

**SAMSUNG**

# REFRIGERATOR

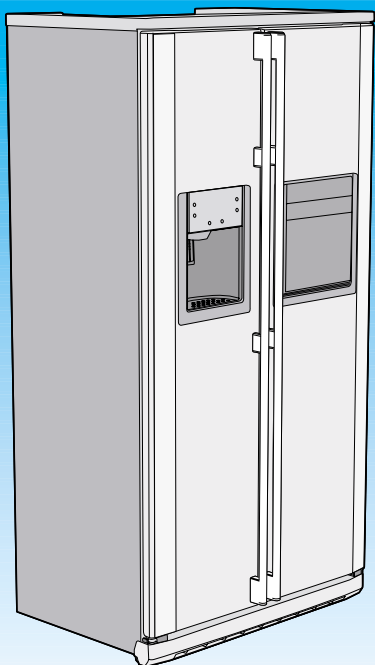
**SIDE BY SIDE**

**RSE8KPAS**

**RSE8KPAS1/XEU**

# ***SERVICE*** *Manual*

## REFRIGERATOR



## PRODUCT FEATURE

- **Twin Cooling System**
- **Cool Select Zone & Chilled Compartment**
- **Spill-proof Shelf & Safety Glass Shelf**
- **Automatic Water And Ice Dispenser**

For more information, Please access to our service web site (<http://itself.sec.samsung.co.kr>)



## **WARNING**

### **IMPORTANT SAFETY NOTICE**

The service guide is for service men with adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or dealer cannot be responsible for the interpretation of this information.

***SAMSUNG ELECTRONICS AMERICA, INC.***

*Technical Service Guide*

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## 1. Precautions(Safety Warnings)

- Unplug the refrigerator before making any repair or any replacement.
  - ⇒ Avoid electric shock.
- Use the rated components on the replacement.
  - ⇒ Check the correct model number, rated voltage, rated current, operating temperature and so on.
- On repair, be sure that the wires such as harness are bundled tightly and are not exposed by water.
  - ⇒ Bundle wires tightly in order not to be detached by the external force.
- On repair, remove completely dust, particles or other things on housing parts, harness parts, and connectors.
  - ⇒ Cleaning may prevent fire by tracking or short.
- Check if there is any trace indicating the infiltration of water on electrical parts.
  - ⇒ If there is kind of trace, change the related components or do the necessary action such as taping using the insulating tape.
- After repair, check the assembled state of parts.
  - ⇒ It must be in the same assembled state when compared with the state before disassembly.
- Check the surrounding conditions of the installed refrigerator.
  - ⇒ When the refrigerator is located at humid or wet place, or the installed state is unstable, change the location.
- If needed, do the ground.
  - ⇒ Especially, if there is a possibility of the electric leakage, this appliance must be properly grounded.
- Do not allow consumers to use one outlet for several plugs.
- Check whether the power cord is placed under other appliance and so, damaged, worm-out squeezed.
  - ⇒ Repair immediately the defective power plug or outlet.
  - ⇒ Make sure that the power cord is not placed under other appliance or squeezed.
- Do not allow consumers to keep bottles or the likes in the Freezer or to keep foods in unstable position.
- Do not allow consumers to repair the appliance by themselves.
- Do not allow consumers to keep other chemicals except food.
  - ⇒ Medicines and other materials for research ; This appliance will not maintain the precisely constant temperature for them.
  - ⇒ Volatile material(Alcohol, Benzene, Ether, LP gas etc.) : possibility of explosion

## Precautions(Safety Warnings)

Read all instructions before repairing the product and keep to the instructions in order to prevent danger or property damage.

### CAUTION/WARNING SYMBOLS DISPLAYED

|   |                |   |
|---|----------------|---|
|  | <b>Warning</b> | Indicates that a danger of death or serious injury exists.          |
|  | <b>Caution</b> | Indicates that a risk of personal injury or material damage exists. |

### SYMBOLS

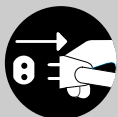
|   |  |
|---|--|
|  | means "Prohibition".                                     |
|  | means "Do not disassemble".                              |
|  | means "No contact".                                      |
|  | means "The things to be followed".                       |
|  | means "Power cord should be unplugged from the consent". |
|  | means "Earth to prevent Electric shock".                 |



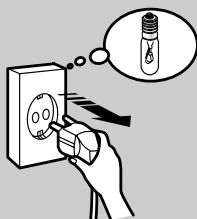
## Warning & Caution

Pull the power plug out to exchange the interior lamp of the refrigerator.

- It may cause electric shock.



Unplug



Use the rated components on the replacement.

- Check the correct model, rated voltage, rated current, operating temperature and so on.



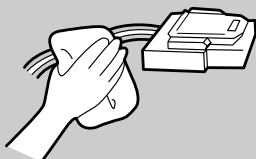
On repair, make sure that the wires such as harness are bundled tightly.

- Bundle tightly wires in order not to be detached by the external force and then not to be wetted.



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.



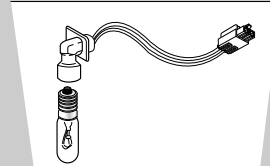
After repair, check the assembled state of components.

- 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 the related components or do the necessary treatment such as taping using the insulating tape.



## Precautions(Safety Warnings)

※ Please let users know following warnings & cautions in detail.



# Warning & Caution

**Do not allow users to put bottles or kinds of glass in the freezer.**

●Freezing of the contents may inflict a wound.



Prohibition



**Do not allow users to 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.



Prohibition



**Do not allow users to store pharmaceutical products, scientific materials, etc., in the refrigerator.**

●The products which temperature control should not be stored in the refrigerator.



Prohibition

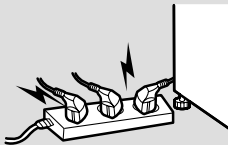


**Do not allow users to insert the power plugs for many products at the same time.**

●May cause abnormal generation of heat or fire.



Prohibition

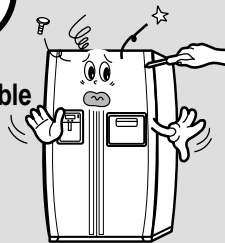


**Do not allow users to disassemble, repair or alter.**

●It may cause fire or abnormal operation which leads to injury.

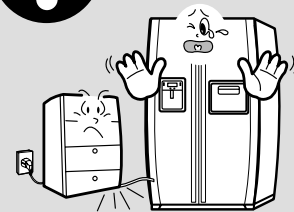


Do not disassemble



**Do not allow users to bend the power cord with excessive force or do not have the power cord pressed by heavy article.**

●May cause fire.

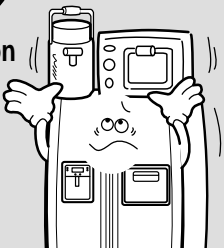


**Do not allow users to store articles on the product.**

●Opening or closing the door may cause things to fall down, with may inflict a wound.

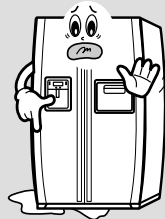


Prohibition



**Do not allow users to install the refrigerator in the wet place or the place which water splashes.**

●Deterioration of insulation of electric parts may cause electric shock or fire.

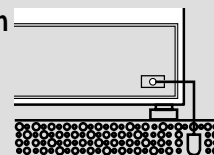


**Make sure of the earth.**

●If earthing is not done, it will cause breakdown and electric shock.



Earth



## 2. Product Specifications

### 2-1) Introduction of main function

- **SAMSUNG side by side refrigerator has the following characteristics.**

#### **Twin Cooling System**

- The refrigerator and the freezer have two evaporators. Given this independent system, the freezer and the refrigerator are cooled individually as required and are, therefore, more efficient. Food odor from the refrigerator does not affect food in the freezer due to separate of air flow circulation.

#### **Multi-Flow System**

- Cool air circulates through multiple vents on every shelf level. This provides even distribution of cooling inside cabinets to keep your food fresh longer.

#### **Door Alarm**

- A beeper reminds you if the door is left open.

#### **High humidity for fresher food**

- You can keep food, fruit and vegetables fresh for longer because your refrigerator supplies highly humidified cold air. This can be up to four or five times more effective than a normal refrigerator.

#### **Energy-saving fridge/freezer**

- Power consumption is kept to a minimum by distributing cool air separately to the refrigerator and freezer.

#### **Faster cooling times**

- The power freeze function allow you to freeze food more quickly.

#### **Abundant supply of ice and cold water**

- The ice and water dispenser provides ice and cold water at any time.

#### **Beverage Station (optional)**

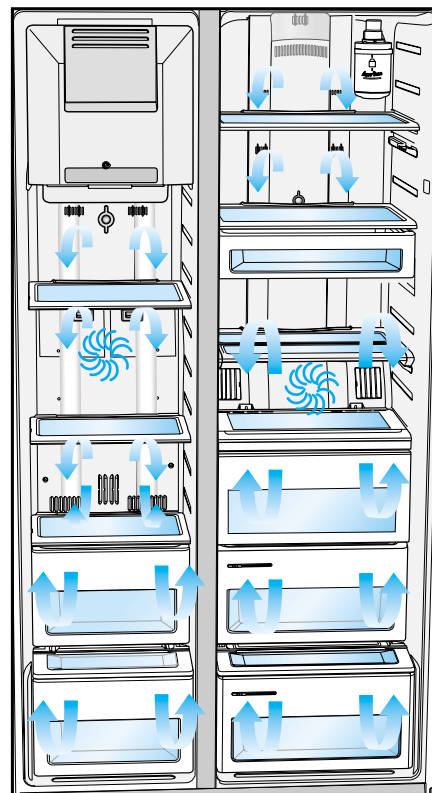
- You do not have to open the main door to access frequently used food in the extra refrigerating compartment. This saves time and money.

#### **Deodorizer**

- Reusable deodorizer keeps the refrigerator air fresh and odor free.

#### **CoolSelect Zone™Drawer (optional)**

- User can select Soft Freeze, 0 zone, Quick cool, cool, Thaw buttons.



**NOTE**

This operation instruction covers various models.

The characteristics of your appliance may differ slightly from those described in this manual.

## Product Specifications

### 2-2) Model Specification

| Item                                    |              | Specification                         |                         |
|---|--------------|---------------------------------------|-------------------------|
| Model(RSE8)                             |              | RSE8J*, D*                            | RSE8K*, F*, V*, T*      |
|   |              | Dispenser without home-bar            | Dispenser with home-bar |
| Net Capacity                            | Total        | 510ℓ                                  | 495ℓ                    |
|   | Refrigerator | 311ℓ                                  | 296ℓ                    |
|   | Freezer      | 199ℓ                                  | 199ℓ                    |
| Net dimension(W×D×H)                    |              | 940mm x 625mm x 1874mm                |                         |
| Rated Frequency and Frequency           |              | 230 ~ 240V/50Hz                       |                         |
| Motor Rated Consumption Power           |              | 140W                                  |                         |
| Electric Heater Rated Consumption Power |              | 442W                                  | 452W                    |
| Kind of Refrigerator                    |              | Indirect Cooling Method Refrigerator  |                         |
| Refrigerant                             |              | R600a                                 |                         |
| Refrigerant Input Amount                |              | 96g                                   |                         |
| Freezer Performance                     |              | * *** (4-STAR)                        |                         |
| Product Weight                          |              | K, J, V (139Kg), D (135Kg), T (141Kg) |                         |

### 2-3) Comparison Chart

| Item                                    |              | Specification                           |   |   |
|---|--------------|---|---|---|
| Model                                   |              | ET-PJT                                  |   | EPEL-PJT                                |
|   |              | RS21K                                   | RS23K                                   | RSE8K                                   |
|   |              | Dispenser/Home-bar/<br>Cool select Zone | Dispenser/Home-bar/<br>Cool select Zone | Dispenser/Home-bar/<br>Cool select Zone |
| Net Capacity                            | Total        | 520ℓ                                    | 553ℓ                                    | 495ℓ                                    |
|   | Refrigerator | 334ℓ                                    | 357ℓ                                    | 296ℓ                                    |
|   | Freezer      | 186ℓ                                    | 196ℓ                                    | 199ℓ                                    |
| Net dimension(W×D×H)                    |              | 908mm x 719mm x 1760mm                  | 908mm x 754mm x 1760mm                  | 940mm x 625mm x 1874mm                  |
| Motor Rated Consumption Power           |              | 160W                                    | 160W                                    | 140W                                    |
| Electric Heater Rated Consumption Power |              | 423W                                    | 423W                                    | 452W                                    |
| Refrigerant Input Amount                |              | 88g                                     | 88g                                     | 96g                                     |
| Product Weight                          |              | 120Kg                                   | 130Kg                                   | 139Kg                                   |



## Product Specifications

### 2-4) Electric Parts Specification

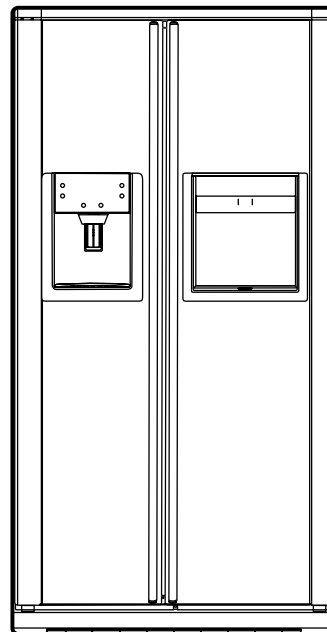
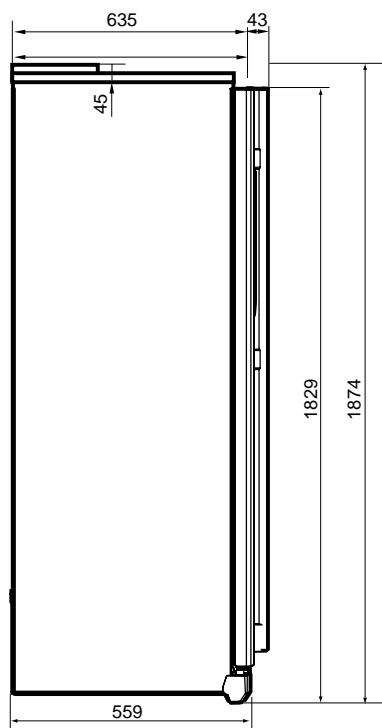
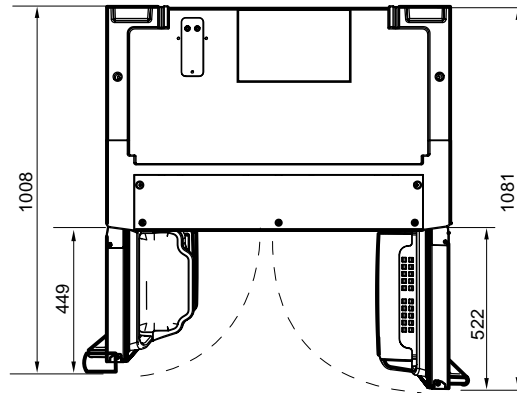
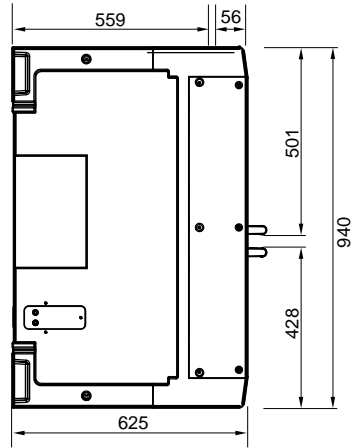
| Items                              |                |   |                       | Specification                                      |         |
|------------------------------------|----------------|---|-----------------------|--|---------|
| Models                             |                |   |                       |  |         |
| Freezing Capacity                  |                |   |                       | * *** (4 STAR)                                     |         |
| Components for Freezer             | Compressor     |   | Model                 | MK4A5Q-R1U   |         |
|                                    |                |   | Starting type         | R.S.C.R  |         |
|                                    |                |   | Oil Charge            | FREOL α - 15 (ESTER)                               |         |
|                                    | Evaporator     |   | Freezer               | SPLIT FIN TYPE                                     |         |
|                                    |                |   | Refrigerator          | SPLIT FIN TYPE                                     |         |
|                                    | Condenser      |   |                       | Forced and natural convection type                 |         |
|                                    | Dryer          |   |                       | Molecular sieve XH-9                               |         |
|                                    | Capillary tube |   |                       | 0.82 × 3400, 5.5 Kg/cm <sup>2</sup>                |         |
|                                    | Refrigerant    |   |                       | R600a  |         |
| Room Temperature Sensor Components | Freezer        | Model   | Temperature Selection | ON(°C)   | OFF(°C) |
|                                    |                | THERMISTOR<br>(F-SENSOR)<br>502AT                   | -25°C                 | -24.0  | -26.0   |
|                                    |                |   | -20°C                 | -19.0  | -21.0   |
|                                    |                |   | -14°C                 | -13.0  | -15.0   |
|                                    | Refrigerator   | Model   | Temperature Selection | ON(°C)   | OFF(°C) |
|                                    |                | THERMISTOR<br>(R-SENSOR)<br>502AT                   | 1°C                   | 2.0  | 0       |
|                                    |                |   | 3°C                   | 4.0  | 2.0     |
|                                    |                |   | 7°C                   | 8.0  | 6.0     |
| Defrost Related Components         | Defrost Cycle  | First Defrost Cycle (Concurrent defrost of F and R) |                       | 4 hr ± 10 min                                      |         |
|                                    |                | Defrost Cycle(FRE)                                  |                       | 12 ~ 24 hr (vary according to the conditions used) |         |
|                                    |                | Defrost Cycle(REF)                                  |                       | 6 ~ 12 hr (vary according to the conditions used)  |         |
|                                    |                | Pause time  |                       | 10 ± 1 min   |         |
|                                    | Defrost Sensor | F Defrost-Sensor                                    | Model                 | THERMISTOR (502AT)                                 |         |
|                                    |                |   | SPEC                  | 5.0 kΩ at 25°C                                     |         |
|                                    |                | R Defrost-Sensor                                    | Model                 | THERMISTOR (502AT)                                 |         |
|                                    |                |   | SPEC                  | 5.0 kΩ at 25°C                                     |         |
|                                    | Thermal-Fuse   |   | Rated                 | AC 250V 10A  |         |
|                                    |                |   | Operating temperature | 77 (+0°C / -5°C )                                  |         |

## Product Specifications

| Items               |  |                            | Specifications             |          |
|---------------------|--|----------------------------|----------------------------|----------|
| Model               |  |                            | Dispenser                  | Home Bar |
| Electric Components | Defrost-Heater(FRE)  | Conducting at F Defrosting | 245W                       |          |
|                     | Defrost-Heater(REF)  | Conducting at R Defrosting | 110 W                      |          |
|                     | DRAIN Heater(FRE)  | Conducting at F Defrosting | 45 W                       |          |
|                     | DRAIN Heater(REF)  | Conducting at R Defrosting | 25 W                       |          |
|                     | DISPENSER Heater   | Interlock with F-FAN       | 7W                         |          |
|                     | HOME-BAR Heater  | Interlock with COMP        | -                          | 10W      |
|                     | WATER PIPE Heater  | -                          | 7W                         | -        |
|                     | WATER TANK Heater  | -                          | 3W                         |          |
|                     | Thermal-Fuse for preventing overheating of Freezer Defrost-Heater      |                            | AC 250V 10A 77 (+0℃ / -5℃) |          |
|                     | Thermal-Fuse for preventing overheating of Refrigerator Defrost-Heater |                            |                            |          |
|                     | Condenser for COMP<br>(Package type)                                   | Running                    | 350VAC-5μF                 |          |
|                     |  | Starting                   | -                          |          |
|                     | Starting-Relay   | Model                      | 12SP 18A 265RH             |          |
|                     |  | Operation                  | 33 Ω ±20%                  |          |
|                     | Over-load Relay  | Model                      | 4TM265RFBYY-53             |          |
|                     |  | Temp. ON                   | 130 ±5℃                    |          |
|                     |  | Temp. OFF                  | 61 ±9℃                     |          |
|                     | Rated Voltage  |                            | 230V/50,60Hz               |          |
|                     | MOTOR-BLDC(FRE)  |                            | DC12V/DL-5905 SSEA         |          |
|                     | MOTOR-BLDC(REF)  |                            | DC12V/DL-5905 SSEA         |          |
|                     | MOTOR-BLDC (Circuit)   |                            | DC12V/DL-5905 SSCA         |          |
|                     | Lamp(FRE)  |                            | AC240V/40W×2               |          |
|                     | Lamp(REF)  |                            | AC240V/30W×5               |          |
|                     | Door Switch  |                            | AC250V 0.5A×2              |          |
|                     | Door Switch (HOME-BAR)   |                            | AC250V 0.5A                |          |
|                     | Power cord   |                            | AC250V 12A                 |          |
|                     | Earth Screw  |                            | BSBN (BRASS SCREW)         |          |


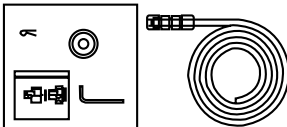


## Product Specifications

### 2-5) Dimensions (mm)



## Product Specifications

### 2-6) Optional Material Specification

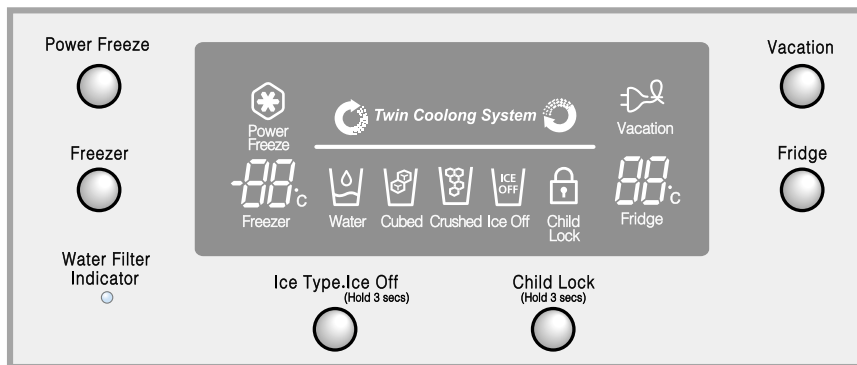
| Photographie  | Part Name              | Part Code   | Remark                           |
|---|------------------------|-------------|----------------------------------|
|  | FILTER<br>WATER-ASSY   | DA29-00003B |                                  |
|  | ASSY-INSTALL<br>FILTER | DA97-01469D |                                  |
|  | LAMP INCANDENT         | 4713-001201 | Freezer : 2pcs<br>230V, 40W      |
|  | LAMP INCANDENT         | 4713-001147 | Refrigerator : 5pcs<br>240V, 25W |

### 3. Operating Instructions & Installation

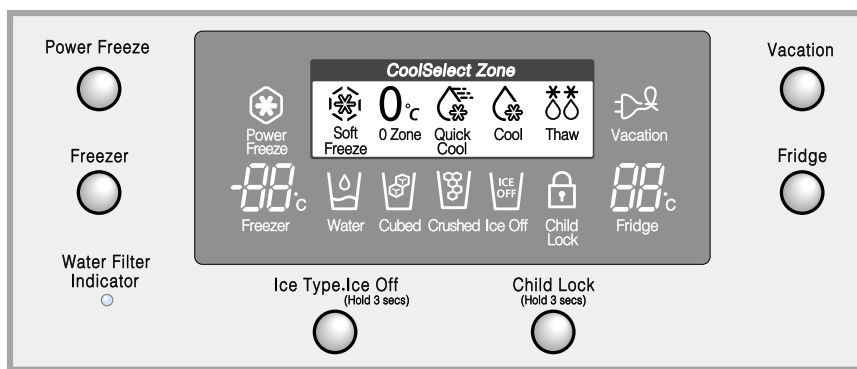
|  |    |
|--|----|
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## Operating Instructions & Installation

### 3-1) Digital Panel



for RSE8F,D,N\*\*\*



for RSE8K,J,V,T\*\*\*

### 3-2) Temperature Control Function

When the system power is initially engaged, the default set temperature are  $-20^{\circ}\text{C}$  for the freezer and  $3^{\circ}\text{C}$  for the refrigerator, respectively. The numbers shown on the digital display panel stand for the actual compartments temperatures. When the compartment temperatures go down, so do the numbers on the display panel, and finally they reach the set temperatures. Once the system is stabilized, the display temperatures are the set temperature.

#### 1) Freezer Temperature Control.

To select a set temperature, press the "Freezer" Temp. button. The display shows the set temperature from  $-14^{\circ}\text{C}$  to  $-25^{\circ}\text{C}$  in sequence.

#### 2) Refrigerator Temperature Control.

To select a set temperature, press the "Fridge" Temp. button. The display shown the set temperature from  $7^{\circ}\text{C}$  to  $1^{\circ}\text{C}$  in sequence.

note) Because of the temperature sensor sensitivity, the refrigerator can be under and/or over cooled when the air flow is blocked by stored foods. (Temperature range of the sensor :  $-9^{\circ}\text{C} \sim 30^{\circ}\text{C}$ )  
In the event of a power failure, if the freezer temperature is maintained lower than  $5^{\circ}\text{C}$ , the last selected set temperature and functions memorized in EEPROM will be restored when the power is on.

note) Interior Temperature of the freezer will be controlled with  $-25^{\circ}\text{C}$  until the ice bucket is filled up with ice cubes. When the ice bucket is filled up with ice cubes, the freezer will run with original set temperature. Also, whenever the ice bucket is released from being filled with ice cube, the freezer will repeat to be controlled with  $-25^{\circ}\text{C}$ . But if you select "Ice Off, the freezer always will be controlled with original set temperature.

## Operating Instructions & Installation

### 3-3) Power Freeze and Vacation Function

- Select the "Power Freeze" button.
  - Although you select Power Freezer, the set temperatures in the freezer is not changed.
  - The set temperatures for the compartments can be changed while this function is in use.
- 1) Power Freeze function
    - 1-1) When you press the Power Freeze button, the LED indicator lights right away, but there is 10 seconds lag time to an actual operation. When this button is pressed again, the Power Freeze function stops and the indicator is off immediately.
    - 1-2) If you select Power Freeze, both the compressor and the freezer fan run for 2.5 hours continuously.
    - 1-3) During Power Freeze, the freezer retains the current settings.
    - 1-4) When Power Freeze expires, the indicator goes off and the freezer set temperature will be restored.
    - 1-5) During power Freeze, the defrost will be delayed until power freeze expiration. If you select power freeze during defrost, Power Freeze will be started when defrost finished.
  - 2) Vacation function
    - 2-1) It is selected or cancelled by pressing the Vacation button.
    - 2-2) When the Vacation function is selected, the Vacation LED will be on, the R-Room 7-SEG will be off and R-FAN will be turned off.
    - 2-3) It does not automatically set to ICE OFF.
    - 2-4) When the Vacation function is cancelled by pressing the Vacation button, the Vacation LED will be off, the R-Room 7-SEG will be on and R-FAN will be on or off according to the R-Room set temperature.
    - 2-5) If the R-Room temperature control button is pressed during the operation of the Vacation function, the Vacation function will be cancelled, the Vacation LED will be off, the R-Room 7-SEG will be on and R-FAN will be on or off according to the R-Room set temperature.
    - 2-6) When the Vacation button is pressed, the LED will be changed immediately. But, it will operate according to the new setting 10 seconds later.
    - 2-7) With the Vacation function operating, Defrost by R-FAN will be carried out.
    - 2-8) With the Vacation function operating, Damper will be closed.  
But, during natural defrost or when R-Fan is on, Damper will be opened.
    - 2-9) Defrost with the Vacation function is carried out according to 4-hour accumulated Comp-On time.
    - 2-10) When the Vacation function is carried out with an ambient temperature over 18 °C, the R-Fan Off temperature for natural defrost will be changed (normally it is turned off when the Defrost Sensor temperature becomes -2°C) and it operates until the next Comp On. With an ambient temperature lower than 17°C, when R-Heater is on, R-Fan is turned off and when R-Heater is off, R-Fan is turned on.
    - 2-11) When the Vacation function is selected, Convertible LED will be off and the Convertible button won't work.
  - 3) When you select "Power Freeze" and "Vacation" together  
Each function works at the same time. The COMP and Freezer Fan run continuously for power freeze function and the Refrigerator Fan stop and damper for coolselect zone close for vacation.

### 3-4) Child Lock Function

- When the child lock button is pressed for 3 seconds, the child lock indicator is on.
  - When it is locked, no function commands like temperature control / power freeze / vacation / Ice type / dispenser operation.
  - This function will prevent accidental setting that may be caused by children or pets.
  - To unlock the setting functions, press this button for 3 seconds again.
  - Temperature LED for Freezer, Fridge is off. But LED for Ice type, Ice Off, Child Lock, Vacation, Power Freeze remain on.

## Operating Instructions & Installation

### 3-5) Function with Ice Dispenser & Water Dispenser Installed

- This function only applies to the model with Ice Maker and Ice/Water Dispenser.
- 1) Water / Cubed Ice / Crushed Ice / Ice Off Select Function
  - 1-1) By pressing each specific button on the display panel, Water, Cubed Ice, Crushed Ice, Ice Off will be selected.  
But, the Ice Off button needs to be pressed for more than 3 seconds to select.
  - 1-2) With the initial power on, it will be selected to Water automatically.
  - 1-3) When taking out water after Water is selected, the Water Solenoid Valve operates.
  - 1-4) When taking out ice after Cubed Ice is selected, the auger motor and the cubed ice solenoid are used to push out the ice in the ice bin.
  - 1-5) When taking out ice after Crushed Ice is selected, only the auger motor operates to push out the ice in the ice bin.
  - 1-6) When Ice Off is selected, the Ice Maker stops operating. When Water is selected, it supplies water and when Cubed Ice or Crushed Ice is selected, the ice made before the Ice Off is selected will be supplied.
  - 1-7) Ice comes out when the Ice Cover opens completely after the Dispenser S/W is pressed.
  - 1-8) The Ice Cover is closed in 5 seconds after the Dispenser S/W is turned off.
  - 1-9) The Dispenser Lamp lights up with the Dispenser Switch on and it goes off in 10 seconds after the Dispenser Switch is turned off.
- ※ Caution : If the Ice Cover is closed forcefully, it could get broken. So, make the Ice Cover operate again by extracting ice once again if it is not closed.
- ※ Note) When extracting ice after selecting Ice Off, only the ice in the Ice Bin is extracted. Also, with Ice Off selected, the Water/Cubed Ice/Crushed Ice buttons can be used.  
But, it is limited to the use of only the ice remaining in the Ice Bin.

### 3-6) C-Fan Motor Delay Function of the Machine Compartment

- According to the ambient temperature, the condenser fan located in the machine compartment is operated with different modes.

|                              | Ranges of ambient temp. | Operation  |
|------------------------------|-------------------------|--|
| Condenser Fan Delay function | Above 18°C              | Condenser-Fan is ON as soon as the compressor is on.             |
|                              | 13°C ~ 17°C             | Condenser-Fan is ON with 5 minutes delay from the compressor on. |
|                              | Below 12°C              | Condenser-Fan is OFF regardless of the compressor operation.     |

### 3-7) CoolSelect Zone™ Function (optional)

- To select this function, open the refrigerator door and press the button on the control panel of CoolSelect Zone™ drawer.
- So the refrigerator cooling is performed first, then the damper is closed to control the CoolSelect Zone™ temperature.



## Operating Instructions & Installation

### 1) Select function

1-1) Using Select button, Soft Freeze (-5°C), 0 Zone(0°C), Quick Cool, Cool, Thaw options can be selected in sequence. Cool option maintains a set temperature of the refrigerator.

1-2) Temperature control for fresh food compartment is ahead of cool select Zone.

### 2) Quick Cool function

2-1) If the Quick Cool is selected, LEDs will flash 60 Min. The count will be decreased in every minute.

2-2) To cancel this function, press Quick Cool button again or Thaw button or Select other button. Otherwise, it will be terminated 60 minutes later automatically.

2-3) After this function ends, this drawer will come back to Cool option.

2-4) A defrost cycle will be postponed until Quick Cool option finish.

2-5) When the function is input, the R-Room Damper will be closed for the initial 40 minutes, only the Convertible Room will be controlled and the freezer compartment will be controlled according to the Notch setting. During the last 20 minutes, the Freezer, Fridge Fan will operate according to the Freezer, Fridge Notch temperatures. And, when the temperatures of the Freezer, Fridge Rooms are satisfied, cold air will be discharged to the Convertible Room.

### 3) Thaw function

3-1) When the thaw button is pressed in sequence, LEDs will flash 4, 6, 10, 12 and return to 4Hrs, default value is 4Hrs.

3-2) The count will be decreased in every hour.

3-3) A cancellation of this function is same as Quick Cool function.

3-4) After this function ends, cool select Zone display return to Zero Zone.

3-5) It remains on for Ref. evaporator heater and Ref. fan motor and close for damper until the Ref. evaporator sensor reach to the certain temperature. When the Ref. evaporator sensor reach to certain temperature, damper will be closed, Ref. heater will be off, Ref. fan motor will be on until the compressor is on to control the freezer, refrigerator compartments.

## 3-8) Water Filter Indicator Function

### 1) Filter Indicator

1-1) The color of filter indicator turns to orange when the total amount of supply water for Ice making or water dispenser are more than 250 Gallon, red for 300 Gallon.

1-2) To reset the counter and the light color, press Ice Type button and Child lock button for 3 seconds simultaneously.

1-3) If these two buttons are pressed simultaneously for 6 seconds, this function will cease.

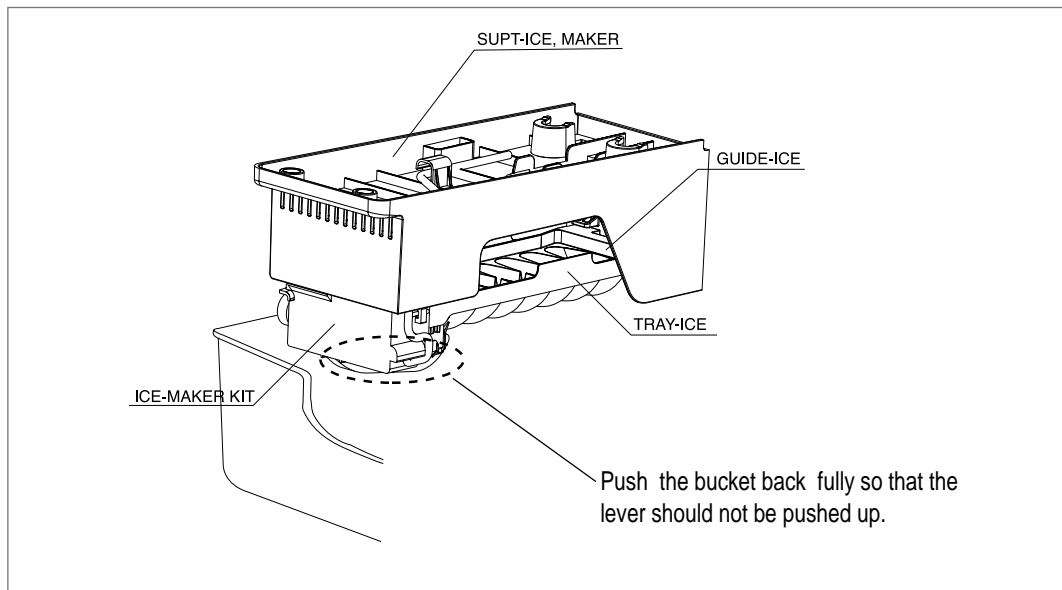
1-4) To restore this function, press these buttons again for 3 seconds.

## 3-9) Ice-Maker Function

- The Ice-maker is referred to the device with an automatic ice production, storage in the ice bucket and dispensing through the ice chute.

### 1) Preparation of Ice-maker

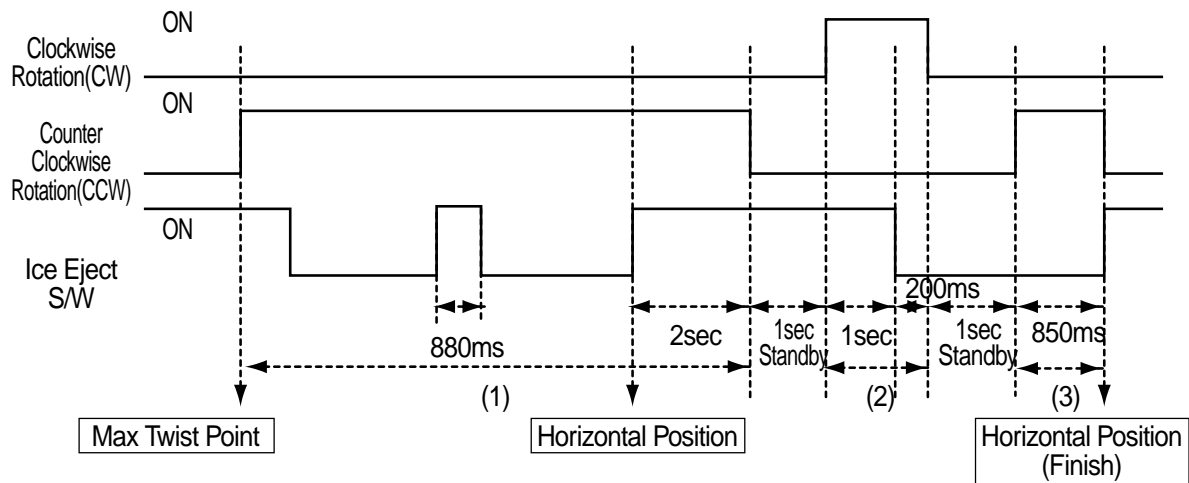
- 1-1) Connect the water line to the water supply valve of refrigerator to supply water. (See how to connect a water supply line in the owner's manual.)
- 1-2) Push the bucket back fully so that the guide-ice of ice maker should not touch the back of bucket. (If the back of bucket touches the guide-ice of ice maker, the ice maker will not make ice any more because of a ice full signal.)
- 1-3) It takes 6 hours to harvest a first ice, and throw away 2-3 times of these ice to make sure the supplied water clean.



### 2) Initial Operation function

- 2-1) Whenever the power is on, the control board checks the ice tray leveling with the leveling switch with in 2 seconds.
- 2-2) If the levelling switch is not in the off position, the geared motor will turn to the initial position to level the ice tray.
- 2-3) When the ice tray is leveled, it will remain this position for 2 hours (1 cycle time for ice production).
- 2-4) After 2 hours, the sensor located under the ice tray will measure the tray temperature. If the temperature is maintained lower than  $-17^{\circ}\text{C}$  for 5 minutes, and the ice full switch is off position, the ice tray twisting process will begin.

