
SERVICE MANUAL

RGE34 / 36 / 40



PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

SAFETY AND PRECAUTIONS

- 1) For starters, be sure to check any chances of the leakage of electricity."
- 2) You could handle a part in the vicinity of electricity after unplugging.
- 3) You should put on rubber gloves to prevent an electric shock on operation test.
- 4) Make sure the rated current,voltage,capacity before using an instrument."
- 5) Keep your wet hands away from the metal goods in the freezer compartment not to be frostbitten.
- 6) Be careful not to let water permeate the electric part in the machine room.
- 7) With door open during your working,you might be damaged by door."
- 8) You should give a title to the refrigerator for your safe after removing the breakable goods inside the refrigerator.
- 9) You'd better use cotton gloves if you fix it up around the evaporator

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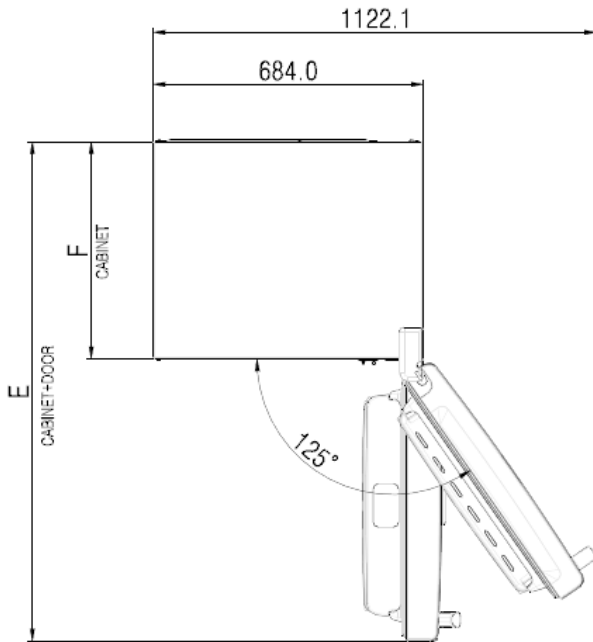
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1. SPECIFICATION

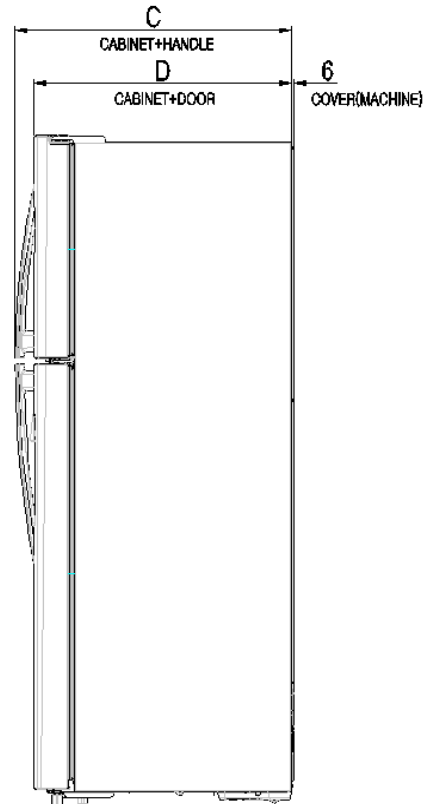
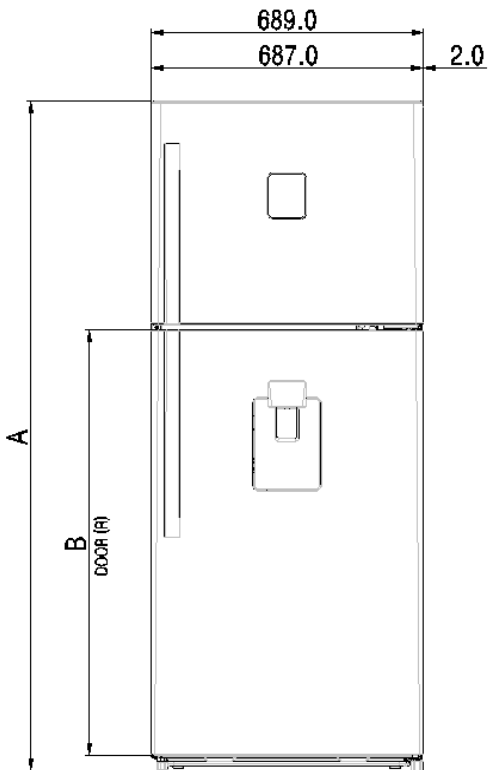
| MODEL NAME | | RGE34 | | RGE36 | | RGE40 | |
|----------------------------------|-----------------|------------------------|--------------|--------------|--------------|--------------|--------------|
| | | BASIC | DISPNS | BASIC | DISPNS | BASIC | DISPNS |
| STORAGE VOLUME (IEC62552) | Total | 345 | 343 | 363.0 | 361.0 | 400.0 | 397.0 |
| | Freezer | 100.0 | 100.0 | 100.0 | 100.0 | 111.0 | 111.0 |
| | Refrigerator | 245.0 | 243.0 | 263.0 | 261.0 | 289.0 | 286.0 |
| EXTERNAL DIMENSION (with HANDLE) | WIDTH(mm) | 689 | | 689 | | 689 | |
| | DEPTH(mm) | 698.3 | | 698.3 | | 743.3 | |
| | HEIGHT(mm) | 1645 | | 1705 | | 1710 | |
| REFRIGERANT | R-600a | 36g | | 36g | | 36g | |
| COOLING & CONTROL SYSTEM | COOLING SYSTEM | FAN COOLING SYSTEM | | | | | |
| | DEFROST SYSTEM | FIN EVAPORATOR FORCED | | | | | |
| | DEFROST CONTROL | AUTOMATIC START & STOP | | | | | |
| NET WEIGHT(KG) | | 62 | | 65 | | 68 | |

2. EXTENAL VIEW

RGE-34/36/40

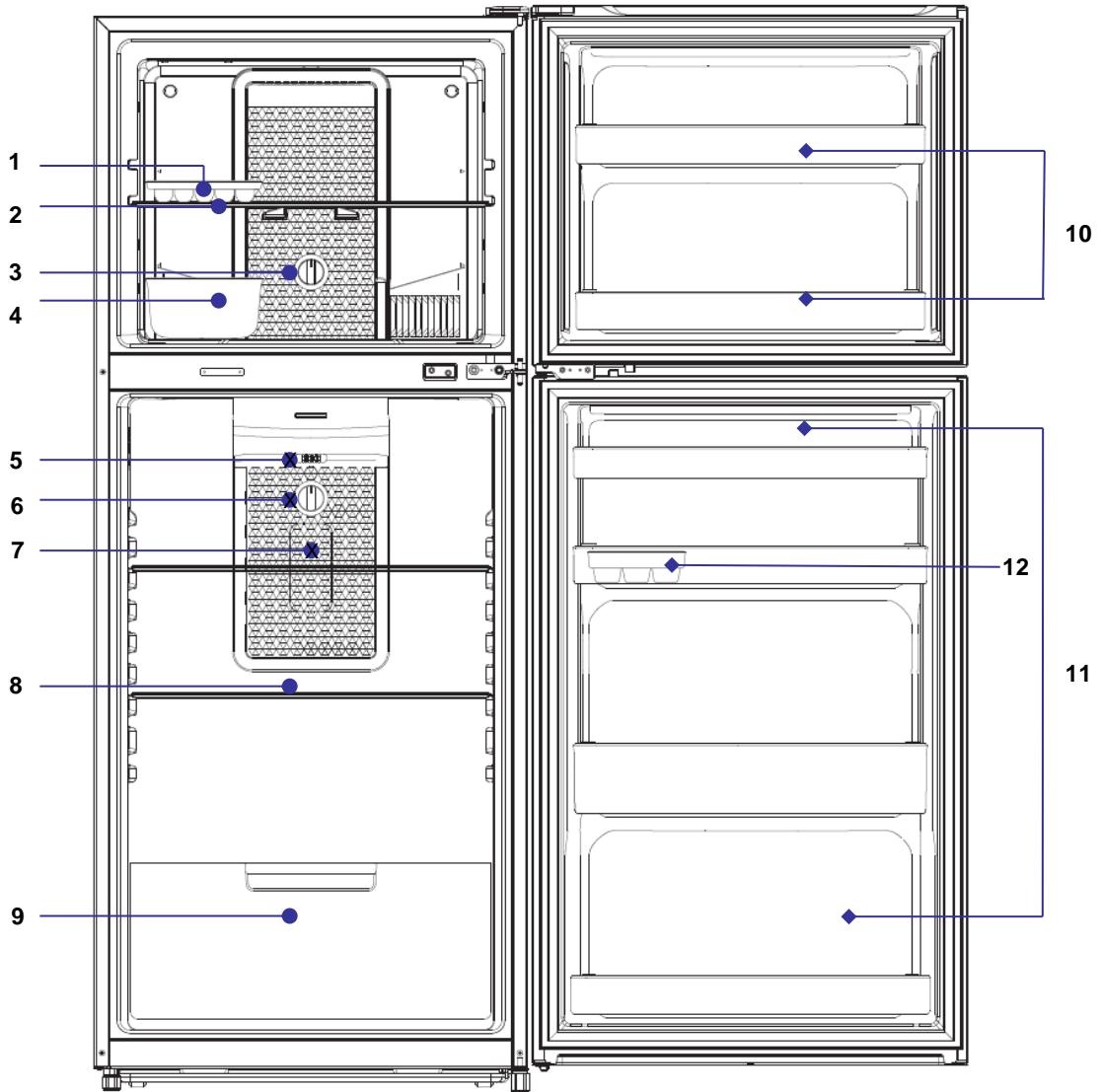


| MODEL NAME | | RGE34 | RGE36 | RGE40 |
|--------------------|--------|---------------|---------------|--------------|
| EXTERNAL DIMENSION | A (mm) | 1645 | 1705 | 1710 |
| | B (mm) | 1028.5 | 1088.5 | ← |
| | C (mm) | → | 698.3 | 743.3 |
| | D (mm) | → | 650 | 695 |
| | E (mm) | → | 1265 | 1310 |
| | F (mm) | → | 550 | 595 |



