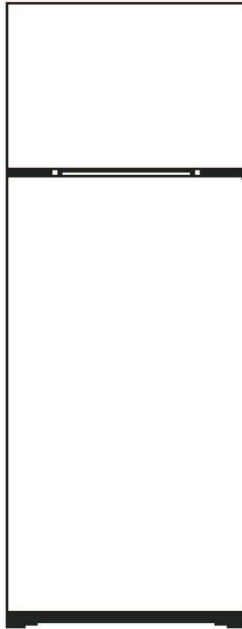


USER MANUAL

DC REFRIGERATOR

MODEL No.: BCD-216DSD




Dear user, this manual contains the product's basic information; how to use it; default diagram and basic troubleshooting methods. In order for better understanding on how to use this product, please take care of this manual and read it carefully.


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I. 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 refrigerators. |
|--|--|

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. Following 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 or fallen objects into the refrigerator, your refrigerator has been exposed to rain or moisture, does not keep operate normally.
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 and 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 build-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 handing, moving or using your refrigerator.
- 6. **WARNING- DANGER-** Never allow children to play with, operate or crawl inside your refrigerator.

Risk of child entrapment. Before you throw away your old refrigerator:

- Take off the door.
- Leave the shelves in place so that children may not easily climb inside.
- 7. **WARNING-** Do not use electrical appliance inside the food storage compartments of the appliance 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 appliance.
- 12. This appliance is intended to be used in the recreational vehicle.
- 13. When user can not 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.

POWER SOURCE REQUIREMENT

This appliance is class III appliance which must be 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.

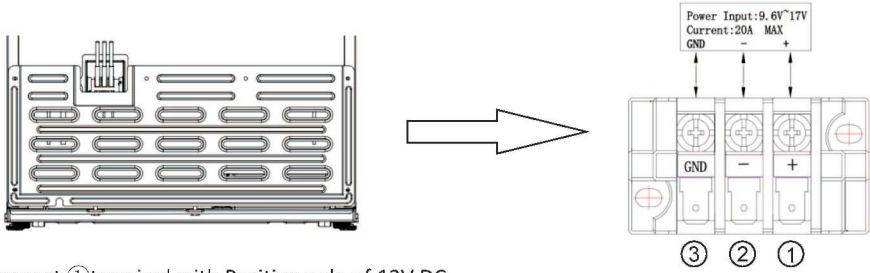
Before using, disconnect the appliance from main power supply and wiring connections should be made according to the wiring diagram.

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

| Wire Size | The Max Length (Feet) |
|-----------|---|
| 14 AWG | 5 Feet |
| 12 AWG | 10 Feet |
| 10 AWG | 15 Feet |
| 8 AWG | 23 Feet |
| 6 AWG | 38 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. |

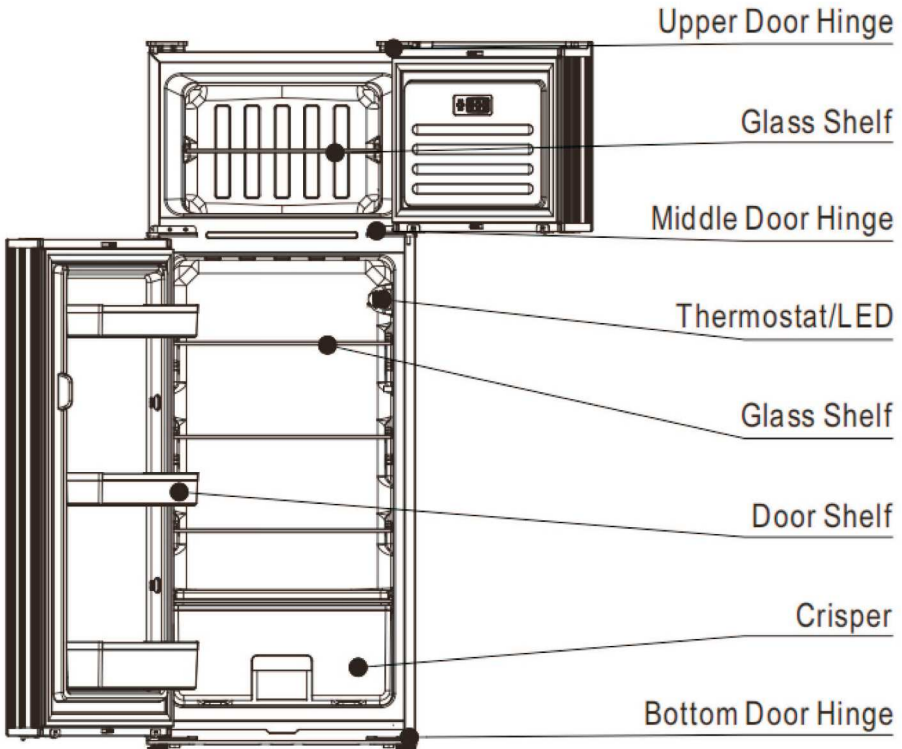
Note: Only authorized or qualified professionals could perform repair services for this appliance.

