Model: SR 30NMA/ NMB / RMB
SR 34NMA/ NMB / RMB
SR 37NMA/ NMB / RMB

REFRIGERATOR

CONTENTS

1. Safety Precautions and Warnings
2. Product Specifications
3. Electrical Part Specifications & Standard
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12. How to disassemble of freezing compartment
13. How to disassemble of refrigerating compartment
14. How to disassemble of exchanging reversible door
1. Safety precautions and warnings

Read all instructions before using this appliance in order to avoid risk of accident or possible damage.

Warning/Caution

<table>
<thead>
<tr>
<th>Warning</th>
<th>Caution</th>
</tr>
</thead>
<tbody>
<tr>
<td>This symbol is intended to alert the user to the possible death or injury.</td>
<td>This symbol is intended to alert the user to the possible injury or damage.</td>
</tr>
</tbody>
</table>

Description of symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Indicates prohibition</td>
</tr>
<tr>
<td>!</td>
<td>Follow Adhere the instruction strictly</td>
</tr>
<tr>
<td>Do not disassemble</td>
<td></td>
</tr>
<tr>
<td>Do not contact</td>
<td></td>
</tr>
<tr>
<td>Unplug from the electrical outlet</td>
<td></td>
</tr>
<tr>
<td>Earth the appliance to avoid the risk of an electric shock</td>
<td></td>
</tr>
</tbody>
</table>

**Warning**

Do not plug multiple electrical appliances into the same outlet.  
• This may cause abnormal heating or a fire hazard.

Do not attempt to make repairs yourself.  
• This could lead to fire hazard or abnormal operation causing severe personal injury.

Make sure the power cord is not crushed or damaged.  
• Repair immediately all power cords or outlets that have become frayed or otherwise damaged.

Check the operating environment.  
• Do not install the refrigerator in a humid (with condensation) location or on an unstable surface.

Be sure the earth.  
• If earthing is not done, it will cause breakdown & electric shock.

Pull the power plug out for exchanging electrical equipment.  
• It may cause electric shock.
### Caution

| Do not put bottles or kinds of glass in the freezer.  
| • Freezing of the contents may inflict a wound. |

| Do not store narrow and lengthy bottles or foods in a small multi-purpose room.  
| • It may hurt you when refrigerator door is opened and closed resulting in falling stuff down. |

| Do not store pharmaceutical products, scientific materials, etc, in the refrigerator.  
| • The products which controlled by temperature shall not be stored in the refrigerator. |

| Do not store articles on the product.  
| • Opening or closing the door may throw down which may inflict a wound. |

| Use the rated components on the replacement.  
| • Check the correct model, rated voltage, rated correct, operating temperature and so on. |

| On repair, make sure that the wires such as harness should be bundled tightly.  
| • Bundle tightly wires in order not to be detached by the external force and then not to be wet. |

| On repair, remove completely dust or other things of housing parts, harness parts, and check parts.  
| • Cleaning may prevent the possible fire by tracking or short |

| After repair, check the assembled state of components.  
| • It must be in the same assembled state when compared with the state before disassembly. |

| Check if there is any trace indicating the permeation of water.  
| • If there is that kind of trace, change related components or do the necessary treatment such as taping using the insulating tape. |
# 2. Product Specifications

[CFC-FREE]