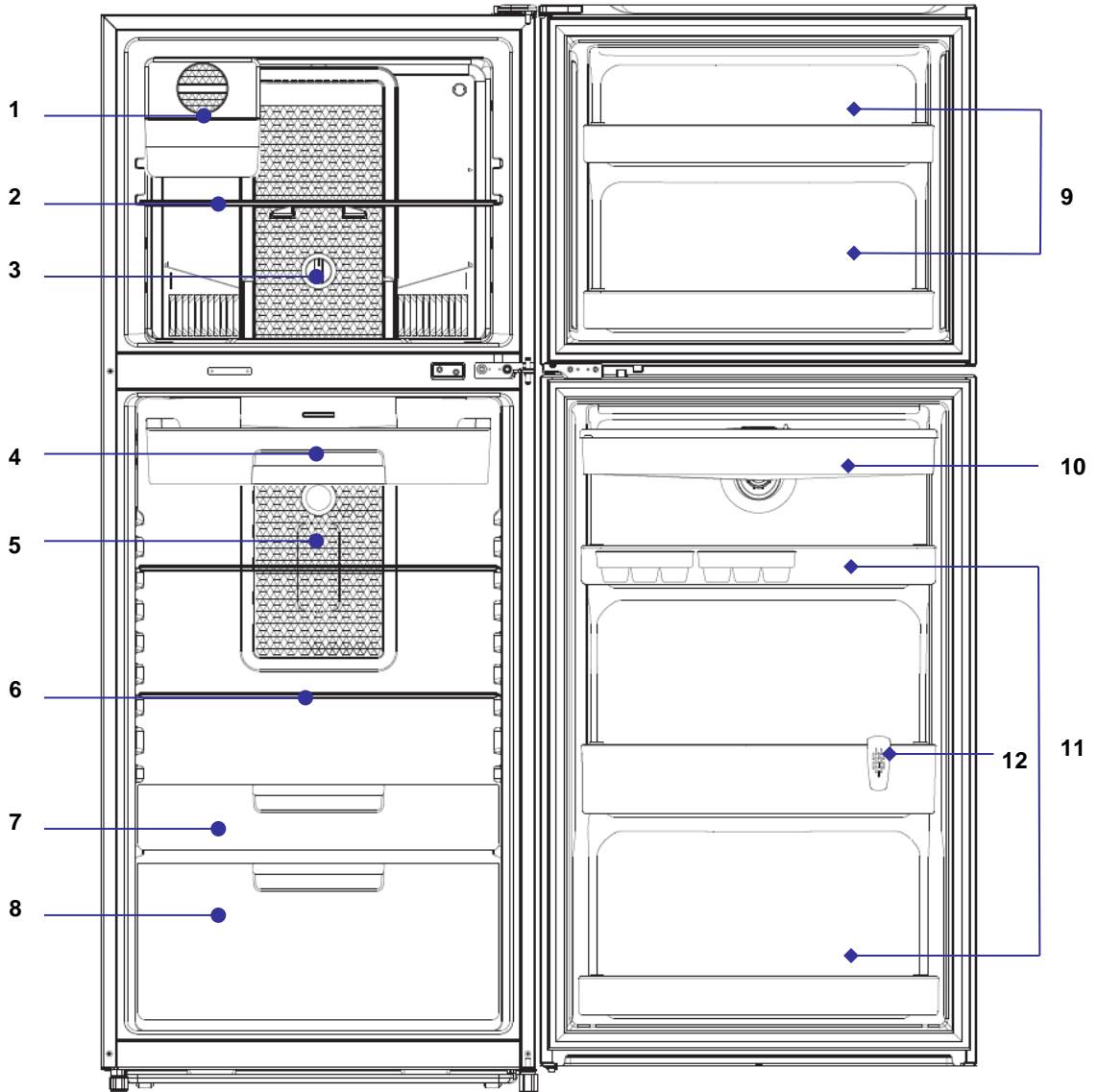
3. Name Of Each Part

RGE-34/36/40 BASIC TYPE



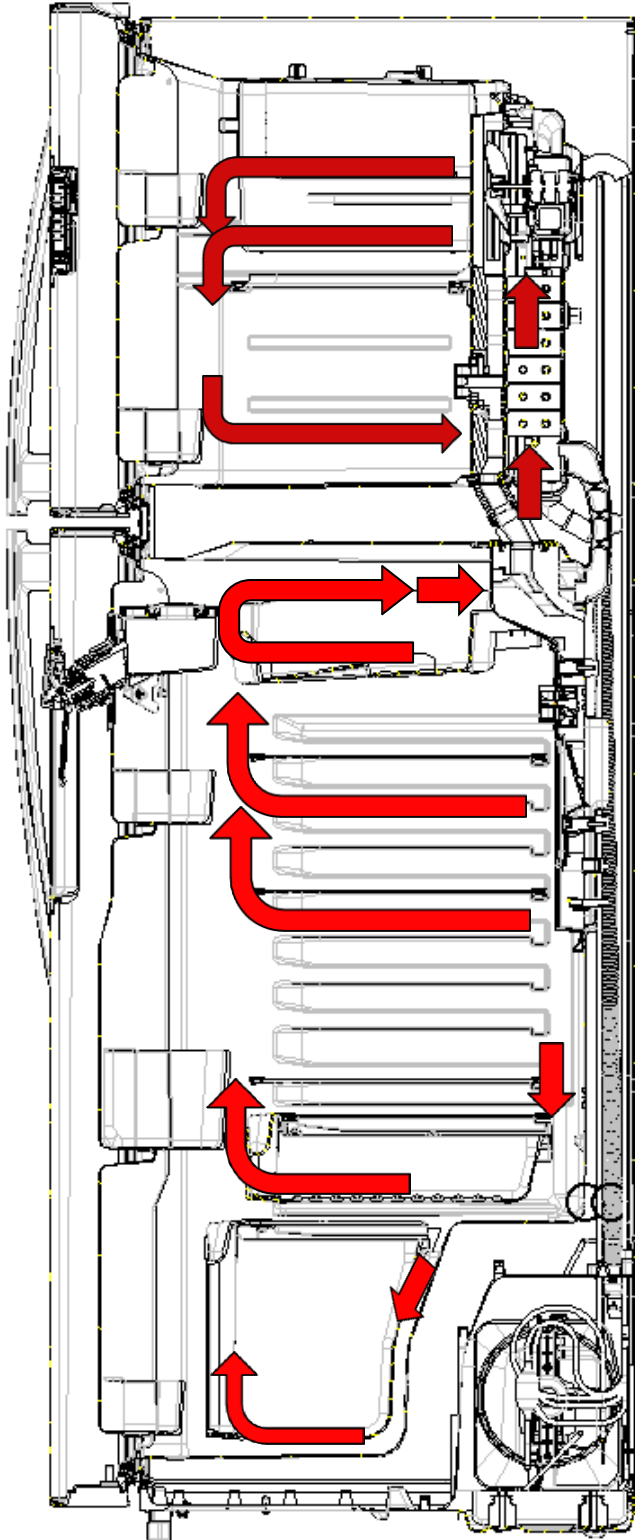
| | |
|--|------------------------------------|
| 1. Ice Maker (Manual) | 8. Fresh Food Compartment Shelves |
| 2. Freezer Compartment Shelf | 9. Vegetable Case |
| 3. Freezer Compartment Temperature Controller | 10. Freezer Compartment Pockets |
| 4. Ice Case | 11. Fresh Food Compartment Pockets |
| 5. Fresh Food Compartment Sensor | 12. Egg Case |
| 6. Fresh Food Compartment Temperature Controller | |
| 7. Fresh Food Compartment LED Lamp | |