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.

II. FEATURES AND PARTS



III. PREPARATIONS FOR USE

Installation location:

1. Ventilation condition

The position you select for the refrigerator installation should be well-ventilated with minimal hot air. Do not locate the unit near a heat source and keep it from direct sunlight, thus guaranteeing the refrigerator effect while saving energy.

Note: The amount of refrigerant charged for the unit can be found on the nameplate.

2. Heat dissipation space

When working, the unit gives off heat to surroundings. Therefore, minimum 25.4mm off free space should be spared at the top side, 25.4mm on both sides, and at least 25.4mm at the back side of the refrigerator.

Dimensions suggested below:

| W | D | H | A | B | C(°) | E | F |
|-------|-------|--------|-------|--------|-------|-------------------|-------------------|
| 540mm | 605mm | 1435mm | 936mm | 1090mm | 137±2 | Minimum 25.4mm | Minimum 25.4mm |

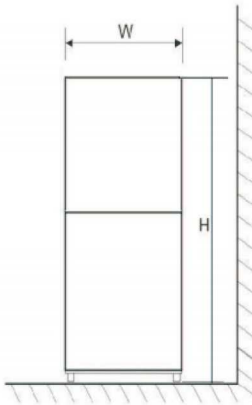


Fig. 1

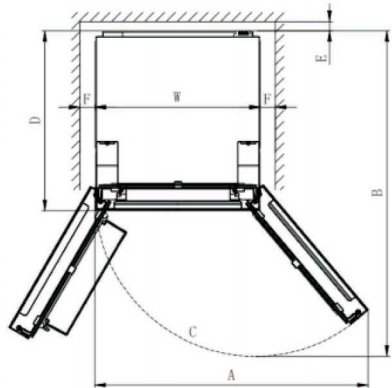


Fig. 2

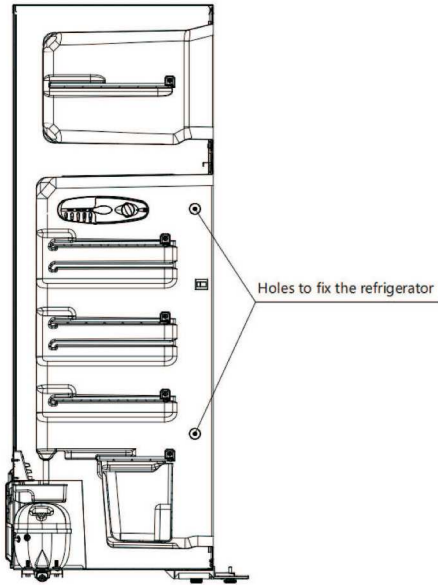
Note: Figure 1, Figure 2 only illustrates the space demand of the product.

3. Level ground

Place the refrigerator on a solid and flat surface to keep it stable.