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name</td>
<td>SR 30NMA/NMB/RMB SR 34NMA/NMB/RMB SR 37NMA/NMB/RMB</td>
</tr>
<tr>
<td>Type</td>
<td>2-Door Freezer/Refrigerator</td>
</tr>
<tr>
<td>Power Source</td>
<td>AC 115V/60Hz, 127V/60Hz 220V/50<del>60Hz, 230</del>240V/50Hz</td>
</tr>
<tr>
<td>Net Capacity ($/cu.ft)</td>
<td>Freezer 68 68 78 Refrigerator 186 208 232 Total 254/9.0 276/9.8 310/11.0</td>
</tr>
<tr>
<td>Net Dimension (mm)</td>
<td>Width 600</td>
</tr>
<tr>
<td></td>
<td>Depth 600</td>
</tr>
<tr>
<td></td>
<td>Height 1560 1630</td>
</tr>
<tr>
<td>Net weight (Kg)</td>
<td>53 54 56</td>
</tr>
<tr>
<td>Refrigerant</td>
<td>R134a (140g) R134a (140g)</td>
</tr>
<tr>
<td>Temperature Control</td>
<td>Dial (Thermostat)</td>
</tr>
<tr>
<td>Defrosting</td>
<td>Automatic (Start-Finish by Timer)</td>
</tr>
<tr>
<td>Foam insulation</td>
<td>Cabinet Cyclo-Pentane</td>
</tr>
<tr>
<td></td>
<td>Door Cyclo-Pentane</td>
</tr>
<tr>
<td>Liner/Door Panel</td>
<td>ABS (SD-0150)</td>
</tr>
<tr>
<td>Accessory Parts</td>
<td>Door Storage 2 Guard-Freezer 1 Guard-Egg, 1 Guard-Bottle 2 Guard-Variety 1 Guard-Jumbo</td>
</tr>
<tr>
<td></td>
<td>Inside Storage 1 Base Tray Ice 1 Case Tray Ice 1 Shelf Freezer 1 Case Chilled Room 2 Shelf Refrigerator 1 Cover Vegetable 1 Case Vegetable 1 Vegetable Partition</td>
</tr>
<tr>
<td>Interior Lamp</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>Movable Caster</td>
<td>2 (Rear)</td>
</tr>
<tr>
<td>Angle Adjustment</td>
<td>2 Legs (front)</td>
</tr>
</tbody>
</table>
### 3. Electrical part specifications & standard

[CFC-FREE]

<table>
<thead>
<tr>
<th>ITEM</th>
<th>STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td>SR 30NMA/NMB/RMB</td>
</tr>
<tr>
<td><strong>Power source</strong></td>
<td>115V/60Hz</td>
</tr>
<tr>
<td><strong>Compressor</strong></td>
<td><strong>Model</strong></td>
</tr>
<tr>
<td><strong>Starting type</strong></td>
<td>R.S.C.R</td>
</tr>
<tr>
<td><strong>Oil charge</strong></td>
<td>FREOL γ±15c / 200cc</td>
</tr>
<tr>
<td><strong>Evaporator</strong></td>
<td>Fin type</td>
</tr>
<tr>
<td><strong>Condenser</strong></td>
<td>Natural convection type</td>
</tr>
<tr>
<td><strong>Dryer</strong></td>
<td>Molecular sieve (XH-9, 13g)</td>
</tr>
<tr>
<td><strong>Capillary tube</strong></td>
<td>ID 0.75 x L2800 (mm)</td>
</tr>
<tr>
<td><strong>Thermostat</strong></td>
<td>Refrigerator</td>
</tr>
<tr>
<td><strong>Defrost-thermo</strong></td>
<td><strong>Bimetal (OFF/ON)</strong></td>
</tr>
<tr>
<td></td>
<td>Operating Temperature</td>
</tr>
<tr>
<td></td>
<td><strong>Thermal fuse</strong></td>
</tr>
<tr>
<td></td>
<td>Open temperature</td>
</tr>
<tr>
<td><strong>Defrost-timer</strong></td>
<td>Type</td>
</tr>
<tr>
<td><strong>Defrosting</strong></td>
<td>6hr 40min(60Hz)/8hr(50Hz)</td>
</tr>
<tr>
<td><strong>Interval</strong></td>
<td>12Min</td>
</tr>
<tr>
<td><strong>Starting-relay</strong></td>
<td><strong>Model</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Resistance</strong></td>
</tr>
<tr>
<td><strong>Overload protector</strong></td>
<td><strong>Model</strong></td>
</tr>
<tr>
<td></td>
<td>PHBBYY-53</td>
</tr>
<tr>
<td></td>
<td>Close temp.</td>
</tr>
<tr>
<td></td>
<td>Open temp.</td>
</tr>
<tr>
<td><strong>Capacitor</strong></td>
<td><strong>Running</strong></td>
</tr>
<tr>
<td><strong>Resistor Heater</strong></td>
<td>MOR S 3W</td>
</tr>
<tr>
<td><strong>Heater-defrost</strong></td>
<td>170W/ 71Ω</td>
</tr>
<tr>
<td><strong>Lamp</strong></td>
<td>110V–130V/15w</td>
</tr>
<tr>
<td><strong>Door-Switch</strong></td>
<td>250V/0.5A, 125V/1.5A</td>
</tr>
<tr>
<td><strong>Earth screw</strong></td>
<td>BSBN(Brass screw)</td>
</tr>
</tbody>
</table>
### 4. Product Dimension