RGE34/36/40 FULL TYPE

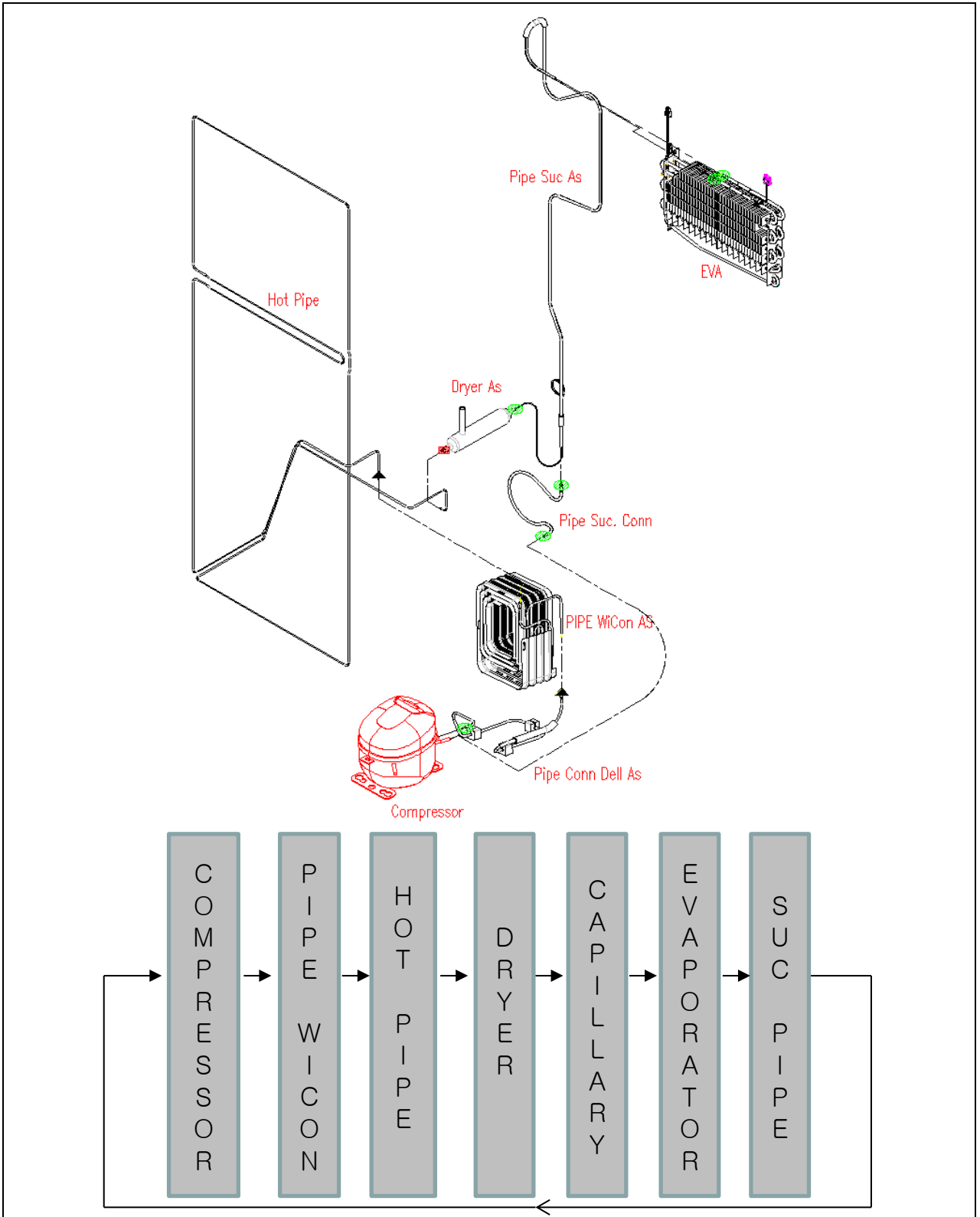


| | |
|---|------------------------------------|
| 1. ICE MAKER | 8. Vegetable Case |
| 2. Freezer Compartment Shelf | 9. Freezer Compartment Pockets |
| 3. Freezer Compartment Temperature Controller | 10. Fresh Food Water Tank |
| 4. Fresh Utility case | 11. Fresh Food Compartment Pockets |
| 5. Fresh Food Compartment LED Lamp | 12. Pocket Guide |
| 6. Fresh Food Compartment Shelves | |
| 7. Fresh Case | |

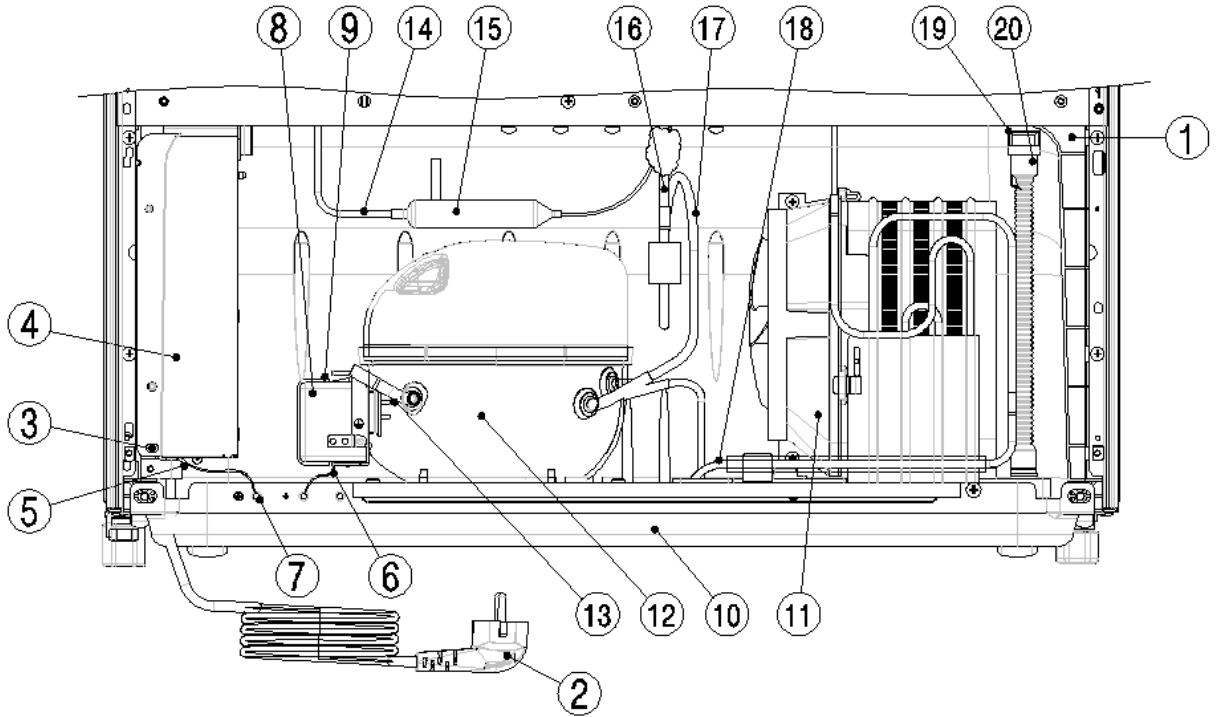
4. Cold Air Circulation



5. REFRIGERANT CYCLE DAIGRAM

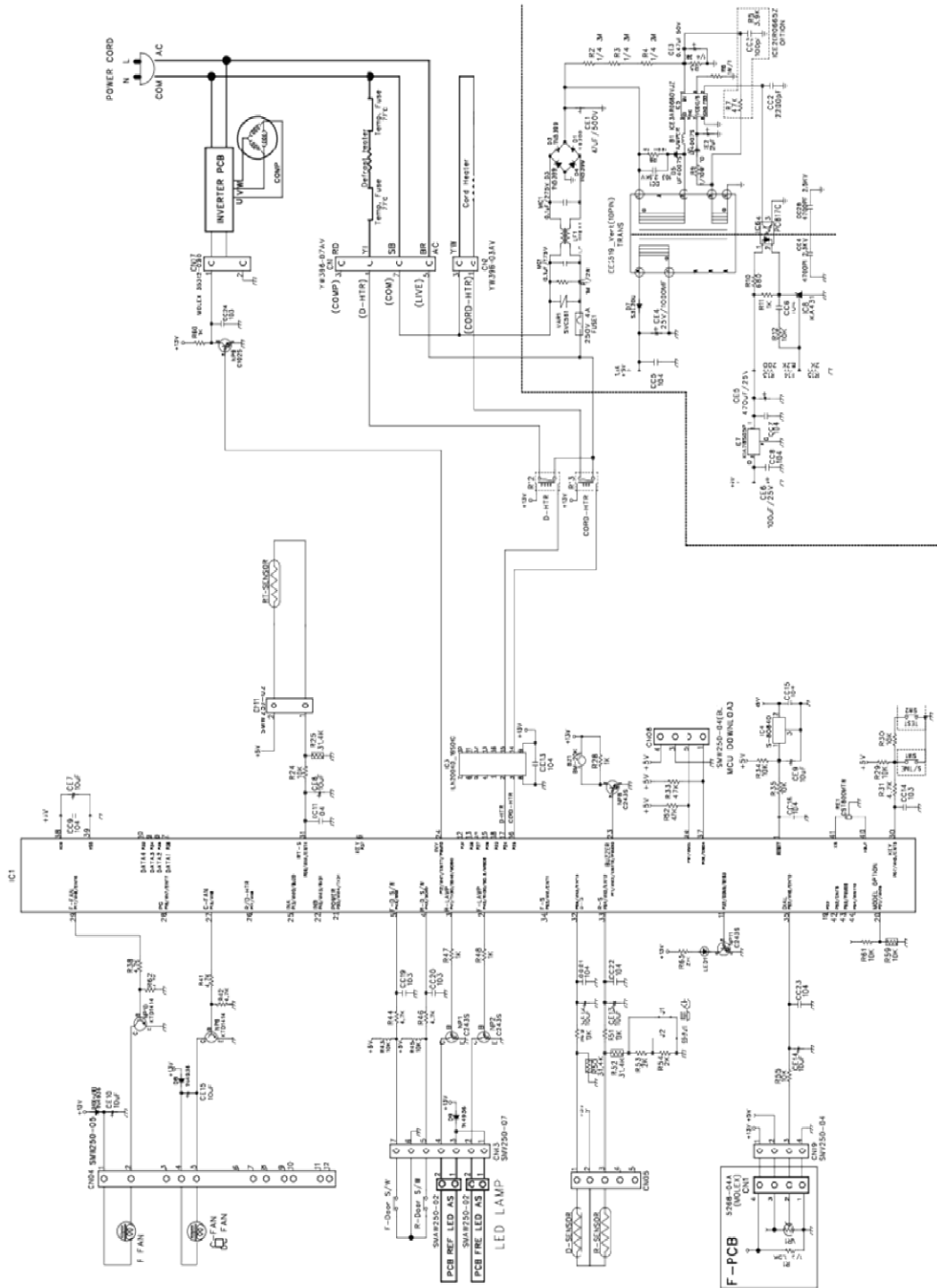


6. MACHINE ROOM VIEW AND PART LIST



| NO | PART NAME | NO | PART NAME |
|----|-------------------|----|------------------|
| 1 | BASE CAB | 11 | CASE VAPORI AS |
| 2 | CORD POWER AS | 12 | COMPRESSOR |
| 3 | SCREW TAPPING | 13 | PIPE SERVICE |
| 4 | BOX M/PCB AS | 14 | PIPE HOT |
| 5 | SWITCH P RELAY AS | 15 | DRYER AS |
| 6 | HARNESS EARTH | 16 | PIPE SUC AS |
| 7 | SCREW MACHINE | 17 | PIPE CONN SUC AS |
| 8 | COVER RELAY | 18 | PIPE CONN DEL AS |
| 9 | CLAMP BAND RELAY | 19 | HOSE DRN A |
| 10 | BASE COMP AS | 20 | HOSE DRN B |

7-3. Dial Inverter Type



8. SPECIFICATION OF ELECTRIC PARTS

1. COMPRESSOR

| | RGE34 / RGE36 | | RGE40 | |
|---------------|------------------|---------------|------------------|---------------|
| | 220~240V/50~60Hz | 220~240V/50Hz | 220~240V/50~60Hz | 220~240V/50Hz |
| MODEL | LJ118DY | LJ126CY | LJ118DY | LJ126CY |
| STARTING TYPE | RSCR | RSCR | RSCR | RSCR |
| VOLTAGE | 220~240V/50~60Hz | 220~240V/50Hz | 220~240V/50~60Hz | 220~240V/50Hz |
| REFRIGERANT | R-600/(36g) | R-600/(36g) | R-600/(36g) | R-600/(36g) |

