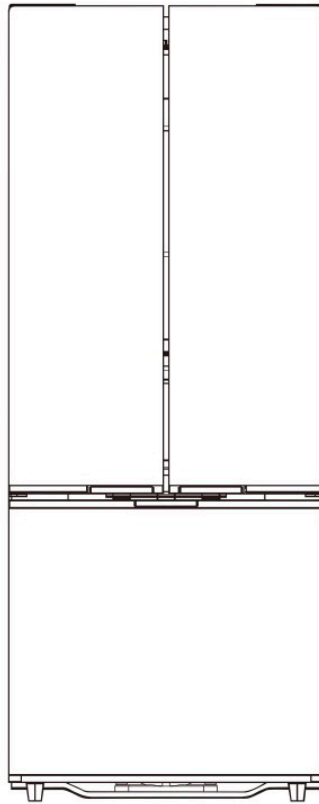


DC 12V RV REFRIGERATOR

MODEL: BCD-282FD

INSTRUCTION MANUAL



This manual contains the product's basic information, operation instructions, fault diagnosis and basic troubleshooting methods. In order to better understand and use this product, please take good care of this manual, and read it carefully.

Thank you and congratulations on purchasing this product. Before operating your new product, please read these instructions carefully. This instruction manual contains information for safe use, installation and maintenance of the product. Please keep this instruction manual in a safe place for future reference. This will ensure safe use and reduce the risk of injury. Be sure to pass on this manual to new owners of this product. The manufacturer does not accept responsibility for any damages due to not following these instructions.

Table of Contents

Important Safety Instructions	2
Power Source Requirement	3
Features and Parts	4
Preparation and Installation	5
Functions and Operation	7
Operational Instructions	8
Maintenance and Cleaning	10
Troubleshooting	11

Important Safety Instructions



**CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN**



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within your refrigerator.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying your refrigerator.

WARNING

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use your refrigerator near water.
6. Clean only with a damp cloth.
7. Do not block any ventilation openings. Follow installation process from manufacturer's instructions.
8. Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Refer all servicing to qualified service personnel. Servicing is required when your refrigerator has been damaged in any way, such as spilled liquid, objects falling onto the refrigerator, your refrigerator being exposed to rain or moisture, or the refrigerator does not operate properly.
10. To reduce the risk of fire or electric shock, do not expose your refrigerator to rain, moisture, dripping or splashing. No objects filled with liquids should be placed on top of the refrigerator.
11. Your refrigerator is not intended for use by any person (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge, unless given supervision or instruction concerning use of your refrigerator by a person responsible for their safety.
12. Children should be supervised to ensure that they do not play with your refrigerator.



ELECTRIC SHOCK HAZARD

Failure to follow these instructions may result in electric shock, fire or death.

1. **WARNING** - Keep ventilation openings, in both your refrigerator and the built-in structure, clear of obstruction.
2. **WARNING** - Do not touch the interior of your refrigerator with wet hands. This could result in frostbite.
3. **WARNING** - Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
4. **WARNING** - Do not damage the refrigerator circuit.
5. **WARNING** - Do not damage the refrigerant tubing when handling, moving or using your refrigerator.
6. **WARNING - DANGER** - Never allow children to play with operate or crawl inside your refrigerator.

Risk of children entrapment. Before your throw away your old refrigerator:

Remove the electrical connection wiring and also ensure that the doors are removed and leave the shelves in place to prevent children from being trapped inside - DANGER OF SUFFOCATION!

- 7. **WARNING** - Do not use electrical appliances inside the food storage compartments of the refrigerator unless they are of the type recommended by the manufacturer.
- 8. Maintenance - Disconnect the power source from your refrigerator before carrying out user maintenance on it.
- 9. If a component part is damaged, it must be replaced by the manufacturer, its service agent, or similar qualified persons to avoid a hazard.
- 10. Follow local regulations regarding disposal of your refrigerator due to flammable refrigerant and gas. All refrigeration products contain refrigerants, which under the guidelines of federal law must be removed before disposal. It is the consumer's responsibility to comply with federal and local regulations when disposing of this product.
- 11. Do not store explosive substances such as aerosol cans with a flammable propellant in this device.
- 12. This appliance is intended to be used in the recreational vehicle.
- 13. When user cannot open the door at one side, please check if the other side of the door is fully closed. Users are only allowed to open the door when one side is fully closed.
- 14. **WARNING** - To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions.

