder air flow
- Try to avoid opening the door frequently and for long periods of time.

Quick-Cooling or Quick-Freezing Stage

- Do not open the door throughout the duration of the program(s)
- To achieve faster and better quick-cooling and quick-freezing efficiency of food and better low-temperature sterilization effect of the machine, please start the machine at the lowest temperature and run it for 20 minutes before quick-cooling and quick-freezing food.
- Do not use trays or containers deeper than 65mm (2.5")
- Do not stack food. The thickness of the food/containers should be less than 40mm (1.6").
- Use aluminum or Stainless-Steel containers without a lid

Control Panel and its Functions



1. **( ) Power button**

-- When the power is connected, the machine defaults to Standby Mode. In Standby Mode, press the Power key to enter Preparation Mode. At this time, the temperature displays the current temperature in the cabinet, and the time displays the time value set last time.
-- When the machine is in Preparation Mode or during operation, press the Power button and the machine returns to Standby Mode.

2. Set Key

-- In Preparation Mode, press the SET button to switch between temperature and time (hour or minutes) settings. When the temperature flashes, set the temperature by "+" and "-", the range can be set :- 30 °C ~ +25 °C (-22 °F ~ +77 °F); When the digits of the hours and minutes flash, set hour and minutes by "+" and "-", the range can be: 00:10 ~ 99:59. Press the SET button to back after all settings are completed.
** It will exit automatically if no other setting is selected after you press SET. Temperature will be the room temperature or the food sensor temperature in the display.
-- In Preparation Mode, the temperature unit (°C and °F) can be switched by pressing and holding the SET button and the "-" button for three seconds while the temperature value and time value are not set.
-- While the machine is operating, press and hold the SET button to view the set temperature and time.

3. (START/STOP) Start/Stop Button

-- After setting the required temperature and time, press the START/STOP button: the machine starts operating, the cooling indicator lights up, and the time starts counting down.
-- Pressing the START/STOP button during operation: the machine stops and displays the temperature inside the cabinet (if the food probe button is pressed, the food probe temperature is displayed).
** （1）Considering the problem of the internal pressure of the compressor: To protect the life of the compressor, it should not be started frequently within a short time. The cooling equipment should be delayed for a few minutes after the machine is restarted, that is, a delayed start. Press the START/STOP

button. After 2 minutes, the compressor starts, and after another 2 minutes, the evaporator fan starts.

（2） In the soft Quick-Freezing mode: when the START/STOP button is pressed to start, if the temperature inside the cabinet is less than or equal to the set temperature, the compressor will only start when the temperature in the cabinet is greater than or equal to the set temperature.

（3）In the hard Quick-Freezing mode: when the START/STOP button is pressed to start, if the food probe temperature is less than or equal to the set temperature, the compressor will not start. It will only start when the food probe temperature is greater than or equal to the set temperature. **

4. (+-) Adjust Button

-- Use the SET button to choose the desired setting, and increase/decrease the temperature and time by “+” and “-”.

5. (−18℃ / 0℉) Quick-Freeze Shortcut Keys

-- Press this shortcut key: the temperature has been set to -18 °C / 0 °F, the time is 04:00; then press the START / STOP button, and the machine starts to work with this set target temperature and time.

6. (+3℃ / +38℉) Quick-Cool Shortcut Keys

-- Press this shortcut key: the temperature has been set to +3 °C / +38 °F, the time is 01:30. Press the START / STOP button, and the machine starts to work with this set target temperature and time.

7. () **Food Probe Keys**

-- Insert the food probe into the inside of the food and press the key. The probe icon will light up and the temperature digital tube shows the temperature of the food probe. Then press the key to switch back to the temperature inside the cabinet.

8. (**) Heat probe for food**

-- When the food probe needs to be pulled out from the frozen food: press the button, and the food probe heating icon is illuminated. The probe heating function is performed, the temperature indicates the temperature of the food probe, and when the food probe heating icon is off, the probe is heated, and the food probe can be removed from the food.