2. RELAY

| | RGE34 / RGE36 | | RGE40 | |
|---------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | 220V/60Hz | 230V/50Hz | 220V/60Hz | 230V/50Hz |
| PTC | Xingshuaier Radio Factory | Xingshuaier Radio Factory | Xingshuaier Radio Factory | Xingshuaier Radio Factory |
| STARTING TYPE | QPE2-A15MD3 | QPE2-A15MD3 | QPE2-A15MD3 | QPE2-A15MD3 |

3. RUNNING CAPACITORRELAY

| | RGE34 / RGE36 | | RGE40 | |
|-------------------|------------------|---------------|------------------|---------------|
| | 220~240V/50~60Hz | 220~240V/50Hz | 220~240V/50~60Hz | 220~240V/50Hz |
| RATED VOLTAGE | 450VAC | 450VAC | 450VAC | 450VAC |
| RATED CAPACITANCE | 4 μ F | 4 μ F | 4 μ F | 4 μ F |

4. F-FAN MOTOR

| | RGE34 / RGE-6 | | RGE40 | |
|------------|------------------------|-----------------------|-----------------------|-----------------------|
| | 220V/60Hz | 230V/50Hz | 220V/60Hz | 230V/50Hz |
| TYPE NAME | S6112CDF09 | S6112CDF09 | S6112CDF09 | S6112CDF09 |
| VOLTAGE | AC 220V/60Hz | AC 230V/50Hz | AC 220V/60Hz | AC 230V/50Hz |
| REVOLUTION | 2000 RPM (ϕ 110) | 2000 RPM(ϕ 110) | 2000 RPM(ϕ 110) | 2000 RPM(ϕ 110) |

5. C-FAN MOTOR

| | RGE34 / RGE36 | | RGE40 | |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 220V/60Hz | 230V/50Hz | 220V/60Hz | 230V/50Hz |
| TYPE NAME | ORM-11181B1 | ORM-11181B1 | ORM-11181B1 | ORM-11181B1 |
| VOLTAGE | AC 220V/60Hz | AC 230V/50Hz | AC 220V/60Hz | AC 230V/50Hz |
| REVOLUTION | 1500 RPM(ϕ 130) | 1500 RPM(ϕ 130) | 1500 RPM(ϕ 130) | 1500 RPM(ϕ 130) |





6. DEFROST HEATER

| | RGE34 / RGE-6 | | RGE40 | |
|-------|---------------|---------------|---------------|---------------|
| | 230V/50~60Hz | 230V/50~60Hz | 230V/50~60Hz | 230V/50~60Hz |
| TYPE | SHEATH HEATER | SHEATH HEATER | SHEATH HEATER | SHEATH HEATER |
| SPEC. | AC 230V, 165W | AC 230V, 165W | AC 230V, 165W | AC 230V, 165W |





9. How To Replace The Parts





RGE34/36/40

9-1. Freezer Louver Part



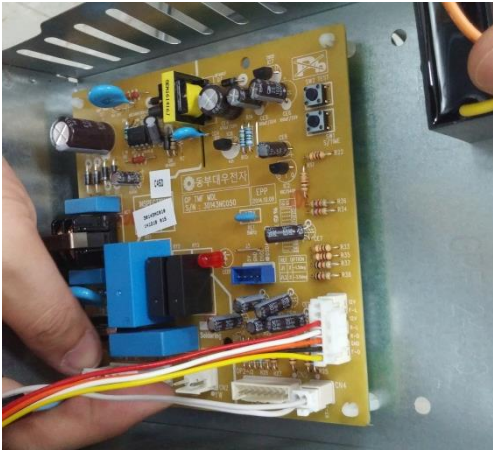
| No | Photos | Description |
|----|---|--|
| 1 |  | <ul style="list-style-type: none">- Remove 'Freezer Shelf' at first.- Remove 2 hole caps with (-) driver. |
| 2 |  | <ul style="list-style-type: none">- Remove 2 screws on 'Freezer Louver'. |
| 3 |  | <ul style="list-style-type: none">- Pull forward the 'Freezer Louver'. |
| 4 |  | <ul style="list-style-type: none">- Disconnect fan motor lead wire. |

9-2. M/Flow-Duct & lamp




| No | Photos | Description |
|----|---|--|
| 1 |  | - Remove 'hexagonal shaped cap' with (-) driver |
| 2 |  | - Remove window with(-) driver. |
| 3 |  | - Remove 'hexagonal shaped cap' with (-) driver. |
| 4 |  | - Remove 2 screws. |

| No | Photos | Description |
|----|---|---|
| 5 |  | <p>-Pull toward the 'M/flow duct'</p> |
| 6 |  | <p>-Pull out the lead wires of 'Lamp' and 'Sensor'</p> |
| 7 |  | <p>-Remove 'INSU M/F DUCT A' and 'INSU M/F DUCT B'</p> |
| 8 |  | <p>-Remove screw with (-) driver</p> <p>-Detach LAMP LED and PCB DIAL</p> |

9-3. MAIN PCB

| No | Photos | Description |
|----|---|--|
| 1 |  | - Remove the 2 screws. |
| 2 |  | - Disconnect the lead wires of 'Power cord' and 'compressor relay'. |
| 3 |  | - Remove 'Power Cord' and 'Relay Harness'. - Disconnect the housings on the Main PCB. |

9-4. FRONT PCB

| No | Photos | Description |
|----|---|---|
| 1 |  | <p>- Fasten the screw with drill on the top corner of the 'Front PCB' .</p> |
| 2 |  | <p>- Pull the screw with 'Nipper' to disassemble the 'Front PCB'.</p> |
| 3 |  | <p>- Disconnect the housing on the 'Front PCB'.</p> |

10. PCB CONTROL FUNCTION

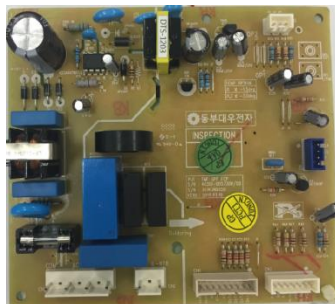
10-1. SPECIFICATIONS

| 구분 | | R-Control | | | | | | | |
|---|---------------|---|------|--------------|--------------|--------------|--------------|--------------|---------------|
| | | 240L | | 13cuft | | 34~400L | | 48~510L | |
| Type | | Dial | Dial | Fcp | Dial | Fcp | Dial | Fcp | Dial Inverter |
| F U N C T I O N S | Super Cooling | - | - | O | - | O | - | O | - |
| | Eco Mode | - | - | O | - | O | - | O | - |
| | FCP Lock | - | - | - | - | - | - | - | - |
| | Buzzer | - | - | O | - | O | - | O | O |
| E L E C T R O N I C A L P A R T S | Comp | Normal | | | | | | | Inverter |
| | Heater | Defrost | O | O | O | O | O | O | O |
| | | IL | O | O | O | O | O | O | O |
| | Motor (DC) | F | (AC) | (AC) | (AC) | (AC) | (AC) | (AC) | O |
| | | C | (AC) | (AC) | (AC) | (AC) | (AC) | (AC) | O |
| | Sensor | R | O | O | O | O | O | O | O |
| | | D | O | O | O | O | O | O | O |
| | | RT | O | O | O | O | O | O | O |
| | Door S/W | F | - | - | O | O | O | O | O |
| | | R | O | O | O | O | O | O | O |
| Lamp | F | - | - | O | O | O | O | O | |
| | R | O | O | O | O | O | O | O | |
| Etc. | PCB Location | Machine Room | Back | Machine Room | Machine Room | Machine Room | Machine Room | Machine Room | |
| | RT-S Location | Dial Type - Hinge, FCP Type – Front PCB Board | | | | | | | |

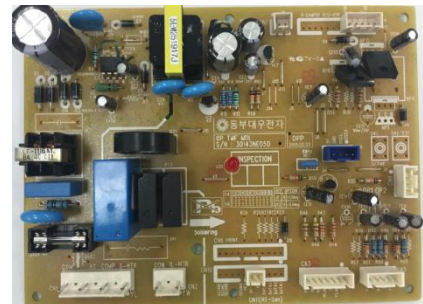
* AC fan motor is interlocked with comp, No PCB controls it.



<Dial Type PCB>



<Fcp Type PCB>

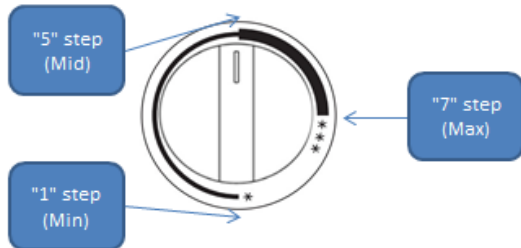


<Dial Inverter Type PCB>

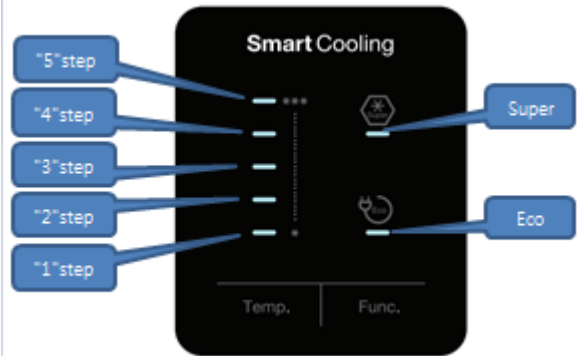
10-2. Control Panel

A. Panel graphic

Dial Type & Dial Inverter Type



Fcp Type



B. How to use Panel

Dial Type & Dial Inverter Type

1. Volume Dial : it controls temperature of refrigerator by step.

① How to set temperature : Turn round "Volume Dial Knob".