Power Source Requirement

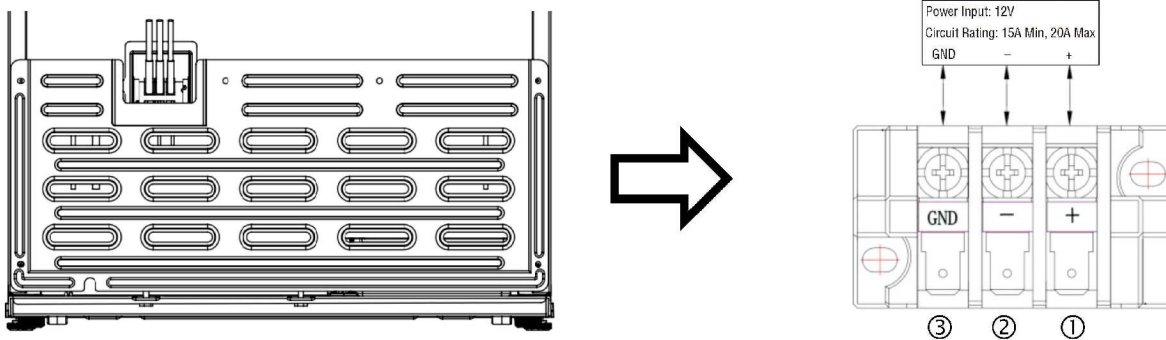
This appliance is a Class III appliance which must only be connected to a 12 Volt power source. The circuit must be protected properly between the appliance and power supply main, 15A min, 20A max is acceptable. Do not use auto resetting or minibreaker type circuit protection. Before using, disconnect the appliance from main power supply and wiring connections should be made according to the wiring diagram.

For normal use, the connection to the power source connection must meet the following requirements:

Wire Size	The Max Length (Feet)
14 AWG	10 Feet
12 AWG	20 Feet
10 AWG	30 Feet
8 AWG	45 Feet
6 AWG	60 Feet
Remarks	The DC unit is not equipped with a power source. Please purchase a power source from an authorized dealer. For maximum battery performance ensure the voltage drop between each power source (battery & converter) and the refrigerator does not exceed 0.4V DC.