- Horizontal Leveling upon Initial Power On



## Operating Instructions & Installation

### 3) Water Supply function

3-1) When the ice tray is levelled again after ejecting ice, the water solenoid valve will be controlled to supply water.

- The ice eject standby time is as follows. (With ice full, it stands by for an hour)

| No. of Water Supply | Detection of Water Supply   |                        | Detection of No Water Supply |                        |
|---------------------|-----------------------------|------------------------|------------------------------|------------------------|
|                     | Low Temp (lower than 17 °C) | High Temp (over 18 °C) | Low Temp (lower than 17 °C)  | High Temp (over 18 °C) |
| Once                | 65min(58+7)                 | 58min                  | 110min                       | 95min                  |
| 2~4 times           | 58min                       | 58min                  | 70min                        | 70min                  |

### 4) Ice production

4-1) After eject waiting time from the water supply, the control board will check the temperature.

4-2) If the sensor reads the temperature lower than -17°C for more than 5 minutes, then the ice production process is completed.

### 5) Test function

● In order to operate a test function, press the knob (Test Switch) for 1.5 second.

● This function can be used to check a proper working, to clean the ice tray, and to adjust the water level in the ice tray.

5-1) This function only works when the ice tray is leveled and the ice full signal is cleared.

5-2) When the water line is connected, each process such as a water supply, ejection, and leveling, can be investigated by this button.

### 6) Water Dispenser Function

6-1) This function is directly connected to tap water. When the Water Lever is pressed, the water solenoid valve will be open and water will come out. If the water extracting function is faulty, check out the solenoid, the connection pipe and the status of water supply and repair it

### 7) Ice off function

7-1) When the ice select button is pressed for more than 3 seconds, ICE OFF will be selected and when it is pressed for more than 3 seconds again, ICE OFF will be cancelled.

7-2) Ice production is on with the power on. So, WATER is automatically selected and it lights up.

7-3) When ICE OFF is selected, the ice maker does not operate.

7-4) As ICE OFF is selected, the ICE OFF LED goes on immediately. And, during ice ejection, water supply or restoration of the horizontal state, it will stop producing ice after the completion of the final water supply.

### 8) Functions when the freezer door is open

● When the freeze door is open, all ice maker related processes will cease in order to minimize noise and to prevent ice from dispensing.

8-1) The ice tray stops moving.

8-2) The water supply process remains working as usual.

8-3) If the Ice-Tray is tilted over slightly or deviated from its horizontal position when checking the door inside, it indicates that the F-Door got opened during the ice ejection. If the tray does not return to its horizontal position more than 30 seconds after the door is closed, it can be considered to be faulty. If the F-Room stops working due to its door open, its Test function doesn't work because it is under actual operation.

8-4) When it goes into the Test function with the Test button pressed, it carries out Ice Ejection regardless of the F-Door Open.

### 9) Ice Eject Function

● After the completion of the ice making, the operation of ice separation from the ice tray will be carried out as follows.

According to the state of the Ice Eject S/W, it is classified as Full Ice Bin and Not Full Ice Bin.

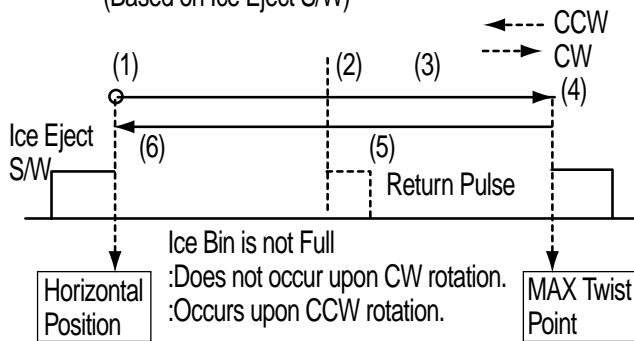
Ice Bin Full : 1<sup>st</sup> Step → 2<sup>nd</sup> Step → 3<sup>rd</sup> Step → 4<sup>th</sup> Step → 5<sup>th</sup> Step → 6<sup>th</sup> Step

Ice Bin Not Full : 1<sup>st</sup> Step → 2<sup>nd</sup> Step → 6<sup>th</sup> Step

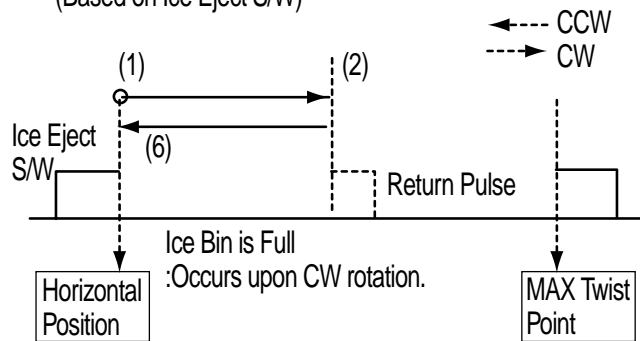
## Operating Instructions & Installation

- 9-1) 1<sup>st</sup> Step : It is an ice temperature checking step for ice ejection. It checks whether the ice temperature is lower than -17.0 °C and it has passed 58 mins (58~110 mins : refere to table 3-1) after water supply.
- When F-Defrost goes into operation during the ice eject standby, it will be counted from the start after the completion of Defrost and it will be checked if it has passed 58 minutes after the completion of F-Defrost. When the Ice Maker Sensor temperature becomes lower than -17.0 °C and maintains it for 5 minutes , it will proceed to the next stage.
- 9-2) 2<sup>nd</sup> Step: To separate ice from the ice tray, it will turn over the ice tray by rotating the Eject Motor clockwise.
- Ice Bin Full: When the Ice Eject S/W becomes on again within 3.6 seconds from the point that it is turned off after the clockwise rotation of the Ice Eject Motor, it indicates Ice Bin Full. So, it will stop the clockwise rotation and start counterclockwise rotation after one second. The sixth step will be carried out.
  - Ice Eject S/W does not become on again within 3.6 seconds, it will be evaluated as Ice Bin Not Full. In this case, normal ice eject operation will be carried out and it will perform the next 3<sup>rd</sup> step.
- 9-3) 3<sup>rd</sup> Step : When the Ice Eject S/W does not become on again within 3.6 seconds from the point that it is turned off after the clockwise rotation of the Ice Eject Motor, it is regarded as normal ice eject operation. When the F-Door is opened during the ice ejecting operation ever since, it will hold the operation and operate again with the door closed.
- 9-4) 4<sup>th</sup> Step : When the Ice Eject S/W is turned on after 3.6 seconds, it will stop rotating. And, it will be regarded as the maximum twist point and it will standby for a second at this maximum twist point.
- 9-5) 5<sup>th</sup> Step : It is a step that the ice tray restores to its horizontal position by rotating the Ice Eject Motor counter clockwise. After the 4<sup>th</sup> Step, the Ice Eject Motor will rotate counter clockwise. At this time, the Ice Eject S/W will check signals called "Return Pulse" from the Feeler Arm whether there is ice in the ice bin or not.
- 9-6) 6<sup>th</sup> Step : When the Ice Eject S/W becomes on after the detection of "Return Pulse" , it will stop the counter clockwise rotation of the Ice Eject Motor and consider it to be leveled horizontally. At this time, if it is restored to its horizontal position after the detection of Ice Bin Full, it will not supply water and try to eject ice every hour until the Ice Bin Full is cancelled. Also, it will supply water when normal ice ejection is carried out.
- 9-7) The figure indicates operation specs for normal ice ejection (Ice Bin Not Full / Ice Bin Full.)

- Fig.Normal Ice Ejection &Horizontal Leveling  
(Based on Ice Eject S/W)



- Fig.Ice Ejection &Horizontal Leveling Operation  
(Based on Ice Eject S/W)



### 3-10) Defrost Function

- 1) A defrost is determined based on the accumulated compressor on-time.
- 2) When the power is engaged for the first time, the defrost cycle for the freezer and the refrigerator will begin after 4 hours of the accumulated compressor on-time.
- 3) A defrost interval depends on the ambient temperature, the number of door openings, and the door open time.
- 4) A minimum interval is 6 hours and a maximum is 12 hours for the refrigerator, and 12 hours and 24 hours for the freezer, respectively.
- 5) The defrost heater on-time is determined by the defrost sensors as follow :

|            | Refrigerator | Freezer |
|------------|--------------|---------|
| Heater OFF | 17°C         | 12°C    |

## 3-11) Sound Function

### 1) Button Touch Tone (Refer to Sound Table)

1-1) When selecting each button on the Control Panel, Button Touch Tone goes off as follows.

| Description  | Sound Group                        | Sound Pattern            |
|--|------------------------------------|--------------------------|
| Selection of POWER FREEZE, VACATION, LOCK, ICE OFF or FILTER RESET               | SUB ON<br>(Function Selection)     | - - -                    |
| Cancellation of POWER FREEZE, VACATION, LOCK or ICE OFF. Selection of FILTER OFF | SUB OFF<br>(Function Cancellation) | - - -                    |
| Selection of WATER, CUBED or CRUSHED   | MODE (Function Change "Ding")      | -                        |
| Selection of FREEZER or FRIDGE button  | VERTICAL (Temp Setting)            | - -                      |
| Completion of Water Supply for Ice Maker Test Mode                               | "Ding-Dong"                        | Previous Ding-Dong Sound |
| Door Open Alarm  | ALERT (Alarm Sound)                | - -                      |

1-2) When two or more buttons are pressed simultaneously or if a wrong button is pressed, there is no sound.

### 2) Door Open Alarm

2-1) When the doors remain open for 2 minutes, there are 10 times beeps.

2-2) If the doors continue to remain open more than 2 minutes, the additional 10 beeps interval will change to 1 minute.

2-3) The beeps will cease immediately when the doors are closed.

## 3-12) Exhibition Function

- This function is for a display purpose on the floor of show room or store.

### 1) Mode ON/OFF

1-1) For the exhibition mode, press Power Freeze and Freezer Temp. buttons simultaneously for 8 seconds until a "ding-dong" sounds.

1-2) Press the same time buttons again for 8 seconds to cancel this mode put with a "ding-dong" sound.

### 2) Operation

2-1) Most of the system function except the compressor operation and C-Fan are working properly.

2-2) There is no defrost cycle in this mode.

## 4. Alignment and Adjustments

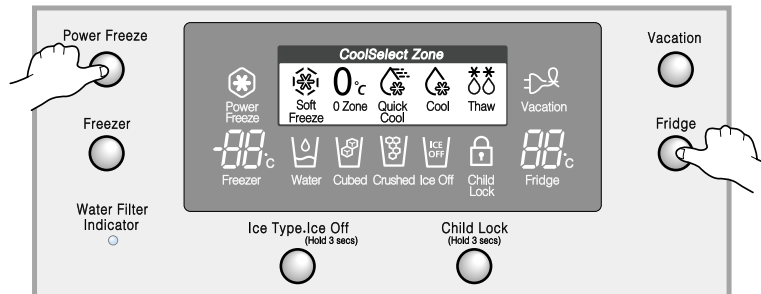
|   |    |
|---|----|
| 4-1) Forced Operation Function (Pull-down / Refrigerator Defrost / Refrigerator . Freezer-Defrost / Cancellation) | 23 |
| 4-2) Self-Diagnostics Function  | 23 |
| 4-3) Load Operation Check Function  | 25 |
| 4-4) Restoration Function for Power Outage  | 25 |
| 4-5) Set Point Shift Function   | 25 |
| 4-6) Table of Set Point Shift Function  | 26 |

## Alignment and Adjustments

### 4-1) Forced Operation Function (Pull-down / Refrigerator Defrost / Refrigerator . Freezer-Defrost / Cancellation)

- This function enables a pull-down mode, a defrost mode for the refrigerator only, a defrost mode for the freezer and the refrigerator at the same time, and a cancellation of this function.
- Press fridge and Power Freeze. buttons for 8 seconds simultaneously to get in the ready mode for a forced operation.
- The display panel will return to normal after 20 seconds in the ready mode.
- At the ready mode, press any button(except Ice Type and Child Lock) once to start a pull-down operation, twice for a defrost cycle for the refrigerator, three times for a defrost cycle for the freezer and the refrigerator, and finally four times for cancellation of this function.
- Another way to cancel this function is to simply plug out and in the power cord.

Press both button for 8 seconds at the same time.



#### 1) Pull-down Operation

1-1) At the ready mode, press any button once then the buzzer will beep (ON for 1/2 second and OFF for 1/2 second) until this mode is cancelled.

1-2) At this pull-down mode, the compressor will start immediately (No 5 minute delay) and if the system is in the defrost cycle, it will be cancelled right away.

note) If this pull-down mode begins right after the compressor was off, the compressor may not start to run due to an overload condition.

1-3) At this mode, the compressor and freezer fan will operate continuously for 24 hours and the refrigerator fan will be on and off according to the set temperature.

1-4) After pull down operation, the system will be cycled at -25°C for the freezer and 1°C for the refrigerator.

1-5) In order to cancel this mode at any time, select the next mode on the ready mode or power off the system.

notch) After pull down operation, defrost will be followed for freezer and refrigerator

#### 2) Defrost operation

2-1) At the pull-down mode, press any button again on the ready mode to begin the defrost cycle for the refrigerator.

2-2) The beep sound continues for 3 second at the beginning, then ON for 3/4 seconds and OFF for 1/4 second until this mode cease.

2-3) After this operation, the system will come back to normal operation.

2-4) At this mode, press any button again on the ready mode to operate the defrost cycles for both compartments.

2-5) The beep sound continues for 3 seconds at that time, then ON for 1/4 second and OFF for 3/4 seconds until the defrost operation cease.

#### 3) Cancellation

3-1) At the R,F-Defrost mode, press any button again on the ready mode to return to a normal operation.

3-2) Simply unplug the power cord, then plug it again to return to a normal operation.

### 4-2) Self-Diagnostics Function

#### 1) Self-Diagnostics in the initial Power ON

1-1) The control board performs a self diagnostics test within 1 second and check out the temperature sensors abilities.

1-2) If a sensor failure occurs, a corresponding LED segment will blink without a beep.

1-3) When a LED segment blinks, only the cancellation function (Press Power Freeze and Vacation buttons simultaneously for 8 seconds) is acceptable.

1-4) After a replacement of bad sensor or a cancellation of this function, this self diagnostics will end.

#### 2) Self-Diagnostics in the normal operation

2-1) To select this function, press Power Freeze and Vacation buttons simultaneously for 8 seconds with an audible tone.

2-2) In the self diagnostic mode, only corresponding LED segments will be illuminated (see the check list on the next page)

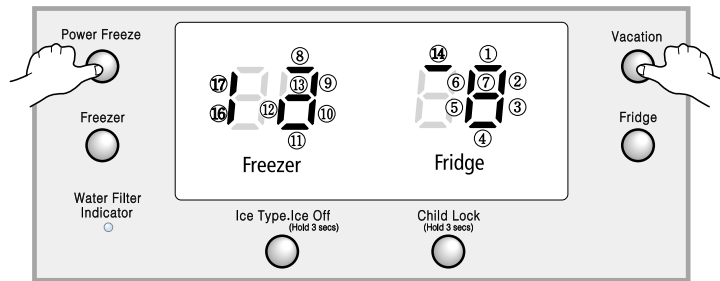
2-3) After a 30 second illumination of error signal, the system will return to the normal operation.

## Alignment and Adjustments

### \* Self-diagnostics check list

| NO | Error   |
|----|---|
| ①  | ICE MAKER SENSOR                                      |
| ②  | REFRIGERATOR SENSOR                                   |
| ③  | REFRIGERATOR DEFROST SENSOR                           |
| ④  | REFRIGERATOR FAN ERROR                                |
| ⑤  | ICE MAKER function error                              |
| ⑥  | CoolSelect Zone™ SENSOR                               |
| ⑦  | REFRIGERATOR DEFROST ERROR                            |
| ⑧  | EXIT-SENSOR   |
| ⑨  | FREEZER SENSOR  |
| ⑩  | FREEZER DEFROST ERROR                                 |
| ⑪  | FREEZER FAN ERROR                                     |
| ⑫  | CONDENSER FAN ERROR                                   |
| ⑬  | FREEZER DEFROST ERROR                                 |
| ⑭  | DAMPER HEATER ERROR                                   |
| ⑮  | UART COMMUNICATION ERROR-<br>COMMUNICATION WIRE ERROR |

Press both buttons simultaneously for 8 seconds



If any LEDs blink, the corresponding sensors and components must be checked for an error.

⑰ LOAD-MICOM COMMUNICATION ERROR-  
LOAD-MAIN MICOM COMMUNICATION ERROR

### \* Error items of self-diagnostics

| NO | Error items                    | LED Display | Details   | Remarks  |
|----|--------------------------------|-------------|---|--|
| 01 | ICE MAKER SENSOR               |             | Ice Maker sensor connector missing; contact failure, electric wire cut, short-circuit; Ice Maker sensor failure; and so on  | Indicate Error when the temperature sensed by Ice Maker sensor is higher than +65°C or lower than -50°C.               |
| 02 | REFRIGERATOR SENSOR            |             | Refrigerator sensor connector missing; contact failure, electric wire cut, short-circuit; Refrigerator sensor itself failure; and so on   | Indicate Error when the temperature sensed by Refrigerator sensor is higher than +65°C or lower than -50°C.            |
| 03 | REFRIGERATOR DEFROST SENSOR    |             | Refrigerator evaporator internal defrosting sensor connector missing; contact failure, electric wire cut, short-circuit; sensor itself failure; and so on   | Indicate Error when the temperature sensed by Refrigerator defrosting sensor is higher than +65°C or lower than -50°C. |
| 04 | REFRIGERATOR FAN ERROR         |             | Refrigerator Fan motor operation failure; feedback signal line contact failed, electric wire cut, short-circuit; and so on  | Indicate Error if the F/G signals generated by the FAN-motor operation are not input.                                  |
| 05 | ICE MAKER function ERROR       |             | Ice-ejector and level failed three times or more  | Ice Maker change.  |
| 06 | CoolSelect Zone™ sensor        |             | CoolSelect Zone™ sensor connector missing; contact failed, electric wire cut, short-circuit; CoolSelect Zone™ sensor itself failed; and so on.  | Indicate Error when the temperature sensed by CoolSelect Zone™ sensor is higher than +65°C or lower than -50°C.        |
| 07 | REFRIGERATOR DEFROST ERROR     |             | In the refrigerator room, if frost removal mode is finished due to limited time of 80 minutes. Error is displayed.  | -  |
| 08 | Ambient Air SENSOR             |             | Air sensor connector missing; contact failure, electric wire cut, short-circuit; open air sensor itself failure; and so on  | Indicate Error when the temperature sensed by the open air sensor is higher than +65°C or lower than -50°C.            |
| 09 | FREEZER SENSOR                 |             | Freezer sensor connector missing; contact failed, electric wire cut, short-circuit; Freezer Room sensor itself failure.   | Indicate Error when the temperature sensed by Freezer sensor is higher than +65°C or lower than -50°C.                 |
| 10 | FREEZER DEFROST SENSOR         |             | Freezer evaporator defrosting sensor connector missing; contact failed, electric wire cut, short-circuit; sensor itself failure; and so on  | Indicate Error when the temperature sensed by Freezer defrosting sensor is higher than +65°C or lower than -50°C.      |
| 11 | FREEZER FAN ERROR              |             | Freezer Fan motor operation failure; feedback signal line contact failure, motor's electric wire missing; and so on.  | Indicate Error if the F/G signals generated by the FAN-motor operation are not input.                                  |
| 12 | CONDENSER FAN ERROR (COMP-FAN) |             | Condenser Fan motor operation failure; feedback signal line contact failure, motor's electric wire missing; and so on.  | Indicate Error if the F/G signals generated by the FAN-motor operation are not input                                   |
| 13 | FREEZER DEFROST ERROR          |             | In the freezer room, if frost removal mode is finished due to limited time of 70 minutes. Error is displayed  | -  |
| 14 | DAMPER HEATER ERROR            |             | Damper Heater connector missing contact failure, wire cut.  |  |
| 15 | Uart Communication Error (PLC) |             | Communication error with PLC modem<br>Note) PLC Communication modem will be applied optionally.<br>So even if the appliance which does not apply PLC displays this error digit, It is not defect. | When it is not connected with PLC modem  |
| 16 | L-M Communication Error        |             | When there is no communication between MICOM MAIN and LOAD for more than 10 seconds, the entire LCD will keep blinking with buzzer alarm sound.   | It needs an oscilloscope to check the error. So, it is advisable to check after replacing MAIN or PANEL PCB.           |



## Alignment and Adjustments

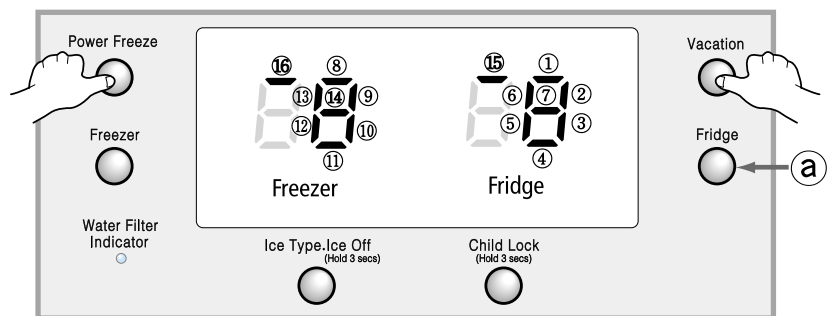
### 4-3) Load Operation Check Function

- 1) In the normal operation, press Power Freeze and Vacation buttons simultaneously for 6 second, then the display panel will blink for 2 seconds.
- 2) Press Fridge Temp. button (a) to get into this check mode with an audible tone.
- 3) Each illuminating LED segment stands for the component which has an output signal from the control board.
- 4) This mode will terminate automatically after 30 seconds.

\* Table of Load Mode Check List

| NO | Contents                    |
|----|-----------------------------|
| ①  | REFRIGERATOR FAN High       |
| ②  | REFRIGERATOR FAN Low        |
| ③  | REFRIGERATOR DEFROST heater |
| ④  | Start mode                  |
| ⑤  | Overload mode               |
| ⑥  | Low-temperature mode        |
| ⑦  | Exhibition mode             |
| ⑧  | COMPRESSOR                  |
| ⑨  | FREEZER FAN High            |
| ⑩  | FREEZER FAN Low             |
| ⑪  | FREEZER DEFROST Heater      |
| ⑫  | CONDENSER FAN High          |
| ⑬  | CONDENSER FAN Low           |
| ⑭  | Dispenser-Heater            |
| ⑮  | Water Tank Heater           |
| ⑯  | Damper                      |
| ⑰  | Normal condition            |

Press both buttons simultaneously for 6 seconds, all LED lights will be turned off. At this time press button (a)



- ※ The FREEZER FAN and CONDENSER FAN are operated to High/Low rpm automatically according to the operational condition.
- ※ ⑤ ⑥ and ⑰ only explain the system operation state according to the ambient condition

### 4-4) Restoration Function for Power Outage

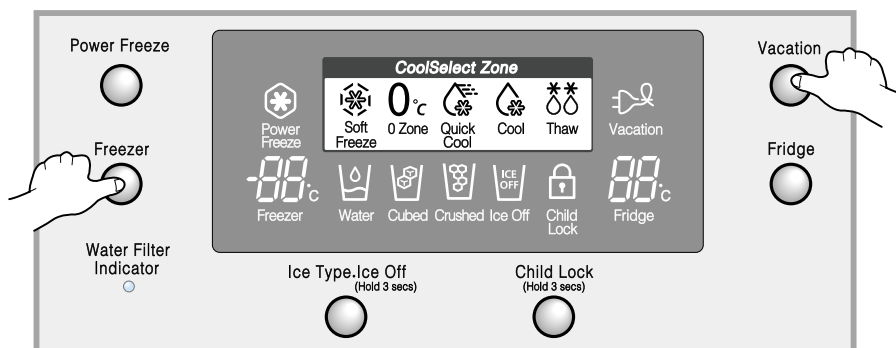
- 1) When the freezer temperature is lower than 5°C, all functions on the display panel will be restored.
- 2) When the freezer temperature is higher than 5°C, all functions will be initialized.  
(-20°C for the freezer, 3°C for the refrigerator, and Water for the Ice Type)

### 4-5) Set Point Shift Function

- Press Freezer Temp. and Vacation buttons simultaneously for 12 seconds to get into this mode.
- In this mode, only the display LEDs for temperature will be ON.

## Alignment and Adjustments

Press both buttons simultaneously for 12 seconds



- 1) Initially, all products set the code, "0"
- 2) After 20 seconds from adjustment, a new setting will be stored in EEPROM and return to the normal display.
- 3) Freezer Temp, Fridge Temp., Ice maker water supply, Ice tray temperature, and CoolSelect Zone™ temperature can be adjusted with this function.

| KEY          | Reference Value     |
|--------------|---------------------|
| Vacation key | ITEM DOWN ↓         |
| Fridge key   | ITEM UP ↑           |
| Power Freeze | OPTION VALUE DOWN ↓ |
| Freeze key   | OPTION VALUE UP ↑   |

### 4-6) Table of Set Point Shift Function

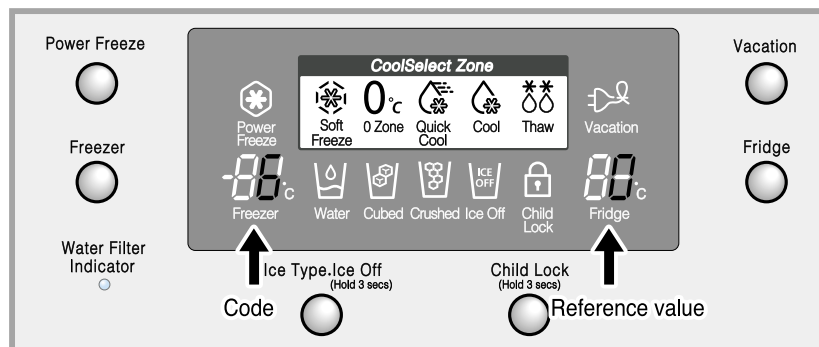
- 1) Shift the freezer temperature sensor

|                 |   |
|-----------------|---|
| Reference Value | 0 |
|-----------------|---|

| Code | Temp. shift | Code | Temp. shift |
|------|-------------|------|-------------|
| 0    | 0           | 8    | 0.5°C       |
| 1    | -0.5°C      | 9    | 1.0°C       |
| 2    | -1.0°C      | 10   | 1.5°C       |
| 3    | -1.5°C      | 11   | 2.0°C       |
| 4    | -2.0°C      | 12   | 2.5°C       |
| 5    | -2.5°C      | 13   | 3.0°C       |
| 6    | -3.0°C      | 14   | 3.5°C       |
| 7    | -3.5°C      | 15   | 4.0°C       |

## Alignment and Adjustments

Example) If you are lowering the current temperature of the freezer by  $-3^{\circ}\text{C}$

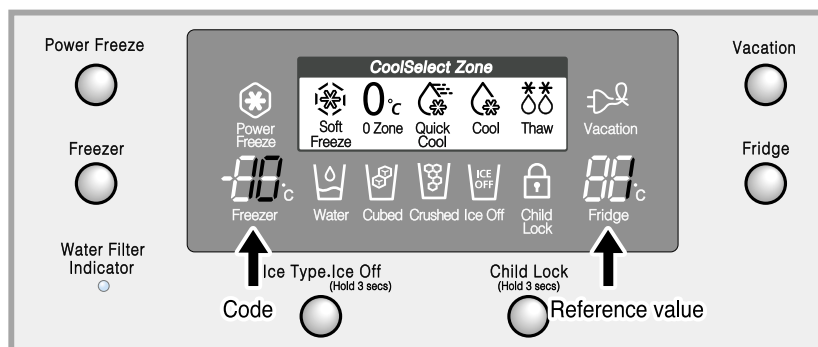


2) Shift the refrigerator temperature sensor

|                 |   |
|-----------------|---|
| Reference Value | 1 |
|-----------------|---|

| Code | Temp. shift            | Code | Temp. shift           |
|------|------------------------|------|-----------------------|
| 0    | 0                      | 8    | $0.5^{\circ}\text{C}$ |
| 1    | $-0.5^{\circ}\text{C}$ | 9    | $1.0^{\circ}\text{C}$ |
| 2    | $-1.0^{\circ}\text{C}$ | 10   | $1.5^{\circ}\text{C}$ |
| 3    | $-1.5^{\circ}\text{C}$ | 11   | $2.0^{\circ}\text{C}$ |
| 4    | $-2.0^{\circ}\text{C}$ | 12   | $2.5^{\circ}\text{C}$ |
| 5    | $-2.5^{\circ}\text{C}$ | 13   | $3.0^{\circ}\text{C}$ |
| 6    | $-3.0^{\circ}\text{C}$ | 14   | $3.5^{\circ}\text{C}$ |
| 7    | $-3.5^{\circ}\text{C}$ | 15   | $4.0^{\circ}\text{C}$ |

Example) If you are raising the current temperature of the refrigerator by  $1.5^{\circ}\text{C}$



## Alignment and Adjustments

■ The following options is limited to a model with the Ice Maker.

3) Adjust the volume to supply water for the ice maker

|                 |   |
|-----------------|---|
| Reference Value | 2 |
|-----------------|---|

| Code | Volume to supply water |
|------|------------------------|
| 0    | 95 cc                  |
| 1    | 85 cc                  |

5) Shift the CoolSelect Zone™ temperature sensor.

|                 |    |
|-----------------|----|
| Reference Value | 20 |
|-----------------|----|

| Code | CoolSelect Zone™ temperature sensor |
|------|-------------------------------------|
| 0    | 0°C                                 |
| 1    | -0.5°C                              |
| 2    | -1.0°C                              |
| 3    | -1.5°C                              |
| 4    | 0.5°C                               |
| 5    | 1.0°C                               |
| 6    | 1.5°C                               |
| 7    | 2.0°C                               |

4) Shift the Ice maker temperature sensor

|                 |   |
|-----------------|---|
| Reference Value | 4 |
|-----------------|---|

| Code | Ice maker temperature sensor |
|------|------------------------------|
| 0    | -17°C                        |
| 1    | -16°C                        |
| 2    | -15°C                        |
| 3    | -14°C                        |
| 4    | -13°C                        |
| 5    | -12°C                        |
| 6    | -18°C                        |
| 7    | -19°C                        |

## 5. Disassembly and Reassembly

### 5-1) Assy Door

### 5-2) Door Sub Parts

|                   |    |
|-------------------|----|
| Control Panel     | 35 |
| Door Handle       | 35 |
| Beverage Station™ | 35 |
| Door Gasket       | 35 |

### 5-3) Refrigerator Compartments

|                                      |    |
|--------------------------------------|----|
| Refrigerator Door Light Switch       | 36 |
| Refrigerator Light                   | 36 |
| Tempered Glass Shelf                 | 36 |
| Plastic Drawers in Refrigerator      | 36 |
| Gallon Door Bin                      | 36 |
| Water Filter                         | 37 |
| Evaporator Cover in the Refrigerator | 37 |
| Upper Ductwork                       | 37 |
| Evaporator Fan Motor                 | 37 |
| Evaporator in Refrigerator           | 38 |
| Refrigerator Thermistor              | 38 |
| CoolSelect Zone™ Thermistor          | 38 |

### 5-4) Freezer Disassembly

|                                 |    |
|---------------------------------|----|
| Door Bin in Freezer             | 39 |
| Freezer Door Light Switch       | 39 |
| Plastic(Wire) Drawer in Freezer | 39 |
| Freezer Shelf                   | 39 |
| Ice Dispenser & Ice Maker       | 40 |
| Auger Motor Case                | 40 |
| Freezer Light                   | 41 |
| Evaporator Cover in Freezer     | 41 |
| Upper Ductwork                  | 41 |
| Evaporator Fan Motor            | 41 |
| Evaporator in Freezer           | 42 |
| Freezer Bimetal                 | 42 |
| Freezer Thermistor              | 42 |
| Ambient Thermistor              | 42 |
| Ice-Maker Thermistor            | 42 |

### 5-5) Machine Compartments

|                                    |    |
|------------------------------------|----|
| Machine Compartment & Electrix Box | 43 |
| Water Solenoids                    | 43 |
| Condenser Fan                      | 43 |
| Sub-condenser                      | 43 |

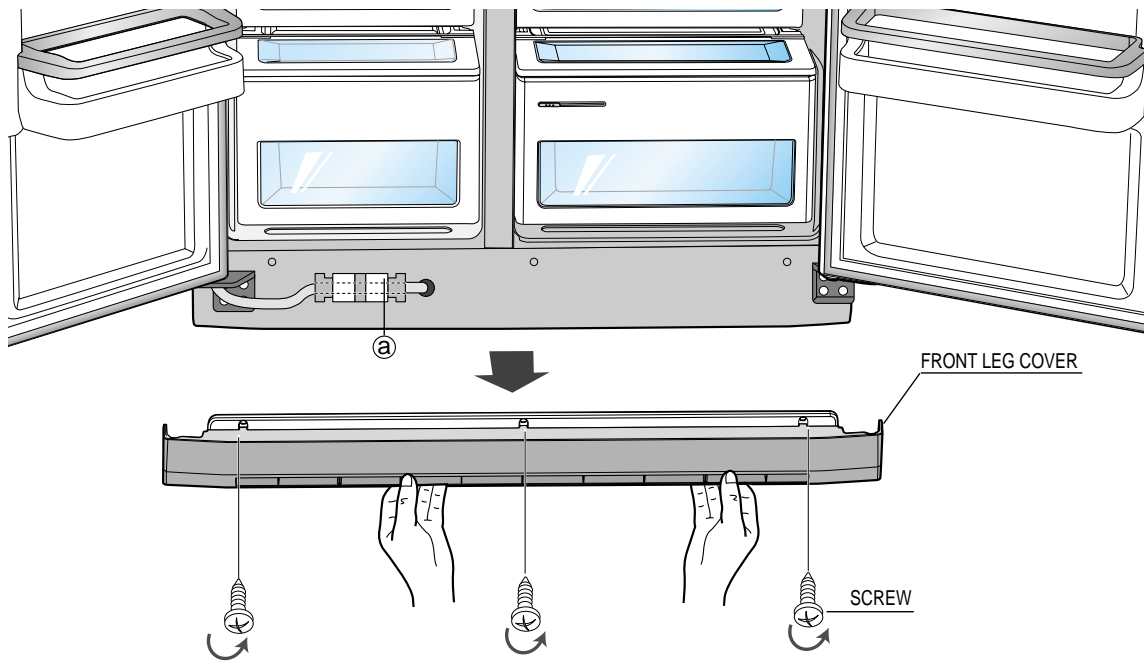
## Disassembly and Reassembly

### 5-1) Assy Door



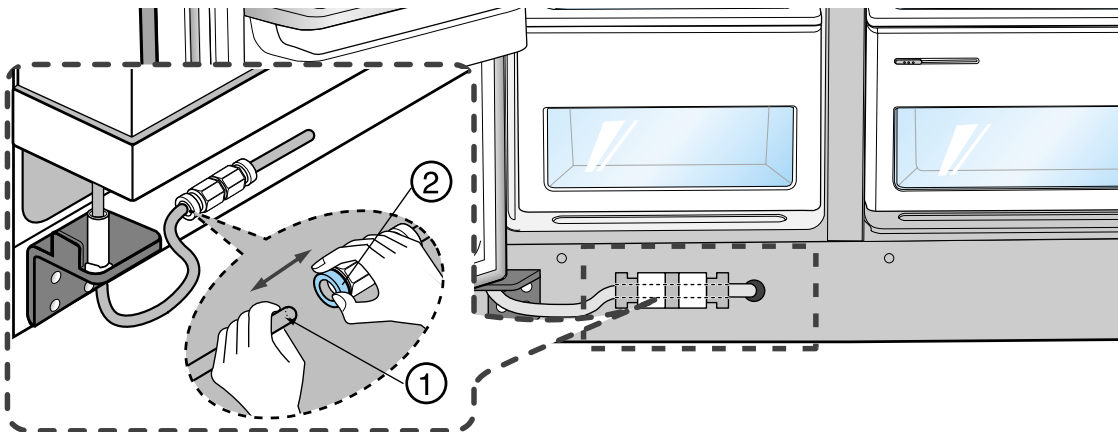
#### Removing the Front Leg Cover

Open the freezer and refrigerator doors, and then take off the front leg cover assembly by turning the three screws counter-clockwise.



#### Separating the water supply line from the refrigerator

1) Remove the water tube by pressing the coupler (②) and pulling the water tube (①) away.



**WARNING**

Do not cut the water tube but separate it from the coupler.

## Disassembly and Reassembly

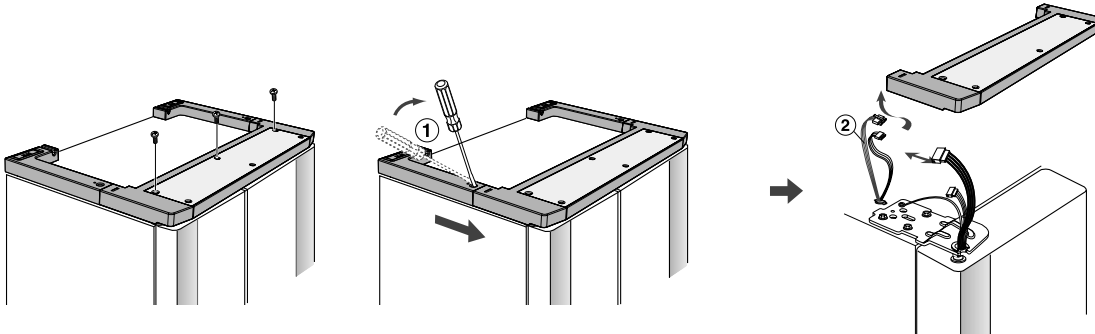


- Lift the door straight up.
- Be careful not to pinch the water tubing and wire harness on the door.
- Place doors on a protected surface.

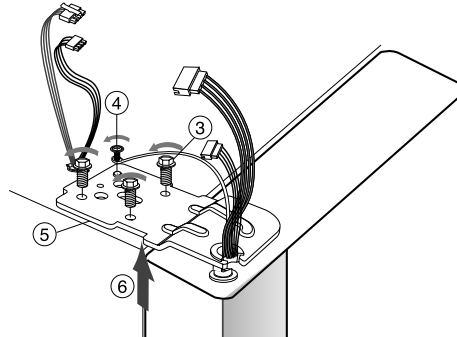


### Removing the Freezer Door

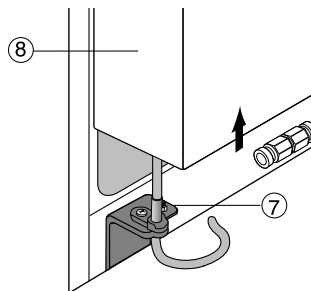
- 1) With the door closed, remove the Top table (①) using a screwdriver, and then disconnect the wires (②).