② Temperature setting sequence : 1step → 2step → 3step → 4step → 5step → 6step → 7step
(Min) (Mid) (Max)

Fcp Type

1. Temp Key : it controls temperature of refrigerator by step.

① Default : "3step"

② How to set temperature : Push "Temp." key

③ Temperature setting sequence : 1step → 2step → 3step → 4step → 5step
(Min) (Mid) (Max)

2. Func Key : It controls special Mode of refrigerator.

① Default : Mode Off

② How to change Mode : Push "Func." key

③ Mode change sequence : Mode Off -> Super Mode -> Eco Mode (repeat)

10-2. Control Pannel

C. Display

Fcp Type

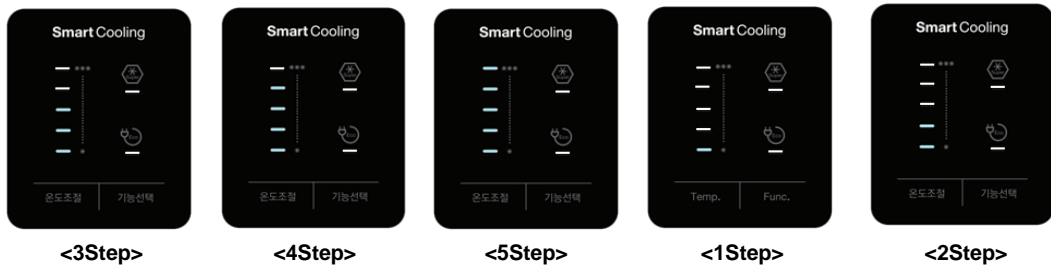
1. Operation

- ① At normal state, display led is on by 100% brightness.
- ② When it passes 1minutes without key operation or door operation, all led is off.
- ③ When there is operation for key or door at LED off condition, led display is back to the normal state.

2. Each MODE Display

1) Normal Mode Display

① Dial Display



② Special Mode Display



10-3. Freezer Control

* The refrigerator is R-Control system. Freezer temperature is controlled by mechanical.

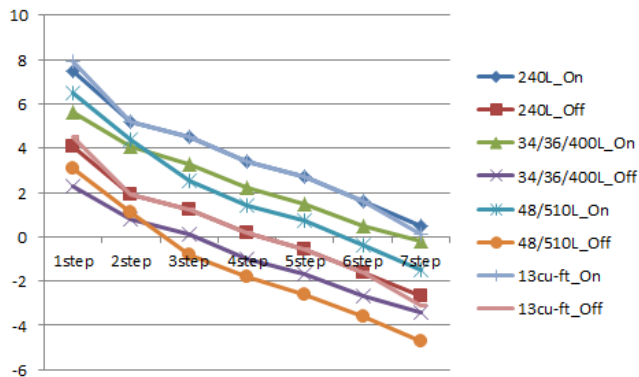
10-4. Refrigerator Control

| Input | Output |
|---|--|
| <p>* Dial Type & Dial Inverter Type</p> <ul style="list-style-type: none"> - volume dial knob <p>* Fcp Type</p> <ul style="list-style-type: none"> - Front PCB "Temp" Key | <ul style="list-style-type: none"> - Refrigerator temperature |

Dial Type & Dial Inverter Type

A. Refrigerator temperature setting (at 25 °C)

| Model | Temperature Adjust | 1stpe | 2stpe | 3stpe | 4stpe | 5stpe | 6stpe | 7stpe |
|------------|--------------------|-------|-------|-------|-------|-------|-------|-------|
| | | Min | | | | Mid | | Max |
| 240L | On Point (°C) | 7.5 | 5.2 | 4.5 | 3.4 | 2.7 | 1.6 | 0.5 |
| | Off Point (°C) | 4.1 | 1.9 | 1.2 | 0.2 | -0.6 | -1.6 | -2.7 |
| 34/36/400L | On Point (°C) | 5.6 | 4.1 | 3.3 | 2.2 | 1.5 | 0.5 | -0.2 |
| | Off Point (°C) | 2.3 | 0.8 | 0.1 | -1.0 | -1.7 | -2.7 | -3.4 |
| 48/510L | On Point (°C) | 6.5 | 4.4 | 2.5 | 1.4 | 0.7 | -0.4 | -1.5 |
| | Off Point (°C) | 3.1 | 1.1 | -0.8 | -1.8 | -2.6 | -3.6 | -4.7 |
| 13cu-ft | On Point (°C) | 7.9 | 5.2 | 4.5 | 3.4 | 2.7 | 1.6 | 0.1 |
| | Off Point (°C) | 4.5 | 1.9 | 1.2 | 0.2 | -0.6 | -1.6 | -3.1 |



10-4. Refrigerator Control

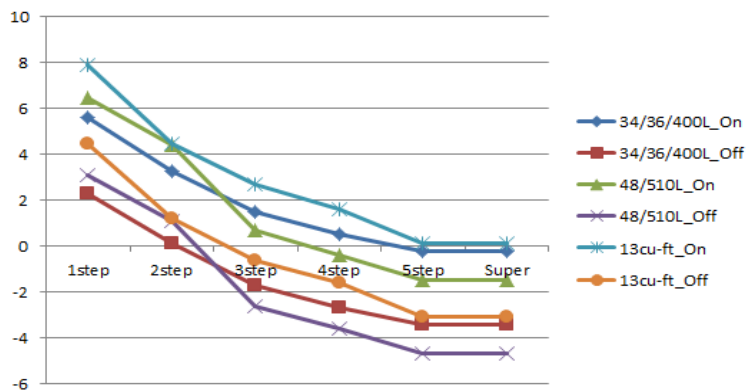
Fcp Type

A. Dial Default Setting

- "3step"

B. Refrigerator temperature setting (at 25°C)

| Model | Temperature Adjust | 1step | 2step | 3step | 4step | 5step | Super |
|------------|--------------------|-------|-------|-------|-------|-------|-------|
| | | Min | | Mid | | Max | Max |
| 34/36/400L | On Point (°C) | 5.6 | 3.3 | 1.5 | 0.5 | -0.2 | -0.2 |
| | Off Point (°C) | 2.3 | 0.1 | -1.7 | -2.7 | -3.4 | -3.4 |
| 48/510L | On Point (°C) | 6.5 | 4.4 | 0.7 | -0.4 | -1.5 | -1.5 |
| | Off Point (°C) | 3.1 | 1.1 | -2.6 | -3.6 | -4.7 | -4.7 |
| 13cu-ft | On Point (°C) | 7.9 | 4.5 | 2.7 | 1.6 | 0.1 | 0.1 |
| | Off Point (°C) | 4.5 | 1.2 | -0.6 | -1.6 | -3.1 | -3.1 |



10-5. Special Mode Control

| Input | Output |
|---------------|----------------------------|
| - "Func." Key | - Super Mode - Eco Mode |

Fcp Type

A. Special Mode

- 1) Super Mode : For quickly cooling the fridge
- 2) Eco Mode : For saving the power

B. Special Mode Operation

- 1) Super Mode

| | |
|----------------|-----------------------------------|
| Operation time | 40 minutes |
| COMP | Continuously On / On, Off control |

- 2) Eco Mode

| | |
|----------------|-----------------|
| Operation time | Unlimited |
| COMP | On, Off control |

C. Special Mode Release

- 1) Super Mode

- after 40 minutes .

- 2) Eco Mode

- Unlimited

- If open the door within 30 minutes, the Eco Mode is released

10-6. Comp Control

| Input | Output |
|---|---|
| <ul style="list-style-type: none"> - R-Sensor - Short Circuit / Defrost Mode - Elapsed time after comp off | <ul style="list-style-type: none"> - Comp On/Off Operation |

A. General Control

1) if Defrost Mode

| | |
|-----------|----------|
| Precool | Comp On |
| Heater On | Comp Off |
| Pause | Comp Off |
| Fan_Delay | Comp On |

* compressor details operation sees chapter "Defrost Control".

2) if Normal Mode

① R-Sensor Error

- Compressor is controlled of the time by RT-Sensor's range.

② No R-Sensor Error

- Compressor is controlled of the setting On/Off point (reference 7-4)

- R-Sensor \leq Comp Off point \rightarrow Comp Off

- R-Sensor $>$ Comp On point \rightarrow Comp On

B. Prevention of Compressor Restart

- Compressor doesn't work within 6minutes after Compressor turns off. (This is to protect comp)

ex) Compressor doesn't work after COMP turns off even though R-sensor is on condition

10-7. Defrost Control

| Input | Output |
|--|-----------------------------------|
| - RT / D-Sensor - Comp operation time / Real Time - Comp operation rate / Door Open Time | - Defrost Heater On/Off Operation |

A. Initial Defrost

| CONTENTS | EXPLANATION | | | | | | | | |
|-------------------------------|--|---|-------------|-----------|---|-------|--------------------|-----------|--|
| Inrush conditions | If the temperature at the D-sensor is under 3.5°C, Defrost Mode starts. When D-Sensor Error is happened, the initial defrost function isn't performed . | | | | | | | | |
| Each stage Release conditions | <table border="1"> <tr> <td>PreCool</td> <td>- Exception</td> </tr> <tr> <td>Heater On</td> <td> ① D-Sensor > 13°C ② after 60 minutes </td> </tr> <tr> <td>Pause</td> <td>- after 10 minutes</td> </tr> <tr> <td>Fan_Delay</td> <td> * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute </td> </tr> </table> | PreCool | - Exception | Heater On | ① D-Sensor > 13°C ② after 60 minutes | Pause | - after 10 minutes | Fan_Delay | * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute |
| | PreCool | - Exception | | | | | | | |
| | Heater On | ① D-Sensor > 13°C ② after 60 minutes | | | | | | | |
| | Pause | - after 10 minutes | | | | | | | |
| Fan_Delay | * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute | | | | | | | | |
| Mode release | Auto closed after performing functions | | | | | | | | |

10-7. Defrost Control

B. Normal Defrost Mode

| CONTENTS | EXPLANATION | |
|----------------------------------|---|--|
| Inrush conditions | ① When total operation time of compressor becomes: 6, 8, 10, 12 hours. ◆ Defrost conditions i . Any Error happens - R1, D1, RT, dF, dr, F3, C1 Error ii . running rate of COMP (per 2hrs of total operation time) is more than 90%. iii. total door open time is over 2 minutes. ② Even if the above condition “Defrost conditions” is not satisfied, i . Defrost mode starts immediately when total operation time of COMP is 14hrs. ii . defrost mode starts immediately as long as total time (COMP on time + COMP off time) is 72 hrs. | |
| Each stage Release conditions | PreCool | ① R-Sensor > Comp Off Point - 3.0℃ ② after 25 minutes |
| | Heater On | case 1) D-Sensor Error - after 30 minutes case 2) RT-Mode is “Normal-B” & No open the door & running rate of comp is less than 80% - D-Sensor > 7℃ case 3) if Comp Operating time is 6hours and the next Defrost ① D-Sensor > 15℃ ② after 70 minutes case 4) Else ① D-Sensor > 13℃ ② after 60 minutes |
| | Pause | case 1) if Comp Operating time is 6hours and the next Defrost - after 20 minutes case 2) Else - after 10 minutes |
| | Fan_Delay | * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute |
| Mode release | Auto closed after performing functions | |