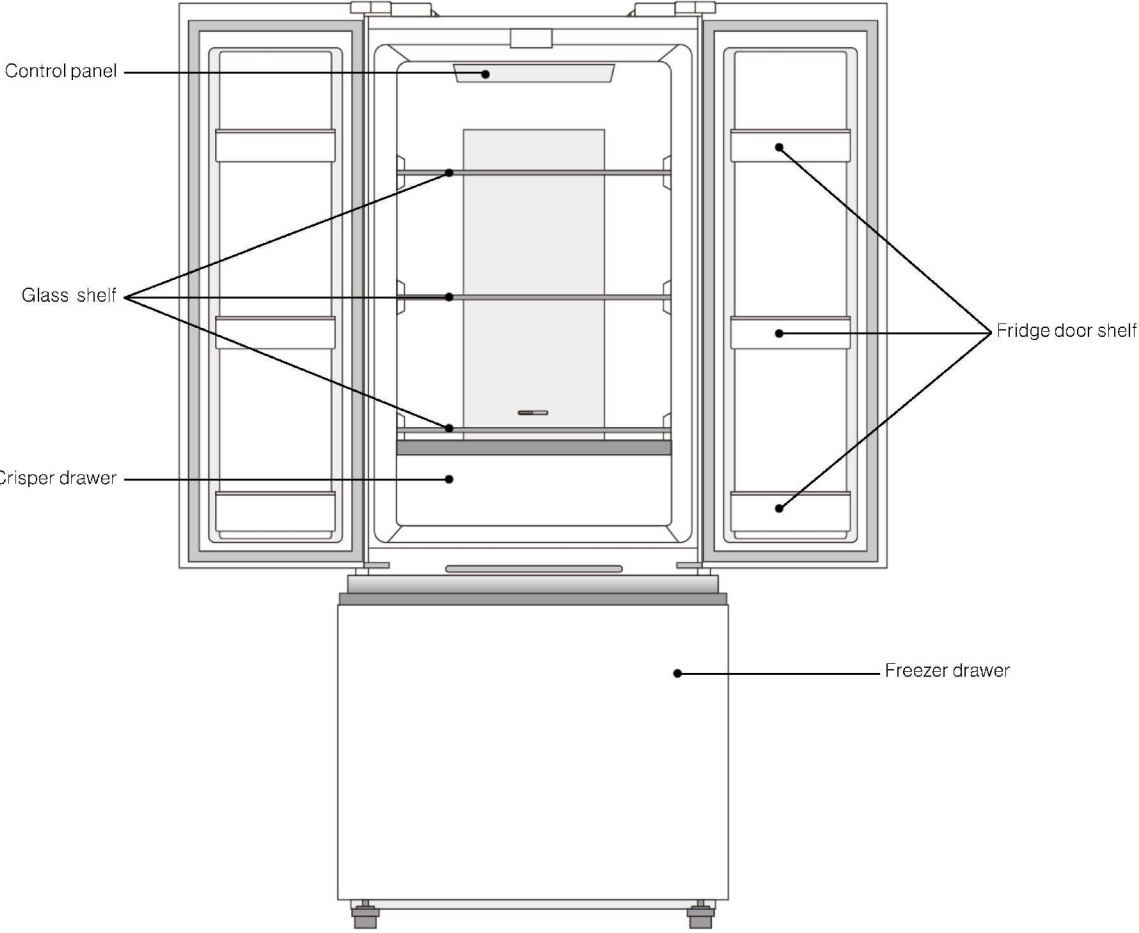
Note: Only authorized or qualified professionals should perform repair services for this appliance.

Wire Connection Diagram



1. Connect ① terminal with Positive pole of 12V DC.
2. Connect ② terminal with Negative pole of 12V DC.
3. If the unit is installed in an RV, the ③ GND terminal should be connected directly to the RV chassis.

Features and Parts



Preparation and Installation

Refrigerator unit preparation

1. Packaging:

Remove all packaging, including the foam backing at the bottom of refrigerator and the tape fixing accessories in the box.

2. Standing time:

Place the refrigerator in a proper up-right position for more than one hour before connecting power to ensure refrigerant settling for its normal operation.

3. Cleaning:

Make sure the accessory parts inside the refrigerator are present and the inside is wiped with a soft cloth.

Site preparation and installation

1. Ventilation requirements:

The position you select for the refrigerator installation should be well-ventilated with minimal hot air. Do not place your refrigerator close to a heat source and avoid exposure to direct sunlight to guarantee optimum refrigerator performance with minimum energy use.



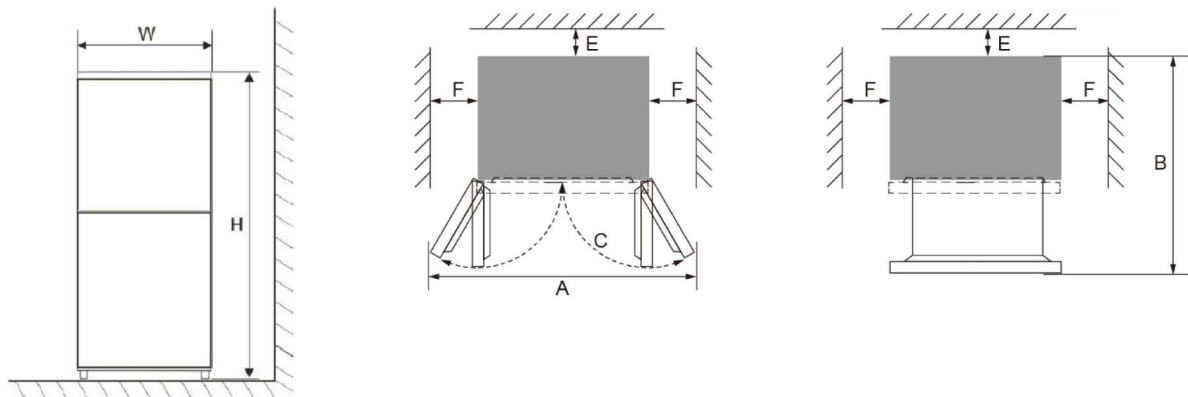
Unobstructed ventilation shall be maintained around the refrigerator or an embedded structure.