- 2) Remove hinge screws (③) and ground screw (④) counter-clockwise, and take off the upper hinge (⑤) along the arrow (⑥). Take care when removing the door to ensure that it does not fall on you.



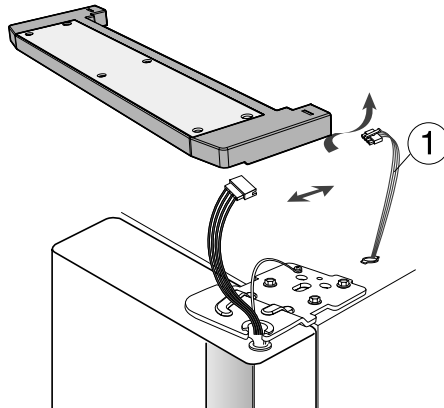
- 3) Remove the door from the lower hinge (⑦) by carefully lifting the door (⑧).



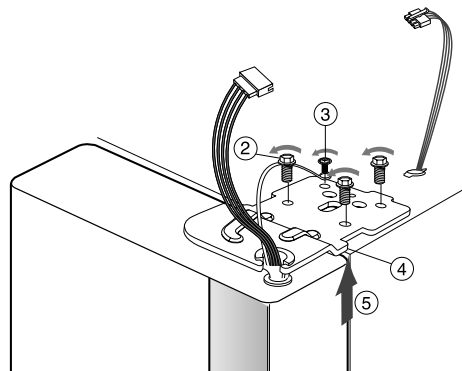


### Removing the Refrigerator Door

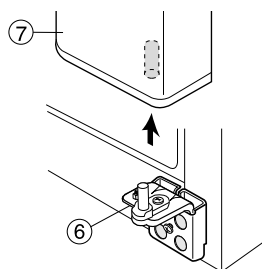
- 1) Disconnect the wires (①).



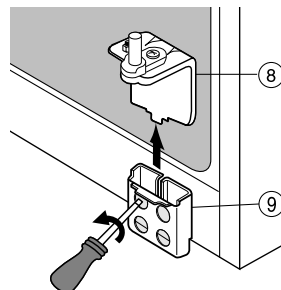
- 2) Remove hinge screws (②) and ground screw (③) counter-clockwise, and take off the upper hinge (④) in the direction of the arrow (⑤). Take care when removing the door to ensure that it does not fall on you.



- 3) Remove the door from the lower hinge (⑥) by lifting the door (⑦).



- 4) Remove the lower hinge (⑧) from the bracket lower hinge (⑨) by lifting the lower hinge (⑧) in the direction of the arrow.



#### NOTE

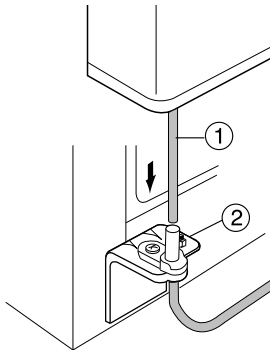
- After disassembling the freezer / refrigerator door, move it to the appropriate location. you must reassemble it.



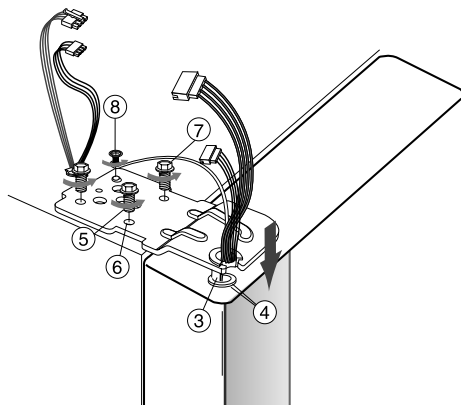


### Reattaching the Freezer Door

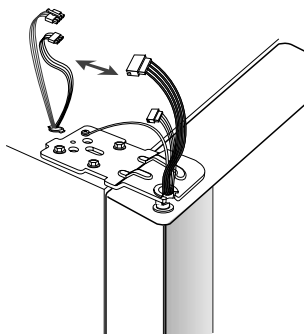
- 1) Reattach the freezer door by inserting the hose (①) in the lower side of the door into the hole in the lower hinge (②) and pull the hose down.



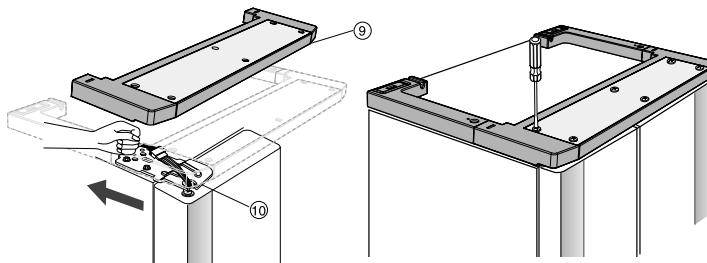
- 2) Insert the upper hinge shaft (③) into the hole (④). After levelling the upper hinge hole (⑤) with the hole of the cabinet (⑥). Fasten bolts (⑦) and screw (⑧) in a clockwise direction.



- 3) Connect the wires.



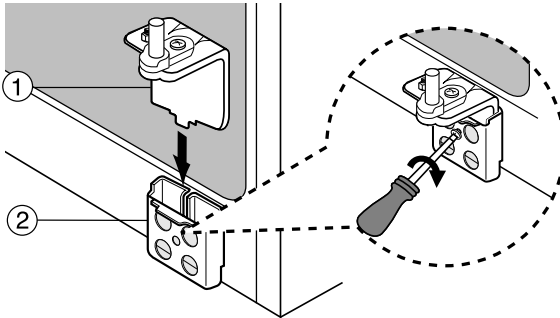
- 4) Put the front part of the Top table (⑨) on the front part of the upper hinge (⑩) and reattach from the front part of the Top table first.



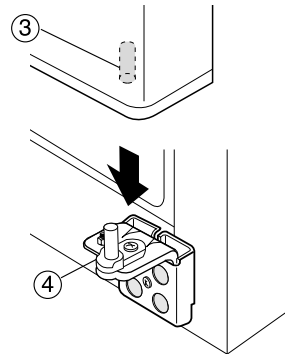


### Reattaching the Refrigerator Door

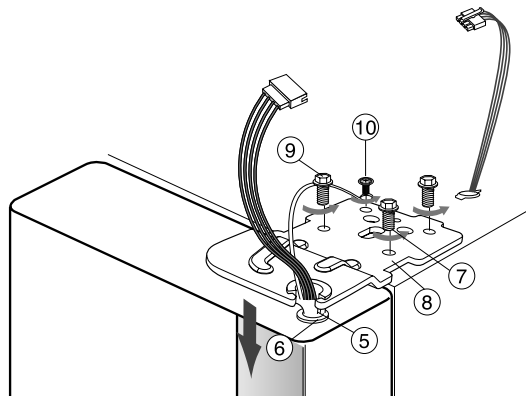
1) Insert the lower hinge (①) in the bracket lower hinge (②).



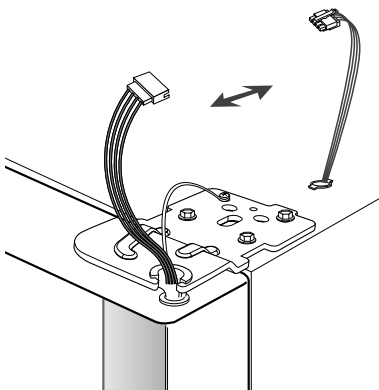
2) Place the hole in the refrigerator door (③) over the lower hinge (④).



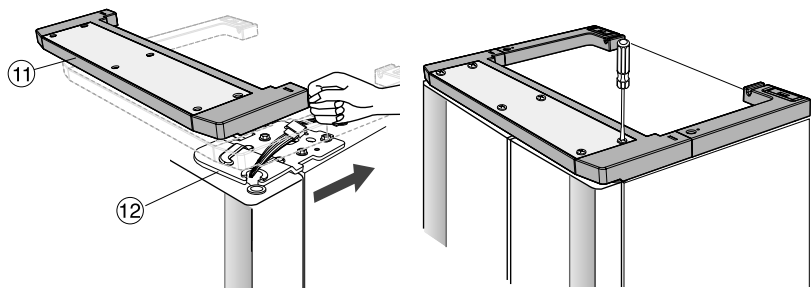
3) Insert the upper hinge shaft (⑤) into the hole (⑥). After levelling the upper hinge hole (⑦) with the hole of the cabinet (⑧). Fasten hinge screws (⑨) and screw (⑩) in the clockwise direction.



4) Connect the wires.



5) Put the front part of the Top table (⑪) on the front part of the upper hinge (⑫) and reattach it from the front part of the Top table first.

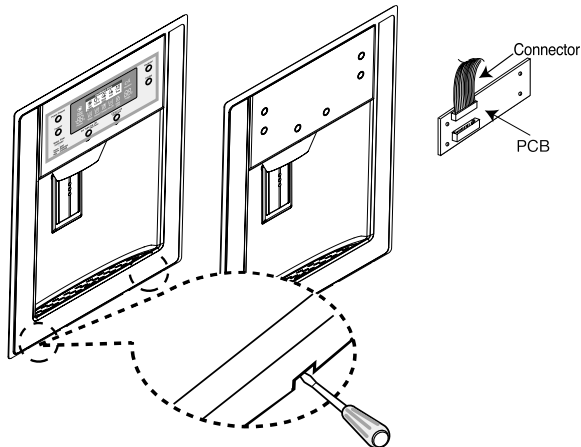


## Disassembly and Reassembly

### 5-2) Door Sub Parts

#### Control Panel

1. Insert a flat-blade screwdriver on the slot as shown, and unlock the tabs.
2. Disconnect the wire connector.



#### Door Handle

The door handles allow access into the refrigerator and freezer. They are front mounted with screws.

1. Lift the handle upward motion with on.



#### Beverage Station™

The beverage station™ allows access to the refrigerator without opening the refrigerator door.

1. Open the door beverage station™
2. With a small flat-blade screwdriver, take out the rubber cap, then put it into the small hole and push the button inside.
3. Take off its door.



#### Door Gasket

The door gasket is a molded gasket set into a channel located in the door liner.

1. Open the door.
2. Grasp the gasket and pull in an outward motion until the molded gasket separates from the door liner.



## Disassembly and Reassembly

### 5-3) Refrigerator Compartments

#### Refrigerator Door Light Switch

The refrigerator has a door light switch located in the upper right corner for the refrigerator.

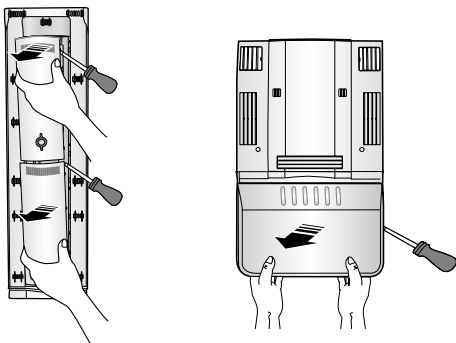
1. Use a small flat-blade screwdriver to unlock the locking tab and pull the switch out until the wire connector is visible.



#### Refrigerator Light

The refrigerator lights are located in the upper and lower portion of refrigerator.

1. Place a flat screwdriver under the light cover hooks and push in the direction of the arrow.
2. Pull the cover in the direction of the arrow.
3. After changing the bulb, replace the light cover.



#### Tempered Glass Shelf

These shelves allow the storage of larger items and pull out for easy access.

1. Pull the shelf out as far as it goes.
2. Lift it up and remove it.



#### Plastic Drawers in Refrigerator

Drawers are designed for storage of fruits, vegetables, and deli items. The drawers are located in the lower portion of the refrigerator.

1. Pull out the drawer as far as it goes.
2. Tilt the drawer up and pull it out until it is removed.



#### Gallon Door Bin

The door bins allow storage of perishable items.

1. Push the bin up and slide it out.



## Disassembly and Reassembly

### Water Filter

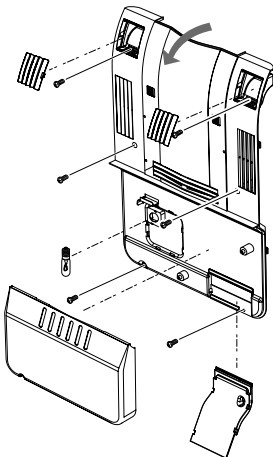
The water filter is located in the upper right-hand corner of the refrigerator. The water filter filters water for the ice maker and the water dispenser.

1. Turn the water filter 1/2 turn counterclockwise and pull it down.
2. To install the filter, align the indication mark (unlock position) and push it up while turning 1/2 turn clockwise until the lock position is aligned. Do not over tighten.



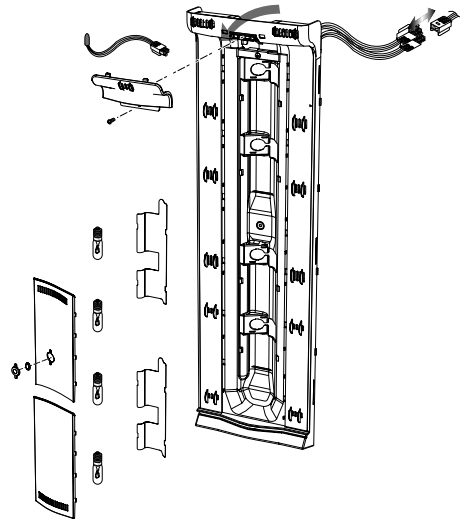
### Evaporator Cover in the Refrigerator

1. Pull out the screw cap and remove the screw.
2. Remove the lamp cover by unlocking the tabs and pulling the cover down.
3. Remove the water tank from the evaporator cover by unscrewing the screws (2).
4. Remove the screws (6) at the evaporator cover and the two fixed screws of the wire connector cover.
5. Take off motor and lamp wire connector located on the upper liner.
6. Remove the ductwork of the evaporator fan in the direction of the arrow as shown.



### Upper Ductwork

1. Remove the screw caps (2) and screws (5).
2. Slide the upper fan ductwork out while disconnecting the wire connector (lamp and thermistor).



### Evaporator Fan Motor

The evaporator fan is located in the middle rear of the freezer. This fan circulates cold air in the freezer.

1. Remove screws (4) located at the four corners of the fan bracket.
2. Take the fan motor assembly off.

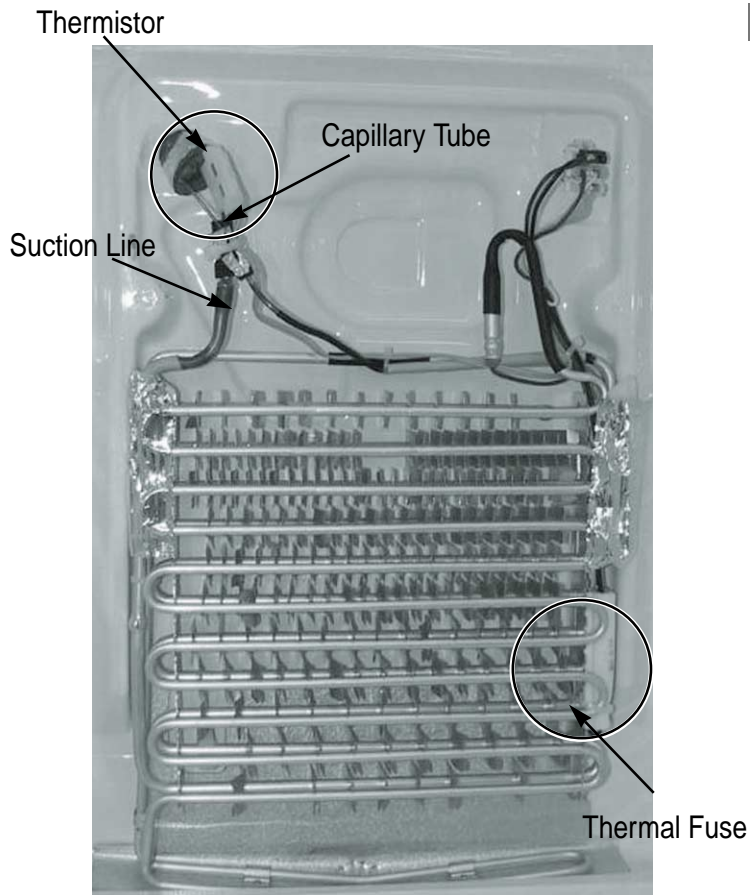


## Disassembly and Reassembly

### Evaporator in Refrigerator

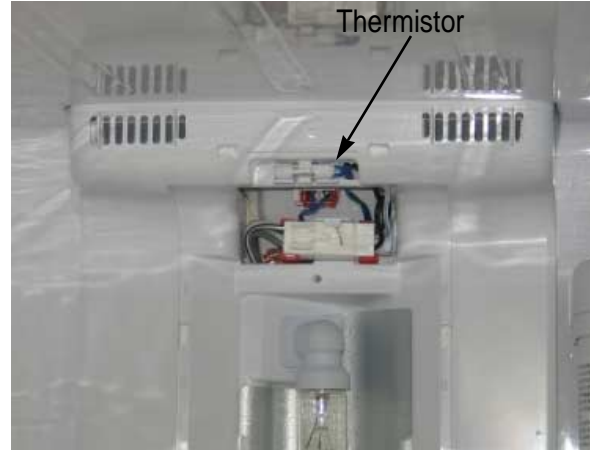
Evaporator is located in the bottom of refrigerator.

1. Take off the ductwork in refrigerator.
2. Disconnect the wire connector.(Heater and Thermistor)
3. Desolder the capillary tube and the suction line from the evaporator.
4. Remove the evaporator.
5. With a file, score the capillary tube just upstream of the soldered point. Break off the soldered section to help prevent solder from plugging the tube during soldering.
6. Place a new evaporator and braze the suction and capillary tube to evaporator using silver solder.
7. Install a replacement dryer.
8. Evacuate and recharge the system using reasonable procedures.



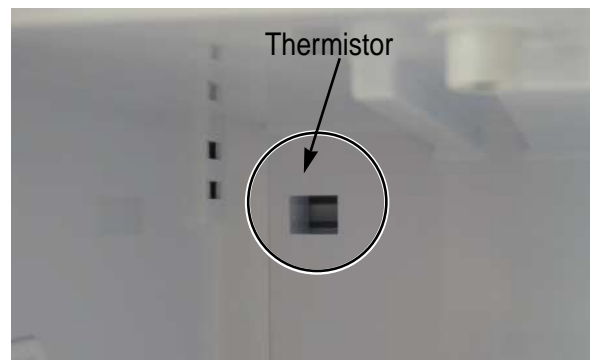
### Refrigerator Thermistor

The refrigerator thermistor is located inside of the upper light cover of the refrigerator.



### CoolSelect Zone™ Thermistor

The CoolSelect Zone™ thermistor is located outside the back of CoolSelect Zone™ drawer. The temperature signal sends the micro-processor.





## Disassembly and Reassembly

### 5-4) Freezer Compartments

#### Door Bin in Freezer

The door bins allow storage of perishable items.

1. Push the bin up and slide it out.



#### Plastic Drawer in Freezer

Drawers are designed for storage of meat and dry foods. The drawers are located in the lower portion of the freezer.

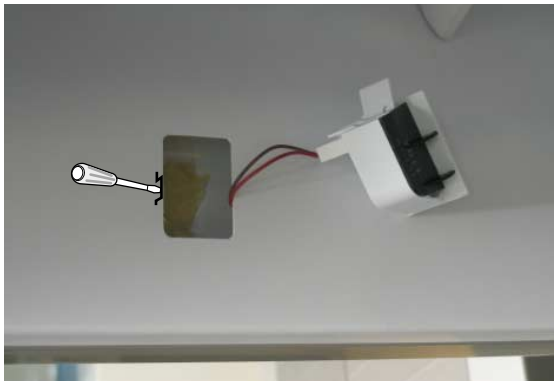
1. Pull out the drawer as far as it goes.
2. Tilt the drawer up and pull it out until it is removed.



#### Freezer Door Light Switch

This switch is located in the left-hand portion of the freezer and sends a signal to the processor.

1. With a small flat-blade screwdriver, unlock the locking tabs and pull the switch out until the wire connector is visible.
2. Disconnect the wire connector and remove the switch.



#### Freezer Shelf

The shelves slide out for easy access for frozen items.

1. Slide the shelf out until it reaches its stop.
2. Tilt down and slide it out of the compartment.



## Disassembly and Reassembly

### Ice Dispenser & Ice Maker

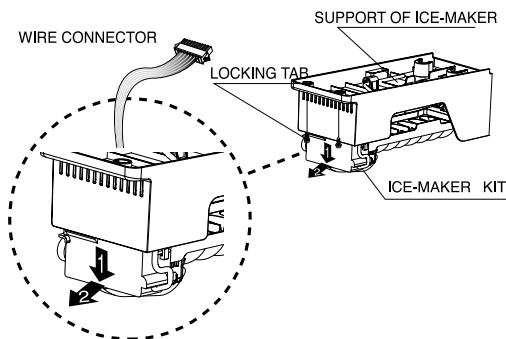
The ice dispenser is located in the upper portion of the freezer. This assembly stores ice made by the icemaker and dispenses ice.

1. Lift the ice bucket up ① and slide out the ice dispenser assembly ②.



The ice maker is located inside of the ice dispenser assembly.

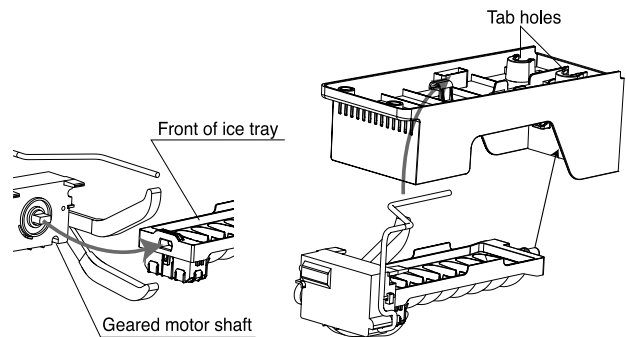
1. Remove ice maker support screws (2), and slide out.
2. Disconnect the ice maker wire connector.
3. Unlock the locking tabs to separate the ice maker kit.



In order to assemble the icemaker kit.

1. Assemble the geared motor shaft and the front of ice tray.

2. Lift the front locking tab and assemble the ice maker kit.
3. Connect the ice maker wire connector.
4. Match the tab holes and tabs(2) located on the top of the liner, and slide the ice maker in.
5. Tighten the screws (2) of the ice maker support.



### Auger Motor Case

This shelf is designed to support the ice maker & ice dispensed and Xtra Space™.

1. Remove the Xtra Space™ cover to push it down and pull front.
2. Slide the partition out.
3. Remove the screws (2) on the bottom front of the case.
4. Slide out the case while disconnecting the wire connect.



Screws



## Disassembly and Reassembly

### Freezer Light

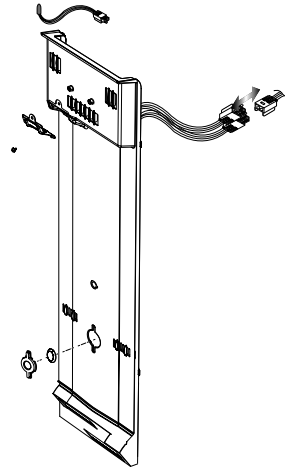
The freezer light is located in the bottom of the auger motor case. The light is covered by an opaque cover.

1. Remove the light cover by pressing the cover.



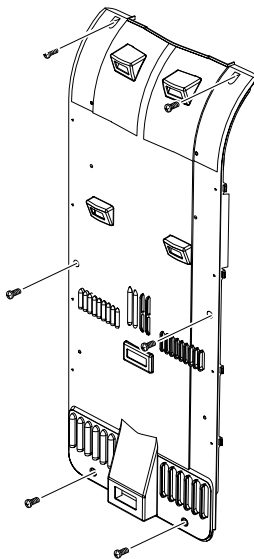
### Upper Ductwork

1. Remove the screw cap and screw.
2. Slide the upper fan ductwork out while disconnecting the wire connector (Lamp and Thermistor).



### Evaporator Cover in Freezer

1. Pull out the screw caps and remove screws (6).
2. Remove the ductwork of the evaporator fan in the direction of the arrow as shown.
3. Disconnect the wire connector.



### Evaporator Fan Motor

The evaporator fan is located in the lower rear of refrigerator. This fan circulates cold air in the refrigerator.

1. Remove screw(4) located at the four corners of the fan bracket.
2. Take the fan motor assembly off.



## Disassembly and Reassembly

### Evaporator in Freezer

Evaporator is located in the bottom of freezer to produce cold air driven across the evaporator coils.

1. Take off the ductwork in Freezer.
2. Disconnect the wire connector (Heater, Bimetal, and Thermistor).
3. Desolder the inlet and outlet tubes.
4. Remove the evaporator.
5. Take the same steps to seal the system as mentioned earlier.

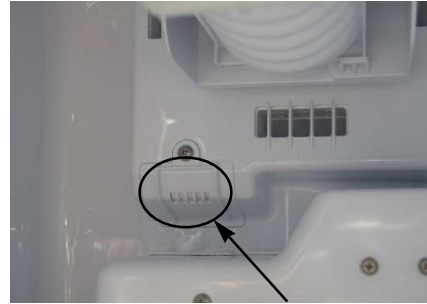


### Freezer Bimetal

Thermal fuse has been replaced with Bimetal since 2004, May 3rd

### Freezer Thermistor

The freezer thermistor is located at the top left of freezer vent. It sends temperature signals to the micro-processor.



Freezer Thermistor

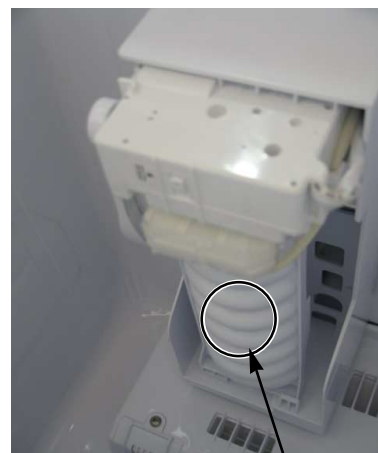
### Ambient Thermistor

The ambient thermistor is located inside the case PBC assembly. It sends temperature signals to the micro-processor.



### Ice-Maker Thermistor

The Ice-Maker thermistor is located in its bottom. The temperature signal sends the micro-processor.



Thermistor(ICE-MAKER)

## Disassembly and Reassembly

### 5-5) Machine Compartments

#### Machine Compartment & Electric Box

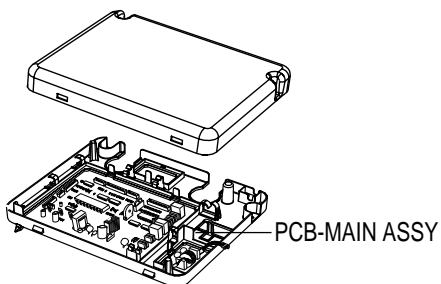
1. Disconnect the power cord of the refrigerator.
2. Remove the fixed screws (6) of compressor cover.



3. Slide up and take off the compressor cover to see the machine compartment.



4. Press the tab in electric box cover to take out by using a flat-blade screw driver.



#### Water Solenoids

When the solenoids receive a signal from the micro-processor, they supply water to the water dispenser or the ice maker.

1. Remove bracket screw (1) on cabinet bottom right side.
2. Take the solenoids assembly out.

3. Disconnect water tubes (3).



#### Condenser Fan

The condenser Fan is located in the middle of machine compartment. It cools down the sub-condenser and the compressor.

1. Disconnect the condenser fan wire.
2. Remove screw (1) on the drain water tray.
3. Take the condenser fan assembly off.



#### Sub-condenser

The sub-condenser is located in the machine compartment. The heat is extracted by condenser fan.

1. Desolder the compressor discharge & the sub-condenser outlet.
2. Take out the sub-condenser.



Desoldering Point

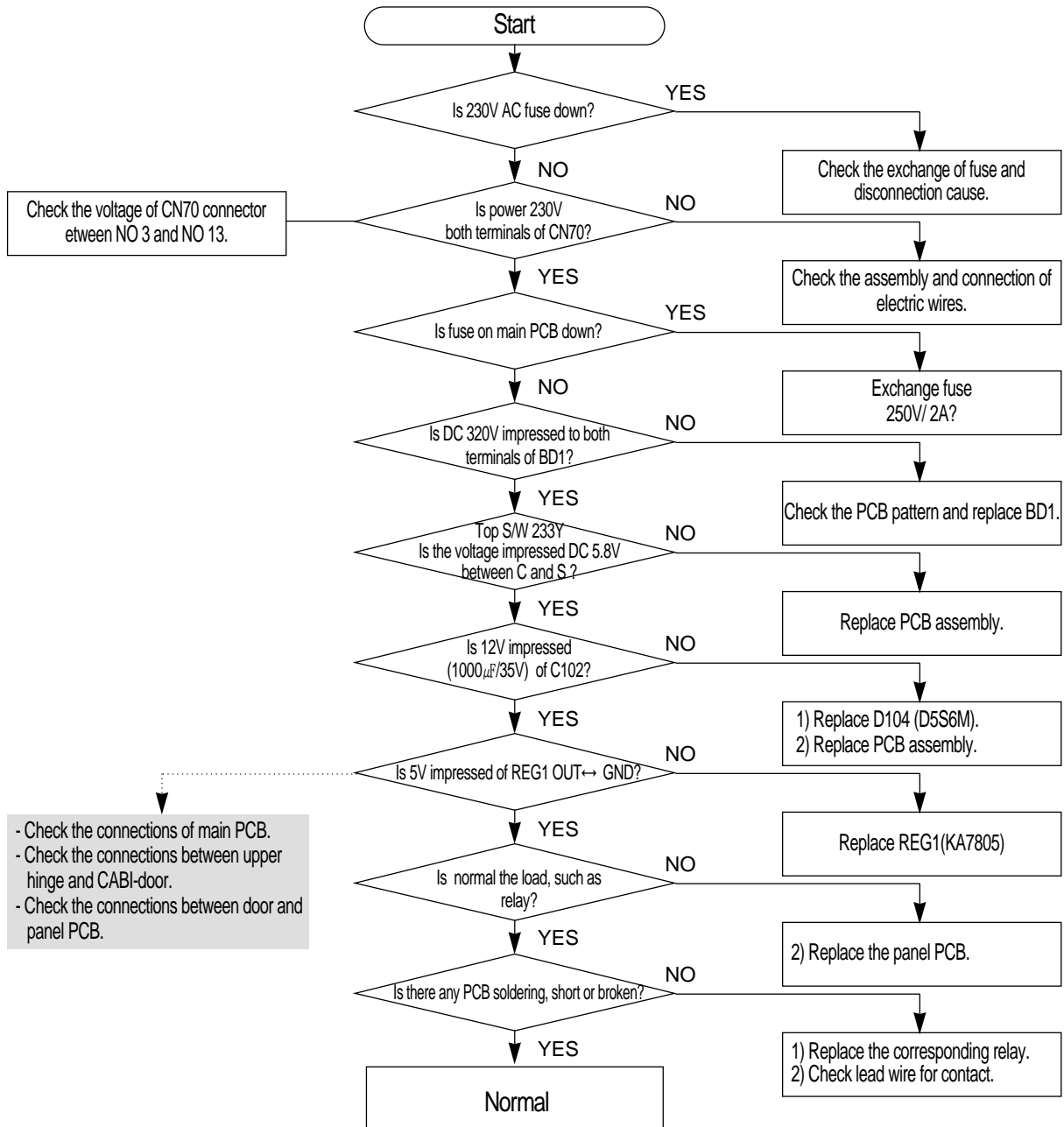
## 6. Troubleshooting

### 6-1) If power is not ON

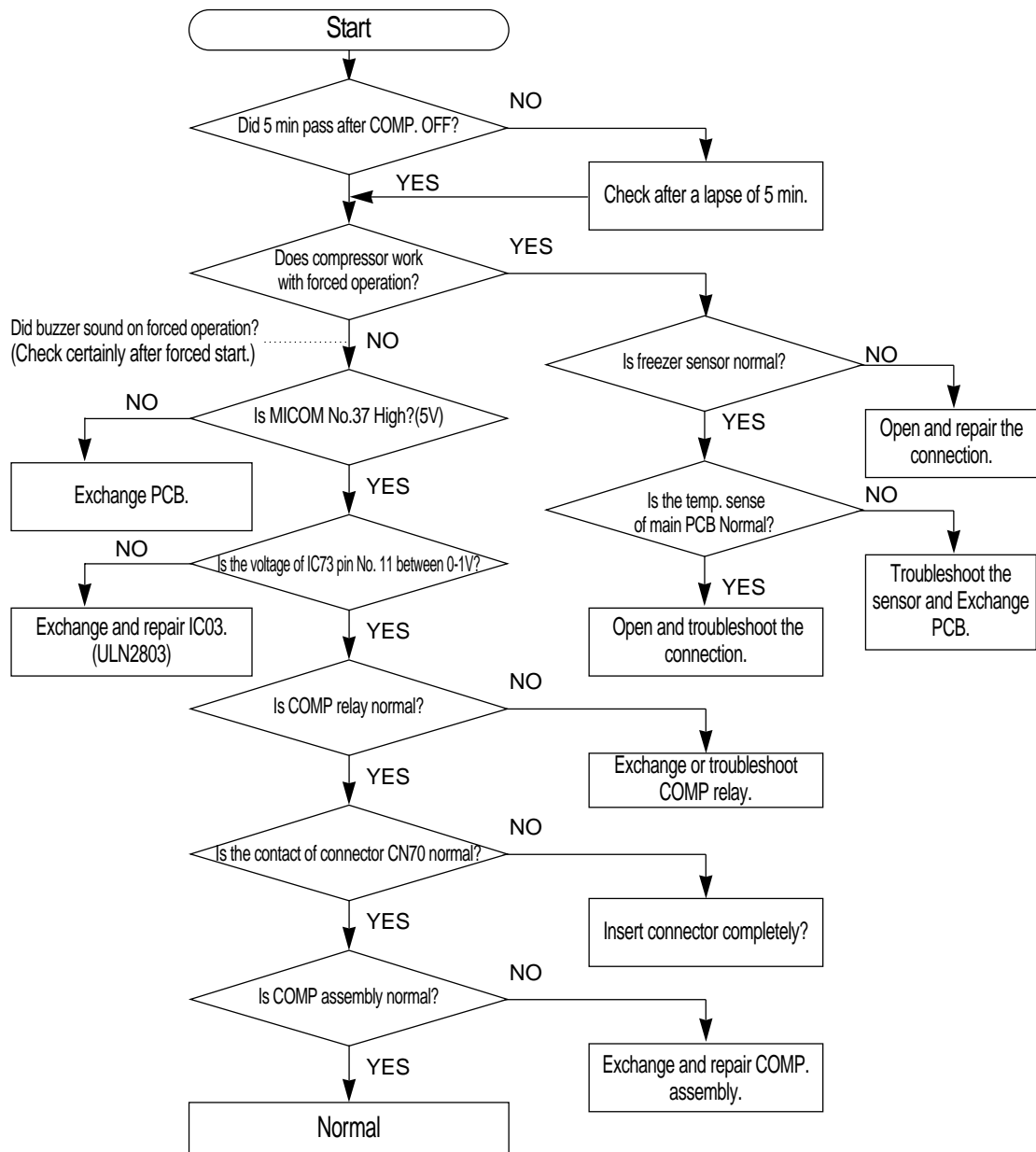
#### Caution!

At the power of main PCB, the 230V power and a high-voltage over about DC 320V occur. Please take care of yourself on repair and measurement.

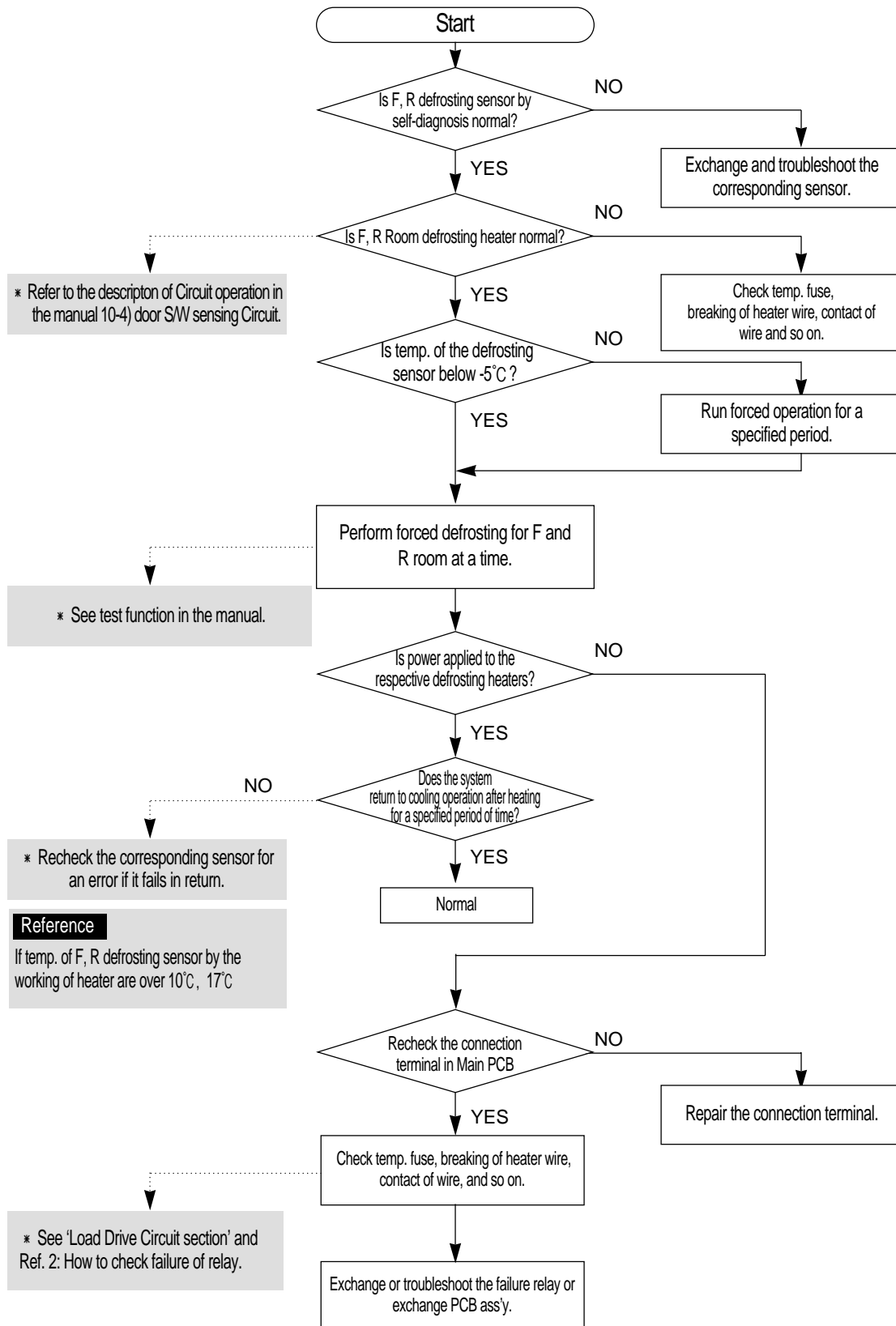
To check the main PCB, please apply descriptions of operation and references in the manual.