10-7. Defrost Control

C. Low Temp. Defrost Mode

| CONTENTS | EXPLANATION | |
|-------------------------------|--|---|
| Inrush conditions | When RT Mode is Low-A,B, "Low Temp. defrost mode" starts immediately as long as total time (COMP on + off time) is 24 hrs. ◆ Mode Maintain conditions i . RT Mode must maintain Low-A,B | |
| Each stage Release conditions | PreCool | ① R-Sensor > Comp Off Point - 3.0℃ ② after 25 minutes |
| | Heater On | case 1) D-Sensor Error - after 30 minutes case 2) RT-Mode is "Normal-A" & No open the door - D-Sensor > 7℃ case 3) Else ① D-Sensor > 13℃ ② after 60 minutes |
| | Pause | - after 10 minutes |
| | Fan_Delay | * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute |
| Mode release | When RT Mode isn't low A, B, "Low Temp. defrost mode" is turned off immediately. At Low Temp. Defrost Mode, normal defrost mode is performed by satisfying the normal conditions. | |

D. High Temp. Defrost Mode

| CONTENTS | EXPLANATION | |
|-------------------------------|--|--|
| Inrush conditions | When RT Mode is High-A,B, Defrost mode starts immediately when total operation time of COMP is 24hrs. ◆ Mode Maintain conditions i . RT Mode must maintain High-A,B ii . The door maintains closing. iii. No happened the Error | |
| Each stage Release conditions | PreCool | ① R-Sensor > Comp Off Point - 3.0℃ ② after 25 minutes |
| | Heater On | ① D-Sensor > 13℃ ② after 60 minutes |
| | Pause | - after 10 minutes |
| | Fan_Delay | * Dial & Fcp Type – Exception * Dial Inverter Type - after 1 minute |
| Mode release | When the condition doesn't maintain, "High Temp. defrost mode" is turned off immediately. If "High Temp. defrost mode" is released, normal defrost mode is performed. | |

10-7. Defrost Control

* Defrost Flow

* General Defrost Flow

Defrost initial setting -> Precool -> Heater On -> Pause -> Fan_Delay -> Defrost end setting

I. Defrost initial setting

- Each check conditions are initialization.

II. Precool

- 1) Inrush conditions : after 'Defrost initial setting' completion.
- 2) Operation: Comp is On.

III. Heater On

- 1) Inrush conditions : aftr 'Precool' completion.
- 2) Operation : Defrost Heater On.

IV. Pause

- 1) Inrush conditions : after 'Heater On' completion
- 2) Operation : Comp, Defrost Heater Off

V. Fan_Delay

- 1) Inrush conditions : after 'Pause' completion.
- 2) Operation : Comp, C-Fan On

VI. Defrost end setting

- Each check conditions are initialization.

| CONTENTS | | Precool | HTR On | Pause | FAN Delay |
|----------------------------------|-------------|----------------------|--------|-------|-----------|
| Each stage Release conditions | | Refer "Defrost Flow" | | | |
| Parts. | Comp, C Fan | On | off | Off | On |
| | F-Fan | On | off | Off | Off |
| | Defrost-HTR | Off | On | Off | Off |

10-8. Buzzer Control

| Input | Output |
|---|---|
| <ul style="list-style-type: none"> - Front key - Open the door more than 3 minute | <ul style="list-style-type: none"> - Operate buzzer sound. |

Fcp Type & Dial Inverter Type

A. At power on

- After 2 seconds power's on, the buzzer rings 3 times.(sound : bbi~ bbi~ bbi~)

B. Front Key

- Whenever "PCB Control Panel" button's pushed, the buzzer rings.(sound : bbi~ bi~)

C. Test mode entry

- Operate mode changing sound

| Mode | Buzzer sound | |
|------------------------|--------------|---------------------------------------|
| As Forced Defrost Mode | Entry | 3 short beeps (sound : bbi bbi bbi) |
| | Release | No sound |
| Demo Mode | Entry | 3 long beeps (sound : bbi~ bbi~ bbi~) |
| | Release | 1 long beep (sound : bbi~~) |
| Jig Mode | Entry | 1 short beep (sound : bbi) |
| | Release | 3 long beeps (sound : bbi~ bbi~ bbi~) |
| Fine Adjustment Mode | Entry | 3 long beeps (sound : bbi~ bbi~ bbi~) |
| | Release | 1 long beep (sound : bbi~~) |

D. Door Open Alarm

- When door opens for 3 minutes, the buzzer rings every 1 minute for 5 minutes. (sound : bbi bbi bbi)

10-9. Door Switch Control

| Input | Output |
|---------------------|----------------------------|
| - High / Low Signal | - Door Open / Closes State |

A. F/R Door Switch

1) Door Open

- Door Open -> Door Switch On -> Micom Low (0V) signal Input.

2) Door Close

- Door Close -> Door Switch Off -> Micom High (5V) signal Input.

10-10. Lamp Control

| Input | Output |
|--|---------------------------|
| - Door Open / Closes State - Lamp On Elapsed time | - Lamp On / Off Operation |

A. F/R Lamp

1) Door Switch Error

- F/R Lamp is always off.

2) No Door Switch Error

① Door Open -> Lamp On, After 10 minutes, Lamp is forcibly off.

② Door Close -> Lamp Off.

Dial Type & Dial Inverter Type

*Exception) Line Defrost test Display

- This feature operates only within 120 minutes after the power is turned on.

- When A/S Forced Defrost Mode is entered, R-Lamp operates as follows

① Sensor Error -> R-Lamp is blinks for 30 seconds.

② No Sensor Error -> R-Lamp is forcibly on.

10-11. Cord Heater Control

| Input | Output |
|-----------|--------------------------------|
| - RT-Mode | - IL-Heater On / Off Operation |

A. Cord-Heater Operation

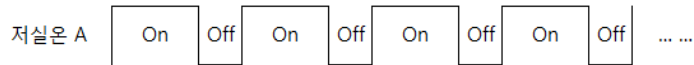
1) Defrost Mode

- Always maintain the Off state.

2) Else

① RT-Mode is Low-A

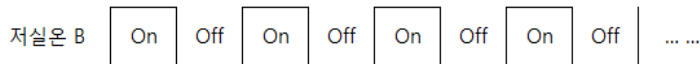
- It is controlled by setting time.



| Model | On time | Off time |
|---------|------------|------------|
| 48/510L | 25 minutes | 5 minutes |
| else | 20 minutes | 10 minutes |

② RT-Mode is Low-B

- It is controlled by setting time.



| Model | On time | Off time |
|---------|------------|------------|
| 48/510L | 15 minutes | 15 minutes |
| else | 15 minutes | 15 minutes |

③ The other RT-Mode and RT-Sensor Error

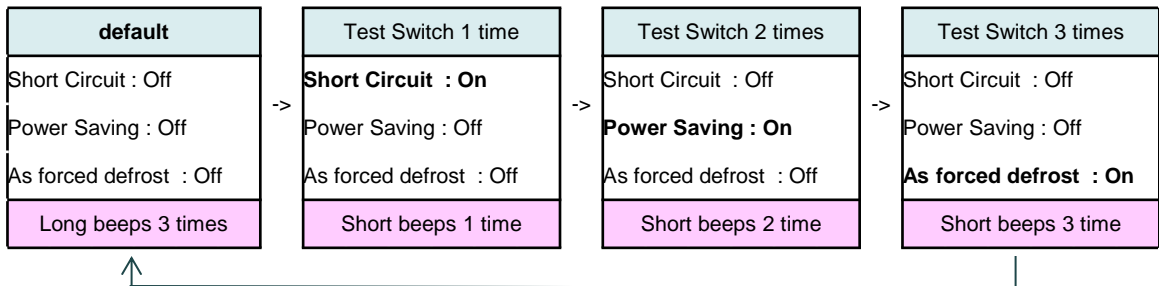
- Always maintain the Off state.

10-12. Function Switch Control (Main PCB Location)

| Input | Output |
|--------------------------------|---|
| - Test Switch - Time Switch | - Short Circuit / Power Saving / As Froced Defrost Mode selection. - Time Pass control |

A. Test Switch

- Using Test Switch (Part No. SW2) in the Main PCB, short-circuit mode, the Power Saving mode, As forced defrost mode can be entered.



* Pushing the Test Switch for 4 times, Test Mode is become default state.

B. Time Switch

- Using Test Switch (Part No. SW2) in the Main PCB, it can send forcedly the time.

① Short Click the Time Switch (within 1 second)

- 1 min : Click Time Switch one time on MAIN PCB.

② Push the Time Switch (more than 1 second)

- 30 min : If you press FAST KEY continuously, you can reduce 30 minutes on each 2.5 seconds with buzzer.

10-13. Mode Control

**Fcp Type can be entered the mode within 2 hours.
After 2 hours, The mode enterable environment is activated by pushing "TEMP + "FUNC" Key for 10 seconds.**

A. As Forced Defrost Mode

1) How to enter

① How to enter through Key Operation

* Dial Type & Dial Inverter Type

- by pressing "R-Door" switch for continuously and "Volume Dial" is rotated from 1 step to 7 step.

* Fcp Type

- by press "TEMP" button for continuously and "FUNC" button 5 times.

② How to enter through Main PCB Test Switch

- See part of the "Test Switch" in "Function Switch Control" Chapter.

2) Operation

- Process: same as General Defrost Mode except "PRE-COOL"

- Heater is on Initial 60 seconds even though the temp.

(for TEST)

| CONTENTS | | HTR On | Pause | Fan_Delay |
|----------------------------------|-------------|----------------------------------|--------------|--------------|
| Limited Time | | 60 minutes | 10 minutes | 1 minutes |
| Each stage Release conditions | | 1. Limited Time 2. D-S > 13°C | Limited Time | Limited Time |
| Parts. | Comp | Off | Off | On |
| | Defrost-HTR | On | Off | Off |

3) Mode release : Auto closed after performing functions.