2. Heat dissipation space:

During operation, the unit gives off heat to surroundings. Ensure that there is adequate space between the refrigerator and neighboring walls or large objects. A minimum spacing of 25.4mm (1.0") is highly recommended on the top, on both sides and at the backside of the refrigerator.

Dimensions suggested below:

W	D	H	A	B	C(°)	E	F
600mm (23.62")	665mm (26.18")	1520mm (59.84")	888mm (35.0")	960mm (37.8")	125+2	Minimum 25.4mm (1.0")	Minimum 25.4mm (1.0")

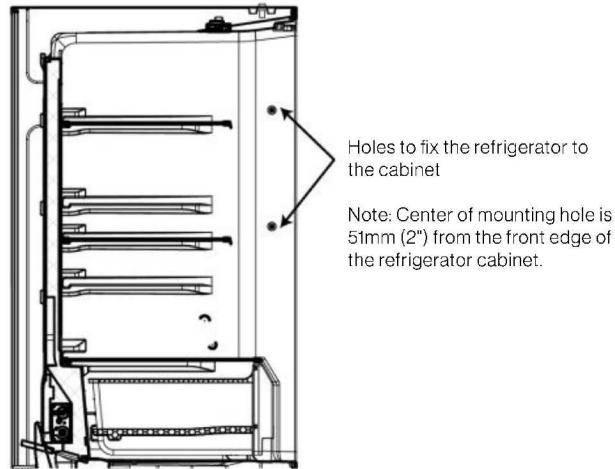


3. Level ground:

To ensure proper function, the refrigerator must be placed on a flat, firm and stable surface resting level on four supports.

4. Fixing the refrigerator to the cabinet:

The refrigerator can be affixed to the RV cabinet by installing the screws provided, or a similar Pan Head type where the shank connects into the backer support by 25mm (1"). Screw into the holes on the inner compartment, as shown below:



5. Fixing the shelves in the refrigerator compartment:

The glass shelves in the refrigerator compartment are affixed in production for safety considerations.

6. Door and drawer function:

The refrigerator doors function as French door style, the user can open the door freely on both sides. The Freezer is a bottom drawer that slides out. All doors incorporate a self latching mechanism to retain the doors from opening during travel. Ensure the latches and handles function properly.

7. Leveling:

Make sure to level your refrigerator using the front leveling feet. If not leveled properly, the refrigerator door gasket's sealing performance will be affected, or it may even lead to operating failure of your refrigerator.

8. Power-on:

After completing the standing time requirement, connect the refrigerator to the dedicated power supply battery in the RV, then the compressor will start working. Open the freezer door after 1 hour to check operation. If the compartment's internal temperature drops significantly, it indicates the refrigeration system is working normally.

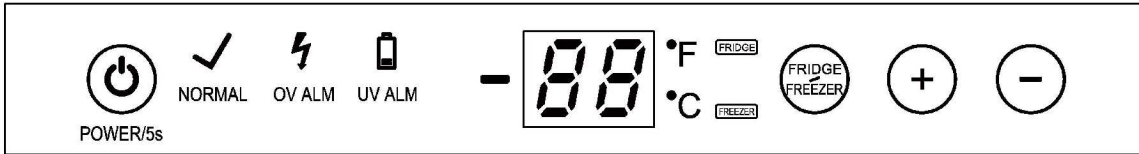
Functions and Operation

1. Functions:

Press and hold on "POWER" button for 5 seconds to activate the control panel.

