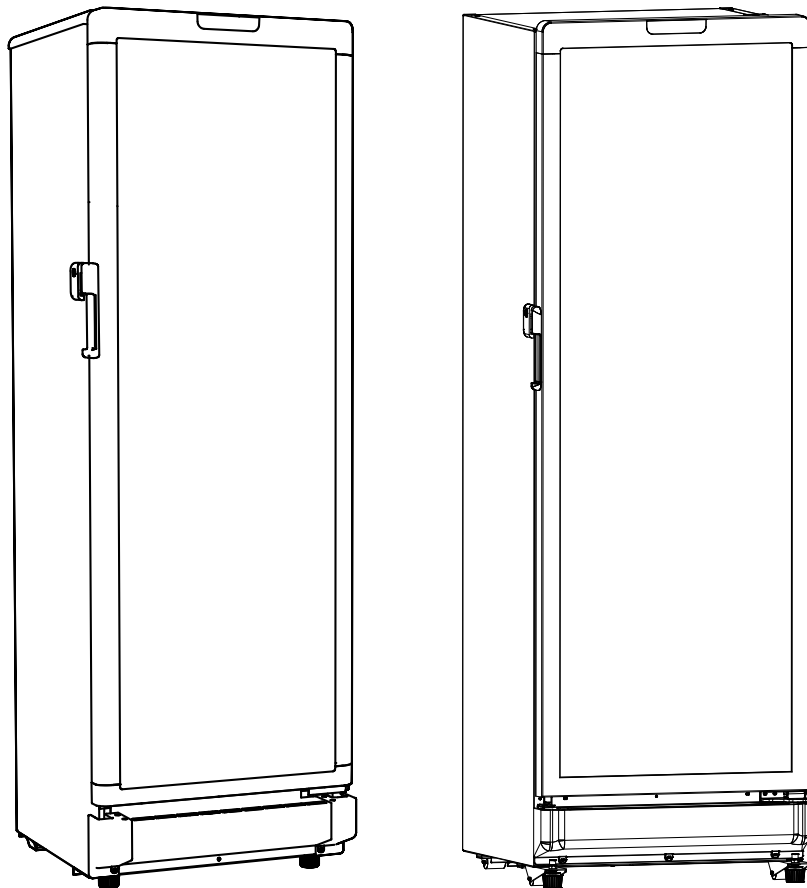


# ROVSUN

User Manual

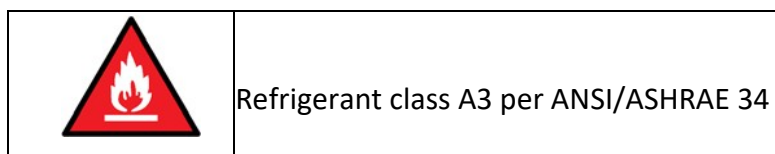
# Commercial Refrigerator

MODEL:LSC-170WE,LSC-200WE,LSC-240WE,LSC-290WE,LSC-350WE



—— For your safety, please read the manual before using the commercial refrigerator. ——

- ◆ Please according to local regulations regarding disposal of the appliance for its flammable blowing gas. Before you scrap the appliance, please take off the doors to prevent children trapped.
- ◆ 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.
- ◆ The electrical schematic and parameters shall be based on the product rating label.
- ◆ The product may be improved without notice.
- ◆ If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- ◆ 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.
- ◆ Never touch compressor to avoid from scald.
- ◆ This appliance is not intended for use by persons (including children) whose physical, sensory, or mental capabilities may be different or reduced, or who lack experience or knowledge, unless such persons receive supervision or training to operate the appliance by a person responsible for their safety.
- ◆ Children should be supervised to ensure that they do not play with the appliance.
- ◆ Cleaning and user maintenance shall not be made by children without supervision.
- ◆ 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 68dB(A).
- ◆ With the climate class is 4, the appliance is suggested to be used at 16°C-32°C ambient temperature.
- ◆ Please according to local regulations regarding disposal of the appliance for its flammable gas. Before you scrap the appliance, please take off the doors to prevent children trapped.
- ◆ Warning: the appliance shall be installed in accordance with national wiring regulations.
- ◆ The appliance is to be installed in accordance with the Safety Standard for Refrigeration Systems, ANSI/ASHRAE 15.