4. Fixing the refrigerator to the cabinetry

The user can install the screw into the holes on the inner compartment to fix the refrigerator to the RV cabinetry, please see below photos:



5. Fixing the shelves in the refrigerator compartment and freezer compartment
The glass shelves in the fridge compartment is fixed in production for safety consideration.

6. Dual swing door function

The door comes with dual-swing door function. The user can open the doors freely at the left or right side.

WARNING:

To prevent the doors from coming off the pivot hinge points, PLEASE adhere to the following instructions.

- Users should not attempt to actuate both door latches simultaneously.
- Only open from one side or the other.
- Once one side is open, don't attempt to actuate the other latch, otherwise, the door will become disengaged from the pivot point.

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

7. Standing time

After the refrigerator is properly installed and well cleaned, do not switch it on immediately. Make sure to wait more than one hour before connecting power to the refrigerator to ensure its normal operation.

8. Cleaning

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

9. Power on

Connect the refrigerator to the dedicated power supply battery in the RV, then the compressor will start working. After one hour, open the freezer door. If the compartment internal temperature drops significantly, it indicates that the refrigeration system is working normally.

10. Storage Food

After the refrigerator runs for a period of time, the internal temperature will be automatically controlled according to the user's temperature setting. After the refrigerator is cooled completely, load the food inside.

Installation Tips

Moving the refrigerator

- Location

Do not place your refrigerator near heat sources and avoid exposure to direct sunlight.

- Leveling

Make sure to level your refrigerator using the front leveling feet. If it is not level, the sealing performance of the refrigerator door gasket would be affected or it may even lead to operational failure of your refrigerator.

After the refrigerator is in position, allow the refrigerant to settle.

- Installation

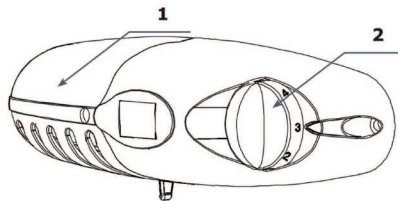
Do not cover or block the vents or grilles of your refrigerator.

IV. FUNCTIONS

The temperature within the fridge and freezer compartments is controlled by the thermostat situated inside of the fridge area. When you are first start the fridge we suggest that you turn the thermostat to a maximum setting(7) until desired refrigeration temperature are achieved. After a few hours turn it down according the following chart to reach the recommended operating temperature setting. Then put food into the refrigerator.

1. LED light

2. Temperature control dial



| NORMAL OPERATING TEMPERATURE | | |
|------------------------------|--------------|---------------|
| THERMOSTAT SETTING | FRIDGE TEMP. | FREEZER TEMP. |
| OFF/0 positon | OFF | OFF |
| Setting 1~3 Min | >7°C | >-12°C |
| Setting 4~5 Mid | 4°C~7°C | -12°C~-15°C |
| Setting 6~7 Max | <4°C | >-15°C~-20°C |

Note 1: The above chart is a guideline defined based on idea ambient conditions of 25°C~32°C, several factors can alter the performance.

Note 2: The normal operating temperature for this appliance is 16°C~43°C. If the ambient temperature is lower than 16°C, the dial may need to be turned toward max to keep the freezer temperature.

V. INSTRUCTION FOR FOOD STORAGE

Precautions for Use

- The appliance might not operate consistently (there is a possibility of defrosting or temperature becoming too warm in the frozen food compartment) when for an extended period of time below the cold limit of the temperature range for which the refrigerating appliance is designed.
- The internal temperature could be affected by such factors as the location of temperature and frequency of door opening, etc.
- Drinks should not be stored in the freezer compartment or the low-temperature compartment.

Cautions 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 over-pack the refrigerator compartment. 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.

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.

- Fresh Food Compartment - 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.
- Crisper Box - This is suitable for the preservation of fruit and vegetables.
- Freezer Compartment - This is suitable for the storage of ice cream, frozen food, and any other food that needs to be preserved for a long time.

Use of the Refrigerator Compartment

Set the refrigerator temperature to low, mid or high level and store food that is intended for short-term storage, or to be eaten at any time.