The digital tube displays the fridge setting temperature in the normal state, and exits the display mode in the setting mode.

1.1 Temperature setting:



"FRIDGE/FREEZER", "+", and "-": the buttons to set temperature of fridge and freezer compartments.

Press "FRIDGE/FREEZER" to enter the temperature setting mode and switch between the fridge temperature and the freezer temperature.

Press "+" or "-" to set the temperature.

Fridge temperature "+" setting cycle: 1°C → 7°C (34°F → 45°F)

Fridge temperature "-" setting cycle: 7°C → 1°C (45°F → 34°F)

Freezer temperature "+" setting cycle: -18°C → -12°C (0°F → 10°F)

Freezer temperature "-" setting cycle: -12°C → -18°C (10°F → 0°F)

Press "FRIDGE/FREEZER" for 3 seconds to switch between "C" and "F".

If there is no operation for 5 seconds, it will automatically exit the setting mode and enter the display mode.

1.2 Power off:

Hold on "POWER" button for 5 seconds to turn off the refrigerator for any extended period of non-use.

2. Battery Monitor:

When the communication is normal, the digital tube displays the fridge setting temperature.

"Normal": Normal voltage range: 10.4-14.8V

"OV ALM": Over voltage alarm: >14.8V

"UV ALM": Under voltage alarm: <10.4V

When the voltage is too high, "OV ALM" icon will turn on. Meanwhile, there will be a beeping sound for 3 seconds to remind the user.

When the voltage is insufficient, "UV ALM" icon will turn on. Meanwhile, there will be a beeping sound for 3 seconds to remind the user.

3. Deactivating the defrosting function:

In the voltage display mode, press and hold "+" for 5 seconds to deactivate the defrosting function, and the control screen will alternately display voltage / "HC".

After 48 hours, the normal defrosting function will be restored.

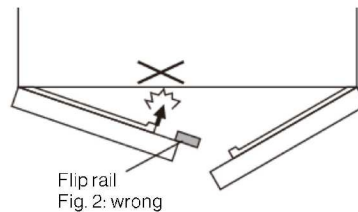
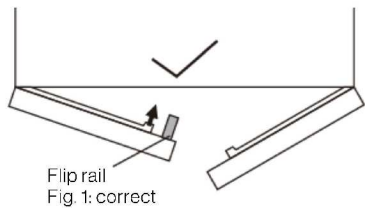
4. Error Codes:

Error Code	Display panel lights up	Beeping alarm	Failure description
E6		NO	Ambient temperature sensor failure
E2		NO	Fridge sensor failure
E3		NO	Freezer sensor failure
E4		NO	Frosting sensor failure
E0		YES	Door alarm (fridge door open more than 5 minutes)
EC		YES	Communication failure
E1	"OV ALM" icon turns on	YES	Over voltage alarm
E1	"UV ALM" icon turns on	YES	Low voltage alarm
EF		NO	Fan failure
E5		NO	Compressor start failure

Operational Instructions

1. Operational Precautions:

- Do not operate the appliance below the operating temperature range for extended periods of time. This might affect the appliance's performance in the long term.
- The internal temperature could be affected by factors like the location of temperature and frequency of door opening, etc.
- Drinks should not be stored in the freezer compartment or the low-temperature compartment.
- Do not cover or block the vents or grilles of your refrigerator.
- Please take caution when operating the doors:



WARNING:

Please follow the method shown in Fig. 1 to use the flip rail correctly. Otherwise, if it is used as shown in Fig. 2 (the flip rail is in the unfolded state), the left and right doors of the refrigerator will not close normally, and the flip rail may be damaged.

The flip rail is equipped with a heater to prevent frost, so it may feel warm, which is a normal phenomenon and will not affect the preservation of food.

2. Instructions for food storage:

2.1 Food storage location:

Due to the cold air circulation in the refrigerator, the temperature of each area in the refrigerator is different so load foods based on the degree of coldness required.

2.2 Use of fresh food compartment:

Set the temperature of the fresh food storage compartment between 1°C - 6°C (33.8°F - 42.8°F), and store the foods that are intended for short-term storage, or to be eaten at any time.

