# **Service Manual**

### **SBS Series**

Applicable Models	Product Models	Applicable Models
HC-689WEN	CE-BCD530WE-SQ	22031050000921



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  $\Delta$  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.

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1. Significant update notes (None)

#### 2. Safety Warning

#### 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

# A 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

- 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



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

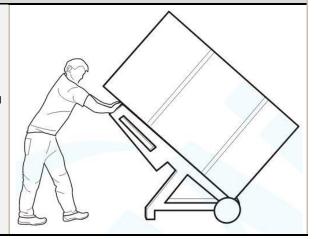
DANGER-Risk of Fire or Explosion. Flammable Refrigerant Used. To Be Repaired Only By Trained Service Personnel. Do Not Use Mechanical Devices. Do Not Puncture Refrigerant Tubing. CAUTION-Risk of Fire or Explosion. Flammable Refrigerant Used. Consult Repair Manual/Owner's Guide Before Attempting To Service 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. Installation and commissioning

#### 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, the move into house for placement
- 3) After moving it to appropriate location, wait for 2 hours before power on.



#### 3.2 Door Disassembly and Assembly

When the whole refrigerator cannot enter the room, the door can be disassembled, then assembled after entering separately.

#### Disassembly of Freezer door

1) As shown as right photos, use screwdriver to remove 2 pcs screws, and then remove the upper hinge cover.





2) Disconnect the connectors, then use cross screwdriver or socket spanner to remove the 2pcs M5 screws and 1 pc grounding screw by anticlockwise, then remove the upper hinge.



3) Lift up the freezer door until the hinge axis and water pipe separated from the axis hole of door, then carry the door to a suitable place.



#### Disassembly of refrigerator door

1) Use screwdriver to remove the 2 pcs screws, and then remove the upper hinge cover.



2) Use cross screwdriver or socket spanner to remove the 2 pcs M5 screws by anticlockwise, and then remove the upper hinge.

Note: please make sure the refrigerator door fit closely to the cabinet; otherwise the refrigerator door may fall down during above operation.





3) Lift up the refrigerator door until the hinge axis separated from the axis hole of door, then carry the door to a suitable place.



#### Assembly of freezer door

1) Put the freezer door down gently until the axis of hinge inserted into the axis hole of door completely.



2) Put the upper hinge on suitable position, then use cross screwdriver or socket spanner to fix the 2 pcs M5 screws and 1 pc grounding screw by clockwise, and connect the 6 pcs wiring connectors.



3) Put the cover of upper hinge on suitable position, then use screwdriver to fix the 2 pcs screws



#### assembly of refrigerator door

1) Put the refrigerator door down gently until the axis of hinge inserted into the axis hole of door completely, and then closes the door, to make sure the refrigerator door fit the cabinet closely.



2) Put the upper hinge on suitable position, then use cross screwdriver or socket spanner to fix the 2 pcs M5 screws.



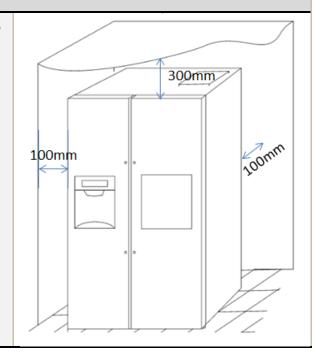
3) Put the hinge cover on suitable position, and then use the screwdriver to fix the 2 pcs screws.



#### 3.3 Installation location

#### **Installation location**

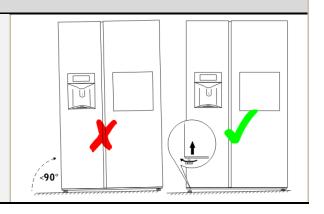
Please select a ventilated place to place the refrigerator, and reserve space according to the recommended size in the picture, which is conducive to heat dissipation, performance improvement and energy consumption reduction.



#### 3.4 Leveling of the refrigerator

#### Leveling of the refrigerator

If the refrigerator cannot be placed steadily, adjust the footing to level it. Turn the feet clockwise to raise the refrigerator; turn the feet counterclockwise to lower the refrigerator.