## 6-2) If the compressor and cooling fan motor don't work normally



## 6-3) If defrost function

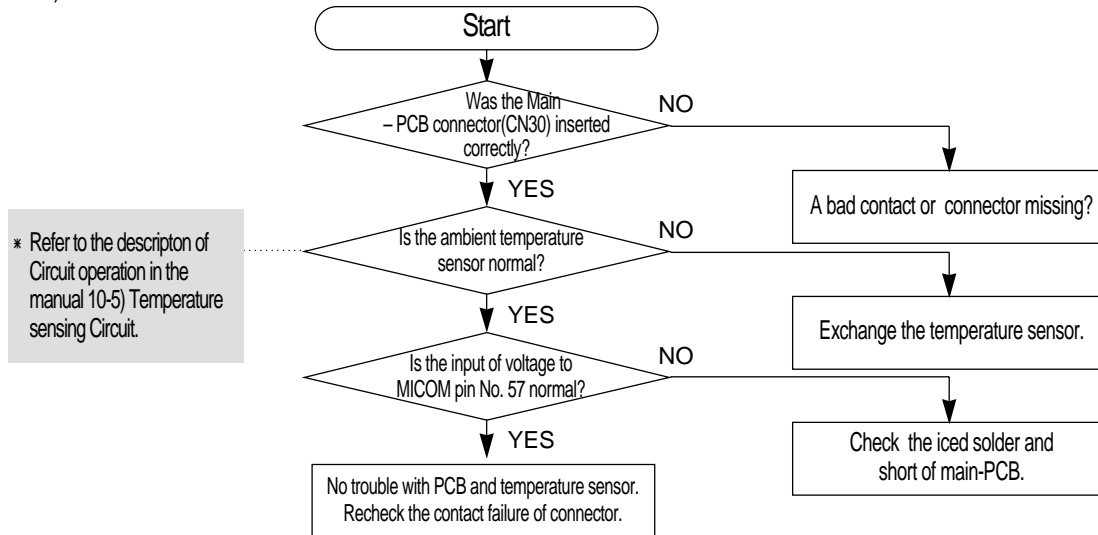


# Troubleshooting

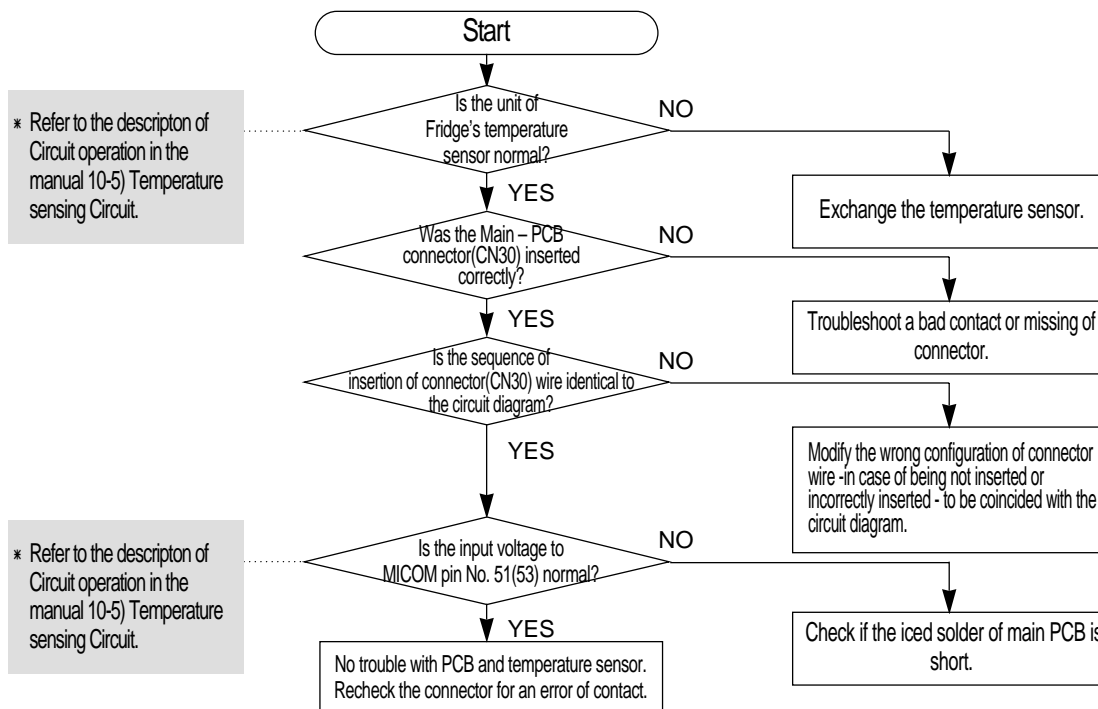
## 6-4) If there is a trouble with self-diagnosis

- Error of sensor can be seen on the front display of refrigerator. If power is impressed to refrigerator first, an failure of sensor is found. The refrigerator will stop working and display(blink) the region of trouble-occurred sensor repetitively.
- Even if sensor has failure during the operation, the refrigerator will not stop working but can run the normal cooling operation because of being operated in the Emergency Operation mode. Therefore you're requested to use how to check self-diagnosis in the manual.

### 1) If the ambient sensor has trouble



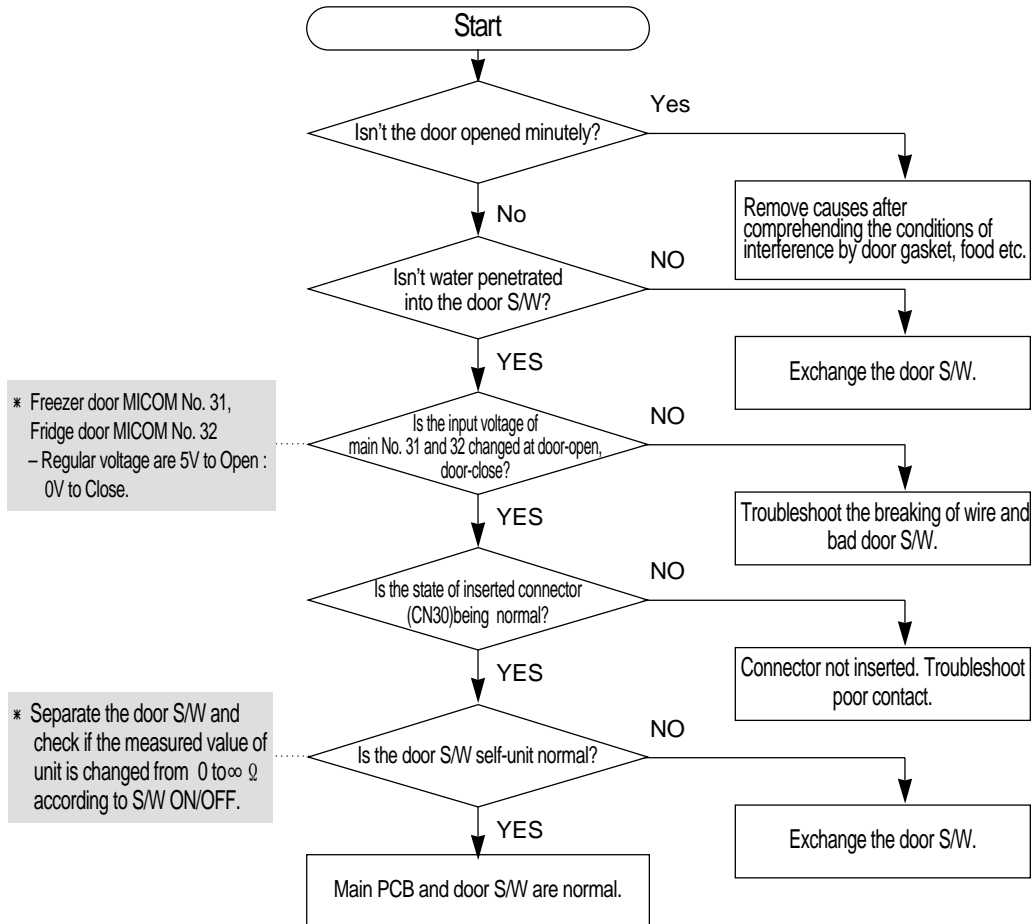
### 2) If the temperature sensor of F and R room has trouble



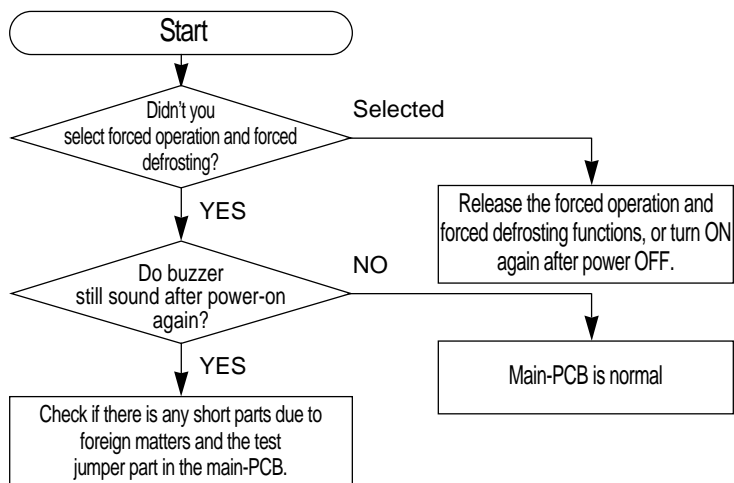
## Troubleshooting

### 6-5) If alarm sound

1) If "Ding-Dong" sounds continuously



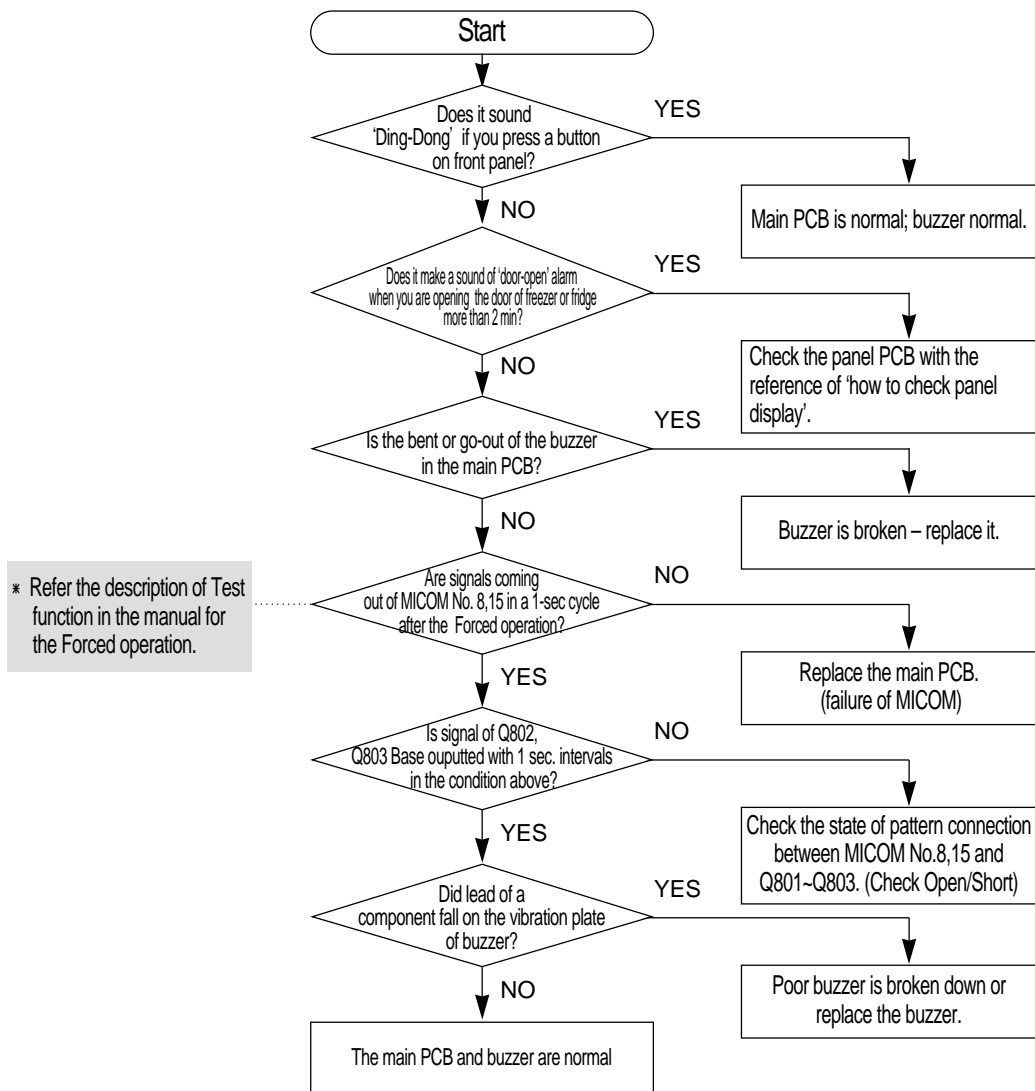
2) If "Beep" sounds continuously





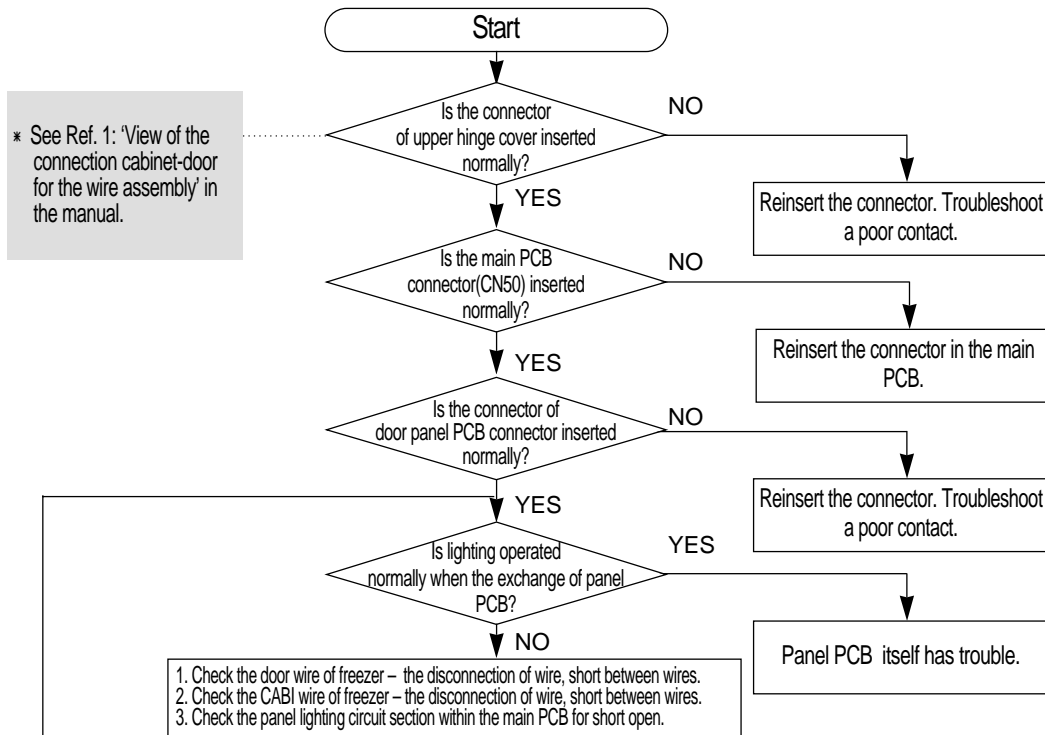
## Troubleshooting

### 3) Without sound of buzzer operation



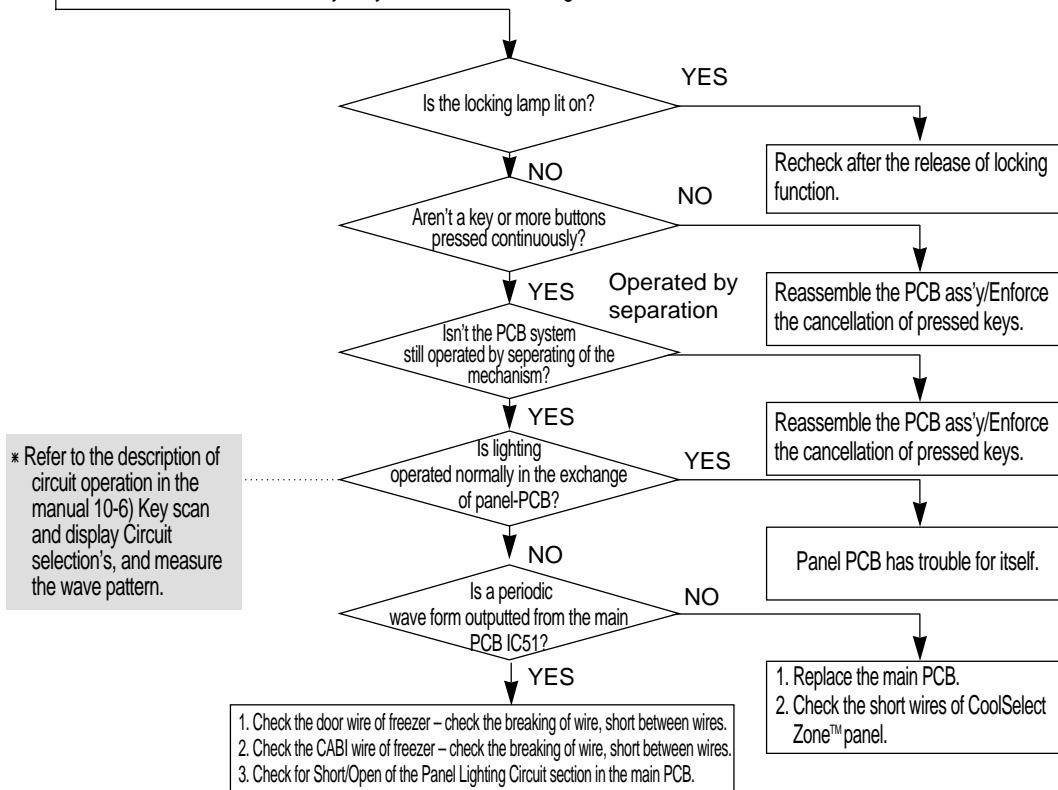
## 6-6) If the panel PCB is not working normally:

1) Where lighting of the panel PCB is disabled, or only some lamps are disabled.



2) Where the Panel PCB key isn't selected:

- The basic check way : If you is troubleshooting in the basic check method, then

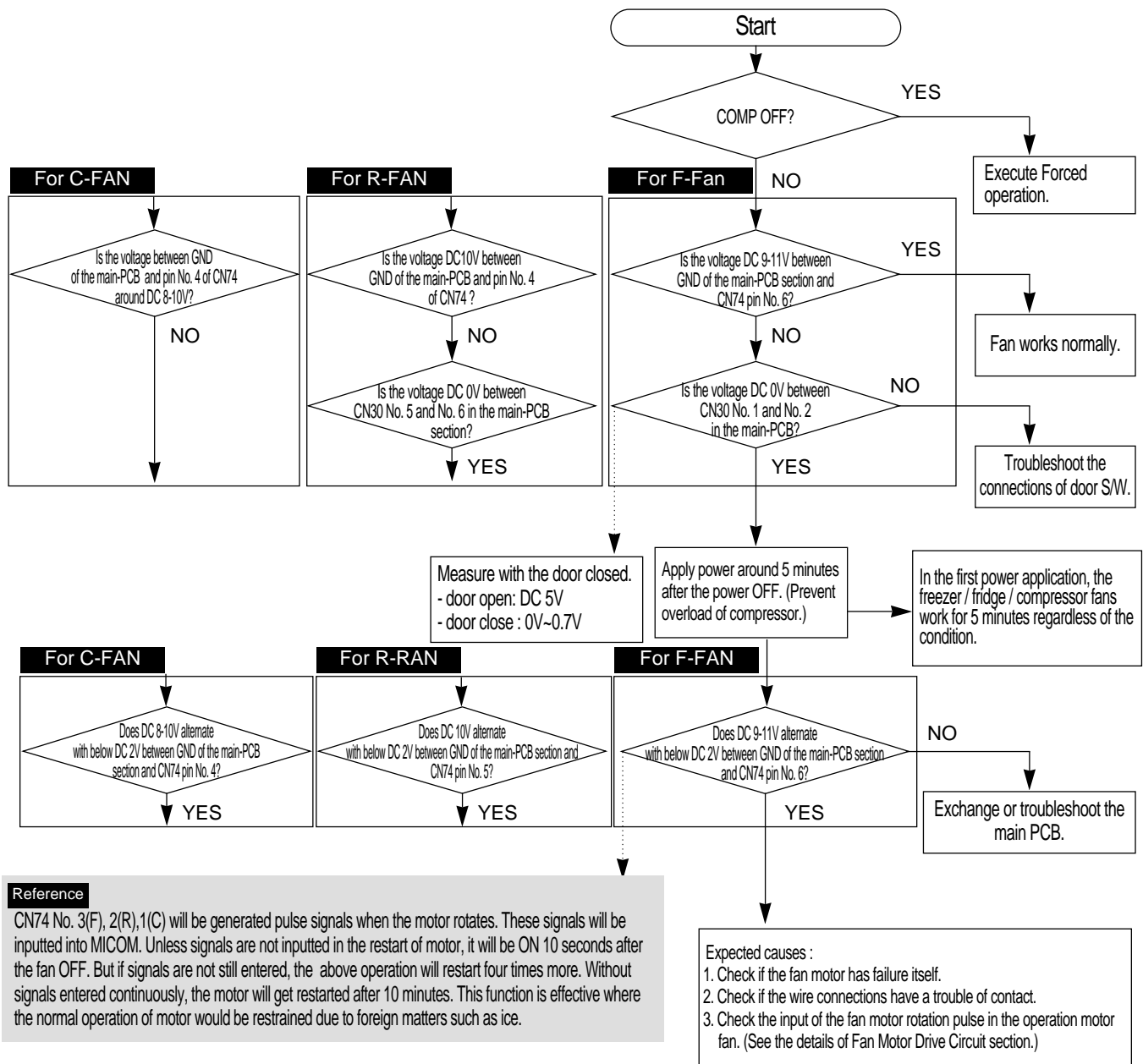


# Troubleshooting

## 6-7) If fan doesn't work:

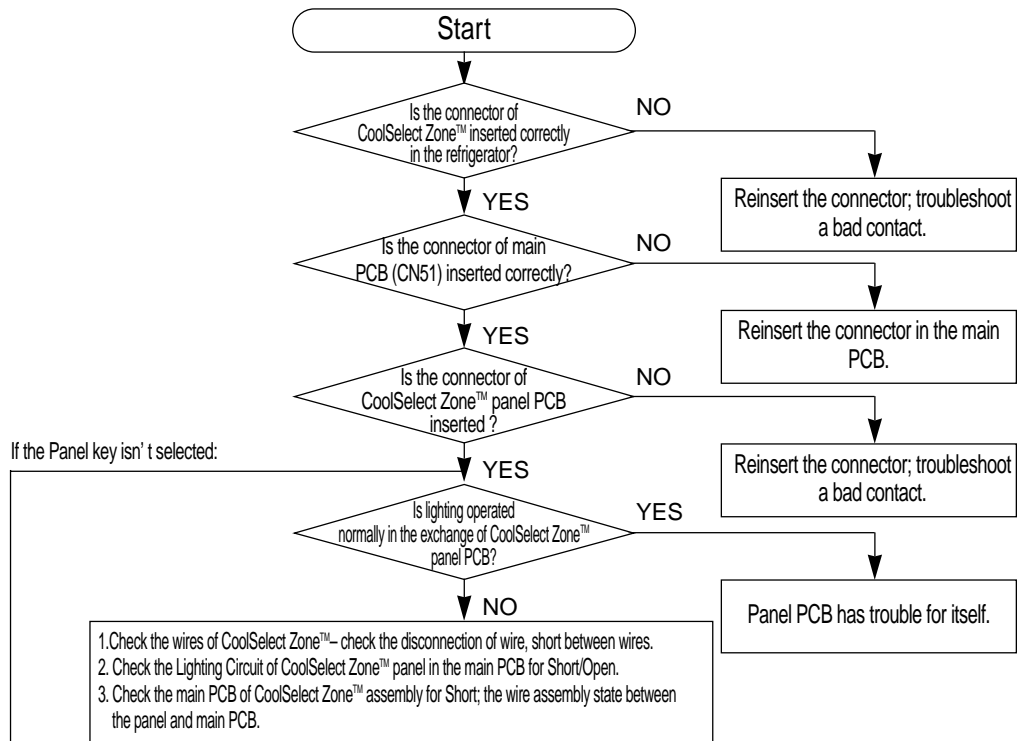
### Reference

- R room Fan is AC motor used. The BLDC motor is driven by DC 8-12V.
- Under the normal condition of COMP ON, it is operated together with F-FAN motor. With operation of the CoolSelect Zone™ function, the F-Fan motor may do not work. If the door is opened and closed once at a high ambient temperature, the BLDC motor would be operated after a 1-minute or longer delay. Therefore, you're advised not to take it for an error.
- When the refrigerator is open, the freezer fan motor will also stop working simultaneously with the fan motor. (for the purpose of performance improvement).



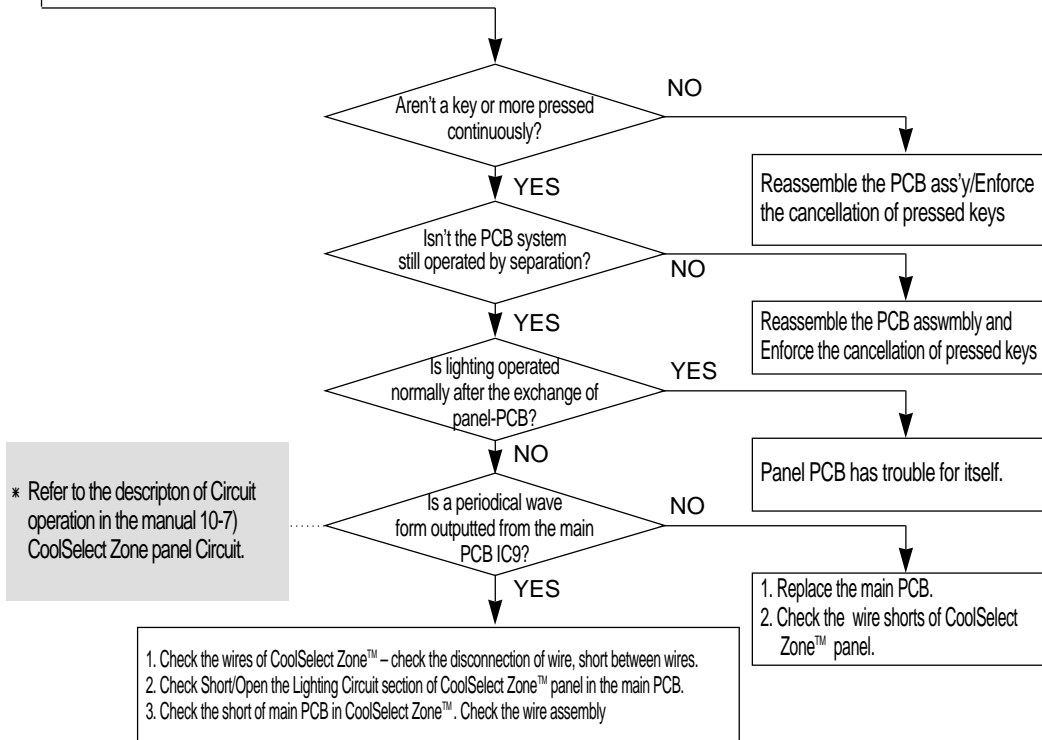
## 6-8) If CoolSelect Zone™ isn't operated normally

1) If the lamp of CoolSelect Zone™ is not lighten.



2) If the Panel PCB key isn't selected:

- The basic method is applied to check – if you fail in troubleshooting after above the execution, then

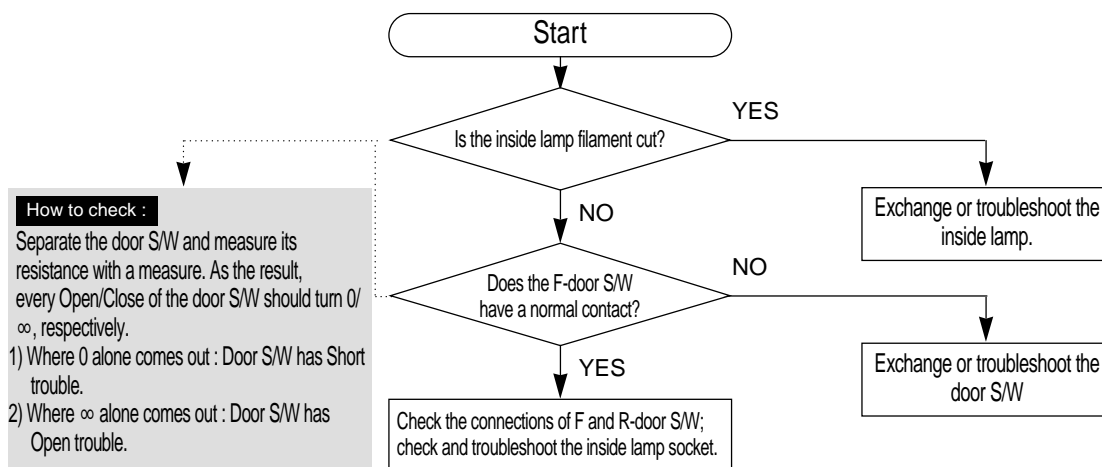


## Troubleshooting

### 6-9) If the lamps of freezer / refrigerator does not light.

#### ⚠ Caution!

1. When you are exchanging the lamp of freezer, please exchange or troubleshoot it with the power OFF to avoid an electric shock.
2. Please keep in mind you do not get burnt by the excessive heating of an incandescent light bulb.



#### Reference

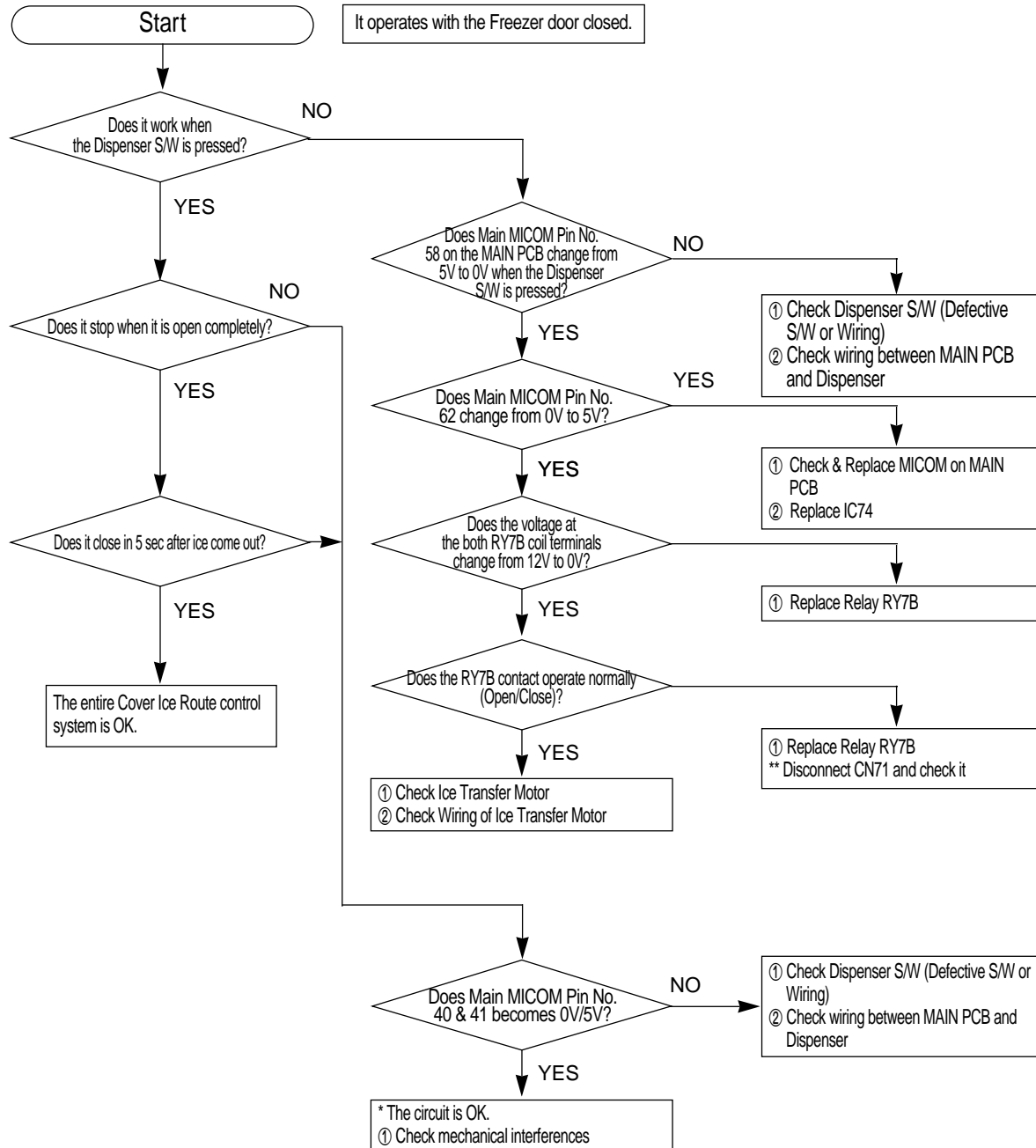
If the door is opened, then the contact of door S/W is opened and MICOM gets applied 5V to finally sense Open. If 5V has been sensed over two minutes afterwards, then an Door-Open alarm will sound 'Ding-Dong' for 10 seconds in a one-minute cycle. For that reason, if the door S/W has failure, the refrigerator can make a "Ding-Dong" sound per a one-minute cycle. Please note step for its service!

## Troubleshooting

### 6-10) When the Dispenser Cover does not close

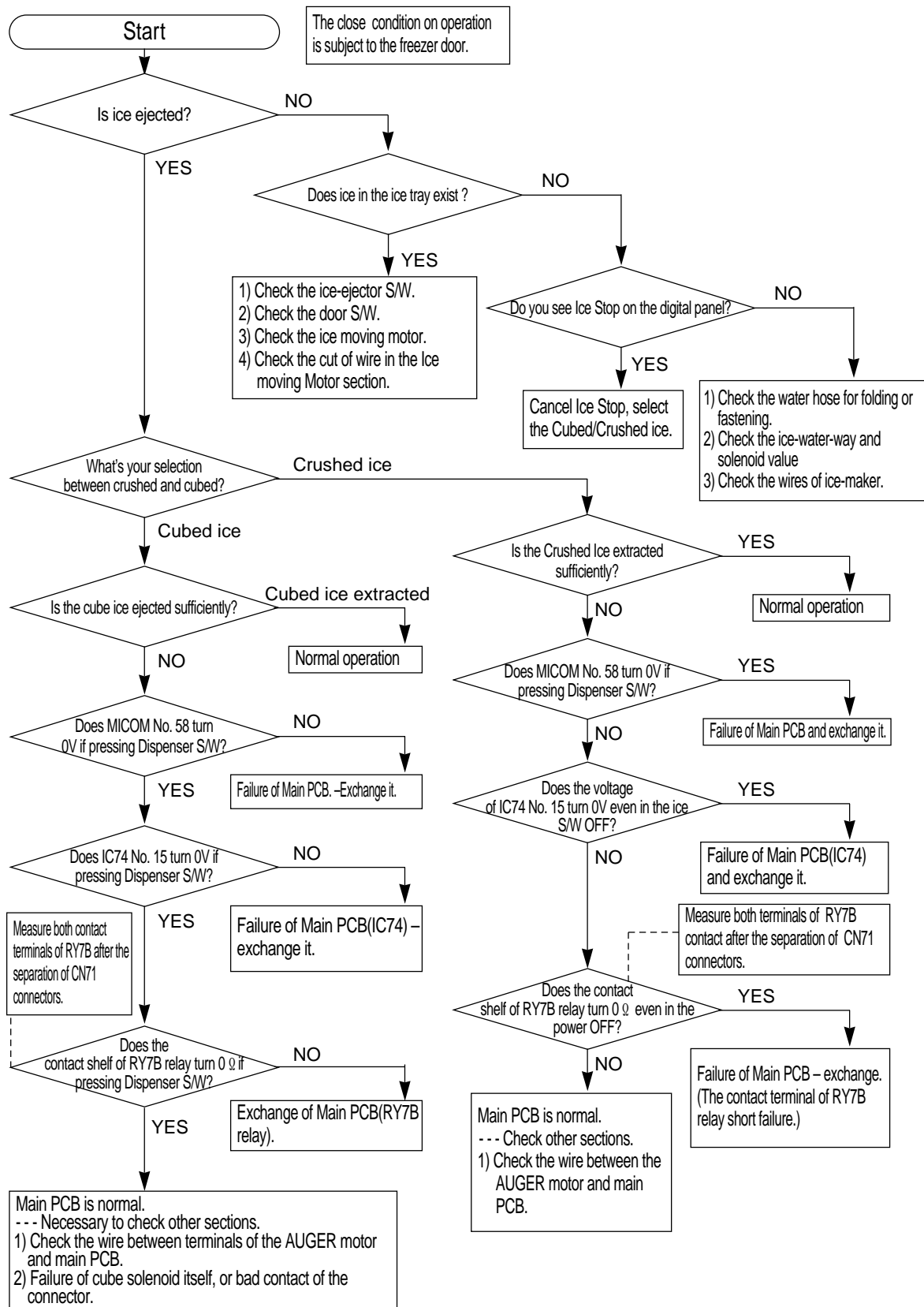
#### Note

1) When the Dispenser S/W is pressed after selecting the type of ice (CUBED or CRUSHED), the Geared Motor will operate and the Dispenser Cover will be opened. When the button keeps on being pressed, ice comes out. If the Geared Motor does not operate, check the Dispenser S/W first. Also, take out the Geared Motor and check its resistance at the both terminals. When it is 0 ohm, it is shorted and must be replaced.



