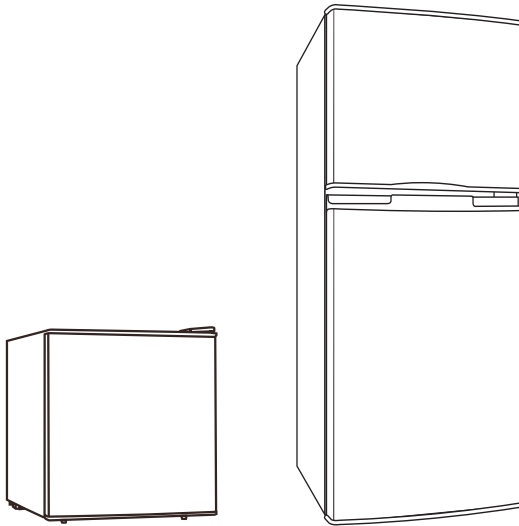


USER MANUAL

DC REFRIGERATOR

Model: BC-50 / BCD-98 / BCD-108 / BCD-118
/ BCD-265 / BCD-208



Read this manual carefully and understand the contents before installation.

Be aware that this is a Direct Current (DC) based refrigerator, and can only be operated on 12/24VDC.

IMPORTANT: During transportation, the refrigerator may be on its side or back, please let the unit to upright position for 12 hours for better operation and performance.

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SAFETY NOTES

Cooling

To achieve proper cooling down, please run the refrigerator for at least 4 hours empty before adding food.

Power source

This refrigerator is designed to run on 12 or 24 volts DC only. And for domestic use, not for commercial or industrial use.

These notes are helpful on your safety. Please make sure that you understand them all before using or installing this refrigerator. If you have any questions, please contact your local product dealer for assistance.

After receiving

Improper transportation may cause product damage. So after receiving, please check if the refrigerator is complete and has not damaged, especially damaged to the power cable or refrigerant circuit.

General notes

Before cleaning the refrigerator, always disconnect it from the power source.

Repair the refrigerator only if you are an authorized refrigerator technician.

This refrigerator contains R600a refrigerant. Take care when handling your refrigerator not to cause damage to the refrigerant circuit which may lead unexpected leakage.

SAFETY NOTES

Child safety

Do not allow children to play in the refrigerator. There is a danger of suffocation if a child becomes trapped inside.

When the refrigerator is not in use, secure or remove the doors to prevent children from playing inside the cabinets.

DANGER OF SUFFOCATION

Keep children away from all packaging material.

Installation

This appliance is heavy. Be careful during moving.

Be sure that the power cable and plug is in good condition.

Installation work and adjustments on the refrigerator must be carried out by qualified personnel only!

It is dangerous to modify this product in anyway.

Using

Do not store any containers with flammable vapors or liquids in the refrigerator compartments. **Explosion risk!**

Cleaning

Before cleaning, make sure that the power source has been disconnected.

Take away all food from refrigerators and clean inside and outside of the refrigerator with warm water and neutral detergent. Abrasive or corrosive cleaning agents, steel wool or chemical cleaning agents should not be used.

Servicing

The refrigerator should be serviced by a qualified technician rather than be repaired by yourself. Repair from unqualified personnel may cause injury or serious malfunctioning of this refrigerator.

INSTALLATION

Unpacking and cleaning

Remove all packaging materials including carton, foam and plastic bags.

Keep children away from all packaging material.

DANGER OF SUFFOCATION!

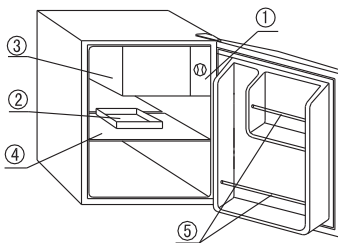
Wash the inside and outside of the refrigerator with warm water and neutral detergent. A sponge, soft brush or towel is recommended. You could leave the doors open to make the compartments to ventilate for half hour to get rid of residual odors.