Food Probe Precautions

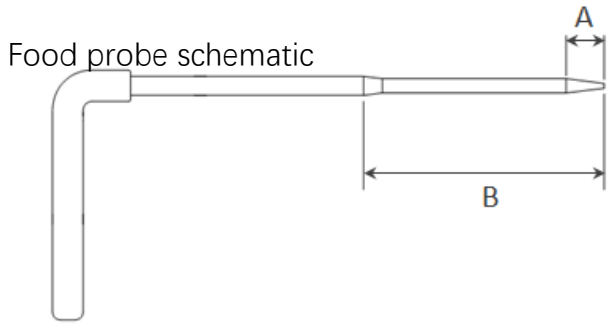
（1） The tip portion (A) of the food probe is a temperature sensor. When inserted into the food, the tip portion cannot be sticking out, otherwise the temperature detected by the probe is not accurate.

（2）The food probe heating function is only to be used when the probe needs to be pulled out from the food. It is recommended to use after the set program is completed. If you need to use it during a set program, please press the START/STOP button to stop the machine and then execute the food probe

heating function.

（3）After the probe is pulled out of the food, the residual temperature of the probe will rise. In this case, please do not touch the heating section (B) of the food probe to avoid further heating.

（4） Removal of the food sensor is prohibited in any situation.



9. ( ) Hard-Freeze Button

-- Press this button: the hard Quick-Freeze indicator lights, and the machine runs at the target temperature of the food probe, which is hard freeze. Without pressing this button, the machine runs at the target temperature of the cabinet, which is soft freeze.

****To use the hard freeze mode, make sure the food probe is inserted into the food and press the hard freeze button before pressing the START/STOP button. Otherwise, you need to stop the machine first, press the hard freeze button and proceed to starting the machine. ****

10. ( ) Defrost Button

-- Press this button: the defrost indicator lights, the machine performs the defrost function. When the defrost is completed, the defrost indicator is off. During the cooling process, the program automatically defrosts every 6 hours by default.

11. Temperature Display

-- Displays the current temperature inside the cabinet after powering on

-- Displays the actual temperature value inside the cabinet or probe during operation

12. Time Display

-- Displays the last set time value after starting

-- Displays the remaining operating time during the set program

Temperature Return Difference Function

During the cooling process, when the temperature reaches the set value, the compressor stops working. The compressor will not restart until two minutes have elapsed and the temperature is greater than or equal to the set temperature of 3 °C (5 °F).

Technical Specifications

Model	EcoBlast 320	EcoBlast 620
Voltage, Power	110-120V, 60Hz, 660W, 6A	110-120V, 60Hz, 1300W, 16A
Rapid-Cooling Capacity (food core temperature) +90℃ to +3℃ in 90mins (+194°F to + 37.4°F)	14 kg / 31 lbs	40 kg / 88 lbs
Quick-Freeze Capacity (food core temperature) +90℃ to -18℃ in 240mins (+194°F to -0.4°F)	12 kg / 26.5 lbs	35 kg / 77 lbs
Foaming agent	C5H10	C5H10
Refrigerant	R290	R290
Shelf Capacity	3-5 × GN1/1 (530 × 325mm × 40-65mm) (20.9" x 12.8" x 1.6 – 2.6") 3-5 x (600 x 400 oven tray) (23.6" x 15.75" oven tray)	10 × GN1/1 (530 × 325mm × 40-65mm) (20.9" x 12.8" x 1.6 – 2.6") 10 x (600 x 400 oven tray) (23.6" x 15.75" oven tray)
Outer Dimensions W × D × H	(751×747×842) mm (29.5" x 29.5" x 33")	(785×776×1564) mm (31" x 30.5" x 61.6")
Cavity Size W × D × H	(624×410×375) mm (24.5" x 16.1" x 14.75")	(645×409×1045) mm (25.4" x 16" x 41.1")
Net Weight	66 kg / 145.5 lbs	126 kg / 278 lbs

Maintenance

This section is applicable to routine maintenance by properly trained personnel. Special maintenance and program related contents shall be performed by authorized professionals.