B. Short Circuit Test Mode

1) How to enter : See part of the "Test Switch" in "Function Switch Control" Chapter.

(It is available to restart the test and it'll be take 30 hours.)

2) Operation

- COMP & FAN will be on independent of the operating condition.

- There is no defrost mode on this test.

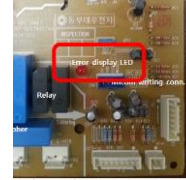
3) Mode release : after the limit test time 30 hours passes.

10-13. Mode Control

C. Error Display Mode

Dial Type & Dial Inverter Type

- 1) To confirm error happens or not, check LED on MAIN PCB
- 2) Operation



| Priority | Error Code | Method to control |
|----------|------------|----------------------------|
| 1 | R1 | Main PCB LED 1 time blink |
| 2 | RT | Main PCB LED 2 times blink |
| 3 | D1 | Main PCB LED 3 times blink |
| 4 | dr | Main PCB LED 4 times blink |
| 5 | dF | Main PCB LED 5 times blink |
| 6 | F3 | Main PCB LED 6 times blink |

- 3) Mode release : Automatic reset become when all error codes return to normal condition.

Fcp Type

- 1) How to enter : by pressing "FUNC" button for continuously and "TEMP" button 5 times.

2) Operation

- To confirm error happens or not, check Display LED
- When No Error, Only Eco LED blink.

- ① R Sensor Open : Fridge Temperature Bar "1"step LED On
R Sensor Short : Fridge Temperature Bar "1"step LED Twinkle

- ② RT Sensor Open : Fridge Temperature Bar "2"step LED On
RT Sensor Short : Fridge Temperature Bar "2"step Twinkle

- ③ D Sensor Open : Fridge Temperature Bar "3"step On
D Sensor Short : Fridge Temperature Bar "3"step Led Twinkle

- ④ F Door Error : Fridge Temperature Bar "4"step Led On

- ⑤ R Door Error : Fridge Temperature Bar "5"step Led On

- ⑥ Cycle Error : Super Led On

- ⑦ Return Defrost Error : Super Led Twinkle

- 3) Mode release : Push "FUNC" 1 time.

| Display | | 고장 증상 |
|--|--|----------------------|
| Fridge Temperature Bar "1"step LED On | | R Sensor Open |
| Fridge Temperature Bar "1"step LED Twinkle | | R Sensor Short |
| Fridge Temperature Bar "2"step LED On | | RT Sensor Open |
| Fridge Temperature Bar "2"step LED Twinkle | | RT Sensor Short |
| Fridge Temperature Bar "3"step LED On | | D Sensor Open |
| Fridge Temperature Bar "3"step LED Twinkle | | D Sensor Short |
| Fridge Temperature Bar "4"step LED On | | F Door Error |
| Fridge Temperature Bar "5"step LED On | | R Door Error |
| Super LED On | | Cycle Error |
| Super LED Twinkle | | Return Defrost Error |

10-13. Mode Control

Fcp Type

D. Fine Adjustment Mode



1) How to enter : by pressing "TEMP" buttons for 10 seconds.

2) Operation

- When enter the mode, Only Super LED blink

- On / Off point is varied by fine adjustment value.

| DISPLAY | Eco | Fridge Temperature Bar | | | | | fine adjustment value |
|------------|-----|------------------------|---------|---------|---------|---------|-----------------------|
| | | "1"step | "2"step | "3"step | "4"step | "5"step | |
| LED ON/OFF | | | | | | | -5 |
| | | | | | | | -4 |
| | | | | | | | -3 |
| | | | | | | | -2 |
| | | | | | | | -1 |
| | | | | | | | 0 |
| | | | | | | | 1 |
| | | | | | | | 2 |
| | | | | | | | 3 |
| | | | | | | | 4 |
| | | | | | | | 5 |

 : LED On
 : LED OFF

3) Mode release : When it passes 5seconds without key operation, auto closed the mode.

E. Demo Mode

1) How to enter : by pressing "FUNC" buttons for 10 seconds.

2) Operation

- All electronic compartments are off except "Display Panel".

- "1"step -> "2"step -> "3"step -> "4"step -> "5"step -> Super -> Eco -> All Led Off

- When "DEMO" mode works, led lamps will be on as next steps.

3) Mode release : by pressing "FUNC" buttons for 10 seconds

10-14. Control of R-sensor OFF Point

| Input | Output |
|----------------------|--|
| - J1, J2 On Main PCB | - Control Resistance of R sensor OFF Point |

A. LOW COOLING OPTION

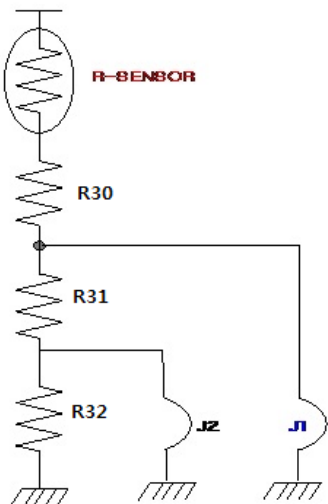
- (1) Adjust R-Sensor off point (Max 3.0deg down)
- (2) the following actions are recommended for service.
 - ① Resistance (R52) : Default resistance (31.4Kohms)
 - ② Resistance (R53) : Cut the "J1" off to reduce basic resistance by 1.5°C. (2KΩ up)
 - ③ Resistance (R54) : Cut the "J2" off additionally to reduce basic resistance by 1.5°C. (total 4KΩ up)

ex) $R52 = \text{R-SENSOR OFF point}$

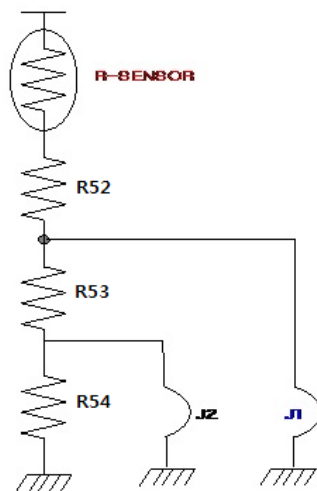
$R52 + R53 = \text{R-SENSOR OFF point} - 1.5^{\circ}\text{C}$

$R52 + R53 + R54 = \text{R-SENSOR OFF point} - 3^{\circ}\text{C}$

Dial Type



Fcp Type & Dial Inverter Type



10-15. Error Code

A. R-Sensor Error

- 1) Error Code : R1
- 2) Condition :
 - ① R-Sensor Open : It happens when R-Sensor is sensing less than -45°C
 - ② R-Sensor Short : It happens when R-Sensor is sensing more than 50°C
- 3) release : When R-Sensor is sensing from -45 to 50°C .

B. RT-Sensor Error

- 1) Error Code : Rt
- 2) Condition :
 - ① RT-Sensor Open : It happens when RT-Sensor is sensing less than -45°C
 - ② RT-Sensor Short : It happens when RT-Sensor is sensing more than 50°C
- 3) release : When RT-Sensor is sensing from -45 to 50°C .

C. D-Sensor Error

- 1) Error Code : D1
- 2) Condition :
 - ① D-Sensor Open : It happens when D-Sensor is sensing less than -45°C
 - ② D-Sensor Short : It happens when D-Sensor is sensing more than 50°C
- 3) release : When D-Sensor is sensing from -45 to 50°C

D. R-Door Error

- 1) Error Code : dr
- 2) Condition : It happens when the system senses R-Door opens more than 1 hour
- 3) release : If R-Door switch (close) is sensed, the error is terminated automatically

E. F-Door Error

- 1) Error Code : dF
- 2) Condition : It happens when the system senses F-Door opens more than 1 hour
- 3) release : If F-Door switch (close) is sensed, the error is terminated automatically

F. Cycle Error

- 1) Error Code : C1
- 2) Condition : When D-Sensor is more than -5°C , Comp operates over 3 hours
- 3) release : When Comp is off, D-Sensor is less than -5°C .

* When D-Sensor is normal operation, "C1" Error can be checked.

G. Return Defrost Error

- 1) Error Code : F3
- 2) Condition : Return to next limit defrost time.
- 3) release : Completion of defrost returned by D-Sensor.

* When D-Sensor is normal operation, "F3" Error can be checked.

10-16. Sensor Table

1. R, D, RT Sensor Table

| TEMP(°C) | MIN (Kohm) | MEAN (Kohm) | MAX (Kohm) | Resistance Tolerance(%) | Temp Tolerance(%) |
|----------|------------|-------------|------------|-------------------------|-------------------|
| -30 | -124.72 | 130.48 | 136.38 | 4.525 | 0.84 |
| -25 | 95.942 | 100.11 | 104.36 | 4.249 | 0.814 |
| -20 | 74.425 | 77.458 | 80.542 | 3.982 | 0.788 |
| -15 | 58.197 | 60.418 | 62.668 | 3.724 | 0.761 |
| -10 | 45.858 | 47.494 | 49.144 | 3.474 | 0.733 |
| -5 | 36.402 | 37.612 | 38.828 | 3.233 | 0.703 |
| 0 | 29.1 | 30 | 30.9 | 3 | 0.673 |
| 5 | 23.319 | 24.093 | 24.87 | 3.226 | 0.747 |
| 10 | 18.81 | 19.476 | 20.147 | 3.446 | 0.822 |
| 15 | 15.271 | 15.844 | 16.424 | 3.66 | 0.899 |
| 20 | 12.473 | 12.967 | 13.469 | 3.868 | 0.979 |
| 25 | 10.248 | 10.675 | 11.11 | 4.07 | 1.061 |
| 30 | 8.4682 | 8.8375 | 9.2145 | 4.267 | 1.145 |
| 35 | 7.0353 | 7.3556 | 7.6835 | 4.458 | 1.232 |
| 40 | 5.8755 | 6.154 | 6.4398 | 4.645 | 1.32 |
| 45 | 4.9317 | 5.1743 | 5.4241 | 4.826 | 1.411 |

2. F Sensor Table

| TEMP(°C) | MIN (Kohm) | MEAN (Kohm) | MAX (Kohm) | Resistance Tolerance(%) | Temp Tolerance(%) |
|----------|------------|-------------|------------|-------------------------|-------------------|
| -30 | 37.402 | 39.657 | 41.942 | 5.763 | 0.971 |
| -25 | 28.021 | 29.618 | 31.228 | 5.436 | 0.947 |
| -20 | 21.192 | 22.333 | 23.477 | 5.122 | 0.922 |
| -15 | 16.118 | 16.995 | 17.875 | 5.179 | 0.964 |
| -10 | 12.339 | 13.046 | 13.76 | 5.47 | 1.051 |
| -5 | 9.5266 | 10.1 | 10.68 | 5.75 | 1.141 |
| 0 | 7.4154 | 7.8816 | 8.3561 | 6.021 | 1.233 |
| 5 | 5.8173 | 6.1983 | 6.5876 | 6.282 | 1.328 |
| 10 | 4.5979 | 4.9106 | 5.2316 | 6.535 | 1.425 |
| 15 | 3.6603 | 3.9182 | 4.1839 | 6.78 | 1.525 |
| 20 | 2.9341 | 3.1478 | 3.3687 | 7.017 | 1.627 |
| 25 | 2.3676 | 2.5455 | 2.73 | 7.246 | 1.732 |
| 30 | 1.9227 | 2.0715 | 2.2262 | 7.469 | 1.84 |
| 35 | 1.5711 | 1.696 | 1.8264 | 7.684 | 1.95 |
| 40 | 1.2913 | 1.3968 | 1.507 | 7.894 | 2.063 |
| 45 | 1.0675 | 1.1568 | 1.2505 | 8.097 | 2.179 |

10-17. Constraint

A. H/W Constraint

- According to the local environment and Micom Spec, hardware function can be constrained.

