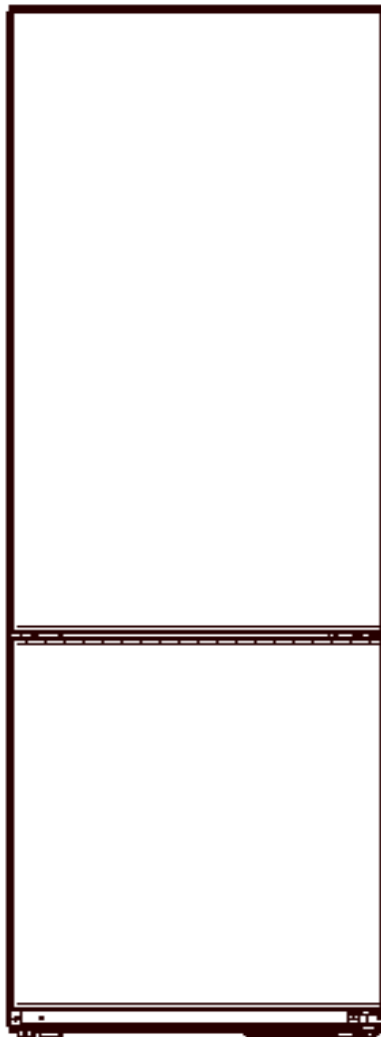


Service Manual

BMF SERIES


Applicable Models	Model Code	Applicable Models
HD-221RN	CE-BCD170CM-SQ	22031020007244



The picture in this service manual is only for reference, and specific appearance and configuration are subject to the real product.
This manual mainly teaches the method, the specific work skill needs engineer to accumulate through the daily work.

 **WARNING**

Important Safety Notice

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

 **WARNING**

Important Safety Notice

The Maintenance Manual is only for the use of maintenance personnel with certain experience and background in electrical, electronic and mechanical field.

Any attempt to repair main devices may lead to personal injury and property loss.





Manufacturers or distributors are not responsible for the content of the Manual and interpretation thereof.

1. Significant update notes (None)

2. Safety Warning Code

2.1 Warning for operation safety

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

WARNING

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this appliance near water.
- 6) Clean only with a damp cloth.
- 7) Do not block any ventilation openings.
- 8) Install in accordance with the manufacturer's instructions.
- 9) Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus that produce heat.
- 10) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 11) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the appliance.
- 12) Do not attempt to modify or extend the power cord of this appliance.
- 13) Unplug this appliance during lightning storms or when it will not be used for long periods of time.
- 14) Make sure that the available AC power matches the voltage requirements of this appliance.

CONNECTING ELECTRICITY

**WARNING****Electrical Shock Hazard.**

Plug into a grounded 3-prong outlet.
Do not remove the ground prong.
Do not use an adapter.

Failure to follow these instructions can result in death, fire, or electrical shock.

**WARNING****Electric Shock Hazard**

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

- 1) **WARNING**—Keep ventilation openings, in both the freezer and the built-in structure, clear of obstruction.
- 2) **WARNING**—Do not touch the interior of the freezer with wet hands. This could result in frost bite.
- 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 refrigerant circuit.
- 5) **WARNING**—Do not damage the refrigerant tubing when handling, moving, or using the freezer.
- 6) **WARNING—DANGER**—Never allow children to play with, operate, or crawl inside the freezer. Risk of child entrapment. Before you throw away your old freezer:
 - 6-1) Take off the doors
 - 6-2) Leave the shelves in place so that children may not easily climb inside
- 7) Unplug the freezer before carrying out user maintenance on it.
- 8) This freezer can be used by children age eight years and older and persons with reduced physical or mental capabilities or lack of experience and knowledge if they are given supervision or instruction concerning the use of the freezer in a safe way and understand the hazards involved. Children should not play with the freezer. Cleaning and maintenance should not be performed by children without supervision.
- 9) If a component part is damaged, it must be replaced by the manufacturer, its service agent, or similar qualified persons in order to avoid a hazard.
- 10) Please dispose of the freezer according to local regulations as the freezer contains flammable gas and refrigerant.
- 11) Follow local regulations regarding disposal of the freezer 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.
- 12) This freezer is intended to be used in household and similar environments.

13) Do not store or use gasoline or any flammable liquids inside or in the vicinity of this freezer.