- To ensure the stability of the whole machine, cleaning and maintenance must be carried out.
- The refrigeration system (condenser) must be cleaned by a professional.
- The drain hole should be cleaned regularly to avoid being blocked. After cleaning, make sure to cover the drain hole lid. The drain hole should be closed during normal use.

Safety

- It is necessary to turn off the machine power before performing any cleaning and maintenance.
- For daily maintenance, it is forbidden to remove the protective/safety device (grid and sticker, etc.)

Cleaning the Machine

- Before the initial cleaning (before first use), clean the interior and accessories with a small amount of water and a mild soap to remove the characteristic "new" odor. Properly arrange all the accessories in the cabinet
- Use a damp cotton cloth to carefully clean the outer surface of the machine as described below
- Use a neutral detergent, do not use chlorine or abrasive cleaners to avoid the formation of dirt residues
- Do not use utensils that may cause scratches and rust, use water to rinse and dry carefully
- If hard residue occurs, use soap and water or a neutral detergent. If necessary, use a wooden or plastic scraper
- Rinse with a little water and dry thoroughly after cleaning
- Do not sprinkle water directly onto the machine because water can seep into the electrical components, affecting their normal function.
- Clean the lower part of the machine and adjacent areas daily with soap, water, and non-toxic chlorine-free cleaners
- If the food probe is black, it can be washed with lemonade.

Special Maintenance (only performed by professionals)

- Clean the condenser regularly
- Check door seal strip to ensure good seal
- Check that the electrical system is working properly
- Check the surrounding heating elements (using amps)
- To repair or replace parts, the serial number of the machine is required

Periodic Inspection

- Check that the plug is correctly inserted into the power socket
- Check if it is affected by heat source

- Check if the machine is placed horizontally
- Check if the door seal is properly sealed
- Check if the heat exchange tube is blocked
- Check if the condenser air filter is full of dust. If found, clean the air filter immediately.

Error Codes and Troubleshooting

Machine error codes: HI, LO, E01

HI: Cabinet temperature probe high temperature alarm. Cabinet temperature high temperature alarm temperature set to 45°C/113°F.

Press the START/STOP button to start the cooling. After 2 hours, check the temperature inside the cabinet. If the cabinet temperature is greater than or equal to the high temperature alarm temperature of 45 °C / 113 °F, the temperature display alternately displays the cabinet temperature and HI until the temperature is lower than the alarm temperature. At this time, check whether the door of the machine is closed, or stop the machine to check whether the temperature probe or compressor is faulty.

LO: The cabinet temperature probe is low temperature alarm, and the cabinet temperature low temperature alarm temperature is set to -45 °C / -49 °F.

Press START/STOP to START the refrigeration and test the temperature inside the cabinet 2 hours later. If the temperature of the cabinet is less than or equal to the low temperature alarm temperature of -45°C/-49°F, the temperature display bar will alternately display the temperature of the cabinet and LO until the temperature is higher than the alarm temperature. At this time, stop the cabinet temperature probe and other devices to check whether there is a fault.