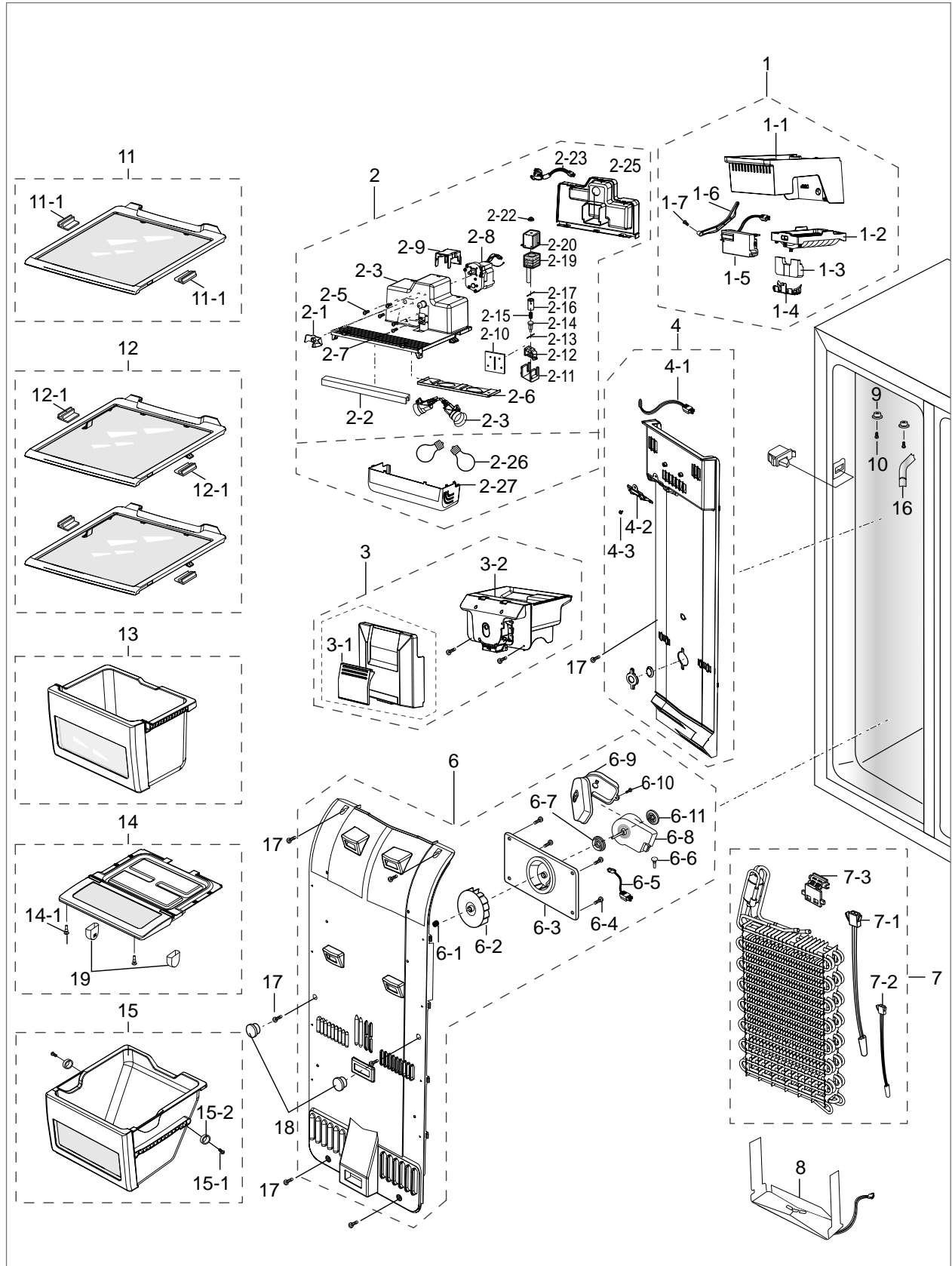
# Troubleshooting

## 6-11) If Crushed Ice/Cubed Ice doesn't work properly:



## 7 . Exploded View & Parts List

### 7-1) Freezer





## Exploded View & Parts List

### ■ Parts List of Freezer

| NO    | CODE-NO     | PART NAME                  | Spec  | Quantity | Remark |
|-------|-------------|----------------------------|---|----------|--------|
| 1     | DA97-02641A | ASSY-SUPPORT ICE MAKER     | 230V/50Hz   | 1        |        |
| 1-1   | DA61-02057A | SUPPORT-ICE MAKER          | RS18RK,HIPS,WHT                                       | 1        |        |
| 1-2   | DA63-02284A | TRAY ICE                   | AD,PP,SC-93437R,BJ73SL                                | 1        |        |
| 1-3   | DA61-01800A | FIXER-SENSOR(ICE MAKER)    | AD,URETHANE   | 1        |        |
| 1-4   | DA63-02183A | COVER-SENSOR               | AD,PP,T1.0,WHITE                                      | 1        |        |
| 1-5   | DA59-00294A | ICE MAKER-ASSY             | NTGN,DC12V  | 1        |        |
| 1-6   | DA61-00954A | GUIDE-ICE FULL             | QUEEN,ABS   | 1        |        |
| 1-7   | DA60-10132A | SCREW-TAPPING              | STS,PI3,L15,PH, +,2S,2S                               | 1        |        |
| 2     | DA97-02859A | ASSY-CASE AUGER MOTOR SUB  | EPEL,W350.5,L3  | 1        |        |
| 2-1   | DA61-01659A | PLATE-DRIVE AUGER          | AD,STS304,T2.0  | 1        |        |
| 2-2   | DA61-02271A | PLATE-CASE AUGER           | EPEL,STS304,T1.5,W343.4,L14.0,H28.0                   | 1        |        |
| 2-3   | DA61-02055A | CASE-AUGER MOTOR           | EPEL,ABS,W349.5,L354.0,WHT,H209.0                     | 2        |        |
| 2-3   | DA47-40001C | LAMP HOLDER-ASSY           | E26,1A,PBT(5VA),UL SPEC                               | 1        |        |
| 2-5   | DA60-00001A | SCREW-SPECIAL              | SR-S6580/7080,STS-304,L8.3,                           | 1        |        |
| 2-6   | DA61-02058A | PLATE-LAMP,FRE             | EPEL,Ca,T0.4,W257.0,L91.7,WHT,PCM                     | 7        |        |
| 2-7   | 6002-000473 | SCREW-TAPPING              | TH, +,1,M4,L14,STS304                                 | 1        |        |
| 2-8   | DA31-00105C | MOTOR GEARD-AUGER          | ISG-3240SSH,1.0A,50Hz,82W,Max 143V,15rpm,220-240V,40T | 1        |        |
| 2-9   | DA63-02012A | COVER-MOTOR AUGER,SUB      | AD,N/F ABS,SC-02740R                                  | 1        |        |
| 2-10  | DA73-00168A | RUBBER-SOLENOIDE           | ZIPEL,SILICON,SOLENOIDE                               | 1        |        |
| 2-11  | DA61-60001A | SLIDER-SOLENOID DISP       | POM   | 1        |        |
| 2-12  | DA65-20107A | SADDLE-SOLENOID            | NY-6,SR-S7180   | 1        |        |
| 2-13  | DA60-90137B | PIN-SPRING B               | STS304,L16,SR-S7180                                   | 1        |        |
| 2-14  | DA66-90003A | GEAR-SOLENOID              | POM,SC-93438R   | 1        |        |
| 2-15  | DA61-20140A | SPRING ETC-SOLENOID        | SR-S7180,STS304,PI7.5,L30.1,L30.1,ID0.7               | 1        |        |
| 2-16  | DA63-90008A | BUSH-SOLENOID              | POM,SC-93438R   | 1        |        |
| 2-17  | DA60-90137A | PIN-SPRING A               | STS304,L22,SR-S7180                                   | 1        |        |
| 2-19  | DA72-60348A | SEAL-FOAM PE               | SR-S7180,FOAM-PE,BLK,T30                              | 1        |        |
| 2-20  | DA74-40151F | VALVE-SOLENOID             | SR-S6586B,CUBE-SN2,220-240[V] 145 Q                   | 1        |        |
| 2-22  | DA63-02621A | GROMMET-SOLENOID           | EPEL,NBR,T3.0,W43.0,L45.0                             | 1        |        |
| 2-23  | DA96-00036E | ASSY-HARNESS-EJECT MOTOR   | E-PEL,WIRE-HARNESS MAIN,A                             | 1        |        |
| 2-25  | DA63-02419A | COVER-AUGER MOTOR          | EPEL,PP,W280.5,L176.7,WHT                             | 1        |        |
| 2-26  | 4713-001201 | LAMP-INCANDESCENT          | 230V,0mA,40W,FROST,0Lm,0Cd/m <sup>2</sup> ,47x84mm    | 2        |        |
| 2-27  | DA63-02422A | COVER-LAMP,FRE(DISP)       | EPEL,PP,W287.0,L134.0                                 | 1        |        |
| 3     | DA97-02642A | ASSY TRAY-ICE_BURCKET      | RS18RK  | 1        |        |
| 3-1   | DA97-02860A | ASSY-COVER ICE_BURCKET     | EPEL,W341.3,L325.                                     | 1        |        |
| 3-1-1 | DA64-01440A | WINDOW-ICE BUCKET          | EPEL,HIPS,W196.8,L15                                  | 1        |        |
| 3-2   | DA97-02872A | ASSY-COVER ICE_BURCKET,SUB | EPEL,W341.3,L325.0                                    | 1        |        |
| 3-3   | 6002-000473 | SCREW-TAPPING              | TH, +,1,M4,L14,STS304                                 | 2        |        |
| 4     | DA97-02651A | ASSY COVER-MULTI FRE(DISP) | RS18RK,PP   | 1        |        |
| 4-1   | DA32-00006C | SENSOR ASSY                | PX-41C,W2 PJT10°C ~35°C                               | 1        |        |
| 4-2   | DA67-01178A | CAP-SENSOR FRE             | EPEL,PP,W54.6,L59.7,W                                 | 1        |        |
| 4-3   | 6002-001335 | SCREW-TAPPING              | BH, +,1,M4,L12,DAC(WHT),SWR                           | 1        |        |
| 4-4   | DA63-02426A | COVER-SENSOR,A             | EPEL,ABS,W38.5,L64.0,H8                               | 1        |        |
| 4-5   | DA63-02427A | COVER-SENSOR,B             | EPEL,GPPS,W25.0,H3.0,                                 | 1        |        |
| 5     | DA34-10120E | SWITCH DOOR-F              | slide,250V,0.5A,                                      | 1        |        |
| 6     | DA97-02652A | ASSY COVER-EVAP FRONT,FRE  | EPEL,PP,  | 1        |        |
| 6-1   | DA61-20128A | SPRING ETC-FAN             | STS304,PI7.8,OD1.0,                                   | 1        |        |
| 6-2   | DA31-00053A | FAN-BACKWARD               | A-TOP,ABS,FRE   | 1        |        |
| 6-3   | DA61-00417A | CASE MOTOR                 | A-TOP,ABS SCRAP,WHT,SBS                               | 1        |        |
| 6-4   | 6002-001335 | SCREW-TAPPING              | BH, +,1,M4,L12,DAC(WHT),SWR                           | 4        |        |
| 6-5   | DA96-00042E | ASSY-HARNESS MOTOR BL-DC   | E-PEL,WIRE-HARNESS MA                                 | 1        |        |
| 6-6   | DA63-40167A | GROMMET-COVER CHIL         | T3.0,SILICON,   | 1        |        |
| 6-7   | DA63-01808A | GROMMET-MOTOR(BLDC)        | BLDC,NBR,BLACK  | 1        |        |

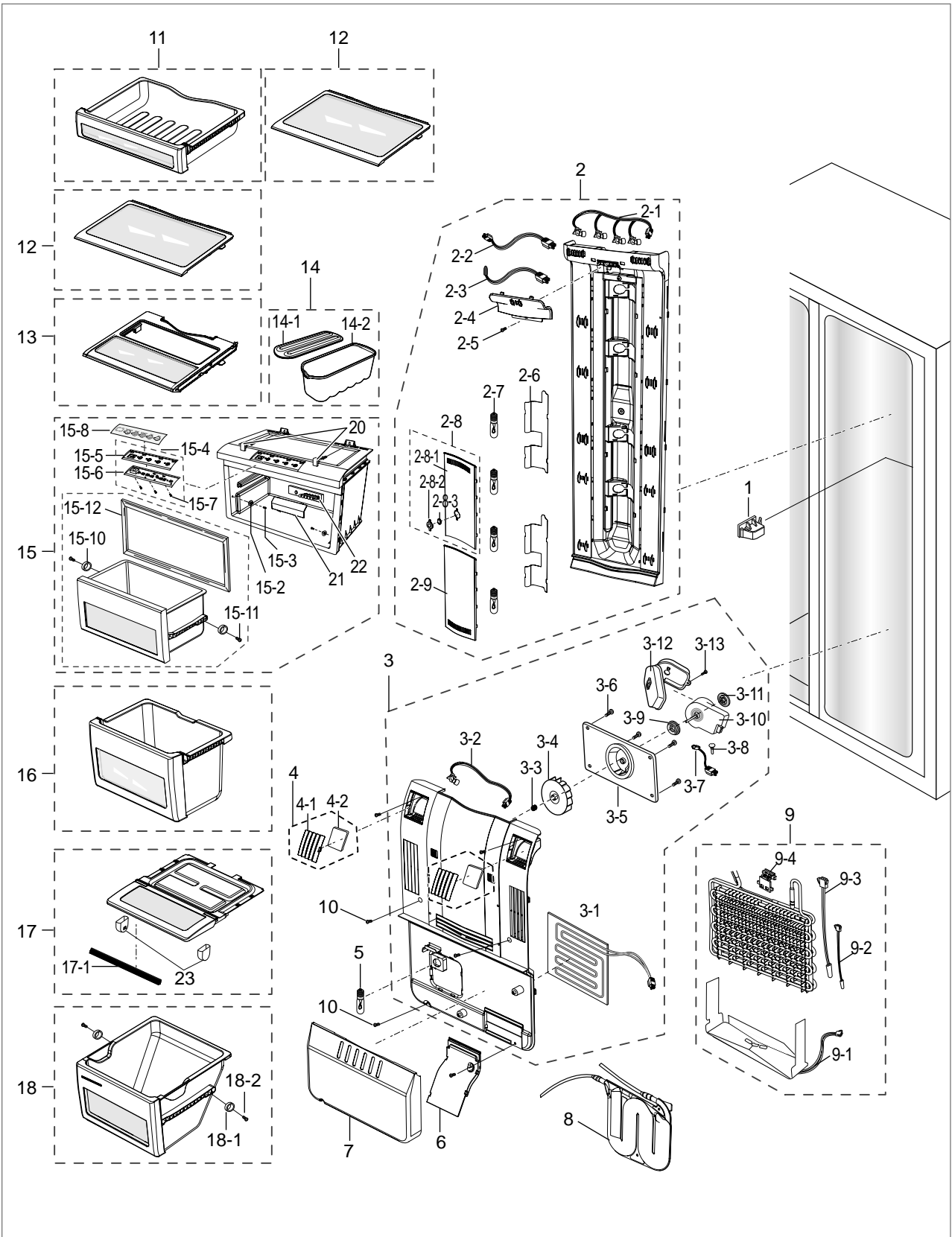
## Exploded View & Parts List

### ■ Parts List of Freezer

| NO   | CODE-NO     | PART NAME                  | Spec                                   | Quantity | Remark |
|------|-------------|----------------------------|--|----------|--------|
| 6-8  | DA31-00118A | MOTOR DC-BLDC              | DL-5905SSEA,EPEL,3.0W,                 | 1        |        |
| 6-9  | DA63-01809A | COVER MOTOR-BLDC           | BLDC-NEW,PP(BJ-730),NTR                | 1        |        |
| 6-10 | 6002-001341 | SCREW-TAPPING              | BH, +, 1,M4,L16,DAC(WHT),S             | 2        |        |
| 6-11 | DA63-01146A | GROMMET-MOTOR              | A-TOP,NBR,ID6.5,OD42                   | 1        |        |
| 7    | DA97-02647A | ASSY EVAP-FRE              | RS18RK,230/50                          | 1        |        |
| 7-1  | DA32-10105R | SENSOR ASSY-FRE            | 502AT,ET-PJT50~50,5V,1                 | 1        |        |
| 7-2  | DA47-10148K | THERMO FUSE-ASSY,B         | ATOP,SW-102T,250V,10A                  | 1        |        |
| 8    | DA97-02649A | ASSY-HEATER DRAIN,FRE      | EPEL,230V/45W                          | 1        |        |
| 9    | DA61-01797A | FIXER GROMMET-DOOR         | T3-PJT,ABS,SC-02740                    | 2        |        |
| 10   | 6003-001144 | SCREW-TAPTITE              | BH, +, B,M4,L12,ZPC(WHT),SWRCH18A      | 2        |        |
| 11   | DA97-02619A | ASSY SHELF-FRE,UPP         | EPEL,ABS                               | 1        |        |
| 11-1 | DA64-00090B | TRIM-SHELF                 | A-TOP,LDPE,WHITE                       | 2        |        |
| 12   | DA97-02618A | ASSY SHELF-FRE,LOW         | EPEL,ABS                               | 2        |        |
| 12-1 | DA64-00090B | TRIM-SHELF                 | A-TOP,LDPE,WHITE                       | 2        |        |
| 13   | DA97-02627A | ASSY CASE-BASKET,UPP       | EPEL,W346,L234,                        | 1        |        |
| 14   | DA97-02622B | ASSY COVER-SLIDE,BASKET    | EPEL,W346,                             | 1        |        |
| 14-1 | DA63-40167A | GROMMET-COVER CHIL         | T3.0,SILICON,                          | 2        |        |
| 14-2 | DA67-01290A | CAP-SLIDE                  | EPEL,NY-66,-,W9.0XL18.0,H24.0,COOL WHT | 2        |        |
| 15   | DA97-02626A | ASSY CASE-BASKET,LOW       | EPEL,W346,L352,                        | 1        |        |
| 15-1 | DA66-00148A | ROLLER                     | A-TOP,POM, Ø16,SC-93437R,P             | 2        |        |
| 15-2 | 6009-001278 | SCREW-SPECIAL              | TWH, +, M4,L9(6),PASS,STS3             | 2        |        |
| 16   | DA63-02418A | GROMMET-WATER PIPE FILL,IN | RS18RK,SILICO                          | 1        |        |
| 17   | 6002-001341 | SCREW-TAPPING              | BH, +, 1,M4,L16,DAC(WHT),SWRCH18A      | 7        |        |
| 18   | DA67-30266K | CAP-SCREW                  | A-TOP,PP,SC-02740R,COOL-WHITE          | 2        |        |
| 19   | DA67-01290A | CAP-SLIDE                  | EPEL,NY-66,-,W9.0XL18.0,H24.0,COOL WHT | 2        |        |

# Exploded View & Parts List

## 7-2) Refrigerator



## Exploded View & Parts List

### ■ Parts List of Refrigerator

| NO    | CODE-NO     | PART NAME               | Spec                                  | Quantity | Remark |
|-------|-------------|-------------------------|---------------------------------------|----------|--------|
| 1     | DA34-10110E | SWITCH DOOR-R           | Sliding,250V,0.5A                     | 1        |        |
| 2     | DA97-02653A | ASSY COVER-MULTI,REF    | EPEL,PP,W                             | 1        |        |
| 2-1   | DA47-00069H | LAMP HOLDER-MULTI REF   | 250V,75W,Cu,PBT,HOLDER 4EA            | 1        |        |
| 2-2   | DA96-00173A | ASSY-HARNESS LAMP       | E-PEL,WIRE-HARNESS MAIN,A             | 1        |        |
| 2-3   | DA32-10109Y | SENSOR ASSY             | 502AT,A-TOP,5V,R-SENSO                | 1        |        |
| 2-4   | DA67-01168A | CAP-SENSOR,REF          | EPEL,PP,T2.0,W130.5,WHT               | 1        |        |
| 2-5   | 6003-001144 | SCREW-TAPTITE           | BH, + ,B,M4,L12,ZPC(WHT),SWRCH18A     | 1        |        |
| 2-6   | DA61-02033A | PLATE-LAMP-MULTI,UP     | EPEL,Ga,T0.4,W81.0,L                  | 2        |        |
| 2-7   | 4713-001147 | LAMP-INCANDESCENT       | 240V,25W,TRP,25x                      | 4        |        |
| 2-8   | DA97-02678A | ASSY COVER-LAMP REF,UPP | EPEL,PP                               | 1        |        |
| 2-8-1 | DA63-02395A | COVER LAMP-REF,UP       | EPEL,PP,T2.0,W133.6,L3                | 1        |        |
| 2-8-2 | DA63-02426A | COVER-SENSOR,A          | EPEL,ABS,W38.5,L64.0,H8               | 1        |        |
| 2-8-3 | DA63-02427A | COVER-SENSOR,B          | EPEL,GPPS,W25.0,H3.0,                 | 1        |        |
| 2-9   | DA63-02397A | COVER LAMP-REF,LOW      | EPEL,PP,T2.0,W133.96,                 | 1        |        |
| 3     | DA97-02671B | ASSY COVER-EVAP ,REF    | RS18RK,PP                             | 1        |        |
| 3-1   | DA47-00183B | HEATER-WATER TANK       | RS18RK,230V,3W                        | 1        |        |
| 3-2   | DA47-00069G | LAMP HOLDER-REF,LOW     | 250V,75W,Cu,PBT,HOLDER 1EA            | 1        |        |
| 3-3   | DA61-20128A | SPRING ETC-FAN          | STS304,PI7.8,OD1.0                    | 1        |        |
| 3-4   | DA31-00016A | FAN-CIRCUIT             | ET-PJT,12, Ø95, Ø63                   | 1        |        |
| 3-5   | DA61-00417A | CASE MOTOR              | A-TOP,ABS SCRAP,WHT,SBS               | 1        |        |
| 3-6   | 6002-001341 | SCREW-TAPPING           | BH, + ,1,M4,L16,DAC(WHT),S            | 4        |        |
| 3-7   | DA96-00042E | ASSY-HARNESS MOTOR      | E-PEL,WIRE-HARNESS MA                 | 1        |        |
| 3-8   | DA63-40167A | GROMMET-COVER CHIL      | T3.0,SILICON,                         | 1        |        |
| 3-9   | DA63-01808A | GROMMET-MOTOR(BLDC)     | BLDC,NBR,BLACK                        | 1        |        |
| 3-10  | DA31-00118A | MOTOR DC-BLDC           | DL-590SSEA,EPEL,3.0W,                 | 1        |        |
| 3-11  | DA63-01146A | GROMMET-MOTOR           | A-TOP,NBR,ID6.5,OD42                  | 1        |        |
| 3-12  | DA63-01809A | COVER MOTOR-BLDC        | BLDC-NEW,PP(BJ-730),NTR               | 1        |        |
| 3-13  | 6002-001335 | SCREW-TAPPING           | BH, + ,1,M4,L12,DAC(WHT),SWR          | 3        |        |
| 4     | DA97-02646A | ASSY COVER-PURIFIER     | EPEL,T10,W40,L40                      | 2        |        |
| 4-1   | DA63-02403A | COVER-PURIFIER          | EPEL,PP,L74.0,COOL WHT                | 1        |        |
| 4-2   | DA02-90106K | CATALYST-LTC            | EXPORT,LTC,4,T10,W40,L40,SS-400-10-3  | 1        |        |
| 5     | 4713-001147 | LAMP-INCANDESCENT       | 240V,25W,TRP,25x                      | 1        |        |
| 6     | DA63-02404A | COVER-LAMP REF,TANK     | EPEL,PP,W405.0,L27                    | 1        |        |
| 7     | DA97-02645A | ASSY COVER-AIR REF      | EPEL,PP,W183.0,                       | 1        |        |
| 8     | DA97-02650A | ASSY TANK WATER         | RS18RK,HD-PE,T3.0,                    | 1        |        |
| 9     | DA97-02648A | ASSY EVAP-REF           | RS18RK,230/50                         | 1        |        |
| 9-1   | DA97-02838A | ASSY-HEATER DRAIN,REF   | EPEL,230V/25W                         | 1        |        |
| 9-2   | DA32-00006C | SENSOR ASSY             | PX-41C,W2 PJT10°C ~35°C,              | 1        |        |
| 9-3   | DA47-10148J | THERMO FUSE-ASSY,A      | ATOP,SW-102T,250V,10A,77°C( +05):FUSE | 1        |        |
| 9-4   | DA61-00453A | FIXER-SENSOR(EVAP)      | A-TOP,PP,NTR,ALL                      | 1        |        |
| 10    | 6002-001341 | SCREW-TAPPING           | BH, + ,1,M4,L16,DAC(WHT),SWRCH18A     | 6        |        |
| 11    | DA97-02621A | ASSY TRAY-CHILLED       | RS18RK,NTR                            | 1        |        |
| 12    | DA67-01173A | SHELF-REF,UPP           | EPEL,HIPP,T2.5,W434.0,L369            | 2        |        |
| 13    | DA97-02620A | ASSY SHELF-REF,FOLD     | EPEL,ABS                              | 1        |        |
| 14    | DA97-02806A | ASSY TRAY-EGG           | EPEL,T2.5,W324.5,L122.2,H1            | 1        |        |
| 14-1  | DA63-02491A | COVER-TRAY EGG          | EPEL,GPPS,T2.5,W319.0,L11             | 1        |        |
| 14-2  | DA63-02492A | TRAY EGG                | EPEL,GPPS,T2.5,W324.5,L122.2,H        | 1        |        |
| 15    | DA97-02629A | ASSY-CONVERTIBLE        | EPEL                                  | 1        |        |
| 15-1  | DA97-02849A | ASSY CASE-CONVERTIBLE   | EPEL,WHT                              | 1        |        |
| 15-2  | DA66-00151A | ROLLER-FRONT            | A-TOP,POM, Ø16,WHT,CONV               | 2        |        |
| 15-3  | 6009-001293 | SCREW-SPECIAL           | STS304,PWH, + ,M4,L15.5(6.            | 2        |        |
| 15-4  | DA97-02852A | ASSY-PBA CONVERTIBLE    | EPEL                                  | 1        |        |
| 15-5  | DA63-02402A | COVER-CONVERTIBLE,PBA   | EPEL,ABS,T2.0,W198.5,WHT              | 1        |        |

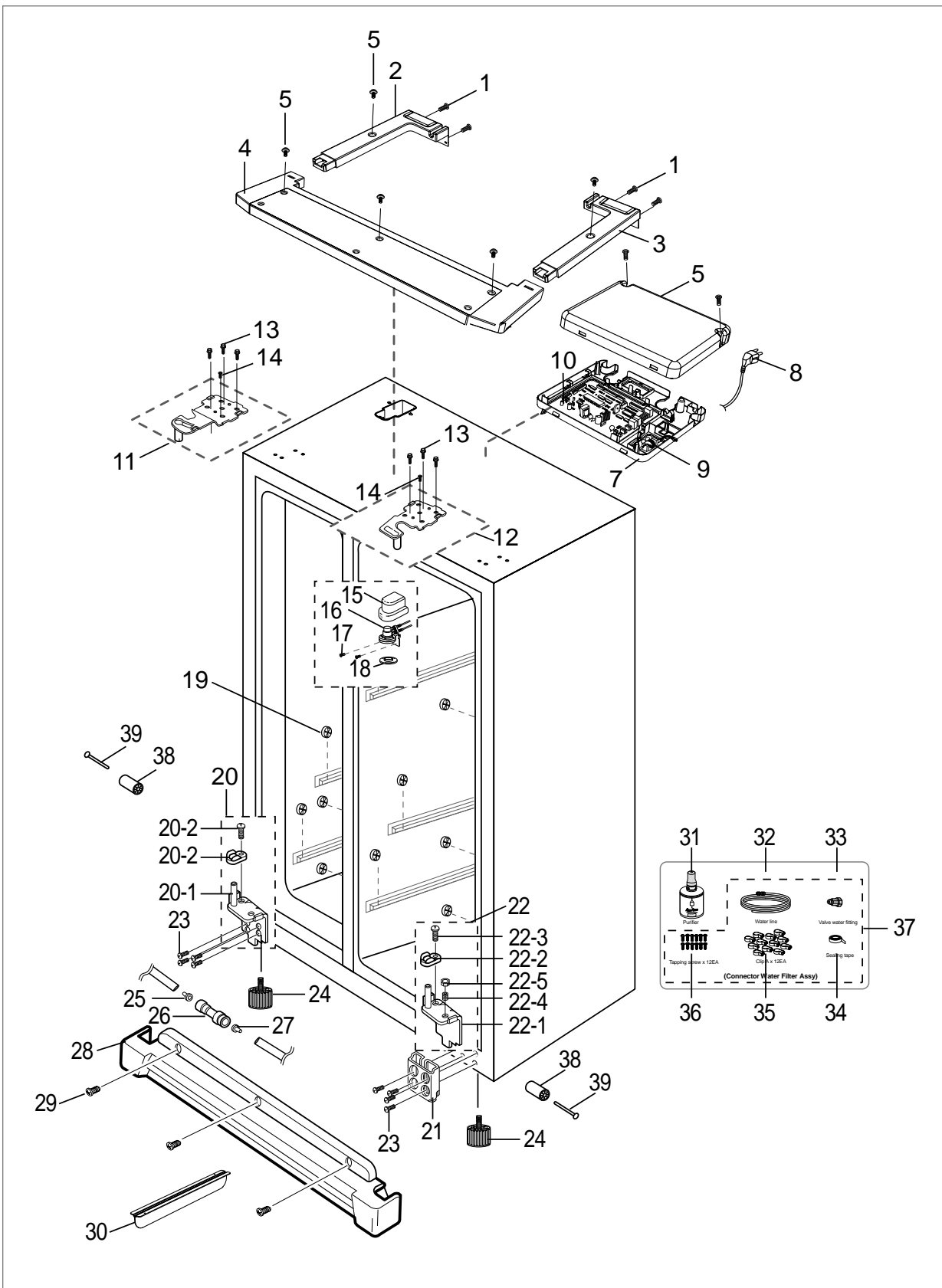
## Exploded View & Parts List

### ■ Parts List of Refrigerator

| NO    | CODE-NO     | PART NAME              | Spec                                   | Quantity | Remark |
|-------|-------------|------------------------|--|----------|--------|
| 15-6  | DA41-00270A | PBA DISPLAY-(C-ROOM)   | E-PEL,PBA_C-ROOM,FR-1,1.6*28*212.5     | 1        |        |
| 15-7  | 6002-000630 | SCREW-TAPPING          | PH, +,2S,M3,L8,ZPC(YEL),SWRCH18A       | 2        |        |
| 15-8  | DA64-01494A | INLAY-CONVERTIBLE      | EPEL,PC,T0.25,W42.5,L1                 | 1        |        |
| 15-9  | DA97-02628A | ASSY TRAY-CONVERTIBLE  | RS18RK                                 | 1        |        |
| 15-10 | DA66-00148A | ROLLER                 | A-TOP,POM, Ø 16,SC-93437R,P            | 2        |        |
| 15-11 | 6009-001278 | SCREW-SPECIAL          | TWH, +,M4,L9(6),PASS,STS3              | 2        |        |
| 15-12 | DA63-01783B | GASKET-CONVERTIBLE     | RS18RK,SF-PVC,W415,                    | 1        |        |
| 16    | DA97-02625A | ASSY CASE VEG-UPP      | RS18RK                                 | 1        |        |
| 17    | DA97-02623B | ASSY COVER-SLIDE,VEG   | RS18RK,W430,L36                        | 1        |        |
| 17-1  | DA63-02067B | GASKET-BIG BOX         | USP-PJT,SF-PVC,L420                    | 1        |        |
| 18    | DA97-02624A | ASSY CASE VEG-LOW      | RS18RK                                 | 1        |        |
| 18-1  | DA66-00148A | ROLLER                 | A-TOP,POM, Ø 16,SC-93437R,P            | 1        |        |
| 18-2  | 6009-001278 | SCREW-SPECIAL          | TWH, +,M4,L9(6),PASS,STS3              | 1        |        |
| 19    | DA63-02408A | COVER-VEG UP           | EPEL,HIPS,T2.0,W419.7,L240.7,-,-,WHT   | 1        |        |
| 20    | DA67-01252A | CAP-SCREW CONVERTIBLE  | EPEL,ABS,T2.0                          | 2        |        |
| 21    | DA63-02251B | COVER-CONVERTIBLE LAMP | EPEL,ABS,-,W105.6                      | 1        |        |
| 22    | DA41-00241A | PBA-ROOM LAMP          | H-PJT,-,FR-1,85*15,-,14V               | 1        |        |
| 23    | DA67-01290A | CAP-SLIDE              | EPEL,NY-66,-,W9.0XL18.0,H24.0,COOL WHT | 2        |        |

# Exploded View & Parts List

## 7-3) Cabinet



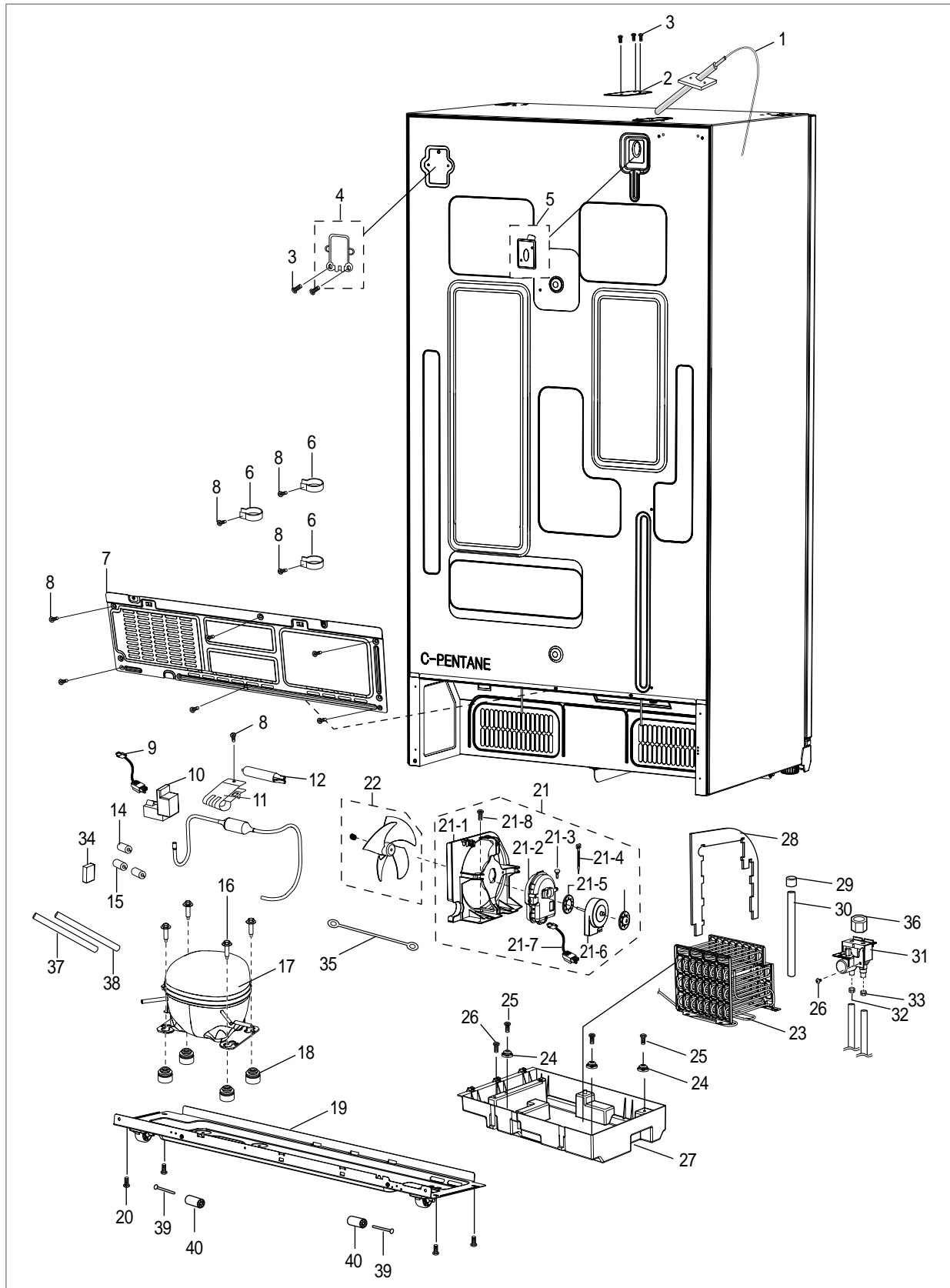
# Illustrated Parts Catalog.