14) Do not use extension cords or ungrounded (two-prong) adapters with this freezer. If the power cord is too short, have a qualified electrician install an outlet near the freezer. Use of an extension cord can negatively affect the freezer's performance.

Grounding requirement

This freezer must be grounded. This freezer is equipped with a cord having a grounding wire with a grounding plug. The plug must be inserted into an outlet that is properly installed and grounded.

Improper use of the grounding plug can result in a risk of electric shock. Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the freezer is properly grounded.

2.2 Safety instruction for refrigerant



WARNING



Explosion Hazard.

Keep flammable materials and vapors, such as gasoline, away from freezer. Failure to do so can result in fire, explosion, or death.



Safety instruction for refrigerant

DANGER—Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION—Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service This Product. All Safety Precautions Must be Followed. CAUTION—Risk of Fire or Explosion. Dispose of Properly In Accordance With Federal Or Local Regulations. Flammable Refrigerant Used. CAUTION—Risk of Fire or Explosion Due To Puncture Of Refrigerant Tubing; Follow Handling Instructions Carefully. Flammable Refrigerant Used.

3. Transport

3.1 Handling

Handling

- 1) Protect the refrigerator in moving it, Same as shown as left photo, please move it by handcart with cushion
- 2) Remove all packing materials and bottom cushion, then move into house for placement
- 3) After moving it to appropriate location, wait for 2 hours before power on.

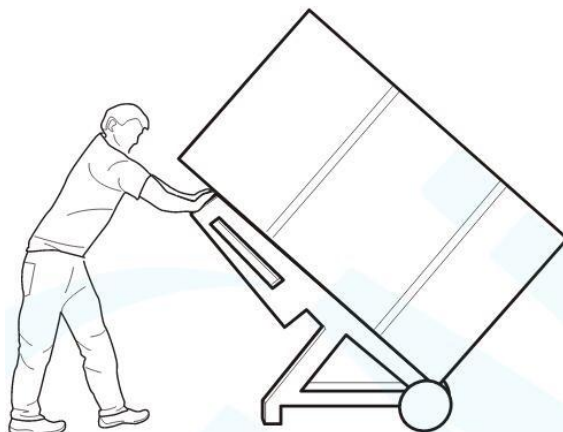


4 Installation and commissioning

4.1 Handling

Handling

- 1) Protect the refrigerator in moving it, Same as shown as left photo, please move it by handcart with cushion
- 2) Remove all packing materials and bottom cushion, then move into house for placement
- 3) After moving it to appropriate location, wait for 2 hours before power on.



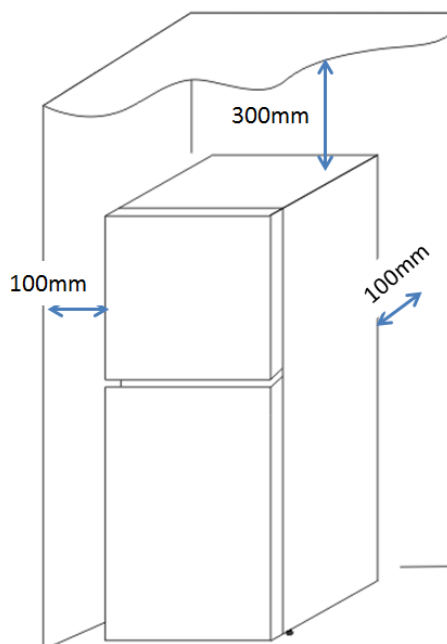
4.2 Door Disassembly and Assembly

The refrigerator door needs to be dismantled if it cannot enter the room in the whole.

4.3 Installation location

Installation location

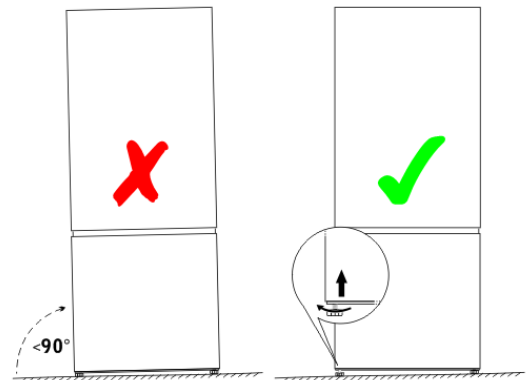
Location that is easy for ventilation shall be chosen to facilitate heat dissipation, enhance its performance and reduce the energy consumption.