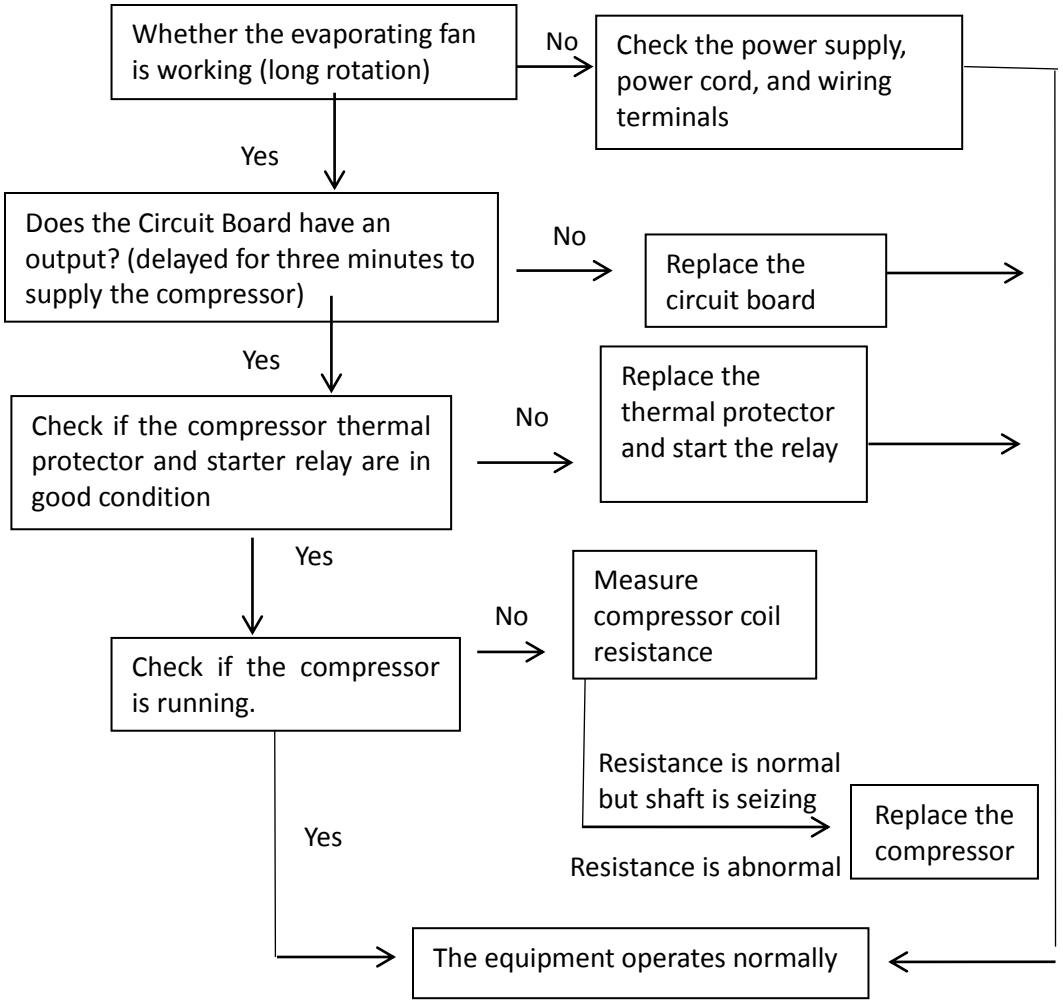
Communication failure code E01: if the motherboard and panel cannot communicate normally, the panel displays E01. At this time, power off and restart the machine or check the connection between the motherboard and the panel cable is connected to the right.

Restore factory value parameters: In Preparation Mode, press the "+" and "-" keys simultaneously for 3 seconds, the temperature bar will display "rS", and then automatically shut down. Press the Power button to start the machine, and the machine parameters will be restored to factory Settings. The factory value parameters are… temperature unit: ℃; Set the temperature value: -18°C; Setting time: 4:00.