This is suitable for the storage for foods that do not need to be frozen, but should remain colder, such as cooked food, milk, fruit juice, beer, eggs, and condiments that need cold preservation. The crisper box is suitable for preservation of fruit and vegetables.

2.3 Precautions for food storage:

Before food is put into the refrigerator, it is advisable to seal them to prevent water evaporation. This will help keep fruits and vegetables fresh and help minimize odors.

Do not overload the refrigerator compartment. Keep enough space between foods, if items are too close, the cold air flow will be blocked, thus affecting the refrigeration effect. When storing food, keep a distance away from the inner wall; and do not place water-rich food close to the refrigerator rear wall to avoid food freezing.

Note when food has been added to the refrigerator to minimize food waste and spoilage due to food being kept past its expiration date.

2.4 Use of frozen food compartment:

The freezer temperature is controlled below -16°C (3.2°F), and it is advisable to store the food for long-term preservation in the freezer compartment, but the storage duration indicated on the food packaging should be adhered to.

This is suitable for the storage of ice cream, frozen food, and any other food that needs to be preserved for a long time.

3. Energy Saving Tips

- Let hot foods cool to room temperature before placing in the refrigerator.
- Be sure to wrap foods properly, and wipe containers dry before placing them in the refrigerator. This cuts down on frost build-up in the refrigerator.
- Organize and label food to reduce door openings and extended searches.

4. Extended Storage:

- If the appliance will not be used for several months, turn it off first, then disconnect the power source.
- Take out all foods.
- Clean and dry the interior thoroughly. To prevent odor and mold growth, leave the door ajar: block it open or have the door removed, if necessary.
- Keep the cleaned appliance in a dry, ventilated place and away from any heat source.
- Do not place heavy objects on the top.



The unit should not be accessible to child's play.

5. Traveling

Your refrigerator is designed to operate during normal transportation of your coach. Ensure your refrigerator has reached desired temperature before traveling to prevent excessive discharge of your battery.

Use caution when storing food in the refrigerator while traveling. Heavy and hard-sided containers (glass/metal) may shift and bounce which could cause damage to the refrigerator or container. It is advised to secure/protect items well or store in a separate container until reaching your destination. Make sure the doors are secured and locked into their position appropriately before departing.

6. Power Supply Interruption

This refrigerator works on 12V DC power supply (For example, an RV battery). Always estimate the operation time based on your available battery capacity.

If you are aware of an upcoming power outage:

- Adjust the thermostat knob to the highest setting an hour in advance so that the food will get frozen (do not store new items at this time). Reset the temperature mode to normal when power returns in a timely manner.
- You can also make ice in a watertight container in advance and use it in the upper part of the freezer to help the food items stay fresh longer.

The refrigerator is equipped with a battery monitor (Refer to the Functions section for more information). In the event of an Under Voltage alarm:

- Look for available alternative power sources in the area.
- Check your battery power charging systems for faults. (Example: Solar panel system, distribution panel or converter)

In the event of power supply interruption:

- Take care of the frozen food stored in the refrigerator.
- Try not to open the refrigerator door many times to preserve the cold air inside and keep the food fresh longer.

7. Adjusting the Shelf (Optional)

WARNING: To avoid the possibility of child entrapment, do not remove any shelf from the refrigerator. Shelving is intended to prevent children from playing in the compartment area. The shelves are fixed in the compartments at the factory. The shelves can be adjusted with the following instructions:

- Open the compartment door.
- Loosen the fixing screw using a Phillips screwdriver.
- Pull to remove the shelf out from its original position.
- Slide the shelf into an appropriate position and fix the shelf locker with the screw.

Maintenance and Cleaning



Do not use hands to clean under the base of the refrigerator to avoid harm from sharp metal edges.

1. Internal and External Cleaning

Any food residue in the refrigerator is liable to produce bad odors, so the refrigerator must be cleaned regularly. The refrigerator food compartment should be cleaned at least once a month.