**Warning: Risk of fire / flammable materials, taking care to avoid causing a fire by igniting flammable material.**

- ◆ Notice: Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification.
- ◆ Notice: Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
- ◆ Notice: Component parts shall be replaced with like components so as to minimize the risk of possible ignition due to incorrect parts.
- ◆ The appliance is to be installed in accordance with the Safety.
- ◆ WARNING- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- ◆ Do not pierce or burn.
- ◆ Be aware that refrigerants may not contain an odour.
- ◆ Warning: The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- ◆ Warning: The appliance shall be stored in a room without continuously operating open flames (for example an operating gas appliance) and ignition sources (for example an operating electric heater).
- ◆ Warning: The appliance shall be stored so as to prevent mechanical damage from occurring.
- ◆ Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges, or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.
- ◆ If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.
- ◆ Before carrying out Decommissioning procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of recovered refrigerant. It is essential that electrical power is available before the task is commenced.
- ◆ When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.
- ◆ The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants including, when applicable, FLAMMABLE REFRIGERANTS
- ◆ The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged. Do not mix refrigerants in recovery units and especially not in cylinders
- ◆ The appliance shall not be installed in public corridors or lobbies.

## Importer :

Dear users (customer), this manual contains the product's basic knowledge, use instruction, fault diagnosis and basic trouble shooting methods. In order to better understand and use this product, please take good care of this manual and read it carefully.

This equipment is intended for the storage and display of non-time / temperature control for safety foods bottled or canned products only.

### I.Important safety instructions

1. The range of operating voltage: 97V~130V. In order to avoid damaging the electrical performance of the compressor, please equip with a voltage stabilizer appliance of power not less than 500W, to protect the cooler when the voltage is lower than 97V or higher than 130V.
2. Individual single-phase socket must be used. It should be reliably connected to a grounding wire. Caution: The grounding wire is not allowed to connect to a water pipe or a gas pipe.
3. Strong base, strong acid, organic solvent and corrosive goods or those are easy to pollute to food are prohibited storing in the showcase; otherwise, it can cause corrosiveness or accident.
4. Don't raise the showcase or the shell of the electric parts, or it will cause the decline in insulation and cause corrosion.
5. When the showcase will be out of use for a long time, disconnect the power first, then clean it. Please examine the circuit whether it is ok before reuse.
6. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
7. The appliance shall be disconnected from its power source during cleaning or maintenance and when replacing parts.
8. The A-weighted emission sound pressure level is below 70Db(A).
9. Do not store explosive substances such as aerosol cans with a flammable propellant inside the appliance.
10. Flammable blowing gas of the cooler should be handled according to local regulations. Before you scrap the appliance, please take off the doors to prevent children trapped.

#### **Caution:**

1. Risk of fire / flammable materials, taking care to avoid causing a fire by igniting flammable material.
2. Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.
3. Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
4. Do not damage the refrigerant circuit.
5. Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.
6. The ambient temperature and humidity conditions of the cooler climate class following the tab below:

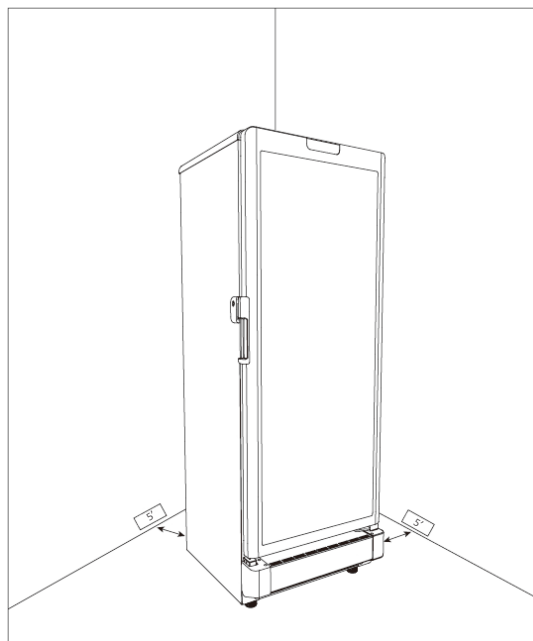
Test room climate class	Dry bulb temperature (°C)	Relative humidity (%)	Dew point (°C)	Water vapour mass in dry air (g/kg)
0	20	50	9.3	7.3
1	16	80	12.6	9.1
8	23.9	55	14.3	10.2
2	22	65	15.2	10.8
3	25	60	16.7	12.0
4	30	55	20.0	14.8
6	27	70	21.1	15.8
5	40	40	23.9	18.8
7	35	75	30.0	27.3

NOTE: the water vapor mass dry air is one of the main points influencing the performance and the energy consumption of the cabinets. Therefore, the order of the climate class in the table is based on the water vapor mass column. See also Annex B to compare lab and store conditions.