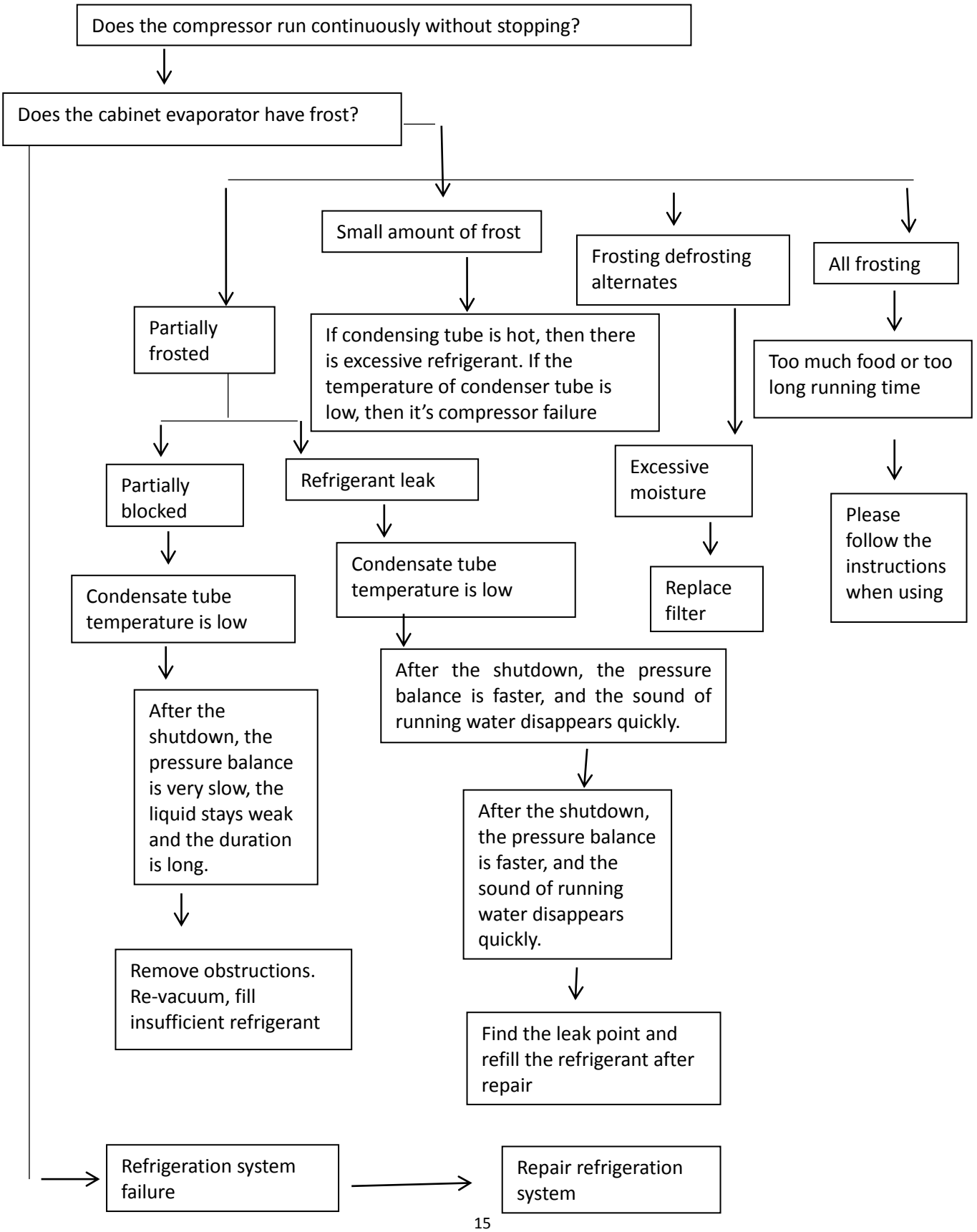
If there is no mention of the error, do not disassemble the machine at will. Please contact our authorized professionals for related testing and maintenance to avoid safety failure.