## ■ Parts List of Cabinet

| NO   | CODE-NO     | PART NAME              | Spec   | Quantity | Remark |
|------|-------------|------------------------|--|----------|--------|
| 1    | 6006-001108 | SCREW-TAPPING          | PW(OD15),TH,+,M4,L16,ZPC(Y                   | 4        |        |
| 2    | DA64-01449A | TOP TABLE-SIDE,L       | EPEL,ABS,W408.0,L171.5,AL SILVER,SC-01014S   | 1        |        |
|      | DA64-01449B |                        | RS18RK,ABS,SC-05010S(P/S                     |          |        |
|      | DA64-01449C |                        | RS18RK,ABS,SC-05013S,CORAL-WHT               |          |        |
| 3    | DA64-01450A | TOP TABLE-SIDE,R       | EPEL,ABS,W408.0,L171.5,AL SILVER,SC-01014S   | 1        |        |
|      | DA64-01450B |                        | RS18RK,ABS,SC-05010S(P/S                     |          |        |
|      | DA64-01450C |                        | RS18RK,ABS,SC-05013S,CORAL-WHT               |          |        |
| 4    | DA97-02630A | ASSY TOP TABLE         | EPEL,ABS,W943.0,L253.0,AL SILVER,SC-01014S   | 1        |        |
|      | DA97-02630B |                        | ABS,SC-05010S,PLATINUM SILVER                |          |        |
|      | DA97-02630C |                        | ABS,SC-05013S,WHT CORAL                      |          |        |
| 5    | 6002-000213 | SCREW-TAPPING          | TH,+,1,M4,L12,ZPC(YEL),S                     | 6        |        |
| 6    | DA97-02848A | ASSY COVER-PCB PANEL   | EPEL,ABS,W368,L29                            | 1        |        |
| 7    | DA61-02069A | CASE-PCB PANEL         | EPEL,ABS(VH-0815),T2.5,W3                    | 1        |        |
| 8    | DA39-10164E | CBF-POWER CORD         | BF-3,250V,13A,3500,BF-3                      | 1        |        |
| 9    | DA27-00014A | COIL FILTER-EMI FILTER | USP 05,82*6                                  | 1        |        |
| 10   | DA41-00287A | PBA MAIN               | EPEL,TOP OF REF,FR-1,1.6T*197*               | 1        |        |
| 11   | DA97-02637A | ASSY HINGE UPP-FRE     | RS18RK,T3.0,BLK                              | 1        |        |
| 12   | DA97-02638A | ASSY HINGE UPP-REF     | RS18RK,T3.0,BLK                              | 1        |        |
| 13   | DA60-10124A | SCREW-TAP TITE         | M6,L16,HH,ZPC2-Y                             | 6        |        |
| 14   | DA60-10107A | SCREW-EARTH            | BSBN,M4,L10,+,EARTH                          | 4        |        |
| 15   | DA97-00724E | ASSY COVER-FILTER      | A-TOP,Cool-white,EXP                         | 1        |        |
| 16   | DA97-01666C | ASSY CASE-FILTER       | A-TOP,NTR                                    | 1        |        |
| 17   | 6002-001197 | SCREW-TAPPING          | TH,+,1,M4,L16,SNC2(SIL),MSWR10               | 2        |        |
| 18   | DA63-00586A | COVER-TUBE FILTER      | ZIPEL,PP,T2.0,SC                             | 1        |        |
| 19   | DA66-10104A | ROLLER FRE             | POM,SRS6580Z,OD8.1                           | 14       |        |
| 20   | DA97-02639B | ASSY HINGE LOW-FRE     | RS18RK,T4.5,BLK                              | 1        |        |
| 20-1 | DA61-02087A | HINGE-LOW,FRE          | EPEL,SHP1,T4.5,BLK                           | 1        |        |
| 20-2 | DA66-00343A | CAM-RISER              | USP-PJT,NY-66,10.5 GASKET,BL                 | 1        |        |
| 20-3 | 6003-001435 | SCREW-TAPTITE          | HWH,+,S,M5,L12.7,ZPC(YEL)                    | 1        |        |
| 21   | DA61-02073A | BRACKET-HINGE LOW,R    | RS18RK,SCP1,T2.6                             | 1        |        |
| 22   | DA97-02640B | ASSY HINGE LOW-REF     | RS18RK,T4.5,BLK                              | 1        |        |
| 22-1 | DA61-02088A | HINGE-LOW,REF          | RS18RK,SHP1,T4.5,B                           | 1        |        |
| 22-2 | DA66-00343A | CAM-RISER              | ZIPEL,NY-66,BLAC                             | 1        |        |
| 22-3 | 6003-001435 | SCREW-TAPTITE          | HWH,+,S,M5,L12.7,ZPC(YEL)                    | 1        |        |
| 22-4 | 6011-001442 | BOLT-SOCKET            | M8,L15,ZPC(BLK),SCM435                       | 1        |        |
| 22-5 | 6021-001125 | NUT-HEXAGON            | 3,M8, P1.25,ZPC(BLK),SWRCH10                 | 1        |        |
| 23   | 6009-001255 | SCREW-HEX              | SWRCH18A,HEX-PLANGE,HEX,M6,L                 | 8        |        |
| 24   | DA61-30102A | FOOT-FRONT             | SR-F5670,PP,YEL,T0.6,ZPC2                    | 2        |        |
| 25   | DA71-20208A | FIXER-VALVE WATER,B    | SR-S7180,NY-6,OD6.1                          | 1        |        |
| 26   | DA62-20111B | TUBE-FITTING           | POM,SRS6580Z,OD8.1                           | 1        |        |
| 27   | DA71-20207A | FIXER-VALVE WATER,A    | SR-S7180,NY-6,OD7.8                          | 1        |        |
| 28   | DA63-02466A | COVER-LEG FRONT        | EPEL,ABS,T2.0,W946.7,L79,AL SILVER,SC-01014S | 1        |        |
|      | DA63-02466B |                        | ABS,T2.0,SC-05010S,PLATINUM SILVER           |          |        |
|      | DA63-02466C |                        | ABS,T2.0,SC-05013S,WHT CORAL                 |          |        |
| 29   | 6002-000213 | SCREW-TAPPING          | TH,+,1,M4,L12,ZPC(YEL),S                     | 3        |        |
| 30   | DA64-01497A | TRIM-BLADE             | RS18RK,PVC,L341.5,WHITE                      | 1        |        |
| 31   | DA29-00003B | FILTER WATER-ASSY      | A-TOP,86*86*167,NSF53                        | 1        |        |
| 32   | DA97-00753A | ASSY PIPE-WATER        | A-TOP,INVERTER                               | 1        |        |
| 33   | DA73-00180A | PIPE-CONNECT           | ET-PJT,BRASS,EUROPE                          | 1        |        |
| 34   | 0203-000399 | TAPE-TEFLON            | T0.05,W13,ROLL,WHT                           | 1        |        |
| 35   | DA65-20110B | CLAMP                  | NY-66,DN-5N,PI8.0                            | 12       |        |
| 36   | 6002-000213 | SCREW-TAPPING          | TH,+,1,M4,L12,ZPC(YEL),SWRCH18               | 12       |        |
| 37   | DA97-01469F | ASSY-INSTALL FILTER    | EXP,FILTER IN                                | 1        |        |
| 38   | DA61-40115A | CASTER-FRONT           | SR-62EA,NY-66,ID6 OD30 W38                   | 2        |        |
| 39   | DA60-90124A | RIVET                  | ZPC3,OD6.0,L56,                              | 2        |        |

# Exploded View & Parts List

## 7-4) Cabinet





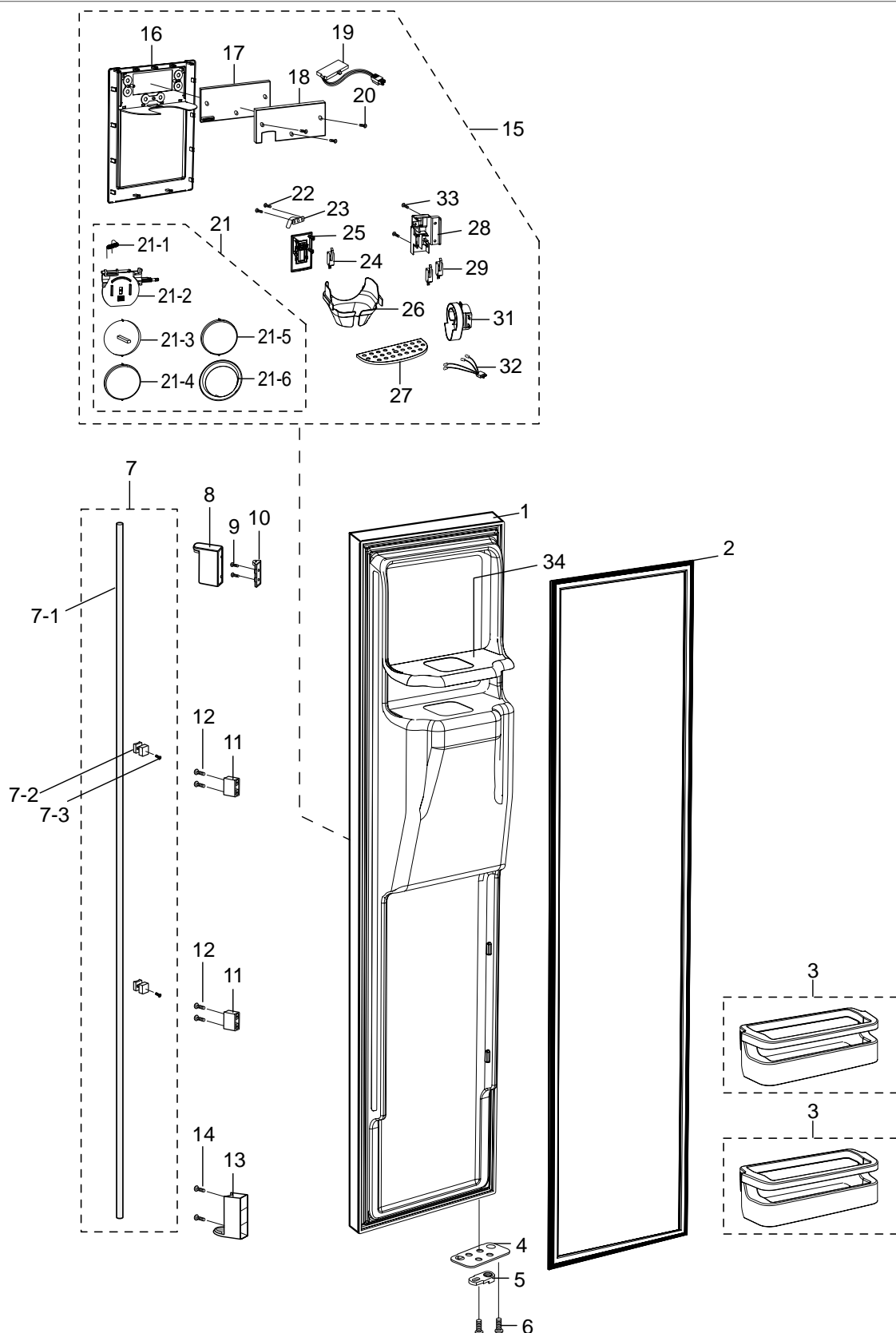
## Illustrated Parts Catalog.

### ■ Parts List of Cycle

| NO   | CODE-NO       | PART NAME                   | Spec   | Quantity | Remark |
|------|---------------|-----------------------------|--|----------|--------|
| 1    | DA97-00708F   | ASSY PIPE-WATER ICE         | EPEL,230V/5W                                       | 1        |        |
| 2    | DA97-02858A   | ASSY COVER-TUBE WATER       | EPEL,W161.5,L66.0                                  | 1        |        |
| 3    | 6006-001108   | SCREW-TAPPING               | PW(OD15),TH,+,M4,L16,ZPC(Y                         | 5        |        |
| 4    | DA63-00586A   | COVER-TUBE FILTER           | ZIPEL,PP,T2.0,SC                                   | 1        |        |
| 5    | DA97-02644A   | ASSY COVER-FIXER WATER LINE | RS18RK,W43,L58                                     | 1        |        |
| 6    | 6502-000112   | CABLE CLAMP                 | DA-8N,ID13.2,T1.0,NYLON6/6,N                       | 2        |        |
| 7    | DA97-02681A   | ASSY COVER-COMP             | RS18RK,SBHG1,T0.4,                                 | 1        |        |
| 8    | 6002-000213   | SCREW-TAPPING               | TH,+,1,M4,L12,ZPC(YEL),S                           | 9        |        |
| 9    | DA96-00174A   | ASSY-HARNESS COMP           | EPEL,WIRE-HARNESS MAIN                             | 1        |        |
| 10   | DA97-02895A   | ASSY-COMP SUB               | 12SP18A265RF,33&                                   | 1        |        |
| 11   | DA61-01957A   | CLIP-DRYER                  | AD,SECC1,T0.6                                      | 1        |        |
| 12   | DA73-30102B   | DRYER-ASSY                  | CU,OD18.85,ID2,L102,10.0G                          | 1        |        |
| 13   | DA97-00918A   | ASSY PIPE CONNECT           | A-TOP,SUCTION                                      | 1        |        |
| 14   | DA63-40171B   | GROMMET-SUCT PIPE,A         | NBR,OD20,ID4,L20                                   | 1        |        |
| 15   | DA63-40171D   | GROMMET-SUCT PIPE,B         | RAIL L19.5,NR,OD20                                 | 2        |        |
| 16   | DA60-20008A   | BOLT-HEX                    | SM30C,L42.6  | 4        |        |
| 17   | MK4A5QR1U/E10 | COMPRESSOR                  | 220-240V?50Hz,RSCR,Static                          | 1        |        |
| 18   | DA63-02617A   | GROMMET COMP                | USP05,EPDM,BLACK                                   | 4        |        |
| 19   | DA97-02680A   | ASSY CHASSIS-COMP           | RS18RK,SBHG1,T1.4                                  | 1        |        |
| 20   | DA60-10004A   | SCREW-TAP TITE              | SGDC90/90,L16,HH                                   | 4        |        |
| 21   | DA97-01283F   | ASSY SUPPORT-CIRCUIT MOTOR  | EPEL,DC12V   | 1        |        |
| 21-1 | DA61-00415A   | SUPPORT-CIRCUITE MOTOR      | A-TOP,ABS SCRAP,WHITE                              | 1        |        |
| 21-2 | DA63-00713A   | COVER-MOTOR                 | OMEGA,PP,BLDC                                      | 1        |        |
| 21-3 | DA63-40167A   | GROMMET-COVER CHIL          | T3.0,SILICON,NTR                                   | 1        |        |
| 21-4 | 6501-000122   | CABLE TIE                   | DACT-100,W2.5,L101.6,NTR,NYL                       | 1        |        |
| 21-5 | DA63-01146A   | GROMMET-MOTOR               | A-TOP,NBR,ID6.5,OD42,BLK,BLDC                      | 2        |        |
| 21-6 | DA31-00118B   | MOTOR DC-BLDC(CYCLE)        | DL-5905SSCA,EPEL,2.82W,1600RPM,DC12V,29dB,SUNGSHIN | 1        |        |
| 21-7 | DA96-00042A   | ASSY-HARNESS COMP(MOTOR)    | A-TOP UL,C-FAN,350MM                               | 1        |        |
| 21-8 | 6003-000003   | SCREW-TAPTITE               | BH,+,B,M4,L10,CBLACK,SWRCH18A                      | 2        |        |
| 22   | DA31-00010D   | FAN-ASS'Y                   | ET,ZIPEL,ASSY,UNIT, Ø 150                          | 1        |        |
| 23   | DA97-02687A   | ASSY PIPE-SPIRAL CONDENSER  | EPEL,BLK   | 1        |        |
| 24   | DA63-02205A   | GROMMET-SUB CONDENSER       | AD,NBR   | 4        |        |
| 25   | 6009-001252   | SCREW-SPECIAL               | PH,+,M4.0,L20(12),ZPC(YE                           | 3        |        |
| 26   | 6002-000213   | SCREW-TAPPING               | TH,+,1,M4,L12,ZPC(YEL),S                           | 1        |        |
| 27   | DA63-02434A   | TRAY-DRAIN WATER            | RS18RK,PP,T2.0,NT                                  | 1        |        |
| 28   | DA62-00983A   | SEAL-SUB COND               | EPEL,N-FOAM PE,T5.0,W209.0,L211.0                  | 1        |        |
| 29   | DA63-00951C   | GROMMET-DRAIN HOSE          | V2-PJT,NBR,GRAY                                    | 1        |        |
| 30   | DA62-20001R   | TUBE PVC                    | V2-PJT,GASKET SCRAP,T1.0,L218                      | 1        |        |
| 31   | DA97-02682A   | ASSY VALVE WATER            | EPEL   | 1        |        |
| 32   | DA71-20208A   | FIXER-VALVE WATER,B         | SR-S7180,NY-6,OD6.1                                | 1        |        |
| 33   | DA71-20207A   | FIXER-VALVE WATER,A         | SR-S7180,NY-6,OD7.8                                | 1        |        |
| 34   | DA72-60040D   | SEAL CUTT-RUBBER            | POLYBUTILENE                                       | 1        |        |
| 35   | DA39-20389E   | WIRE HARNESS-EARTH          | UL 1015 AWG18                                      | 1        |        |
| 36   | DA74-00070A   | VALVE-FITTING-NUT           | CU   | 1        |        |
| 37   | DA73-10190L   | PIPE-CONNECT-DISC,A         | SR-L35,32,C1220T-0,-,OD4.76,L120                   | 1        |        |
| 38   | DA73-10190M   | PIPE-CONNECT DISC,B         | SR-L35,32,C1220T-0,-,OD6.35,L120                   | 1        |        |
| 39   | DA60-90146A   | PIN-CASTER                  | MSWR10,OD6.0,L40,ZPC2,SR-289-4                     | 2        |        |
| 40   | DA61-40126B   | CASTER-REAR                 | REF-ALL,PP,-,PI 44,NTR,W22                         | 2        |        |

# Exploded View & Parts List

## 7-5) Disassembly of Freeze Door



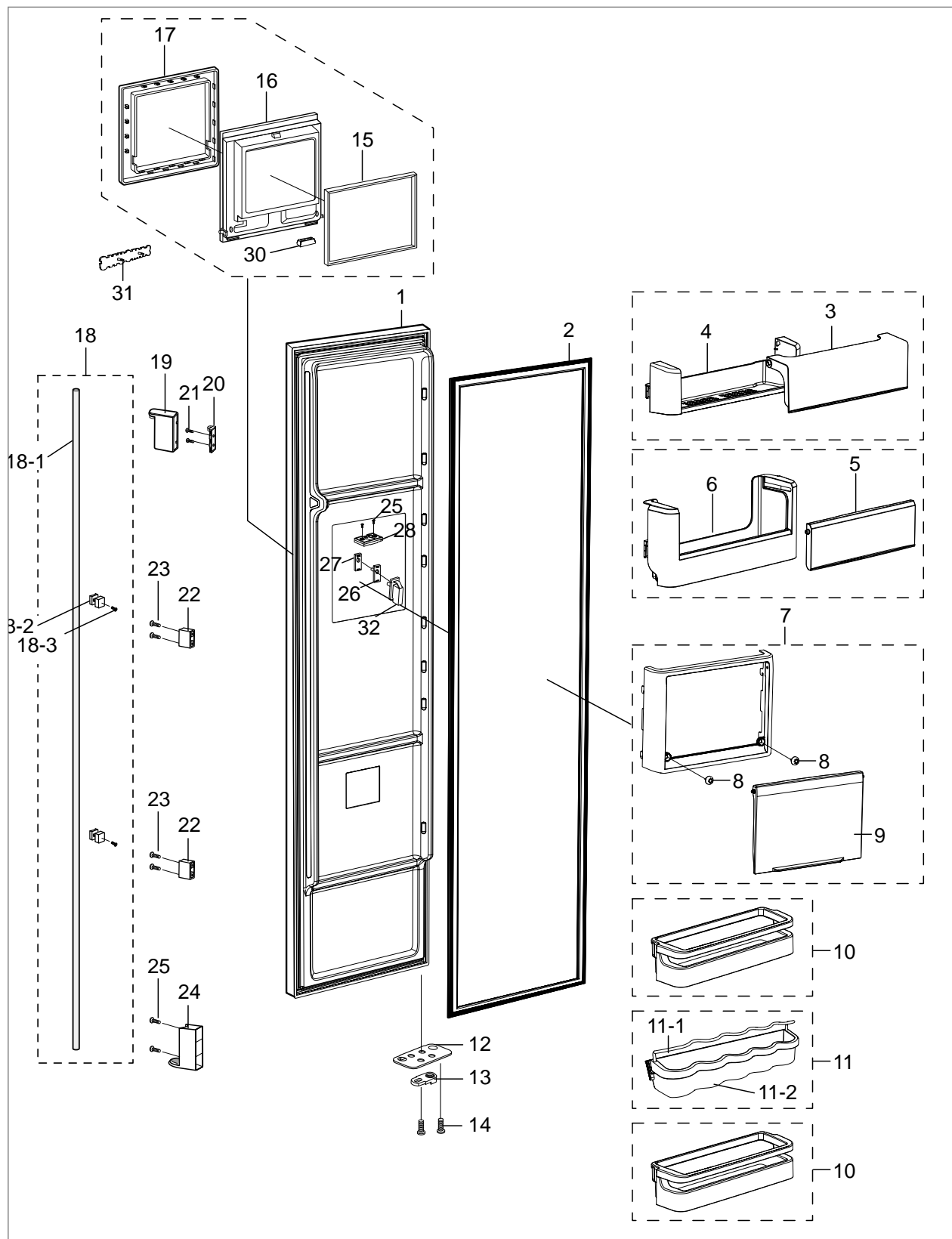
# Illustrated Parts Catalog.

## ■ Parts List of Freezer Door

| NO   | CODE-NO     | PART NAME                  | Spec   | Quantity | Remark |
|------|-------------|----------------------------|--|----------|--------|
| 1    | DA91-02003A | ASSY DOOR FOAM FRE         | SC-05014TP,AL SILVER,-,-,DISP TYPE               | 1        |        |
|      | DA91-02003B |                            | SC-05010TE,N,-,-,PLATINUM SILVER                 |          |        |
|      | DA91-02003C |                            | EPEL,SC-05013TV,N,-,-,WHT CORAL                  |          |        |
| 2    | DA97-01800S | ASSY-GASKET DOOR,FRE       | EPEL,W384,L1670.0                                | 1        |        |
| 3    | DA97-02635A | ASSY GUARD-FRE LOW         | RS18RK,ABS,WHT                                   | 2        |        |
| 4    | DA61-02085A | STOPPER-DOOR               | RS18RK,SHP1,T3.0,W35.0,L77                       | 1        |        |
| 5    | DA66-00344A | CAM HINGE-RISER,LOW        | ZIPEL,NY-66,BLAC                                 | 1        |        |
| 6    | 6001-000715 | SCREW-MACHINE              | TH, + ,M5,L16,ZPC(YEL),SWR                       | 2        |        |
| 7    | DA97-02605A | ASSY HANDLE-BAR            | AL,OD24,L1670.5                                  | 1        |        |
|      | DA97-02605B |                            | Platinum silver,-,OD24,L1670.5                   |          |        |
|      | DA97-02605C |                            | EPEL,AL,T1.5,-,L1670.5,-,CORAL WHT               |          |        |
| 7-1  | DA64-00575M | HANDLE BAR                 | EPEL,AL,T1.5,L1670.5,EMPIRE SILVER,SC-04072S     | 1        |        |
|      | DA64-00575S |                            | RSE18RK,PLATINUM SILVER,T1.5,-,L1670.5           |          |        |
|      | DA64-00575T |                            | EPEL,AL,T1.5,-,L1670.5,-,CORAL WHT               |          |        |
| 7-2  | DA63-00789A | GROMMET-FIXER HANDLE       | EXP,PC-ABS,SILVER-GRAY                           | 2        |        |
| 7-3  | 6002-000216 | SCREW-TAPPING              | TH,1,M4.0,L20,ZPC(YEL),MSWR10                    | 2        |        |
| 8    | DA67-01251A | CAP-HANDLE UPP             | EPEL,ABS,-,76.0,L52.4,AL SILVER,SC-01014S        | 1        |        |
|      | DA67-01251B |                            | EPEL,ABS,-,W22.4,L76.0,PLATINUM SILVER,SC-05010S |          |        |
|      | DA67-01251C |                            | EPEL,ABS,-,W22.4,L76.0,AL PLATING                |          |        |
| 9    | DA61-02218A | BASE-CAP HANDLE            | EPEL,ABS,NTR                                     | 1        |        |
| 10   | 6002-001341 | SCREW-TAPPING              | BH, + ,1,M4,L16,DAC(WHT),SWRCH18A                | 2        |        |
| 11   | DA61-00264H | SUPPORT-HANDLE MID         | EPEL,ABS,-,W16.0,L54.5,AL SILVER,SC-01014S       | 2        |        |
|      | DA61-00264J |                            | EPEL,ABS,-,W16.0,L54.5,PLATINUM SILVER,SC-05010S |          |        |
|      | DA61-00264A |                            | EPEL,ABS,-,W22.4,L76.0,AL PLATING                |          |        |
| 12   | 6002-000468 | SCREW-TAPPING              | PH, + ,2S,M5.0,L18,ZPC(YEL),MAWR10               | 4        |        |
| 13   | DA67-00796F | CAP-HANDLE LOW             | EPEL,ABS,-,W22.4,L76.0,AL SILVER,SC-01014S       | 1        |        |
|      | DA67-00796G |                            | EPEL,ABS,-,W22.4,L76.0,PLATINUM SILVER,SC-05010S |          |        |
|      | DA67-00796A |                            | n-PJT,ABS,-,-,-,AL-PLATING                       |          |        |
| 14   | 6002-001122 | SCREW-TAPPING              | FH, + ,1,M4,L14,ZPC(WHT),SWRCH18A                | 2        |        |
| 15   | DA97-02673A | ASSY COVER-DISPENSER       | EPEL,ABS,-,W290.0,L371.5,-,SC-01014S             | 1        |        |
|      | DA97-02673B |                            | EPEL,ABS,PLATINUM SILVER,SC-05010S               |          |        |
|      | DA97-02673C |                            | EPEL,ABS,WHT CORAL,SC-05013S                     |          |        |
| 16   | DA97-02846A | ASSY COVER-DISPENSER SUB   | EPEL,W290.0,L371.5,AL SILVER,SC-01014S           | 1        |        |
|      | DA97-02846B |                            | EPEL,W290.0,L371.5,PLATINUM SILVER,SC-05010S     |          |        |
|      | DA97-02846C |                            | EPEL,W290.0,L371.5,WHT CORAL,SC-05013S           |          |        |
| 17   | DA41-00261A | PBA PANEL                  | EPEL,FR-4,CEM-1,190*84.5,Dis                     | 1        |        |
| 18   | DA63-02448A | COVER-PANEL-PCB            | EPEL,HIPS,W203.4,L91.3                           | 1        |        |
| 19   | DA97-02847A | ASSY-LAMP DOOR             | EPEL,LED TYPE                                    | 1        |        |
| 20   | 6002-000470 | SCREW-TAPPING              | TH, + ,1,M4,L10,ZPC,SCRCH18A                     | 3        |        |
| 21   | DA97-02674A | ASSY COVER-ICE ROUTE       | EPEL,BLK   | 1        |        |
| 21-1 | DA61-01914A | SPRING ETC-COVER ICE ROUTE | QUEEN,STS304,                                    | 1        |        |
| 21-2 | DA63-00194A | COVER-ICE ROUTE-B          | ET-PJT,ABS,T2.5                                  | 1        |        |
| 21-3 | DA63-02445A | COVER-ICE-ROUTE,A          | EPEL,PC-ABS                                      | 1        |        |
| 21-4 | DA72-00260A | SEAL-FOAM LEX,A            | ET-PJT,FOAM-LEX,T12.0                            | 1        |        |
| 21-5 | DA72-00260H | SEAL-COVER ICE,ROUTE       | QUEEN,FOAM-LEX,WHIT                              | 1        |        |
| 21-6 | DA63-02305A | GASKET-CVOER ICE ROUTE     | TBI-PJT,SILICON                                  | 1        |        |
| 22   | 6002-000213 | SCREW-TAPPING              | TH, + ,1,M4,L12,ZPC(YEL),SWRCH18                 | 4        |        |
| 23   | DA67-01131A | CAP-TUBE WATER LINE        | TBI-PJT,ABS,VI                                   | 1        |        |
| 24   | DA34-00011A | SWITCH-MICRO               | VP533A-OF-5,MICRO,250V,15A                       | 1        |        |
| 25   | DA97-02675A | ASSY COVER-SWITCH          | EPEL,W51.0,L90.0                                 | 1        |        |
| 26   | DA61-02343A | GUIDE-ICE ROUTE            | ABS(HG-0760)                                     | 1        |        |
| 27   | DA63-02450B | TRAY DISPENSER             | RS18RK,ABS,SPRAY                                 | 1        |        |
| 28   | DA97-02676A | ASSY SUPPORT-MICRO SWITCH  | EPEL   | 1        |        |
| 29   | DA34-00011A | SWITCH-MICRO               | VP533A-OF-5,MICRO,250V,15A,                      | 2        |        |
| 30   | DA61-02098A | SUPPORT-MICRO SWITCH       | EPEL,ABS,W62.0,L9                                | 1        |        |
| 31   | DA97-02677A | ASSY-GEARD MOTOR           | RS18RK   | 1        |        |
| 32   | DA96-00192A | ASSY-HARNESS MOTOR,DISP    | EPEL,L150.0/WIRE HARN                            | 1        |        |
| 33   | 6002-001341 | SCREW-TAPPING              | BH, + ,1,M4,L16,DAC(WHT),SWRCH18A                | 5        |        |
| 34   | DA63-02437A | GUARD-FRE,UPP              | RS18RK,ABS,WHT                                   | 1        |        |

## Exploded View & Parts List

### 7-6) Disassembly of Refrigerator Door



# Illustrated Parts Catalog.

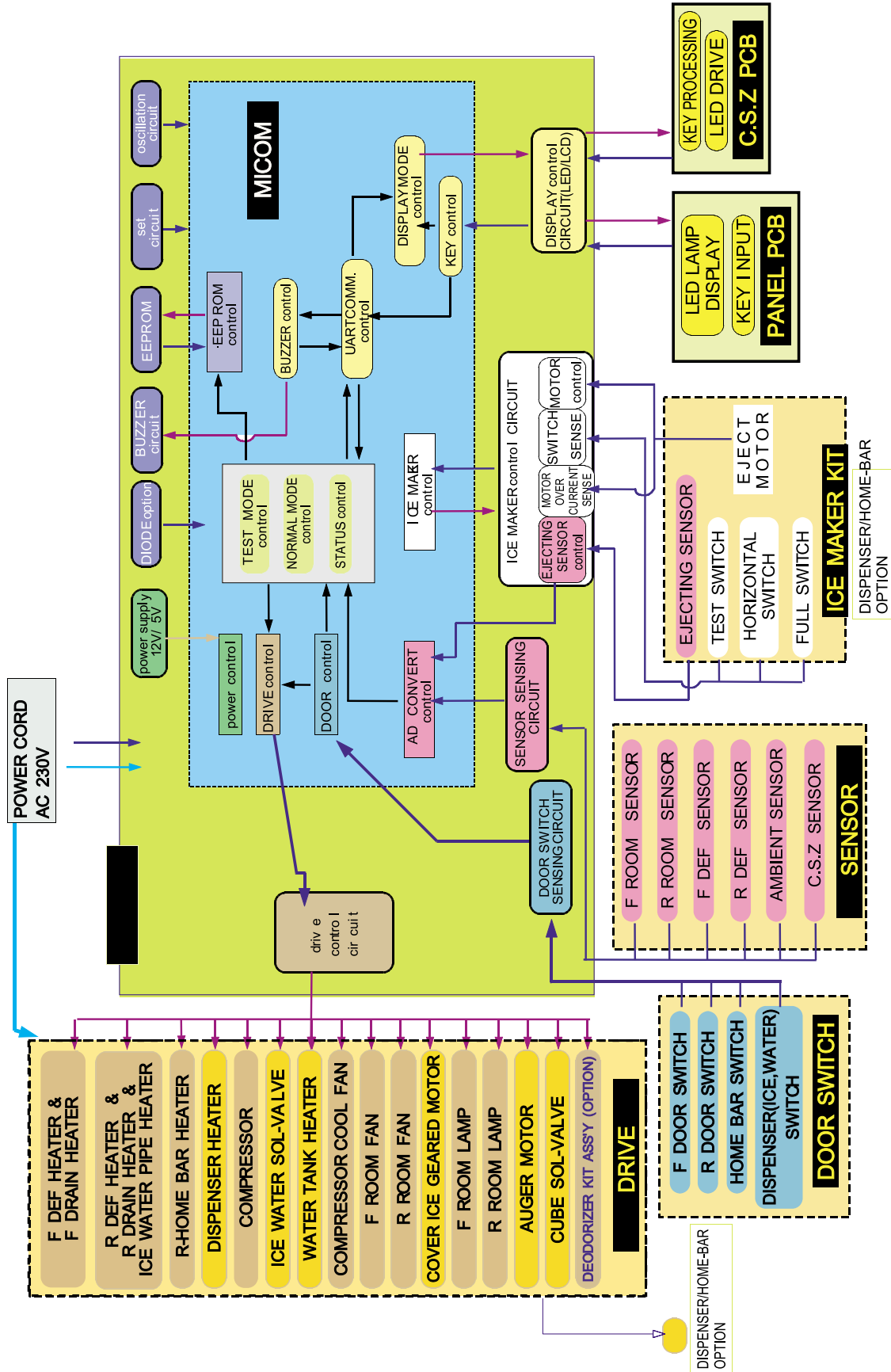
## ■ Parts List of Refrigerator Door

| NO   | CODE-NO     | PART NAME              | Spec   | Quantity | Remark |
|------|-------------|------------------------|--|----------|--------|
| 1    | DA91-02004A | ASSY DOOR FOAM REF     | SC-05014TP.AL SILVER,-,-,DISP TYPE               | 1        |        |
|      | DA91-02004B |                        | EPEL,SC-05010TE,PLATINUM SILVER                  |          |        |
|      | DA91-02004C |                        | EPEL,SC-05013TV,WHT CORAL                        |          |        |
| 2    | DA97-01800T | ASSY-GASKET DOOR,REF   | EPEL,W457 x L1670,S                              | 1        |        |
| 3    | DA63-02442A | COVER-DAIRY            | EPEL,GPPS,W359.5,L87.0,H124                      | 1        |        |
| 4    | DA63-02440A | GUARD-DAIRY            | EPEL,ABS,W413.5,L129.5,H120                      | 1        |        |
| 5    | DA63-02441A | COVER-SPECIAL          | EPEL,GPPS,W345.0,L22.0,H11                       | 1        |        |
| 6    | DA63-02439A | GUARD-SPECIAL          | EPEL,ABS,W414.0,L129.5,H19                       | 1        |        |
| 7    | DA97-02636A | ASSY CASE-DOOR RECESS  | RS18RK,WHT,H                                     | 1        |        |
| 8    | DA63-00991A | GROMMET-DOOR RECESS    | A-TOP,SILICON                                    | 2        |        |
| 9    | DA63-02443A | COVER-DOOR RECESS      | RS18RK,GPPS                                      | 1        |        |
| 10   | DA97-02634A | ASSY GUARD-REF LOW     | RS18RK,ABS,WHT                                   | 2        |        |
| 11   | DA97-02633A | ASSY GUARD-REF MID     | RS18RK,ABS,WHT                                   | 1        |        |
| 11-1 | DA61-02122A | GUIDE-GUARD REF,MID    | RS18RK,MSWR10,OD5.0,-,-,SNC1                     | 1        |        |
| 11-2 | DA63-02484A | GUARD-REF,MID          | EPEL,ABS,-,W392.5,L110.0,WHT                     | 1        |        |
| 12   | DA61-02085A | STOPPER-DOOR           | RS18RK,SHP1,T3.0,W35.0,L77                       | 1        |        |
| 13   | DA66-00344A | CAM HINGE-RISER,LOW    | ZIPEL,NY-66,BLAC                                 | 1        |        |
| 14   | 6001-000715 | SCREW-MACHINE          | TH,+.1M5,L16,ZPC(YEL),SWR                        | 2        |        |
| 15   | DA63-00850K | GASKET HOME BAR-OUT    | RS18RK,SF-PVC,W265                               | 1        |        |
|      | DA63-00850N |                        | EPEL,SF-PVC,-,W265.8,L260.5,CREAM WHITE          |          |        |
|      | DA97-02606A |                        | EPEL,W300.5,L328.5,SPRAY,AL SILVER,SC-01014S     |          |        |
| 16   | DA97-02606B | ASSY HOME BAR          | PLATINUM SILVER                                  | 1        |        |
|      | DA97-02605C |                        | CORAL WHITE                                      |          |        |
|      | DA63-02430A |                        | RS18RK,ABS,AL SILVER,SC-01014S                   |          |        |
| 17   | DA63-02430B | COVER-BRACKET FRAME    | EPEL,ABS,SC-05010S,PLATINUM SILVER               | 1        |        |
|      | DA63-02430C |                        | EPEL,ABS,SC-05013S,WHT CORAL                     |          |        |
|      | DA97-02605A |                        | AL,OD24,L1670.5,AL SILVER                        |          |        |
| 18   | DA97-02605B | ASSY HANDLE-BAR        | Platinum silver,-,OD24,L1670.5                   | 1        |        |
|      | DA97-02605C |                        | EPEL,AL,T1.5,-,L1670.5,-,CORAL WHT               |          |        |
|      | DA64-00575M |                        | EPEL,AL,T1.5,L1670.5,AL SILVER                   |          |        |
| 18-1 | DA64-00575S | HANDLE BAR             | RSE18RK,PLATINUM SILVER,T1.5,-,L1670.5           | 1        |        |
|      | DA64-00575T |                        | EPEL,AL,T1.5,-,L1670.5,-,CORAL WHT               |          |        |
|      | DA63-00789A |                        | EXP,PC-ABS,SILVER-GRAY                           |          |        |
| 18-2 | DA63-00789A | GROMMET-FIXER HANDLE   | EXP,PC-ABS,SILVER-GRAY                           | 2        |        |
| 18-3 | 6002-000216 | SCREW-TAPPING          | TH,1.1M4.0,L20,ZPC(YEL),MSWR10                   | 2        |        |
| 19   | DA67-01251A | CAP-HANDLE UPP         | EPEL,ABS,-,76.0,L52.4,AL SILVER,SC-01014S        | 1        |        |
|      | DA67-01251B |                        | EPEL,ABS,-,W22.4,L76.0,PLATINUM SILVER,SC-05010S |          |        |
|      | DA67-01251C |                        | EPEL,ABS,-,W22.4,L76.0,AL PLATING                |          |        |
| 20   | DA61-02218A | BASE-CAP HANDLE        | EPEL,ABS,NTR                                     | 1        |        |
| 21   | 6002-001341 | SCREW-TAPPING          | BH,+.1M4,L16,DAC(WHT),SWRCH18A                   | 2        |        |
| 22   | DA61-00264H | SUPPORT-HANDLE MID     | EPEL,ABS,-,W16.0,L54.5,AL SILVER,SC-01014S       | 2        |        |
|      | DA61-00264J |                        | EPEL,ABS,-,W16.0,L54.5,PLATINUM SILVER,SC-05010S |          |        |
|      | DA61-00264A |                        | EPEL,ABS,-,W22.4,L76.0,AL PLATING                |          |        |
| 23   | 6002-000468 | SCREW-TAPPING          | PH,+.2S,M5.0,L18,ZPC(YEL),MAWR10                 | 4        |        |
| 24   | DA67-00796F | CAP-HANDLE LOW         | EPEL,ABS,-,W22.4,L76.0,AL SILVER,SC-01014S       | 1        |        |
|      | DA67-00796G |                        | EPEL,ABS,-,W22.4,L76.0,PLATINUM SILVER,SC-05010S |          |        |
|      | DA67-00796A |                        | n-PJT,ABS,-,-,-,AL-PLATING                       |          |        |
| 25   | 6002-001122 | SCREW-TAPPING          | FH,+.1M4,L14,ZPC(WHT),SWRCH18A                   | 2        |        |
| 26   | DA63-01100B | GASKET HOME BAR-SWITCH | ET-PJT,SILICON,                                  | 1        |        |
|      | DA63-01100A |                        | CREAM WHITE                                      |          |        |
|      | DA63-00219J |                        | A-TOP,ABS,                                       |          |        |
| 27   | DA63-00219E | COVER SWITCH-HOME BAR  | CREAM WHITE                                      | 1        |        |
| 28   | DA61-01198B | STOPPER-HOME BAR       | CREAM-WHITE,A-TOP 03,AB                          | 1        |        |
| 29   | 6002-001122 | SCREW-TAPPING          | FH,+.1M4,L14,ZPC(WHT),SWR                        | 2        |        |
| 30   | DA67-00638C | CAP-HOME BAR DOOR IN   | SILICON,VICTORY-GRAY,SC-01645R                   | 1        |        |
|      | DA67-00638A |                        | CREAM WHITE,SILICON                              |          |        |
| 31   | DA64-00990A | MASCOT                 | AL,-,-,80MM                                      | 1        |        |
| 32   | DA34-10121A | SWITCH DOOR-HOME BAR   | PA6,-,250V/125V,-,1.5A/0.5A                      | 1        |        |