## II. Transportation and Placement

### Transportation :

1. Take out packing and clean all the cabinet using warm water together with 5% of neutral soap then dry it with a soft-cloth; for the glass parts only use specific products, avoiding the use of water which can leave on the glasses limestone residues.
2. Keep a distance from the wall of 5' at least. Please level the unit settling the adjustable feet.
3. Cabinet must be installed on a perfectly even surface, far away from any heat source included sun rays.
4. Do not install the unit in open places and do not expose it to rain.



Note : product space demand size schematic diagram.

## Choosing the installation location:

The unit is for indoor application only.

Due to the fact that the unit has a glass door, its performance is highly influenced by environmental conditions. To minimize the environmental effects on the unit's performance, the following are recommended:

- The unit is not to be placed near any kind of heat source
- The unit is not to be placed near or inside air streams produced by ventilation fans, open doors and/ or windows
- The unit is not to be situated under a roof-mounted ventilation system.
- The unit should have sufficient space to 'breathe' (always use the rear space to ensure minimum clearance).
- The unit should not be placed under direct sunlight.
- Keep all ventilation openings in the appliance enclosure or in the structure clear of obstruction.
- In order to reduce fire hazard, the installation of this appliance must be carried out only by a suitably qualified person.

## Levelling the unit :

Place the unit at the chosen location. Using a spirit level, check whether the unit is levelled in both directions.

The spirit level can be placed on one of the shelves.

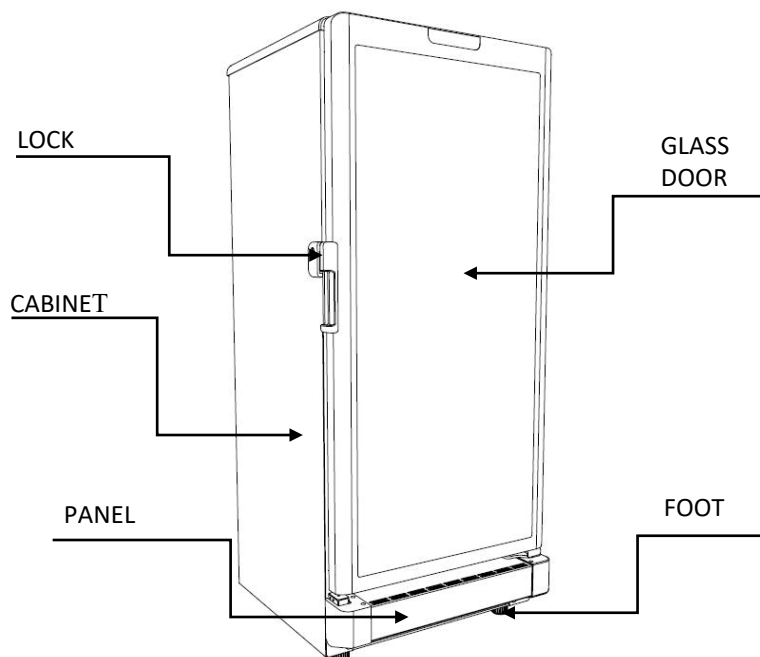
It is essential that the unit is levelled during operation so as to avoid possible ice formation on the evaporator's fins due to insufficient drainage of the condensates.

Tilt unit by 2° angle for easy closing of door and drain.

- Do not insert cream or spray bottles inside the cooler.
- Do not store explosive substances such as aerosol cans with flammable propellant in the cooler.

## III. Product Features

### Details of Product



Note: Due to technological innovation, the descriptions of the product in this manual may not be completely consistent with your upright showcase. Details are in accordance with the material item.

## IV. Operation of the Electronic temperature control

### Electronic temperature control



1. Temperature setting: Press UP and DOWN button to set temperature. The temperature setting range is 0-10°C (32°F ~50°F).
2. °C/°F switch button: Press both UP and DOWN button for 0.5 seconds at the same time, it can switch between °C and °F.
3. Light switch: Press to turn the interior light on or off.
4. Unlock screen: Default unlock status, it will not lock automatically. Press and hold the UNLOCK button for 3 seconds to lock or unlock the screen, .It will show "LC" if press any button under LOCK status.
5. ON/OFF: To turn on/off the power, press the light button and unlock button for 3 seconds. The default setting power on , "OFF" and inner temperature alternatively show on panel.