4.4 Leveling of the refrigerator

Leveling of the refrigerator

If the refrigerator cannot be placed steadily, adjust the footing to level it.

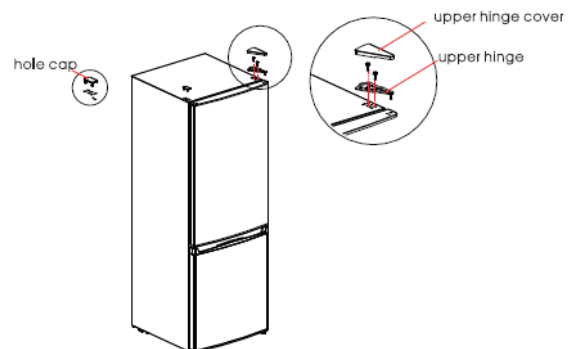


4.5 Door reversal

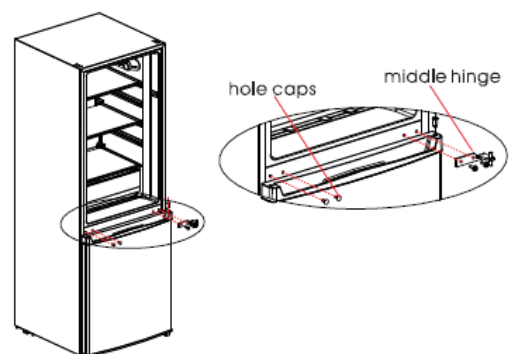
Door reversal

1) The refrigerator is powered off and all food inside is taken out.

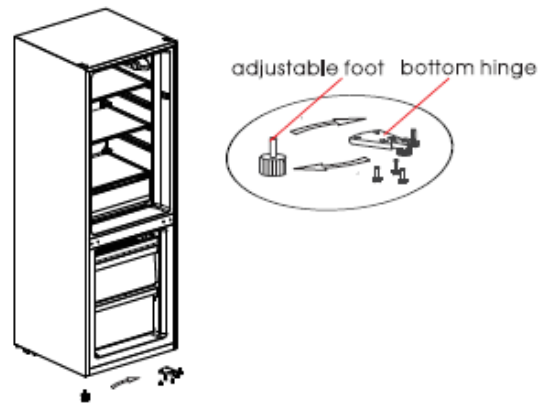
2) Dismantle hinge hole cap, the upper right hinge cover, fitting screws of upper right hinge, and remove the upper right hinge, please keep the door vertical in whole process for avoiding falling.



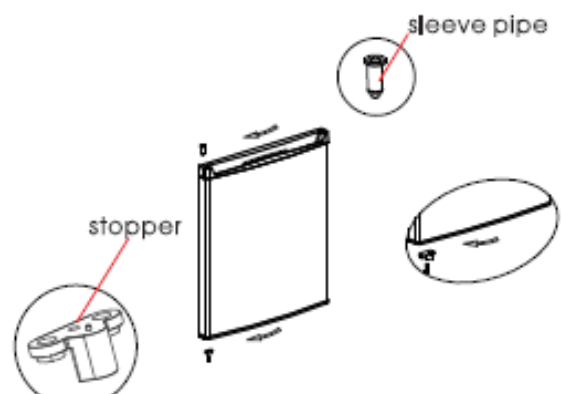
3) Take off refrigerating chamber door as well as middle hinge, hole cap.



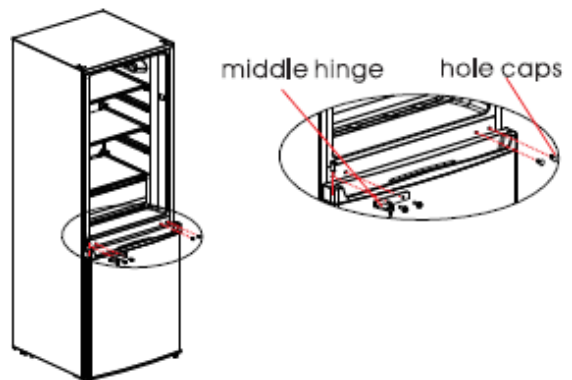
4) Take off freezing chamber door, dismount bottom hinge ,adjustable foot. Install the bottom hinge assembly and adjustable foot on other side