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR30NMA/NMB/RMB</td>
<td>1560</td>
<td>972.5</td>
<td>509.5</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>SR34NMA/NMB/RMB</td>
<td>1630</td>
<td>1032.5</td>
<td>509.5</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>SR37NMA/NMB/RMB</td>
<td>1630</td>
<td>1032.5</td>
<td>559.5</td>
<td>640</td>
<td></td>
</tr>
</tbody>
</table>
5. Identifying and disassembling the parts

To remove shelves in the freezing compartment

- First remove the icemaking molds. Tilt the shell up at front, then lift it up and pull it out of the tracks.

To remove shelves in the refrigerating compartment

- Hold the shelf by the front and pull it forward of the rack.

To remove shelves in the chilled compartment

- Lift up the cover, push the cover to the right (as shown) until the mounting hook ( ) disengages, then disengage the other mounting hook ( ) and pull out the cover.
  - Pull the shelf forward until it stops. Then lift it up and pull it out.
  - With shelf front raised slightly, engage the roller between the rails and slide it back.
  - To replace the cover, first engage the mounting hook ( ) as shown, then engage the other hook ( ) and push in.

To remove bio deodorizer

- While pushing the front end knob of the bio deodorizer, pull it downward to disengage.

To remove shelves in the refrigerating compartment

- Hold the shelf by the front and pull it forward of the rack.

To remove door bins

- While pushing the bin to the left, lift it up to disengage.

To remove storage drawers and covers

- Lift up to remove the cover. Pull the drawer half way out, then lifting it up, pull it out completely.

To remove bio deodorizer

- While pushing the front end knob of the bio deodorizer, pull it downward to disengage.

To remove door bins

- While pushing the bin to the left, lift it up to disengage.

To remove storage drawers and covers

- Lift up to remove the cover. Pull the drawer half way out, then lifting it up, pull it out completely.

To remove shelves in the chilled compartment

- Lift up the cover, push the cover to the right (as shown) until the mounting hook ( ) disengages, then disengage the other mounting hook ( ) and pull out the cover.
  - Pull the shelf forward until it stops. Then lift it up and pull it out.
  - With shelf front raised slightly, engage the roller between the rails and slide it back.
  - To replace the cover, first engage the mounting hook ( ) as shown, then engage the other hook ( ) and push in.
6. Schematic diagram of coolant gas circulation

Compressor; CLUSTER PIPE; Hot pipe; DRYER; Capillary tube
Evaporator; accumulator; suction pipe; Compressor
7. Circuit diagram

[ 115V/ 60Hz, 127V/60Hz, 220V/50~60Hz, 230~240V/50Hz]-SR30/34/37
8. Packing dimension

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR30NMA/NMB/RMB</td>
<td>689/659/659</td>
<td>649</td>
<td>1620</td>
<td>55</td>
</tr>
<tr>
<td>SR34NMA/NMB/RMB</td>
<td>689/659/659</td>
<td>649</td>
<td>1690</td>
<td>55</td>
</tr>
<tr>
<td>SR37NMA/NMB/RMB</td>
<td>739/709/709</td>
<td>649</td>
<td>1690</td>
<td>55</td>
</tr>
</tbody>
</table>
9. Schematic diagram of cold air flow

- Cold air generated from the cooling system is distributed to the freezing compartment and the refrigerating compartment by the air circulation fan.

- In the freezing compartment, cold air is distributed to the compartment as well as to the shelves from the cold air exhaust port, food is frozen in the freezing compartment by cold air shower. Cold air that comes out of the freezing compartment is absorbed back to the lower part of the cooling system through the suction port on the median divider.