Troubleshooting

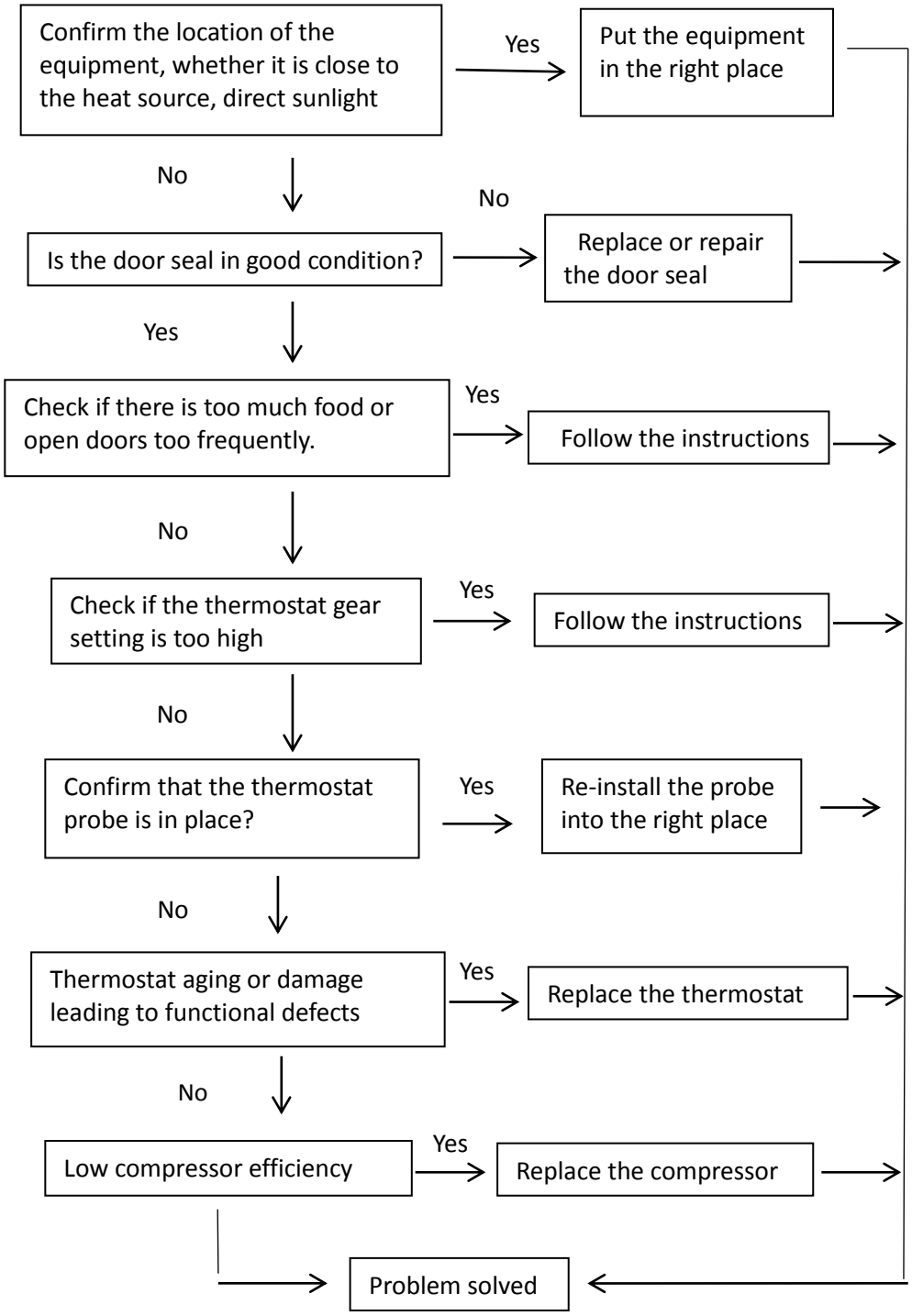
No power supply, compressor does not work



Not Cooling, Compressor Works



Poor Refrigeration Effect



Warranty and Service

1. During use, please ensure that the work area is flat, clean and tidy.

2. The warranty is limited to production defects and damage caused prior to household use.

3. Part cost and maintenance fee will be charged for damage caused by improper use or other quality problems other than the product itself.

4. Please keep relevant purchase voucher

Repair card

Customer Name: Contact Number:

Contact Email: Contact Address:

Product model: Date of purchase:

Dealer:

	Repair Date	Maintenance Reason	Maintenance Staff
Maintenance Records			

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