Standing the refrigerator

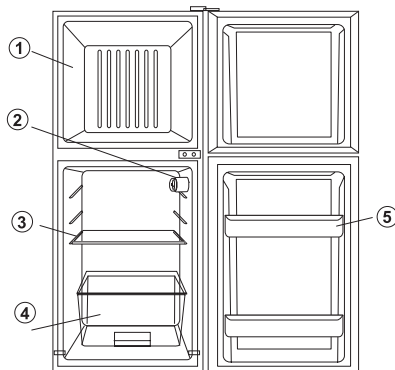
The refrigerator shall be at the location where must be cool, dry and ventilated. It must be protected against any inclement weather (rain, snow) and excessive surface dust. The ground surface shall be flat, firm and stable on all supports.

Do not place the refrigerator close to heat sources and avoid prolonged exposure to direct sunlight. Ensure that there is adequate space between the refrigerator and walls.

PRODUCT STRUCTURE



1. Thermostat
2. Water tray
3. Ice box
4. Shelf
5. Door shelf



1. Freezer
2. Thermostat
3. Shelf
4. Crisper drawer
5. Door shelf

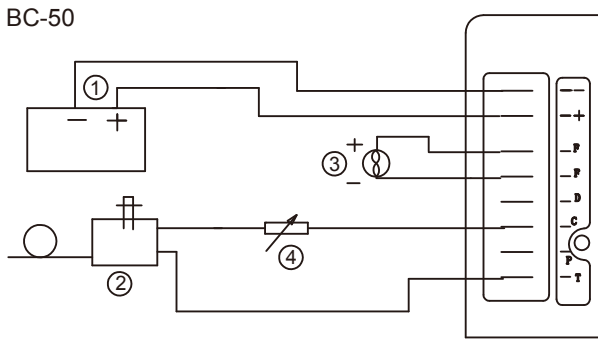
DC POWER CONNECTION

The refrigerator shall be connected to 12V or 24V DC power source **ONLY**.

The refrigerator will automatically operate on either 12V or 24V DC. The user no need to make any adjustment.

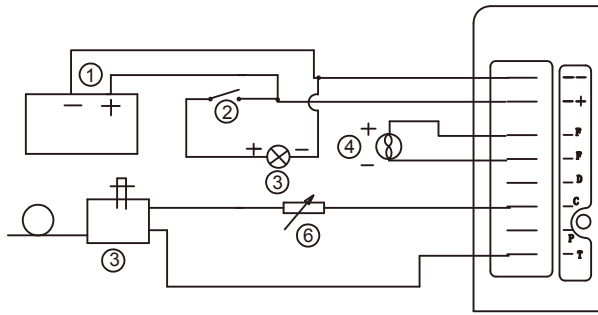
NOTE: Polarity is very important in wiring this DC appliance. Be sure that the positive terminal of the battery with the positive wire to the compressor, and the negative terminal of the battery with the negative wire to the compressor.

CIRCUIT DIAGRAM



1. ACCUMULATOR 2. THERMOSTAT
3. FAN 4. SPEED ADJUSTMENT RESISTANCE

BCD-98 / BCD-108 / BCD-118 / BCD-265 / BCD-208



1. ACCUMULATOR 2. SWITCH 3. LAMP
4. THERMOSTAT 5. FAN
6. SPEED ADJUSTMENT RESISTANCE

OPERATION

Start the refrigerator

After the refrigerator being properly connected to the 12V or 24V DC power source, the compressor will automatically turn on and the cabinet will begin cooling inside. Allow the cabinet to cool for at least 4 hours before adding food.

Temperature control

The temperature within the fridge and freezer compartments is controlled by the thermostat which is located on the inside of the fridge area. There are totally 7 levels of temperature control. The default setting from factory is level 3.