- Refrigerator Shelf - When removing the shelf, lift it up first and then pull it out; when install 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 - Pull out the crisper for access to food. 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.

Use of the Freezer Compartment

The freezer temperature could be set to low, mid and high level. It is advisable to store food for long-term preservation in the freezer compartment, but the duration time is also affected by the food packaging.

Extended Storage

- If the appliance will not be used for several months, turn it off and disconnect the power source. (See SECTION IV. FUNCTIONS)
- Take out all food.
- 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 appliances in a dry, ventilated place and away from any heat source.
- Do not place any heavy objects on the top.
- The unit should not be accessible to children.

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.

Energy Saving Tips

- Let food cool down before adding to the refrigerator. Put frozen food in the refrigerator compartment to thaw.
- Be sure to wrap food properly and wipe container dry before placing them in the refrigerator. This cuts down on frost buildup inside the refrigerator.
- Organize and label food to reduce door openings.

VI. Maintenance and Cleaning

⚠ When cleaning, do not reach your hands into the bottom of the refrigerator to avoid being scratched by sharp metal corners.

Internal and External Cleaning

Any food residue in the refrigerator is liable to produce a bad odor, 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.

⚠ 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.

Interruption of Power Supply or Failure of the Refrigerating System

- Take care of the frozen food in the event of an extended non-running of the refrigerating appliance (such as an interruption of the power supply or failure of the refrigerating system).
- Try to open the refrigerator door as little as possible to keep food fresh longer.

If get any power outage notice in advance:

1. Adjust the thermostat knob to the high mode an hour in advance, so that food will get fully frozen (do not store new food during this time). Reset the temperature mode to normal setting to save power supply.
2. You can also make ice with a watertight container and put it in the upper part of the freezer to help extend the time fresh food can be stored.

Defrosting

1. Defrosting needs to be carried out when the ice layer reaches a thickness of 5mm / 0.19 in.
2. Turn the refrigerator power off and move your food and beverages to another cool place.
3. Do not use any tools to remove the ice or frost. It must be allowed to melt naturally.
4. Put a towel in the frozen compartment and on the bottom of the fresh compartment to dry any water.
5. The external drip tray in the compressor chamber may need to be emptied if there is too much melting ice.


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.

VII. TROUBLESHOOTING

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

| Trouble Symptom | Probable Causes | Solutions |
|-------------------------------|---|--|
| Completely nonrefrigeration | <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"> • Refer to the wiring diagram, check the power wiring connection. • Opening the door and checking whether the lamp is lit. • Check fuse |
| Abnormal noise | <ul style="list-style-type: none"> • Is refrigerator stable? • Does refrigerator contact the wall? | <ul style="list-style-type: none"> • Adjusting refrigerator's leveling feet. • Move away from wall. |
| Poor refrigerating efficiency | <ul style="list-style-type: none"> • Do you put in hot food or too much food inside? • Do you open the door often? • Does the door gasket good? • Direct sunlight or near heat source? • Is it well-ventilated? • Temperature setting too high? | <ul style="list-style-type: none"> • Put food into refrigerator after hot food becomes cool • Check and close the door • Remove the refrigerator from heat source • Maintain good ventilation space • Set to appropriate temperature |
| Peculiar odor in refrigerator | <ul style="list-style-type: none"> • Any spoiled food? • Any dirty inside? • Any strong flavor food inside? | <ul style="list-style-type: none"> • Throw away spoiled food • Clean the refrigerator • Pack food in proper way |
| Compressor fault | Does the battery have sufficient electricity? | <p>1) Check if the battery power ever falls below 9V, it may lead to the compressor under voltage protection, charge or replace the battery if necessary.</p> <p>2) If the battery level is high (above 11V), 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.</p> |

 **Note:** if the above description are inapplicable to troubleshooting, do not disassemble and repair it yourself. Repairs carried out by inexperienced person 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 period, disconnect from power source, empty, clean and keep doors open to prevent unpleasant odors.