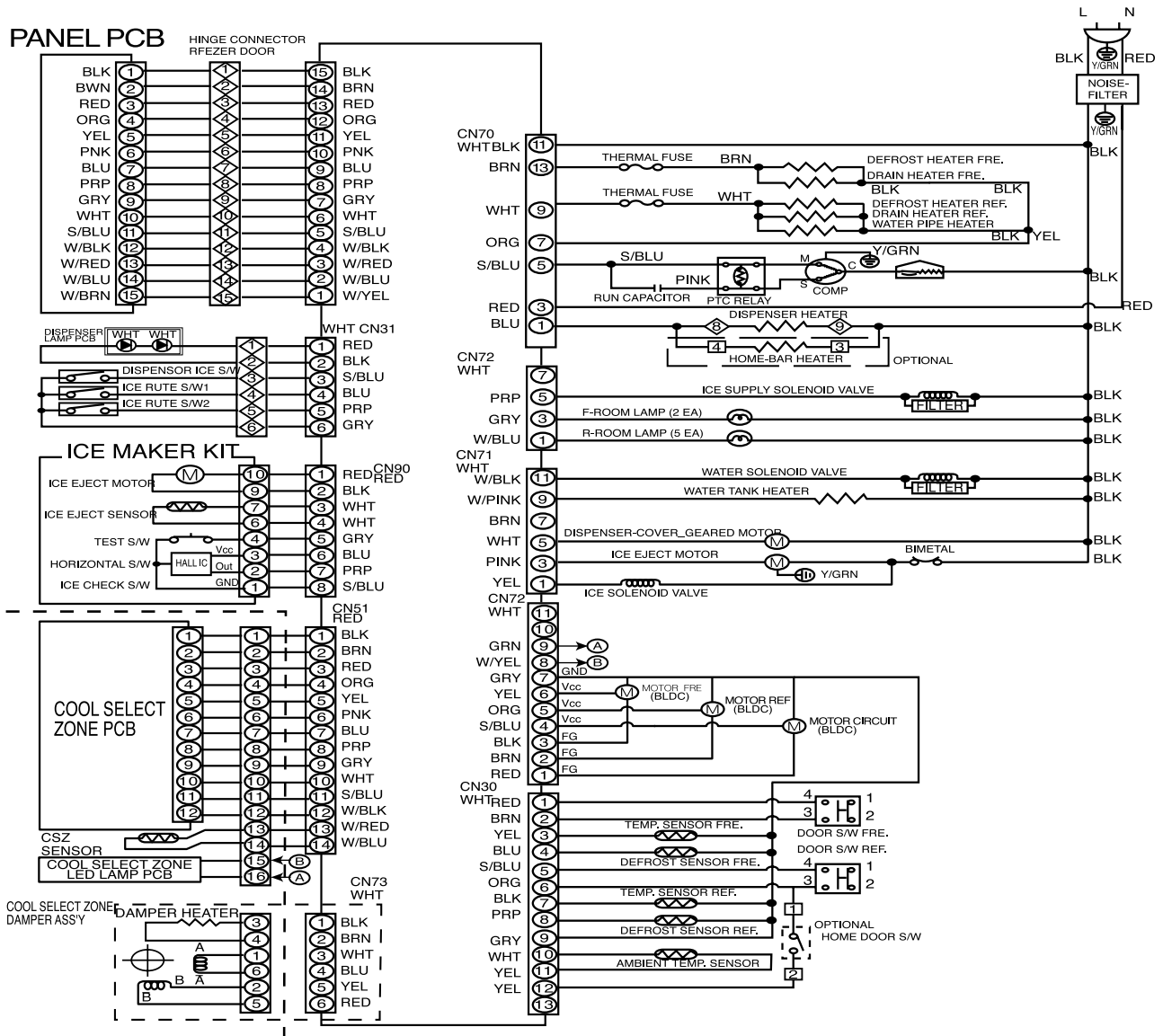
## ■ Parts List of Others

| NO | CODE-NO     | PART NAME            | Spec                                | Quantity | Remark |
|----|-------------|----------------------|-------------------------------------|----------|--------|
| 1  | 0203-001678 | TAPE-POLY            | 204C,T0.07,W50,L50000,BLUE          | 1        |        |
| 2  | 6001-001458 | SCREW MACHINE        | TH,M5XL21,STS304                    | 1        |        |
| 3  | 6002-000216 | SCREW-TAPPING        | TH,+, -,1.M4.0,L20,ZPC(YEL),MSWR10, | 1        |        |
| 4  | 6002-000480 | SCREW-TAPPING        | BH,+, -,2S,M4,L10,ZPC(YEL),SWRCH18A | 1        |        |
| 5  | 6002-000521 | SCREW-TAPPING        | TH,+.2,M4,L14,ZPC(YEL),SWRCH18      | 1        |        |
| 6  | 6002-001351 | SCREW-TAPPING        | BH,+, -,M4,L8,DACRO(WHT),SWRCH18A   | 1        |        |
| 7  | 6501-000123 | CABLE TIE            | DACT-140,-,W3.6,L146,NTR,NYLON66    | 1        |        |
| 8  | 6501-001038 | CABLE TIE            | DA-275,T1.4,W6.2,L275,NTR,NYLON6/6  | 1        |        |
| 9  | DA60-10122C | SCREW-TAPPING        | MSWR10,M5,L16,HH,ZPC2               | 1        |        |
| 10 | DA60-30104A | NUT-WATER LINE A     | NY-6                                | 1        |        |
| 11 | DA60-30108A | NUT-HEX              | HEX,-,-,-,POM,-,AURGER              | 1        |        |
| 12 | DA60-40116A | WASHER-PLAIN         | ID20,OD28,T0.5,STS430               | 1        |        |
| 13 | DA60-90125A | RING                 | -                                   | 1        |        |
| 14 | DA60-90136A | PIN-SPIRAL           | STS304,OD5.2,L40,SR-S7180           | 1        |        |
| 16 | DA61-20124C | SPRING ETC-DISPENSER | AD,STS304,0.9,5.9                   | 1        |        |

## 8 . Block Diagram

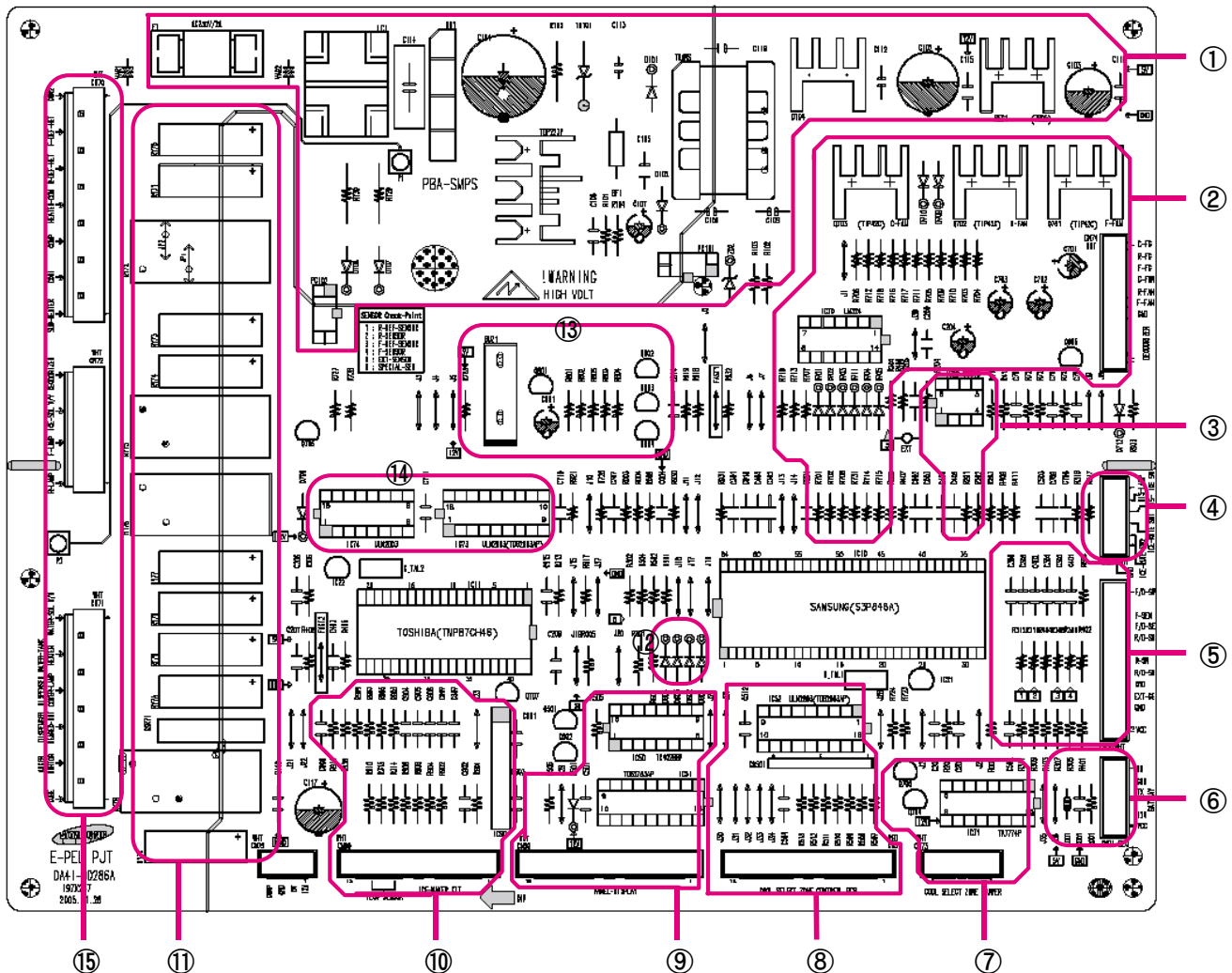


## 9. Wiring Diagram



## 10. PCB Diagram

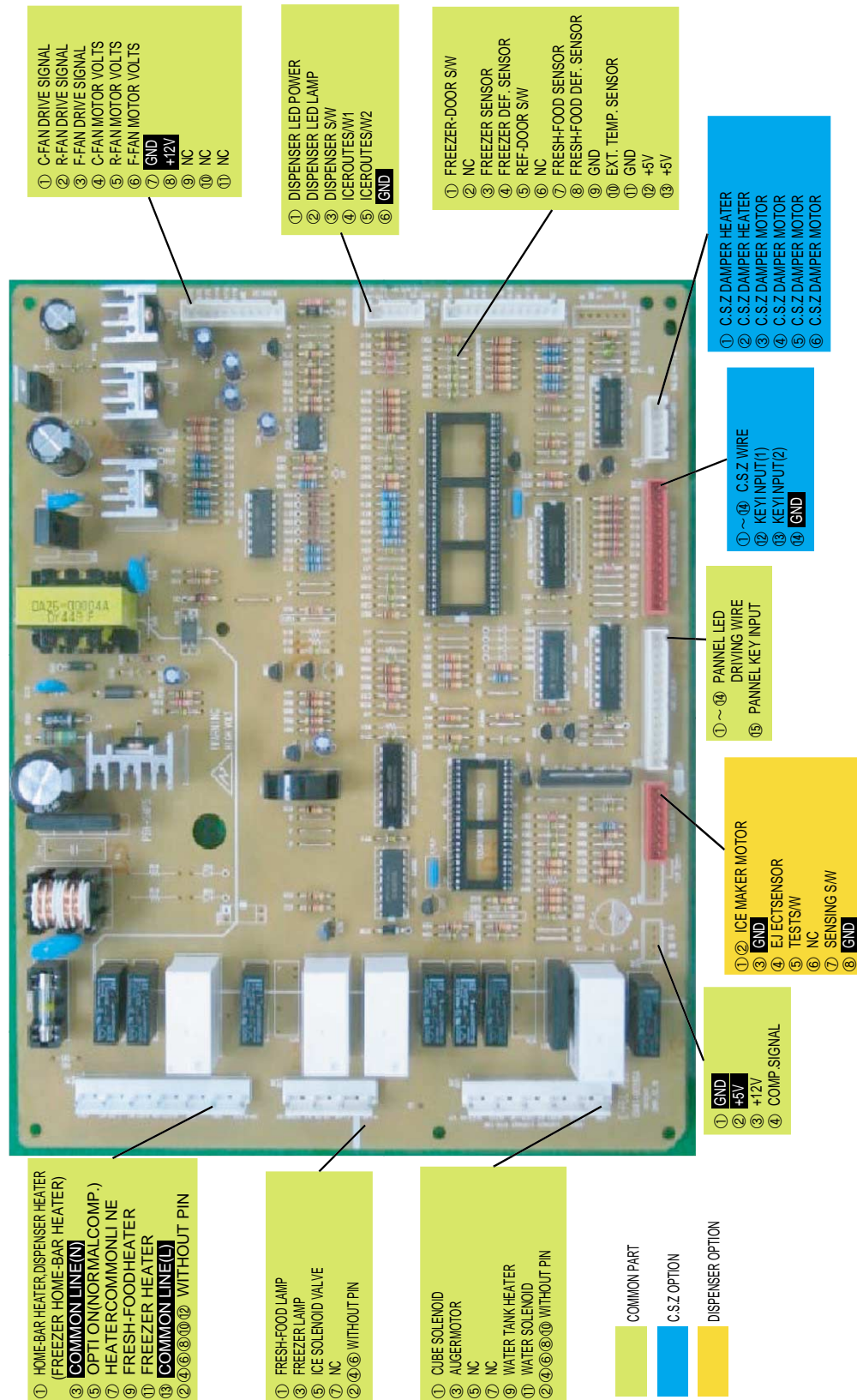
### 10-1) PART ARRANGEMENT (Main Board)



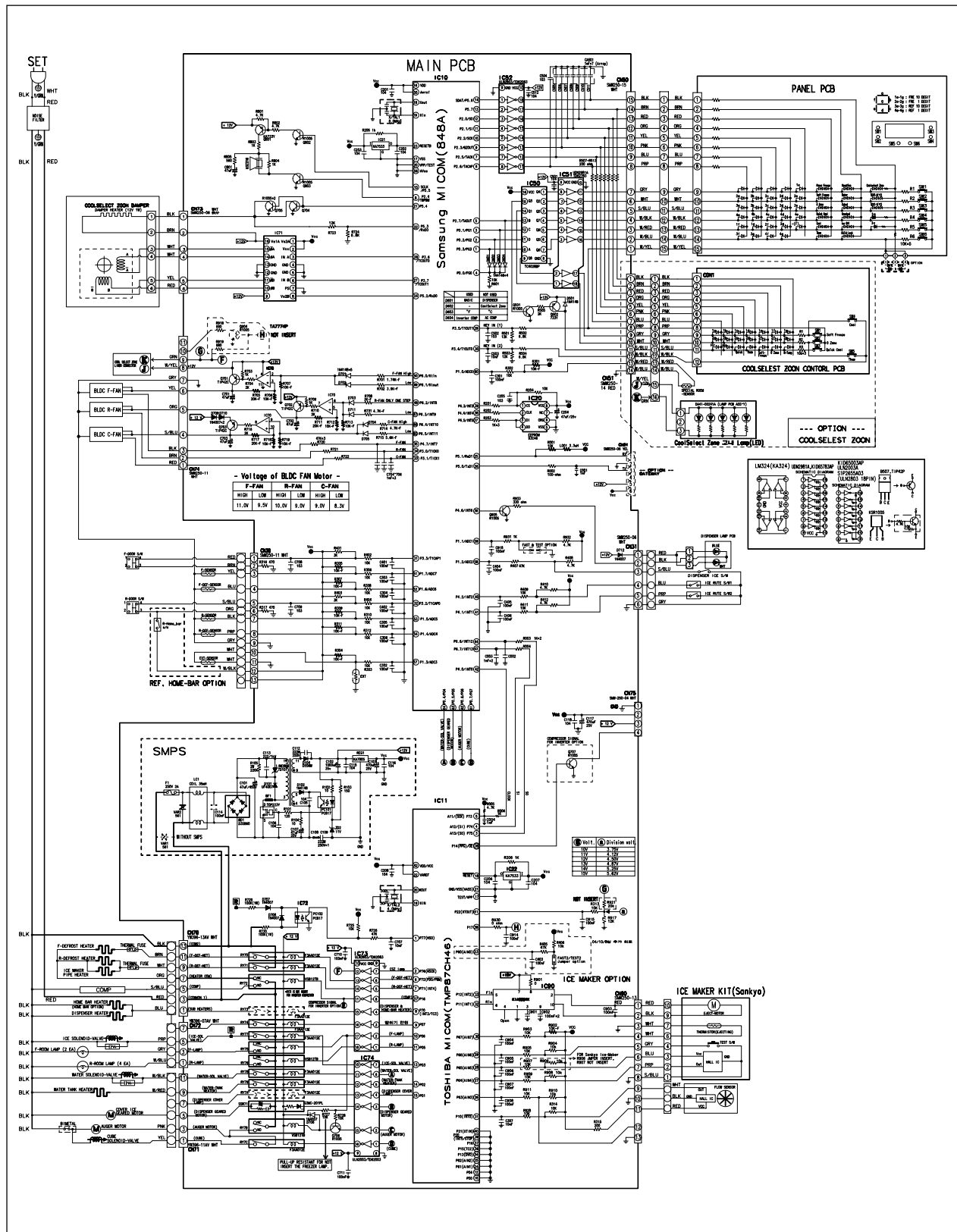
1. Available FOR NORMAL COMPRESSOR DC12V,5V,GND SUPPLY THROUGH CN75 FOR Inverter, COMPRESSOR.
2. FAN MOTOR DRIVING PART POWER SUPPLIED FROM 8. 3V TO10V ACCORDING TO MOTOR VOLTS.
3. EEPROM : Memorandum ALL DATA.
4. CHECK THE STATUS OF ICE/WATER SWITCH. CHECK THE STATUS OF SWITCH FOR DISPENSER GEAR MOTOR .
5. Transfer THE ALL SENSOR SIGNAL TO MICOM AFTER REMOVE THE NOISE.
6. WIRE COMMUNICATION CIRCUIT
7. OPERATE C. S. Z DAMPER AND DAMPER HEATER
8. C. S. Z DISPLAY DRIVING PART-LED DISPLAY, PROCESS THE KEY SIGNAL.
9. PROCESSING THE COMMUNICATION SIGNAL BETWEEN PANEL ↔ MAIN PCB.
10. OPERATING ICE-MAKER, POWER SUPPLY FOR MOTOR, SENSING THE STATUS OF SWITCH.
11. RELAY FOR CONTROL AC LOAD AND IT OPERATE BY DRIVING SIGNAL FROM NO. 14 IC.
12. OPTION SETTING PART FOR MODEL Classification.
13. BUZZER CIRCUIT
14. DRIVER IC PART FOR RELAY DRIVE
15. CONNECTOR PART FOR CONNECTING AC LOAD.



## 10-2) CONNECTOR ARRANGEMENT (Main Board)



# 11. Circuit (Schematic) Diagram

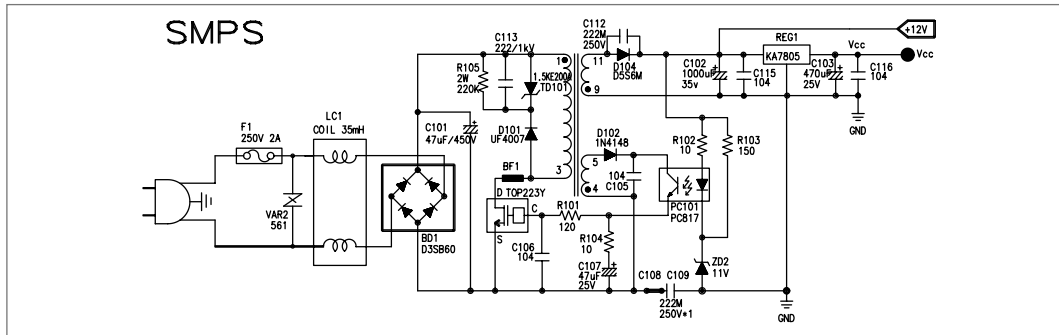


## 12. Circuit Descriptions

|                                      |    |
|--------------------------------------|----|
| 12-1) Source Power Circuit           | 74 |
| 12-2) Oscillator Circuit             | 74 |
| 12-3) Reset Circuit                  | 74 |
| 12-4) Door S/W Sensing Circuit       | 75 |
| 12-5) Temperature Sensing Circuit    | 76 |
| 12-6) Key Scan and Display Circuit   | 77 |
| 12-7) CoolSelect Zone™ Panel Circuit | 79 |
| 12-8) Fan Motor(BLDC) Drive Circuit  | 80 |
| 12-9) EEPROM Circuit                 | 81 |
| 12-10) Option Circuit                | 81 |
| 12-11) Load Drive Circuit            | 82 |

## Circuit Descriptions

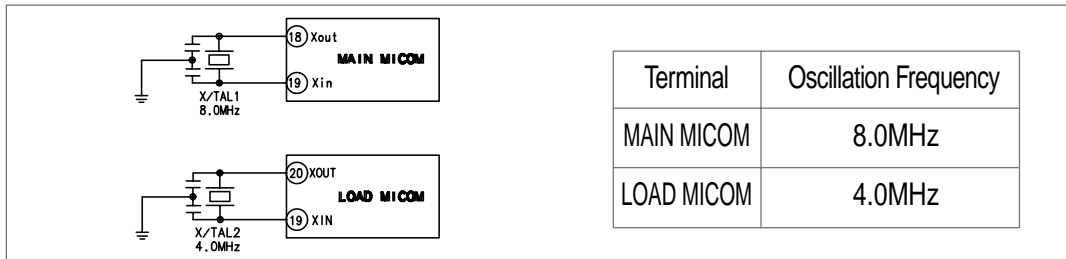
### 12-1) Source Power Circuit



This circuit shows SMPS(Switch Mode Power Supply) which converts AC input voltage (230V, 50Hz) to a high DC voltage (340V). The input AC source power is converted to DC through a wave rectifier (BD1) and the converted DC power will generate a constant waveform on the switching transformer using a high speed (100KHz) switching motion of TOP223Y. The D104 will rectify the generated voltage and transform into a steady 12V DC source power used for the digital display panel and relays. The regulator (KA7805) finally transforms into 5V DC source power for the control board and sensor's circuits.

Caution) Be careful to handle this circuit due to high voltage (AC230V, DC320V)

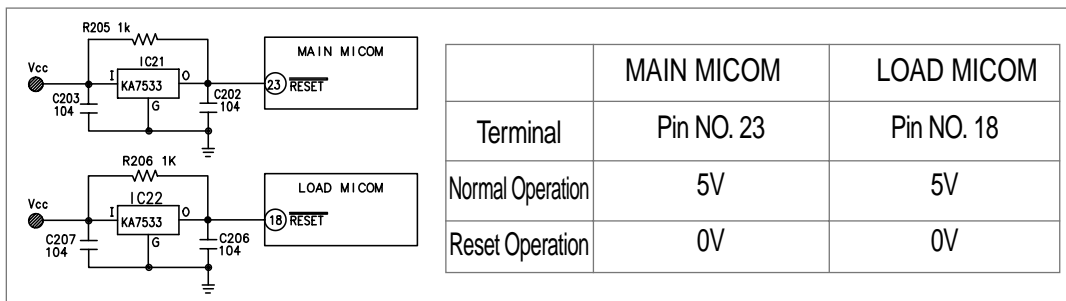
### 12-2) Oscillator Circuit



This is oscillator circuit to generate synchronous clocks used to calculate the time for the microprocessor operation.

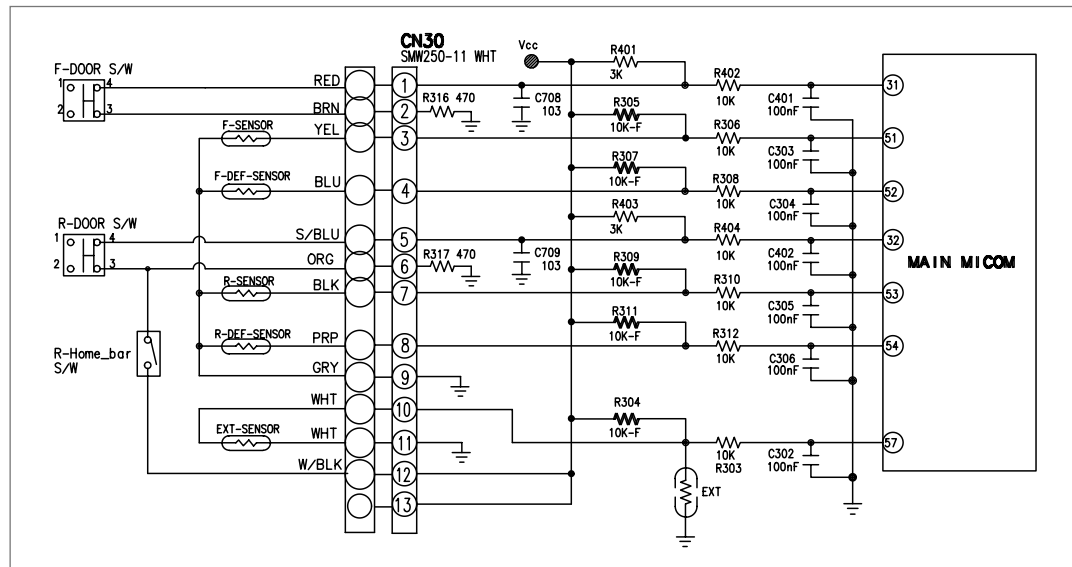
Note) If the specification of a resonator changes, micro-processor can not work properly.

### 12-3) Reset Circuit



The reset circuit is to initialize the values of RAM & other sectors of micro-processor. When the power is engaged initially, the reset voltage becomes "Low," and it keeps "High" in the normal operation.

## 12-4) Door S/W Sensing Circuit



### - DOOR PARTS FUNTION

| Terminal           | Operation  | Volt(state) |
|--------------------|------------|-------------|
| Freezer<br>(No.31) | DOOR OPEN  | 5V (HIGH)   |
|                    | DOOR CLOSE | 0.7V (LOW)  |
| Fridge<br>(No.32)  | DOOR OPEN  | 5V (HIGH)   |
|                    | DOOR CLOSE | 0.7V (LOW)  |

### - SENSOR PARTS FUNTION

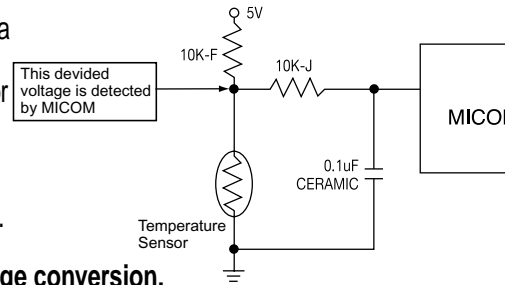
| Terminal No       | Remark  |
|-------------------|---|
| F-SENSOR (51)     | Micom terminal voltage may change according temp. |
| F-DEF-SENSOR (52) |   |
| R-SENSOR (53)     |   |
| R-DEF-SENSOR (54) |   |
| EXT-SENSOR (57)   |   |

#### → Door Parts Funtion

- 1) F-Room door open is picked up based on the state (5V/0V) of the MICOM No.31 Port.  
When the F-Room door opens, it becomes short between the Door S/W 1&2. And Door S/W 3&4 open.  
Vcc → R401 → Door S/W (3&4) open → R402(10K) → MICOM 31 PORT.  
When the state of MICOM 31 PORT is 0.7V, the door is picked up as closed. When it is 5V, the door is considered to be open.
- 2) R-Room door open is picked up based on the state (5V/0V) of the MICOM No.32 Port.  
When the R-Room door opens, it becomes short between the Door S/W 1 &2. And Door S/W 3&4 open.  
Vcc → R403 → Door S/W (3&4) open → R404(10K) → MICOM 32 PORT.  
When the state of MICOM 44 PORT is 0V, the door is picked up as closed. When it is 5V, the door is considered to be open.
- 3) When door open is detected, the MICOM have the relevant Fan Motor stop and the relevant Room Lamp light up.  
Depending on the state of Door Open/Close, there are following operations; Lamp On/Off, Fan Motor On/Off and Door open alarm.  
So, check relevant items upon A/S.

## 12-5) Temperature Sensing Circuit

- 1) A thermistor with a negative temperature coefficient (NTC) is used for a temperature sensor.
- 2) Resistors, R 303 ~ R312 and capacitors, C 302 ~ C 306 are used for a noise protection purpose.
- 3) For the F-sensor, the input voltage into the micro processor (MICOM), VF is calculated by  $(R_{th} \times V_{cc}) / (R_{301} + R_{th})$ , where  $R_{th}$  is a corresponding resistance to the thermistor's output (below table Table).



### Table of temperature sensor according to resistance and voltage conversion.

- The input voltage to the MICOM PORT could be different by a hardware.

This is a table based on the voltage using the 10kohm-F.

MICOM PORT voltage when the sensor is open: about DC 5V(Vcc LEVEL)

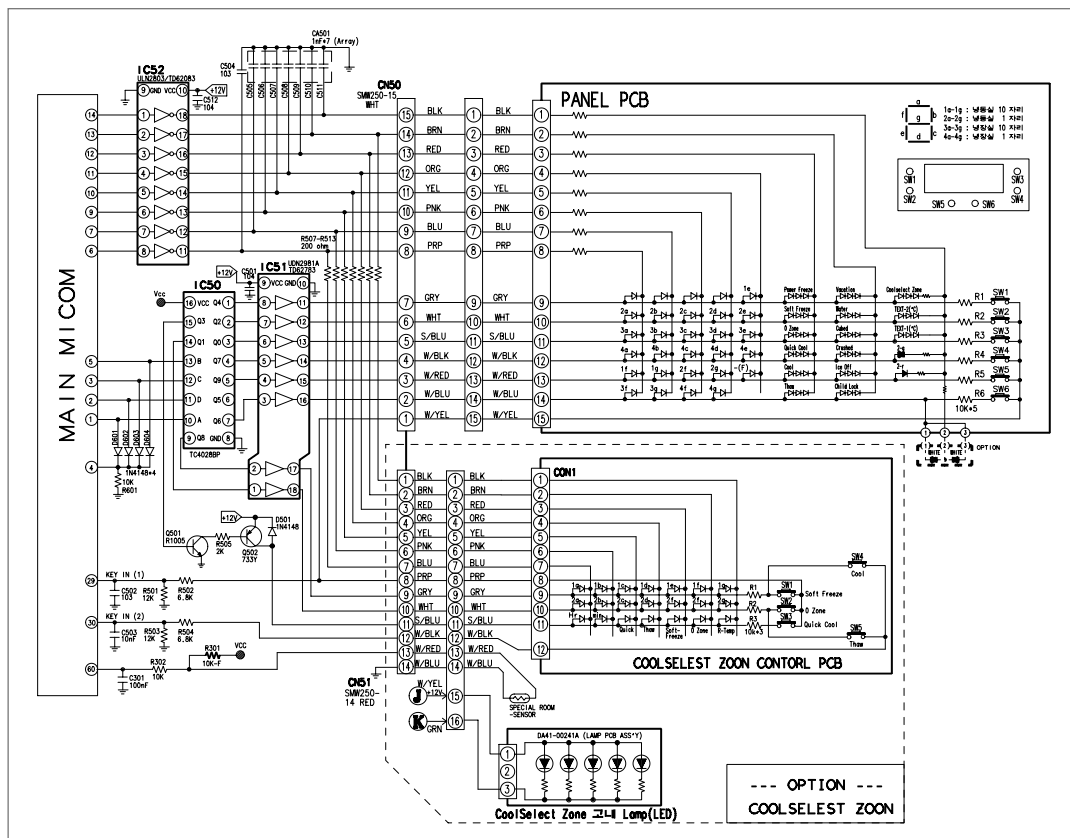
MICOM PORT voltage when the sensor is shorted: about DC 0V(Ground LEVEL)

| Temp.(°F) | Temp.(°C) | Resistance(Ω) | Voltage(V) |
|-----------|-----------|---------------|------------|
| -43.6     | -42       | 98.9          | 4.54       |
| -41.8     | -41       | 93.7          | 4.52       |
| -40.0     | -40       | 88.9          | 4.49       |
| -38.2     | -39       | 84.2          | 4.47       |
| -36.4     | -38       | 79.8          | 4.44       |
| -34.6     | -37       | 75.7          | 4.42       |
| -32.8     | -36       | 71.8          | 4.39       |
| -31.0     | -35       | 68.2          | 4.36       |
| -29.2     | -34       | 64.7          | 4.33       |
| -27.4     | -33       | 61.5          | 4.30       |
| -25.6     | -32       | 58.4          | 4.27       |
| -23.8     | -31       | 55.6          | 4.24       |
| -22.0     | -30       | 52.8          | 4.20       |
| -20.2     | -29       | 50.2          | 4.17       |
| -18.4     | -28       | 47.8          | 4.13       |
| 16.6      | -27       | 45.5          | 4.10       |
| -14.8     | -26       | 43.3          | 4.06       |
| -13.0     | -25       | 41.2          | 4.02       |
| -11.2     | -24       | 39.2          | 3.99       |
| -9.4      | -23       | 37.4          | 3.95       |
| -7.6      | -22       | 35.7          | 3.91       |
| -5.8      | -21       | 34.0          | 3.86       |
| -4.0      | -20       | 32.4          | 3.82       |
| -2.2      | -19       | 30.9          | 3.78       |
| -0.4      | -18       | 29.5          | 3.73       |
| 1.4       | -17       | 28.1          | 3.69       |
| 3.2       | -16       | 26.9          | 3.64       |
| 5.0       | -15       | 25.7          | 3.60       |
| 6.8       | -14       | 24.5          | 3.55       |
| 8.6       | -13       | 23.4          | 3.50       |
| 10.4      | -12       | 22.4          | 3.46       |

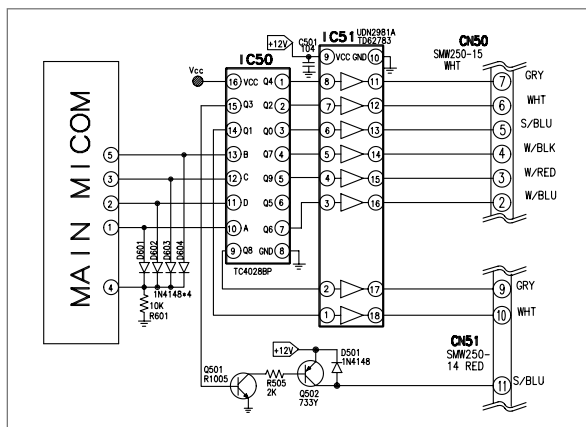
| Temp.(°F) | Temp.(°C) | Resistance(Ω) | Voltage(V) |
|-----------|-----------|---------------|------------|
| 12.2      | -11       | 21.4          | 3.41       |
| 14.0      | -10       | 20.5          | 3.36       |
| 15.8      | -9        | 19.6          | 3.31       |
| 17.6      | -8        | 18.7          | 3.26       |
| 19.4      | -7        | 17.9          | 3.21       |
| 21.2      | -6        | 17.2          | 3.16       |
| 23.0      | -5        | 16.           | 3.11       |
| 24.8      | -4        | 15.7          | 3.06       |
| 26.6      | -3        | 15.1          | 3.01       |
| 28.4      | -2        | 14.5          | 2.96       |
| 30.2      | -1        | 13.9          | 2.90       |
| 32.0      | 0         | 13.3          | 2.85       |
| 33.8      | 1         | 12.7          | 2.80       |
| 35.6      | 2         | 12.2          | 2.75       |
| 37.4      | 3         | 11.7          | 2.70       |
| 39.2      | 4         | 11.3          | 2.65       |
| 41.0      | 5         | 10.8          | 2.60       |
| 42.8      | 6         | 10.4          | 2.55       |
| 44.6      | 7         | 10.0          | 2.50       |
| 46.4      | 8         | 9.6           | 2.45       |
| 48.2      | 9         | 9.2           | 2.40       |
| 50.0      | 10        | 8.8           | 2.35       |
| 51.8      | 11        | 8.5           | 2.30       |
| 53.6      | 12        | 8.2           | 2.25       |
| 55.4      | 13        | 7.9           | 2.20       |
| 57.2      | 14        | 7.6           | 2.15       |
| 59.0      | 15        | 7.3           | 2.10       |
| 60.8      | 16        | 7.0           | 2.06       |
| 62.6      | 17        | 6.7           | 2.01       |
| 64.4      | 18        | 6.5           | 1.97       |
| 66.2      | 19        | 6.2           | 1.92       |

| Temp.(°F) | Temp.(°C) | Resistance(Ω) | Voltage(V) |
|-----------|-----------|---------------|------------|
| 68.0      | 20        | 6.01          | 1.88       |
| 69.8      | 21        | 5.79          | 1.83       |
| 71.6      | 22        | 6.58          | 1.79       |
| 73.4      | 23        | 5.38          | 1.75       |
| 75.2      | 24        | 5.19          | 1.71       |
| 77.0      | 25        | 5.00          | 1.67       |
| 78.8      | 26        | 4.82          | 1.63       |
| 80.6      | 27        | 4.65          | 1.59       |
| 82.4      | 28        | 4.49          | 1.55       |
| 84.2      | 29        | 4.33          | 1.51       |
| 86.0      | 30        | 4.18          | 1.47       |
| 87.8      | 31        | 4.03          | 1.44       |
| 89.6      | 32        | 3.89          | 1.40       |
| 91.4      | 33        | 3.76          | 1.37       |
| 93.2      | 34        | 3.63          | 1.33       |
| 95.0      | 35        | 3.51          | 1.30       |
| 96.8      | 36        | 3.39          | 1.27       |
| 98.6      | 37        | 3.28          | 1.23       |
| 100.4     | 38        | 3.17          | 1.20       |
| 102.2     | 39        | 3.06          | 1.17       |
| 104.0     | 40        | 2.96          | 1.14       |
| 105.8     | 41        | 2.86          | 1.11       |
| 107.6     | 42        | 2.77          | 1.09       |
| 109.4     | 43        | 2.68          | 1.06       |
| 111.2     | 44        | 2.59          | 1.03       |
| 113.0     | 45        | 2.51          | 1.00       |
| 114.8     | 46        | 2.43          | 0.98       |
| 116.6     | 47        | 2.35          | 0.95       |
| 118.4     | 48        | 2.28          | 0.93       |
| 120.2     | 49        | 2.21          | 0.90       |

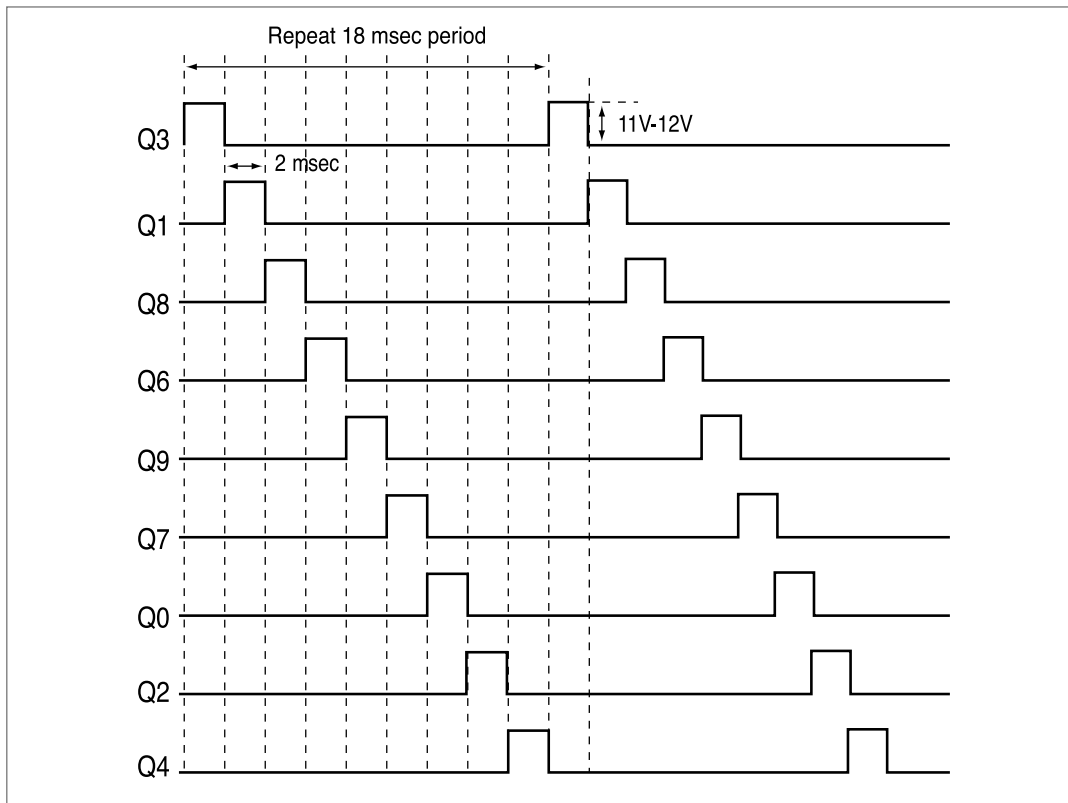
### 12-6) Key Scan and Display Circuit



1) Key Scan and display operation.