- In the refrigerating compartment, cold air is distributed to the duct cover through the median divider. Cold air supplied to the duct cover passes through the refrigerating compartment. After cooling the refrigerating compartment, cold air is absorbed to the lower part of the cooling system through the suction port on the median divider.
10. Troubleshooting method

10-1 The refrigerator does not operate

- **Is the interior light on when the door switch is pushed?**
  - **Yes**
  - **No**

- **Does the compressor operate?**
  - **Yes**
  - **No**

- **The compressor is operated for more than 30 minutes and the refrigerator,**
  - **Yes**
  - **No**

- **The compressor is defective**
  - **The freezing cycle has a problem**

- **Make sure the refrigerator is plugged in at the wall outlet.**
  - **Yes**
  - **No**

- **Make sure that the thermometer in the Refrigerator compartment is electrically connected.**
  - **Yes**
  - **No**

- **Replace the defective part**

- **Check the defrost timer**
  - **Yes**
  - **No**

- **Replace the defective part**

- **Check the P.T.C. relay**
  - **Yes**
  - **No**

- **Check the overload protector**
  - **Yes**
  - **No**

- **Check the condenser**
  - **Yes**
  - **No**

- **Check for the abnormalities**

- **If the fan operates when you push the door switch, it is normal (Replace if it is defective)**

- **Check the electrical connection**

- **The compressor is defective**
10-2 Defrosting mechanism does not work

Check that the defrost timer operates properly
- Yes
  - Replace the defrost timer
- No

Check the Thermal fuse
- Yes
  - Replace the Thermal fuse
- No

Check the bimetal thermometer
- Yes
  - Replace the bimetal thermo
- No

Check the defrost heater
- Yes
  - Replace the defrost heater
- No

10-3 Defrosting mechanism does not work

Does the cooling fan operate?
- Yes
  - • Check the cooling fan motor
  - • Check the door switch
- No

Is the freezer defrosted normally?
- Yes
  - • Defrost timer
  - • Thermal fuse/Bimetal thermo
  - • Defrost heater
- No

Is the door closed properly?
- Yes
  - • Check that the door gasket is properly sealed, check for the damaged gasket.
- No

Is the door stopper hinge normal?
- Yes
  - • Correct or readjust the door stopper hinge
- No

Is too much food stored in the freezer compartment?
- Yes
  - • Tightly cover stored ice cubes.
  - • Tightly cover stored frozen food.
  - • Distribute food evenly in the compartment.
- No
### 10-4 Trouble check for the cooling cycle

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cause</th>
<th>Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The EVAP cools down and warms again.</td>
<td>Moisture in the refrigerant causes the malfunction.</td>
<td>Replace the refrigerant</td>
</tr>
<tr>
<td>• The condenser warms in proportion as the EVAP cools.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The process repeats again.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The condenser is cold.</td>
<td>Foreign substances hampers the cooling cycle.</td>
<td>Locate the disturbed section and make repairs</td>
</tr>
<tr>
<td>• The EVAP is not cold.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The temperature of the compressor is high.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No difference in temperatures between suction pipe and discharge pipe.</td>
<td>The compressor is defective</td>
<td>Replace the compressor</td>
</tr>
<tr>
<td>• The temperature of the compressor is maintained at room temperature.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The EVAP does not cool down.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Frost on the suction pipe.</td>
<td>Too much refrigerant</td>
<td>Replace the refrigerant</td>
</tr>
<tr>
<td>• The condenser is overheated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The refrigeration in the EVAP is not efficient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The condenser is cold.</td>
<td>Refrigerant leaks. (Slight refrigerant leakage causes partial cooling with frost on the EVAP)</td>
<td>After welding the leaked spot, replace the refrigerant</td>
</tr>
<tr>
<td>• The compressor surface temperature is high.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The refrigerator is not easily get cooled.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Samsung Electronics 13
## 10-5 Diagnosing the main components