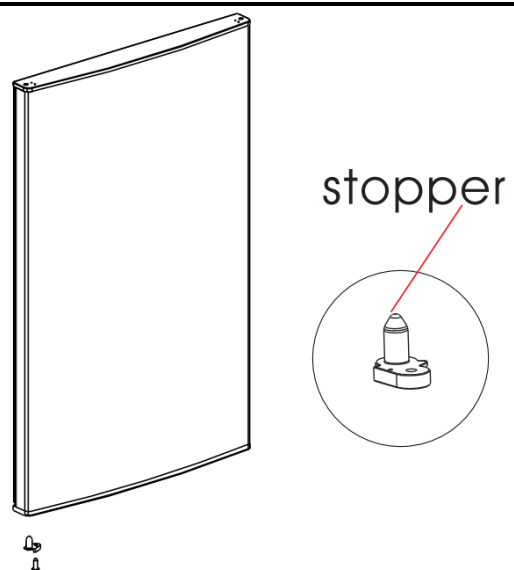
5) Install the stopper of the freezer door on the other side.



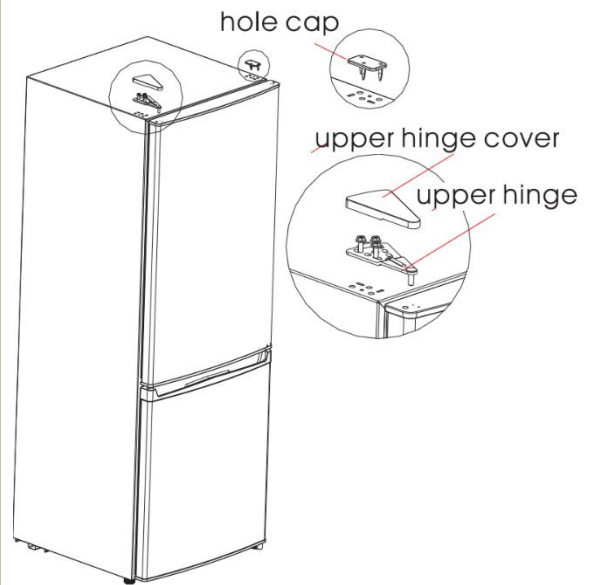
6) Put the freezer door on bottom hinge, install the middle hinge and the screw hole caps.



7) Install the stopper of the refrigerating door on the other side.



- 8) Put the refrigerating door on the middle hinge, install the upper hinge, upper hinge cover and hole cap on the other side .