The model uses a decoder IC which 4 inputs and 9 outputs. If the IC 9 decoder (TC4028BP) receives signals from MICOM pins (3~6), an output signal per 2 milliseconds comes out from Q3, Q41, Q8, Q6, Q9, Q7, Q0, Q2, and Q4 pin in sequence. This signal enters to a driver IC input terminal of the CoolSelect Zone™ PCB and IC5 (TD 62783AP), then approximate 11V peaks will generate from an output terminal as shown on the next page.



The step signals of DC 11~2V will be generated periodically. If a sink signal outputs from IC4, DC 11-12V will be applied to the LED input terminal and sink the LED output terminal to 0V. Therefore, LED will be ON for 2 milliseconds.

### 2) Key Scan

The 6 step signals, Q6~Q4 are applied to scan the 6 keys (buttons). When SW6 is pressed, the step signal 5V from IC50 Q60 will be amplified to 12V and entered to the panel PCB.

This signal will reach to SW6 through CN50 pin2, and 12V signal entered to CN50 1st pin during SW6 being pressed.

The signal (DC 12V) will be reduced to 5V by R502 and R501, and entered to the MICOM 29 at the same time of output signal of Q6, then MICOM will match a corresponding function for SN6 is pressed.

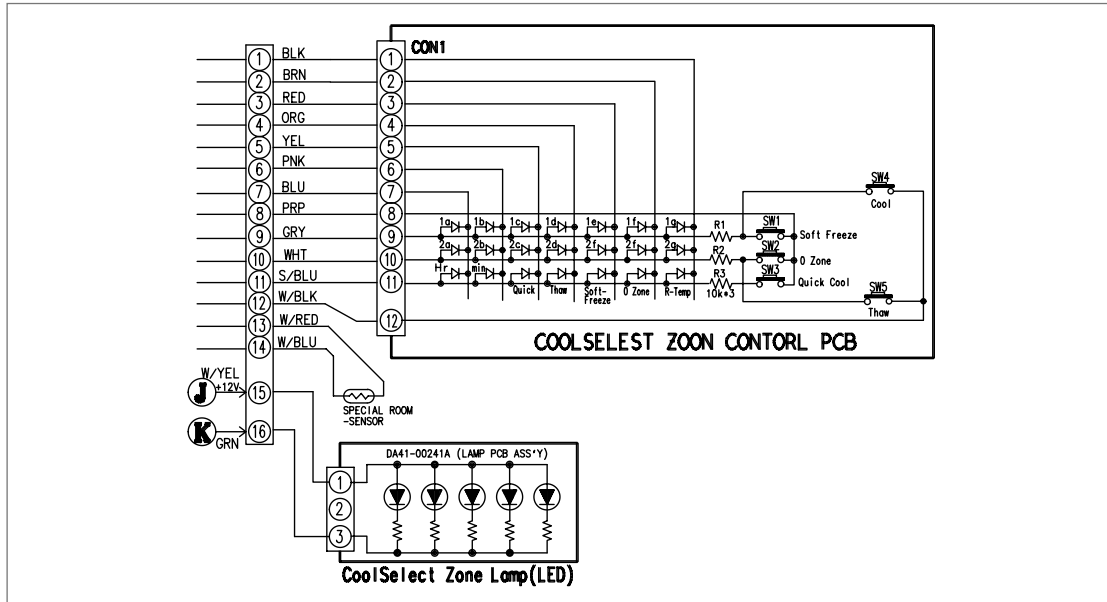
2-1) IC50 Q6(5V) → IC51 NO3(5V) → IC51 NO16 (12V) → VN50 NO2(12V) → Panel PCB Connector NO2(12V) → SW6 → Panel PCB Connector NO1(12V) → CN50 NO2(12V) → R502/R5.1 → Voltage Down(5V) → Input MICOM NO29(5V)



## Circuit Descriptions

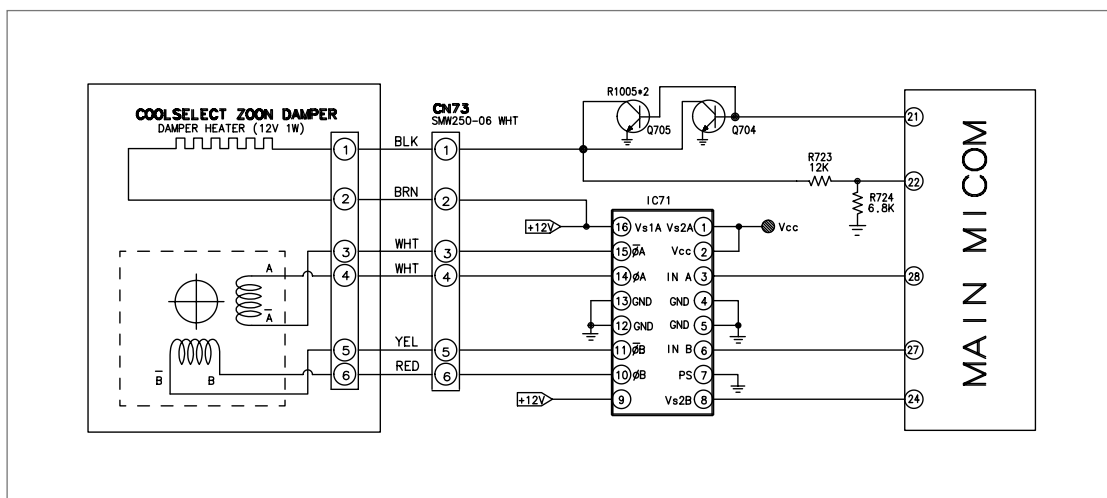
### 12-7) CoolSelect Zone™ Panel Circuit

#### 1) CoolSelect Zone™ display panel and temperature sensor, Lamp PCB



- 1-1) CoolSelect Zone™ is referred to as a storage drawer to implement features of Soft Freeze, 0 Zone, Quick cool, Cool and Thaw
- 1-2) CoolSelect Zone™ has an additional display panel. Panel LED are off while the doors are closed. When a door is opened, micro-processor senses its signal and LEDs will be on.
- 1-3) The basic operational principle is the same as the Panel pcb key scan process.
- 1-4) The additional sensor can measure the temperature of CoolSelect Zone™. This sensor enables to control the features of CoolSelect Zone™.

#### 2) Damper drive circuit

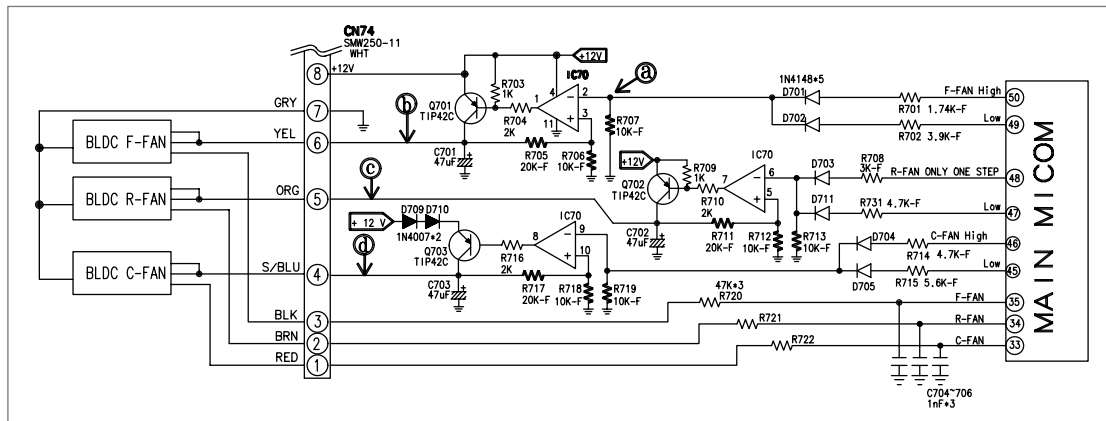


## Circuit Descriptions

- 2-1) CoolSelect Zone™ Drawer is controlled by a damper to supply or block cold air. For Quick Cool, the damper will be closed. So cold air is supplied only to CoolSelect Zone™ Drawer. For Thaw, the evaporator heater of refrigerator is ON and the damper is controlled by the refrigerator temperature.
- 2-2) The stepping motor controlled by a Driver IC TA7774P(IC7) operates the damper. The stepping motor uses 4 combined signals to open and close the damper.

Note) To prevent the malfunction from a high humidity, a DC 12V, 1 watt heater is mounted and activated continuously.

### 12-8) Fan Motor (BLDC) Drive Circuit



#### 1) Motor drive circuit

- 1-1) This refrigerator adopts a BLDC motor for reduce energy consumption, Motors of the freezer, refrigerator and the machine compartment are composed of the BLDC. (This circuit is used to other models in common.)

#### 1-2) Operating Principle

In the above circuit, there are similarities between motors in the composition of their circuits. Here comes the F-Fan motor for example. According to conditions, the F-Fan motor runs High or Low in RPM. To operate the F-Fan motor, a specific voltage should be applied to OP-AMP No.2 as shown in the figure. When MICOM No.50 is 0V, OP-AMP No.2 also becomes 0V. So, the motor does not operate. When MICOM No.50 becomes High (5V), the forward voltage drop of R701 and D701 (IN4148) will be subtracted from the High voltage and then voltage will be decided through the division with R707 10K. The divided voltage then flows to OP-AMP No.2 amplifying treble voltage. It applies to the motor. If the voltage at OP-AMP No.2 is 3V,  $3V \times 3 = 9V$  applies to the motor. (When the F-Fan is High, 5V will be output from MICOM No.2 and when it is running in Low RPM, MICOM No.2 becomes 0V and 5V will be output from MICOM No.49. So, when the F-Fan is turned off, both of MICOM 50 & 49 becomes 0V.)

\*\* Other fan motors run with the same principle.

#### 1-3) Oper

|               | Voltage of motor  |                   |                   | Remark   |
|---------------|-------------------|-------------------|-------------------|--|
|               | Measure b (F-FAN) | Measure c (R-FAN) | Measure d (C-FAN) |  |
| High          | 11.0V             | 10V               | 10V               | In the normal operation, MICOM No. 33, 34, 35 and 42 receive a constant frequency; and MICOM defects the signal to check the failure of motor.<br>(frequency(Hz) × 12 = motor rpm) |
| Conditionally | 9.5V              | 9.0V              | 8.3V              |  |

Note) According to conditions, the F-Fan and the C-Fan motors are controlled to High and Low RPM. Generally, the refrigerator operates in High RPM during the peak using time and it runs in Low RPM when the use of the refrigerator is slow. (For the purpose of performance improvements, the motor RPM, Voltage and Frequency can be changed without a notice in advance.)

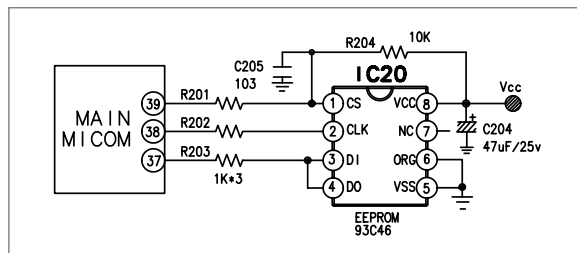
## Circuit Descriptions

1-4) When there is error in the motor (if the motor is sensed under 600 ~ 700 RPM), the relevant motor stops immediately and it tries to start up in 10 seconds. At this time, when the RPM is sensed as normal, the motor will be judged as normal and it starts operating. But, when a normal RPM is not input, it tries to start up again in 10 seconds. If it refuses to start up for 5 times, it will pause for 10 minutes, and repeat a 5-times trial with an interval of 10 seconds continually. At this time, when the Self-Diagnosis function is selected on the display panel, the LED relevant to the operation error will light up indicating that there is a problem with the motor. When the power is off, the error data will be erased. So, do not turn off the power before it is checked by service personnel.

Note) When the fan motor error is expected during a service check, do not turn off the power but to carry out the Self-Diagnosis function and check the current status of the refrigerator.

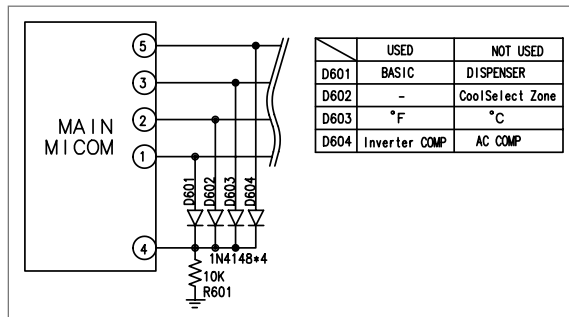
### 12-9) EEPROM Circuit

EEPROM is semiconductor memory not to be erased. It can be used in the area of unstable electric power.



### 12-10) Option Circuit

There are a variety of models that have a different function. A different model can set up to use option circuit as shown.



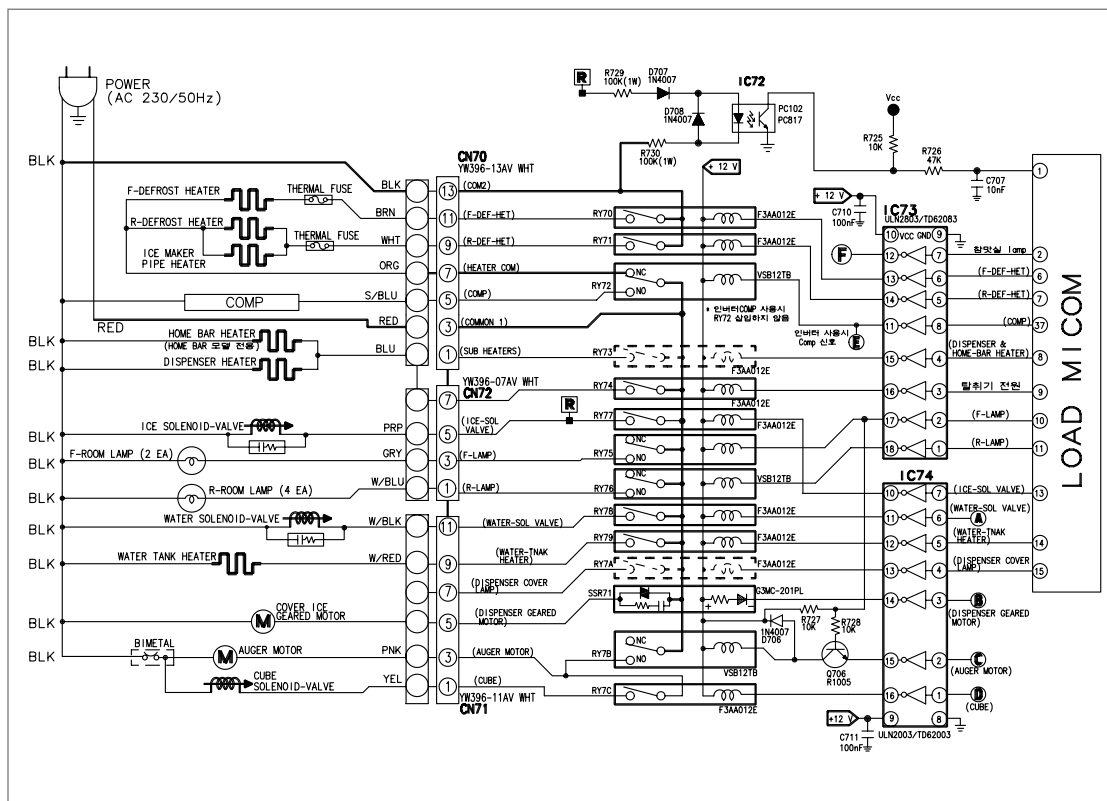
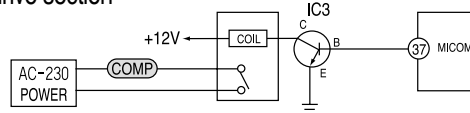
## Circuit Descriptions

### 12-11) Load Drive Circuit

- 1) The control of load in the system is accomplished by the main PCB.
- 2) Most of relays or SSRs can control the compressor, refrigerator/freezer defrost heater, and several option functions.
- 3) For the compressor, #37 pin of micro processor signals High (5V). This signal enters #8 pin of IC73 and #11 of output terminal which have base and collector functions of IC73 turns on and connects the GND. Relay 72 will be grounded through #11 of IC73. Magnetic field will generate so that the second side of RY72 is activated and 230V is supplied to the compressor. On the other hands, if #37 of micro processor turns Low(0V), #8 of IC73, the current of RY 72 relay, and magnetic field will shut down in sequence. A contact point in secondary side of Relay 72 is off. Finally compressor will stop.
- 4) The principles of other loads is the same as 3) item described.

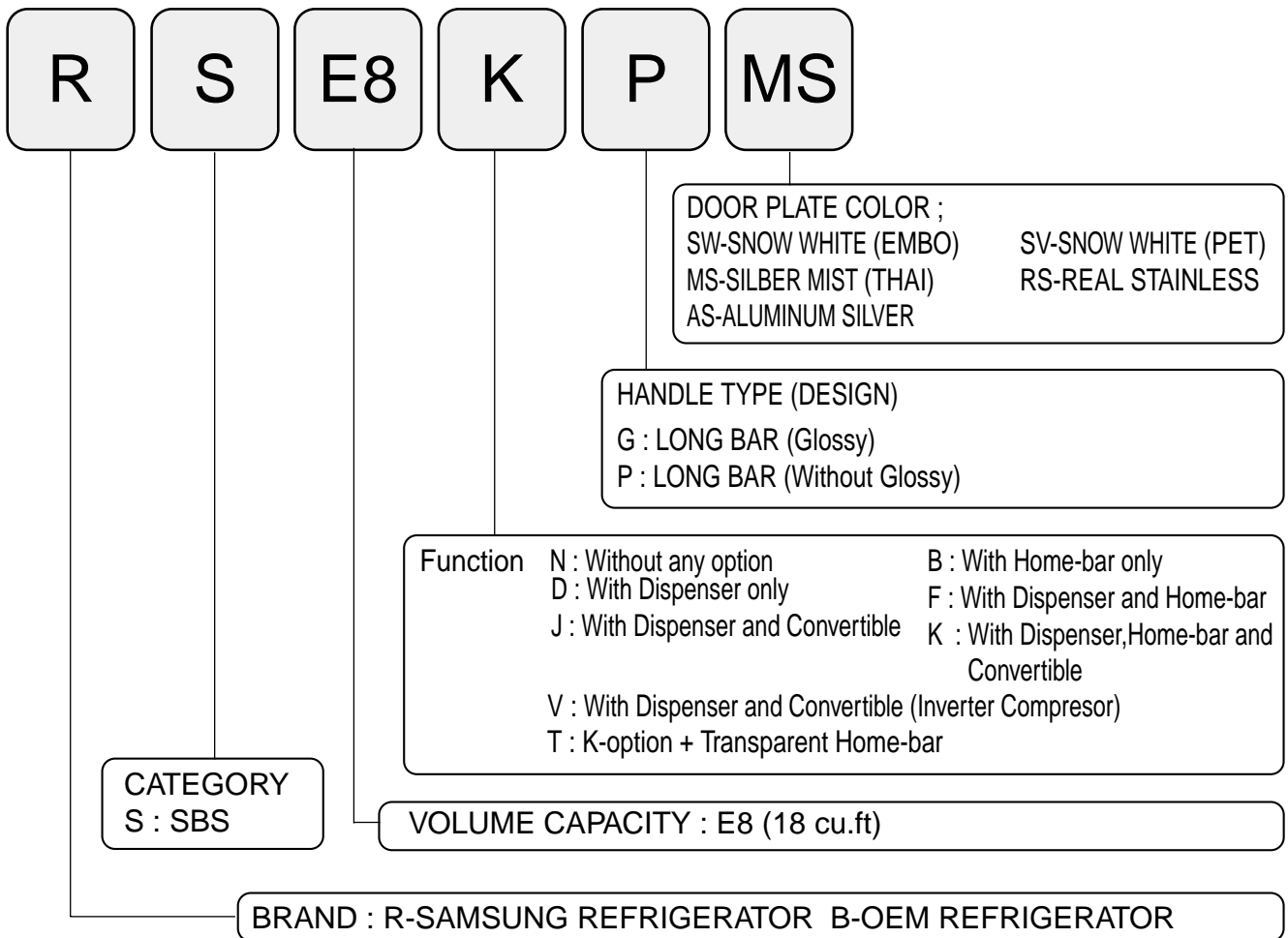
Note) SSR(Solid State Relay) is a kind of Relay.

\*COMP. equivalence circuit of drive section



## 13. Reference Information

### 13-1) Model Name(Nomenclature)



## Reference Information

### 13-2) Q & A

| Problem  | Possible Causes   | What To Do  |
|--|---|---|
| <b>The refrigerator does not work sufficiently or at all</b>                   | • Disconnected power plug   | • Check that the power plug is properly connected.                          |
|  | • Is the temperature control on the display panel set to the correct temperature?   | • Try setting it to a lower temperature.                                    |
|  | • Is the refrigerator in direct sunlight or located near a heat source?   | • Move the refrigerator to the proper location.                             |
|  | • Is the back of the refrigerator too close to the wall?  |   |
| <b>The food in the refrigerator is frozen</b>                                  | • Is the temperature control on the display panel set to the correct temperature?   | • Try setting it to a warmer temperature.                                   |
|  | • Is the temperature in the room too low?   |   |
|  | • Did you store the food with a high water content in the coldest part of the refrigerator.   |   |
| <b>Unusual noises or sounds are heard</b>                                      |   | • Check that the floor is levelled and stable.                              |
|  | • Is the back of the refrigerator too near to the wall?   | • Move the refrigerator to the proper location.                             |
|  | • Was anything dropped behind or under the refrigerator?  | • Remove the foreign thing.   |
|  | • A “ticking” sound may be heard from inside the refrigerator. This is normal and occurs because various accessories contract or expand.        |   |
| <b>The front corners and sides of the cabinet are hot; condensation occurs</b> | • HOT-PIPE is installed in the front corners of refrigerator. That makes refrigerator’s temperature low quickly and save the power consumption. | • Normal state  |
|  | • Condensation can occur when you leave the door open for a long time.  | • Normal state  |
| <b>Ice is not dispensed</b>  | • Did you stop the ice making function?   | • See the control panel.  |
|  | • Is there any ice in the storage unit?   | • See the ice container.  |
|  | • Is the water pipe connected and the shut-off valve open?  | • See the valve.  |
|  | • Is the freezer temperature too warm?  | • Set the temperature lower.  |
|  | • Did you wait for 12 hours after installation of the water supply line before making ice?  |   |
| <b>You can hear water bubbling in the refrigerator</b>                         | • The bubbling comes from the refrigerant circulating in the refrigerator and is normal.  | • Normal state  |
| <b>There is a bad smell in the refrigerator</b>                                | • Wrap strong smelling food so that it is airtight. Throw away any rotten food.   |   |
| <b>Frost forms on the wall of the freezer</b>                                  |   | • Allow sufficient space between stored food for efficient air circulation. |
| <b>No water is supplied</b>  | • Is the air vent blocked?  |   |
|  | • Is the door closed properly?  |   |
|  | • Is the water pipe connected and the shut-off valve open?  |   |
|  | • Is the water supply pipe crushed?   |   |
|  | • Is the water tank frozen because the refrigerator temperature is too low? Select a warmer setting on the display panel.                       |   |

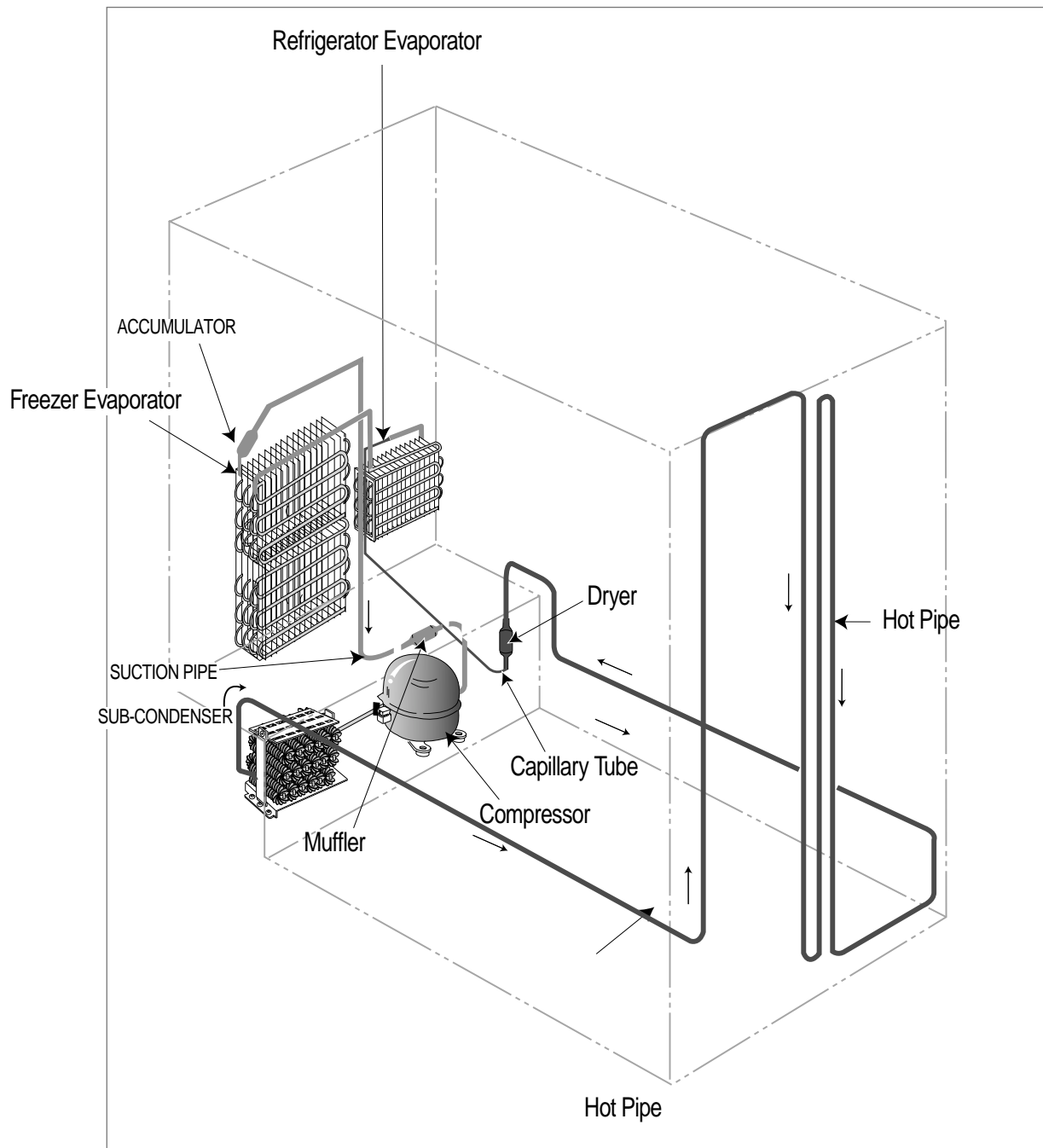
## Reference Information

| Problem  | Possible Causes  | What To Do   |
|--|--|--|
| <b>Small or hollow cubes</b>   | Water filter clogged.  | • Replace filter cartridge with new cartridge or with plug.  |
| <b>Slow ice cube freezing</b>  | Door left open.  | • Check to see if package is holding door open.  |
|  | Temperature control not set cold enough.                               | • See about the controls.  |
| <b>Orange glow in the freezer</b>                                      | Defrost heater is on.  | • This is normal.  |
| <b>Cube dispenser does not work(on some models)</b>                    | Icemaker turned off or water supply turned off.                        | • Turn on icemaker or water supply.  |
|  | Ice cubes are frozen to icemaker feeler arm.                           | • Remove cubes and move the feeler arm to the ON position.   |
|  | Irregular ice clumps in storage container.                             | • Break up with fingertip pressure and discard remaining clumps.<br>• Freezer may be too warm. Adjust the freezer control to a colder setting, one position at a time, until clumps do not form. |
|  | Dispenser is LOCKED.   | • Press and hold the CHILD LOCK for 3 seconds.   |
| <b>Water has poor taste/odor (on some models)</b>                      | Water dispenser has not been used for a long time.                     | • Dispense water until all water in system is replenished.   |
| <b>Water in first glass is warm (on some models)</b>                   | Normal when refrigerator is first installed.                           | • Wait 24 hours for the refrigerator to completely cool down.  |
|  | Water dispenser has not been used for a long time.                     | • Dispense water until all water in system is replenished.   |
|  | Water system has been drained.   | • Allow several hours for replenished supply to chill.   |
| <b>Water dispenser does not work(on some models)</b>                   | Water supply line turned off or not connected.                         | • See Installing the water line.   |
|  | Water filter clogged.  | • Replace filter cartridge or remove filter and install plug.  |
|  | Air may be trapped in the water system.                                | • Press the dispenser arm for at least two minutes.  |
|  | Dispenser is LOCKED.   | • Press and hold the CHILD LOCK pad for 3 seconds.   |
| <b>Water spurting from dispenser (on some models)</b>                  | Newly-installed filter cartridge.                                      | • Run water from the dispenser for 3 minutes (about one and a half gallons).   |
|  | Water in reservoir is frozen.  | • Call for service.  |
| <b>Water is not dispensed (on some models) but icemaker is working</b> | Refrigerator control setting is too cold.                              | • Set to a warmer setting.   |
|  | Ice cubes stuck in icemaker. (Green power light on icemaker blinking). | • Turn off the icemaker, remove cubes, and turn the icemaker back on.  |
| <b>Water on kitchen floor or on bottom of freezer</b>                  | Drain in the bottom of the freezer clogged.                            | • See Care and cleaning.<br>• Check the lock of filter.  |
|  | Cubes jammed in chute.   | • Poke ice through with a wooden spoon.  |
| <b>No water or ice cube production</b>                                 | Supply line or shutoff valve is clogged.                               | • Call a plumber.  |
|  | Water filter clogged.  | • Replace filter cartridge or remove filter and install plug.  |
|  | Dispenser is LOCKED.   | • Press and hold the CHILD LOCK pad for 3 seconds.   |

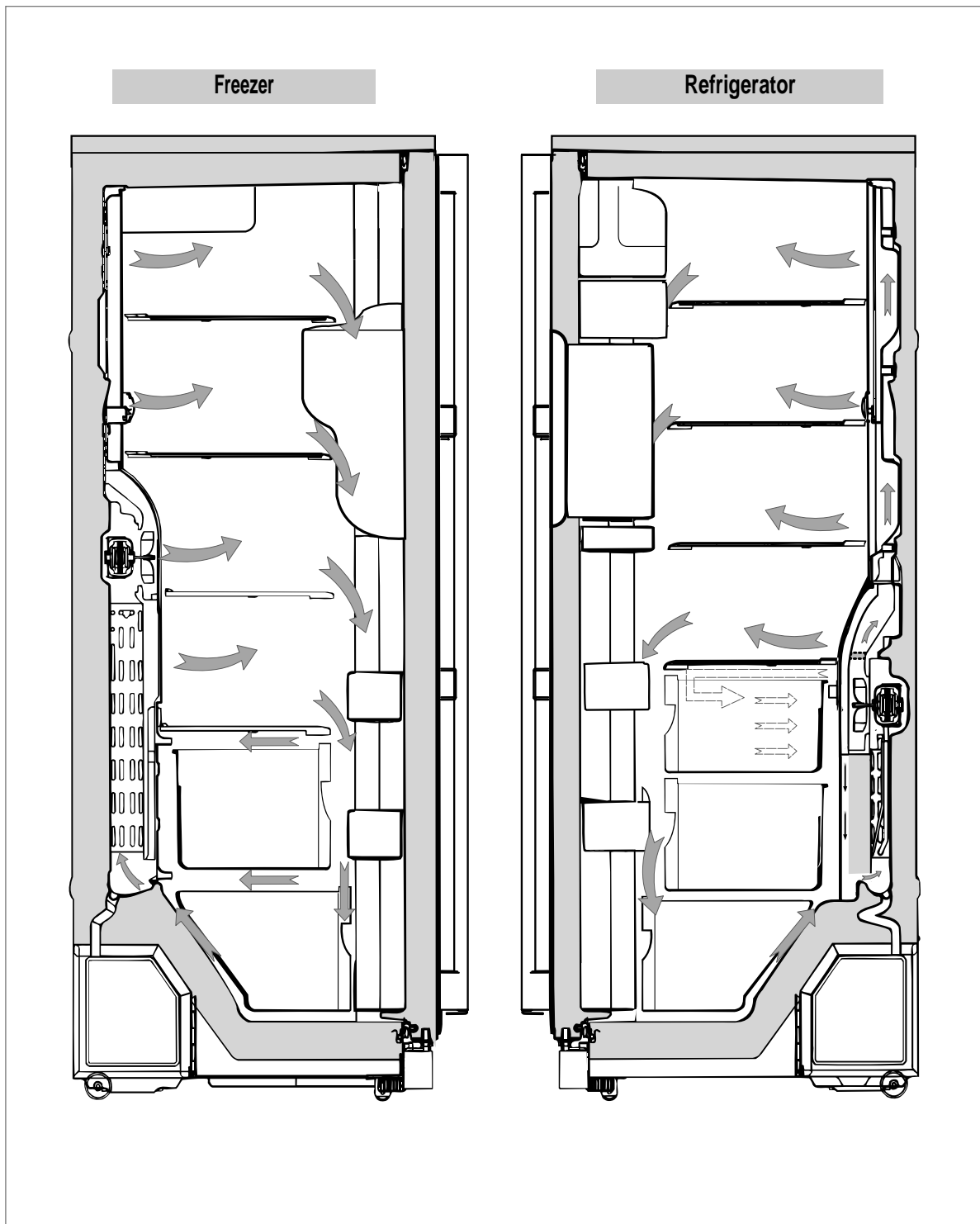
## Reference Information

### 13-3) Additional Information

Compressor → Sub-condenser → Hot Pipe → Dryer → Capillary Tube → Refrigerator Evaporator → Freezer Evaporator → Suction Pipe → Compressor









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