<table>
<thead>
<tr>
<th>Components</th>
<th>Diagnosing methods and criteria</th>
<th>Location</th>
</tr>
</thead>
</table>
| Compressor                  | • Use the tester to measure the resistance.  
  – Bring the component to cool down completely before measuring.  
  | **Measuring point** Normal Abnormal  
  Primary wire Approx 10 – 500kΩ 0Ω and ∞Ω  
  Secondary wire 3 – 20Ω ∞Ω | Mechanical compartment |
| P.T.C Relay                 | • Use the tester to measure the resistance.  
  – Bring the component to cool down completely before measuring.  
  | Normal Abnormal  
  Approx ∞Ω – kΩ 0Ω and ∞Ω | Mechanical compartment |
| Condenser                   | • Use the tester to measure the resistance.  
  – Bring the component to cool down completely before measuring.  
  | Normal Abnormal  
  Approx 10Ω – 80kΩ 0Ω and ∞Ω | Electrical equipment box |
| Overload protector          | • Use the tester to measure the resistance.  
  | Normal Abnormal  
  Approx 200kΩ 0Ω and ∞Ω | Mechanical compartment |
| Fan-motor                   | • Use the tester to measure the resistance.  
  – Bring the component to cool down completely before measuring.  
  | Normal Abnormal  
  Approx 100Ω – 20kΩ 0Ω and ∞Ω | Mechanical compartment  
  Freezing compartment |
| Door switch                 | • Use the tester to measure the resistance.  
  | Normal Abnormal  
  C & NO ∞Ω 0Ω  
  C & NC 0Ω ∞Ω | Between the upper and the lower doors |
| Defrost timer               | • Use the tester to measure the resistance.  
  | Normal Abnormal  
  Between terminals Approx 200kΩ 0Ω and ∞Ω  
  Temperature fuse terminal Approx 10Ω–300kΩ ∞Ω | Electrical equipment box |
| Defrost heater              | • Use the tester to measure the resistance.  
  – Bring the component to cool down completely before measuring.  
  | Normal Abnormal  
  Approx = MΩ ~ ∞Ω | EVAP |
| Bimetal Temperature fuse    | • Use the tester to measure the resistance.  
  | Normal Abnormal  
  Bimetal terminal Approx 200MΩ =Ω ~ ∞Ω  
  Temperature fuse terminal | EVAP |
12. How to Disassemble of freezing Compartment

12-1 COVER-EVAP ASS’Y

1. Take out food & useless in the freezer room and get rid of the moisture in the freezer.

2. Please pull up the top with a long-nose and insert the hand into the gab, as shown below.
   Take a part the connected housing.

3. When the COVER-EVAP, ASSY is taken a part, take an action on the problem.
   Reassemble the cover evap a’ssy.
13. How to disassemble of refrigerating Compartment

13-1 Changing the Light Bulb

When you open the refrigerator door, a light comes on to help you find what you are looking for more easily. If you need to replace the bulb, proceed as follows.

1 Remove the chiller compartment by:
   - Putting it towards you until it meets the stop
   - Tilting the front up slightly and continuing to pull the compartment towards you

2 With a flat-bladed screwdriver, prises out the upper part of the light cover. Pull the cover free.

3 Unscrew and remove the light bulb.

4 Insert new bulb(maximum of 15 W. E14 small screw base).

5 Replace the light cover by pushing it until it clicks back into place.

6 Replace the chiller compartment by sliding it back into position.
14. How to disassemble of Exchanging Reversible Door

14-1 Methods of Exchanging Reversible Door (Only RMB model)

§ Removing the Door

Freezer Door

1. Separate the plastic cover on the hinge.
2. Unscrew the hinge to separate it and hold up and remove the freezer door.

Refrigerator Door

1. Unscrew 3 screws of the hinge and separate it.
2. Separate the door switch.
3. Hold up and remove the refrigerator door.

" Move the stopper at the bottom of the freezer door and the refrigerator door right to left to fix it.
14-2 Methods of Exchanging Reversible Door (Only RMB model)

Put on the hole with a cap on the opposite hole and fix the power switch of the refrigerator.

§ Assembling the Door

Refrigerator Door

1 Move the lower hinge at the bottom of the refrigerator left to right to right to fix it.
2 Put down the refrigerator door to fit in the proper location.
3 Fix the hinge to the fixing roll.

Freezer Door

1 Fix the freezer door downward.
2 Fix the freezer door th the fixing roll and screw it.
3 Assemble the cover hinge.