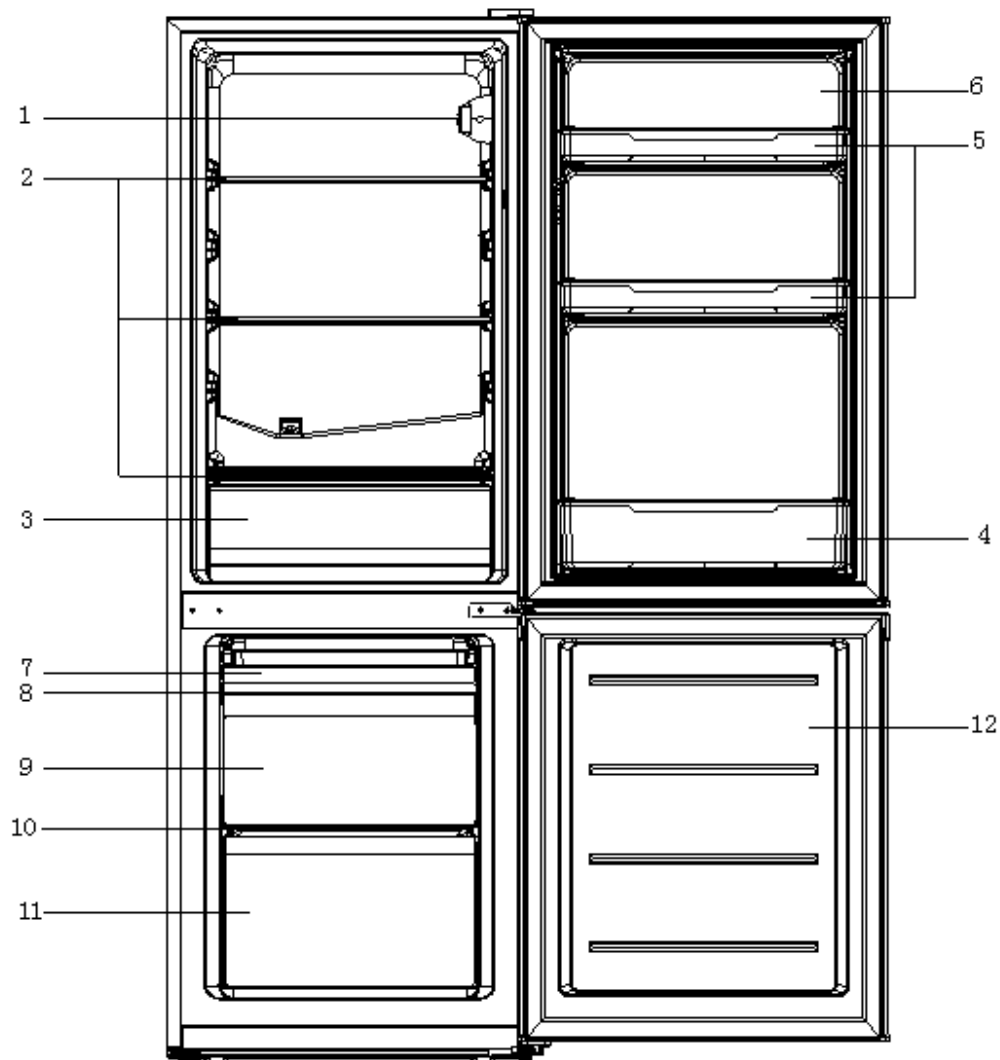
4.6 Installation of handle (None)

4.7 Installation of door lock (None)

5. Product configuration and dimension

5.1 Main parts and their names

Freezer chamber	Refrigerator chamber
① Thermostat box assembly	⑦ F top drawer
② R glass shelves	⑧ F glass shelves
③ Fruits and vegetables box	⑨ F middle drawer
④ R big bottle frame	⑩ F glass shelves
⑤ R small bottle frame	⑪ Flip cover
⑥ R door assembly	⑫ F door assembly



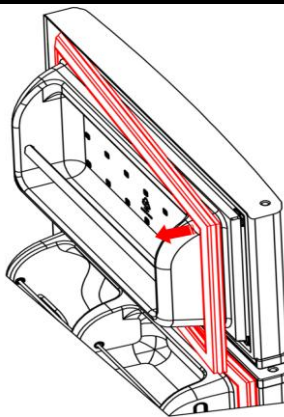
8. Dismantling of parts

8.1 Parts on the door

Door seal

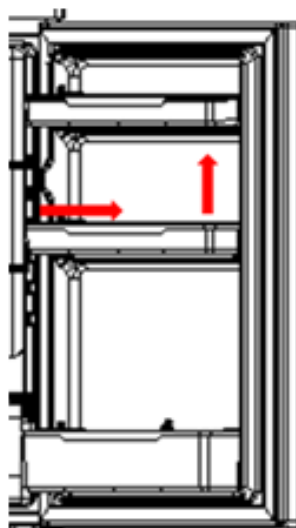
Door seal is installed into door liner groove.

- 1) Open the refrigerator door.
- 2) Take the door seal out of door liner.



Door tray

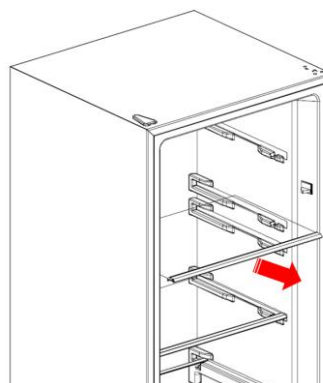
While squeezing it inward, lift up the Door tray and take it out from refrigerator liner.



8.2 Parts inside the refrigerator

Shelves/ Refrigerator Fruit box cover

Lift up the shelf/ Fruit box cover, and take it out from the refrigerator.



Drawer lid

Open the drawer lid

Pry the left shaft outward by slotted screwdriver or hand, and then pry the left shaft (②) rightward with another slotted screwdriver untill it fully moves out.

Hold the lid and pull out the right shaft then the lid can be taken out.