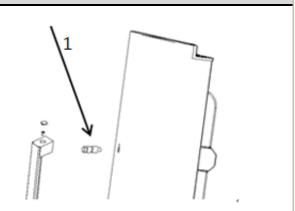


#### 3.5 Left or right open door reversal (None)

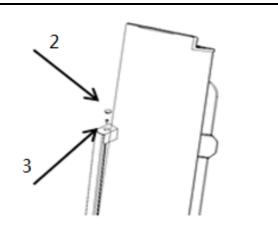
#### 3.6 Installation of handle (Option)

#### Installation of handle

1) Take out 4 bolts from the plastic bag containing the user manual, and fix the bolts in the screw holes on the door with a cross screwdriver.



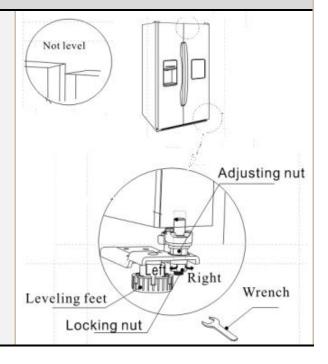
2) Install the door handle onto the bolt, tighten the screw in the handle side hole with the Allen wrench in the plastic bag, install the screw cover, and complete the installation.



#### 3.7 Adjustment to level the door

#### Adjustment to level the door (Up and down )

- 1) Refrigerator door lower: loosen locking nut counterclockwise, then rotate the adjusting nut counterclockwise to adjust the height of door, at last tighten the locking nut clockwise.
- 2) Refrigerator door higher: loosen locking nut counterclockwise firstly, then rotate the adjusting nut clockwise, at last tighten the locking nut clockwise.



#### Adjustment to inhomogenous aperture the door (Up and down)

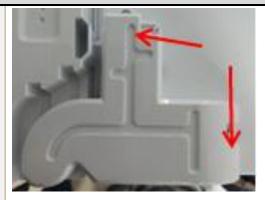
- 1) Use screwdriver to remove the 2 pcs screws, and then remove the upper hinge cover.
- 2) Use screwdriver to loosen the 2 pcs screws, right and left adjust the upper hinge to make door aperture be homogeneity.
- 3) Put the hinge cover on suitable position, and then use the screwdriver to fix the 2 pcs screws.





#### Adjustment to plane the door (left and right)

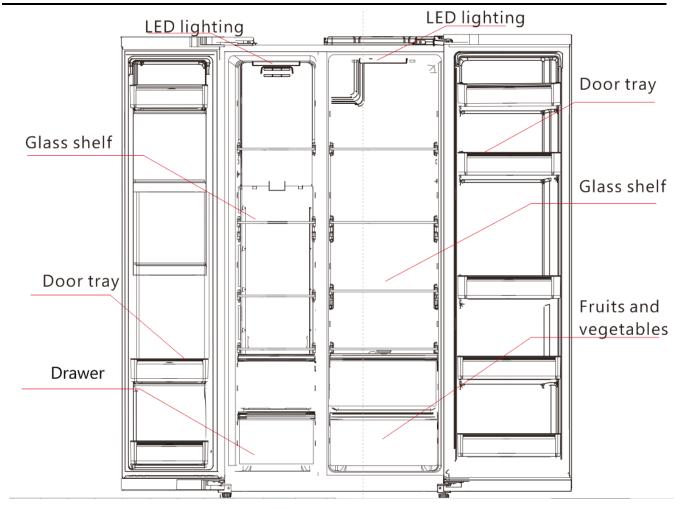
- Use screwdriver to remove the 2 pcs screws, and then remove the upper hinge cover. Use screwdriver to loosen the 2 pcs screws, front and back adjust the upper hinge to make door aperture be homogeneity.
- 2) Put the hinge cover on suitable position, and then use the screwdriver to fix the 2 pcs screws.





### 4. Main parts and external dimension

#### 4.1 Main parts



(The picture is only for reference, and specific appearance and configuration are subject to the real product)

### 7. Dismantling of parts

#### 7.1 Parts on the door

#### Door seal

Door seal is installed into door liner groove.

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



#### **Door tray**

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



#### 7.2 Parts inside the refrigerator

#### Refrigerator Fruit box cover

- 1) Take out the crisper firstly.
- 2) Lift up the Fruit box cover, and then pull out it.



#### Shelves

1) Lift up the division plate with a proper force and pull it out towards yourself;



#### Freezer Drawer

- 1)Pull the drawer out completely;
- 2)Lift it up slightly and take it out from the refrigerator.