Adjustment

As the ambient temperature changes in different seasons, you could adjust the thermostat to achieve better internal temperature and energy saving purpose. If the ambient temperature exceed 38°C, the appliance may not work as it should be. It is necessary to adjust the thermostat to a colder setting (towards the maximum setting).

Suggestions: Summer: Level 3 Winter: Level 5

Open / close the door

The sealing strips on the door is to prevent warm air from entering the fridge and freezer compartments. Be sure that the doors are closed and the seals are perfect installed.

It is not easy to open the door immediately after the door is just closed. This is because of different pressure in and out of the refrigerator. Please wait for some seconds.

FOOD LOADING

DC refrigerator is with lower cooling capacity than AC one due to smaller compressor that used.

Do not put food too tightly in the refrigerator. Allow air flow around inside for better cooling.

It will help to cool food more quickly if the goods are packed in smaller containers rather than large ones.

OPERATION

Normal sounds

You may hear gurgling or bubbling sounds when the refrigerant is being pumped through the refrigerant coils.

When the compressor is on, the refrigerant is flowing through the appliance and you will hear a whirring or pulsing sound from the compressor.

A “click” you will hear when adjust the thermostat.

DEFROSTING

Before cleaning the refrigerator, the power source must be disconnected.

This refrigerator is direct cooling, manual defrost. Its compartments may covered with frost. This is normal. This should be removed periodically with a plastic scraper. If the ice is very thick, it requires complete defrosting for better cooling after moving all food out.

Never use sharp metal tools to move the frost from the interior compartments which may cause damage on the refrigerator. Do not use electric heater or other source to complete the defrost.

Complete defrosting:

1. Disconnect the appliance from the power supply.
2. Remove food out from the refrigerator.
3. Leave the door open.
4. To accelerate this process, you could put hot water inside and close the door.
5. When defrosting is finished, wash and dry the interior.
6. Reconnect the appliance to the electrical supply and leave running (while empty) for at least 2 hours allowing the interior to cool sufficiently.
7. Reload the fridge and freezer with the previously removed food.

ENERGY SAVING TIPS

Do not put the refrigerator close to heat source, such as a stove, boiler, heater, etc, and avoid exposure to direct sunlight.

Locate the refrigerator in a cool well-ventilated room and make sure that the air vents of the compressor housing cover are not obstructed.

Always keep food stored in tightly sealed packaging or containers, and allow some space for air to circulate around each item.

Avoid keeping the door open for extended periods of time or opening the door too frequently as warm air will enter the cabinet and cause the compressor to run unnecessarily often.

Adjust thermostat to adjust temperature inside and compressor working. **Suggested: Level 3.**

TROUBLE SHOOTING

To save time and energy, please check the following items before contacting repair technician.

Problem: After power connection, the refrigerator does not work.

Solutions:

- ÿ Check if the power supplier is correct, 12V or 24V DC?
- ÿ Check if the power polarity is correct.
- ÿ Check the fuse.
- ÿ Check if the connections on the compressor is tight enough.

Problem: Refrigerator is operating but not cooling.

Solutions:

- ÿ Allow the empty refrigerator for 4 hours to cool down.
- ÿ Check the thermostat control is at the correct position.
Suggestions: Summer: Level 3 Winter: Level 5.
- ÿ Check if too much warm food is in the refrigerator.
- ÿ Check if the ventilation space around the refrigerator is proper.

Problem: The door can not open

Solution: If the door just been opened? If yes, please leave the door closed and wait for some seconds and try again.

Problem: Excessive frost has built up.

Solutions:

- ÿ Is the weather hot and humid? This kind of weather will increase frost build-up.
- ÿ Ensure that the food is properly packed.
- ÿ Check the door is closed properly and the door seal is proper.
- ÿ Large quantities of good has been placed inside.
- ÿ Make sure that the maintenance is properly performed.

Problem: Light does not work

Solution: Remove cover and check the bulb and replace if it is damaged.