Remove all shelves, crisper, bottle racks, cover board and drawers, etc. and clean them with a soft towel or sponge dipped in warm water or neutral detergent.

Clear off any dust accumulated on the rear panel and side plates of the refrigerator often.

After using detergent, be sure to rinse it with clean water, and then wipe it dry.



Do not use bristle brush, steel wire brush, detergent, soap power, alkaline detergent, benzene, gasoline, acid, hot water or any other corrosive or soluble items to clean the cabinet surface, door gasket, plastic decoration parts, etc. to avoid damage.

Carefully wipe dry the door gasket and clean the groove. After cleaning, fix the four corners of the door gasket first and then embed it segment by segment into the door groove.

2. Shelf and Crisper Removal

- **Refrigerator Shelf** - When removing the shelf, lift it up first and then pull it out; when installing the shelf, place it into position before putting it down. Keep the shelf rear flange upward, to prevent food from contacting the liner wall. When taking out or putting in the shelf, hold it firmly and handle with care to avoid damage.
- **Crisper** - After using or cleaning the crisper cover, be sure to put it back onto the crisper, so that the internal temperature of the crisper will not be affected.

3. Defrosting

This appliance is designed with an automatic defrosting function, thus no manual defrosting is required.

4. Cleaning the Lamp

The LED lamp is used by the refrigerator for lighting which features low energy consumption and long service life. In case of any abnormality, please contact the after-sales service.

Troubleshooting

You can solve many common refrigerator problems easily, avoiding the need for a service call. Try the suggestions below to see if you can solve the problem before calling for service.

Trouble Symptom	Possible Reason	Solutions
No power	<ul style="list-style-type: none"> • Power source connection is OK? • Are breakers and fuses broken? • No electricity or line trip? 	<ul style="list-style-type: none"> • Check power wiring connection. • Check lamp working status. • Replace fuse.
Abnormal noise	<ul style="list-style-type: none"> • Is refrigerator stable? • Is the refrigerator making contact with the wall? 	<ul style="list-style-type: none"> • Adjust refrigerator's leveling feet. • Keep proper space between the refrigerator and walls.
Insufficient cooling	<ul style="list-style-type: none"> • Did you put hot food or too much food inside? • Do you open the door often? • Is the door gasket making a good seal? • Is it in direct sunlight or near a heat source? • Is it well-ventilated? • Temperature setting too high? 	<ul style="list-style-type: none"> • Put food into the refrigerator after hot food becomes cool. • Check and close the door to ensure a good seal. • Remove the refrigerator from the heat source. • Maintain good ventilation space. • Set to the appropriate temperature.
Peculiar odor	<ul style="list-style-type: none"> • Any spoiled food? • Any dirt inside? • Any strongly flavored food inside? 	<ul style="list-style-type: none"> • Throw away spoiled food. • Clean the refrigerator. • Pack food properly to minimize odor.
Not cooling	<ul style="list-style-type: none"> • Is the control panel activated? • Is the compressor control board damaged? • Is power supply voltage of the power board normal? • Is the wiring of the compressor controller or the power board loose or detached? • Is the refrigeration system block or leaked? 	<ul style="list-style-type: none"> • Press and hold on "POWER" for 5 seconds to activate the control panel. • Please call customer service. <p>Note: The amount of refrigerant charged for the unit can be found on the rating label.</p>
Compressor fault	<ul style="list-style-type: none"> • Does the battery have sufficient power? 	<ul style="list-style-type: none"> • Check if the battery power falls below 9V which may lead to the compressor under voltage protection. Charge or replace the battery if necessary. • Check if the battery power is high, above 17V, or the battery with sufficient power has been replaced. Wait for 5 minutes to observe whether it can return to normal. If not, please contact the after-sales personnel for service.



Note: if the above descriptions are inapplicable to troubleshooting, do not disassemble and repair it yourself. Repairs carried out by inexperienced persons may cause injury or serious malfunctioning. Contact the local store where your purchase was made. This product should be serviced by an authorized technician and only genuine parts should be used

When the refrigerator is not in use for long periods, disconnect from the power source, empty, clean and keep doors open to prevent unpleasant odors.