## V. Electrical Connection

### ⚡WARNING⚡

1. Do not, under any circumstances, cut or remove the third ground prong from the power cord supplied.  
This refrigerator appliance is not designed to be used with an inverter.  
The cord should be secured behind the appliance and not left exposed or dangling to prevent accidental injury.
2. Never unplug the refrigerator (freezer) by pulling the power cord. Always grip the plug firmly and pull straight out from the receptacle.
3. Do not use an extension cord with this appliance. If the power cord is too short, have a qualified electrician or service technician install an outlet near the appliance. Use of an extension cord can negatively affect the performance of the unit.
4. Improper use of the grounded plug can result in the risk of electrical shock. If the power cord is damaged, have it replaced by an authorized service center.

## VI. Details of Product

1. It uses quality, effective and hermetic compressor with broad rang of starting voltage, suitable ambient temperature: not higher than 104 °F, reasonable matching of the showcase system guarantees its powerful refrigerant ability and energy saving.
2. Goods stored can be displayed clearly through the door made from luxurious hollow glass.
3. The thermal insulation layer of the showcase made from hard polyurethane foamed plastics makes it be light and good ability to keep the contents cold.

## VII. Caution for Safety

- ◆ **Warning!** Do not damage the cooling fluid circuit
- ◆ **Warning!** Do not damage walls of the machine: the cooling fluid circuit may damage
- ◆ **Warning!** Do not use electrical appliances inside the food storage compartments of the appliance, unless they are of the type recommended by the manufacturer.
- ◆ **Warning!** The equipment must not be used by persons (including children) whose physical, sensorial, or mental capacities are reduced, or who lack experience and know-how, unless they have been provided, by means of a person responsible for their safety, with suitable monitoring or instructions about the use of the equipment. Children must be monitored to ensure they do not play with the equipment.

### VIII. Caution for Using

- 1、 Unpack all packages before using the showcase. Don't Bend it over more than 60°, while moving it.
- 2、 When initial operation, the refrigerator should run empty about two hour before storing food in it.
- 3、 To save energy, the door should not be frequently opened for left open for a long time.
- 4、 The surface and the inside of the showcase should be dry and clean. Long term moisture with cause the showcase rust slowly. (There will be some stains on the surface.)
- 5、 Periodical cleaning is suggested for your reference. Generally, 30-45 days once is best. When cleaning, it is best to wipe the inside and the surface of the showcase with the soft cloth with neutral soap or detergent.

Caution: To ensure safety, the power plug must be pulled out before cleaning.

### IX. Ordinary Trouble and Remedies

Please refer to the below trouble shooting lists to overcome any minor problems that occurs during operations.

Breakdown	Case	Removal method
The indicator is not on. The compressor does not start.	The plug isn't connected to the socket really.	Re-plug it.
	no power	Connect the socket with power.
The indicator is on ,but the compressor doesn't work and buzzes only	The power voltage is < 97V	Put a power regulator more than 1000W power together.
The compressor stops a minute after start, and restart after a few minutes, and so repeatedly.	The power voltage is > 130V.	
The compressor works normally, but the temperature in the cabinet lowers too slowly.	The door is opened too frequently.	Reduce open times.
	The food in the cabinet is too much, and placed improperly.	Place foods properly keep place between them for ventilation of cold air.
	The frost film is too thick.	Take out foods and defrost.
	The surface of the condenser is too dirty.	Stop and clean the condenser.
	The door seals badly.	Adjust the door seal.
The noise is too loud	The refrigerator is placed unstably.	Place it stably.
	The fixing of the refrigerator is loose.	Tighten the fixing.
	There's contact between pipes.	Separate them.

## PRODUCT SPECIFICATIONS

Model	LSC-170WE	LSC-200WE	LSC-240WE
Capacity	6.0cuft/170L	7.1cuft/200L	8.5cuft/242L
Voltage / Fequency	115V/60Hz	115V/60Hz	115V/60Hz
Refrigerant	R600a	R600a	R600a
Temperature range	32 ~ 50 °F	32 ~ 50 °F	32 ~ 50 °F
Shelf	3	4	4
Product dimension(W*D*H)	535*530*1277mm	535*530*1442mm	535*530*1677mm
Net weight	43kg	48kg	53kg
Package dimension(W*D*H)	625*615*1340mm	625*615*1505mm	676*675*1740mm

Model	LSC-290WE	LSC-350WE
Capacity	10.cuft/285L	12.4cuft/352L
Voltage / Fequency	115V/60Hz	115V/60Hz
Refrigerant	R600a	R600a
Temperature range	32 ~ 50 °F	32 ~ 50 °F
Shelf	4	4
Product dimension(W*D*H)	575*525*1762mm	575*595*1832mm
Net weight	58kg	62kg
Package dimension(W*D*H)	665*620*11966mm	665*680*2036mm