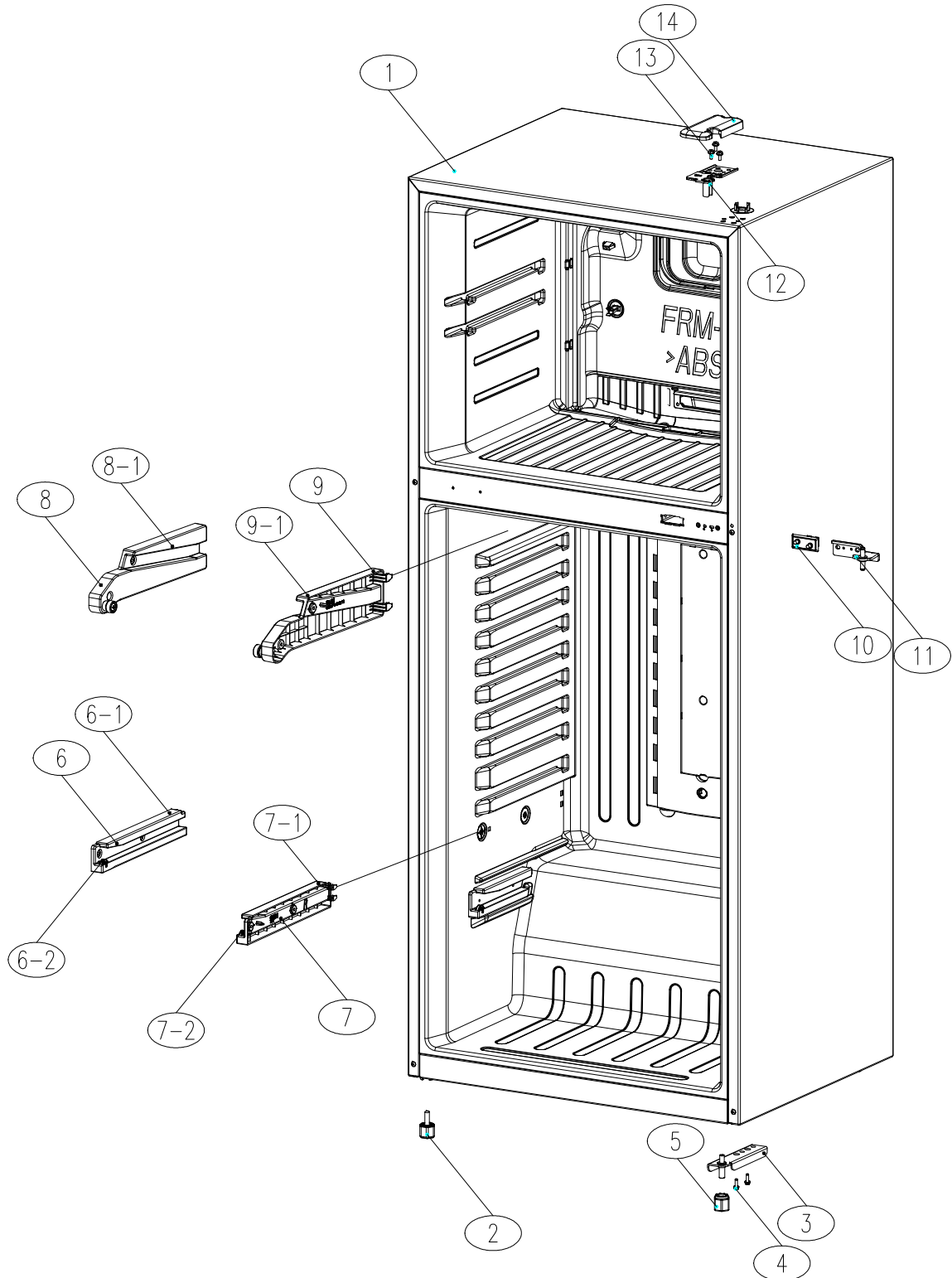
B. S/W Constraint

- Depending on the amount of memory and CPU performance may be different from the S / W performance results
- When operating with other and different applications, it may be deteriorated.

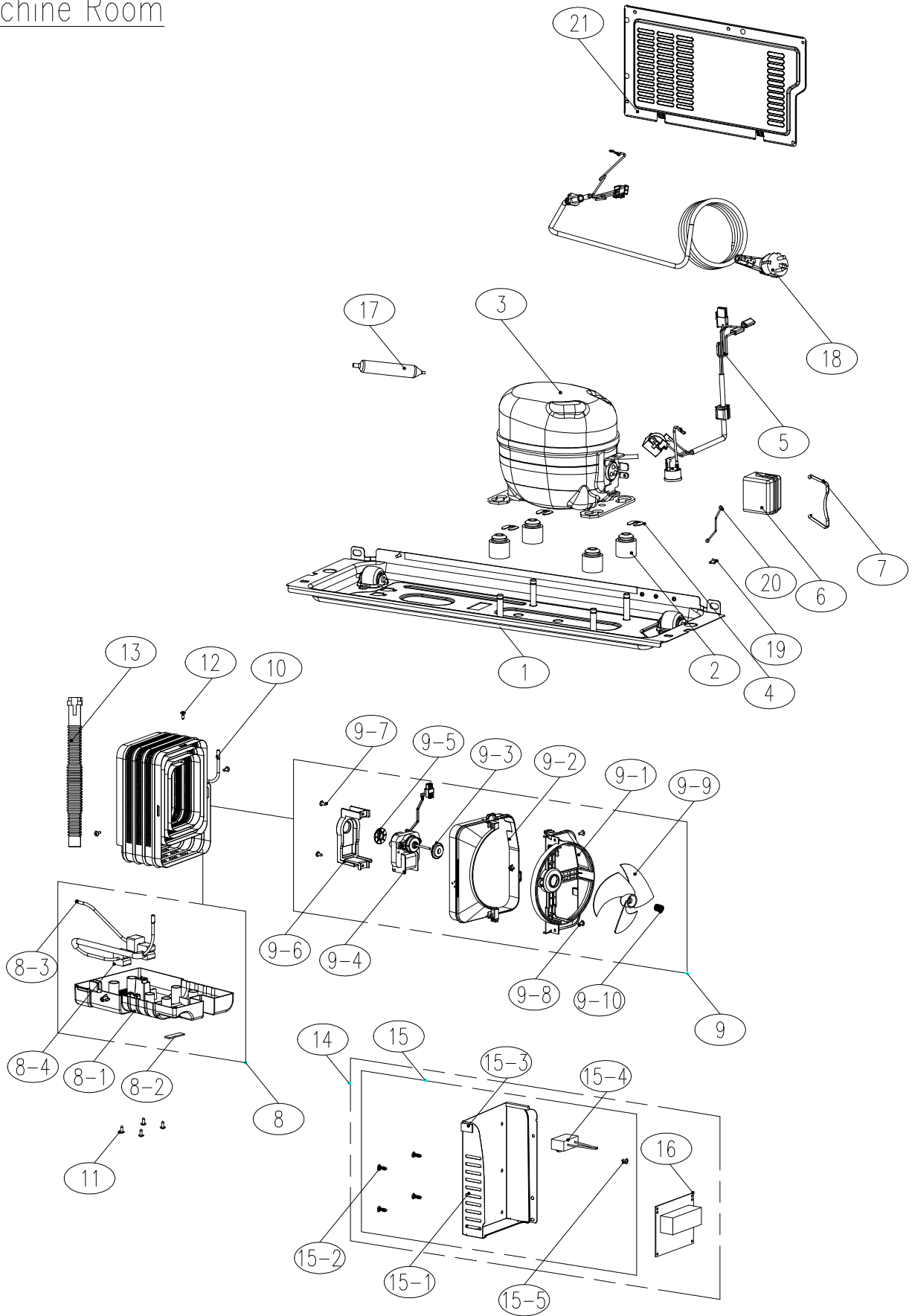
11. EXPLODED VIEW AND PART LIST

RGE34/36/40

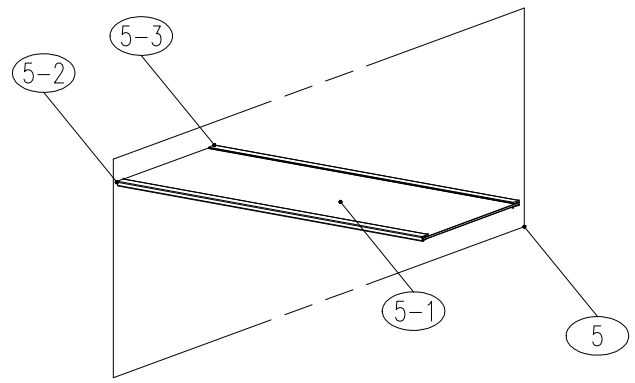
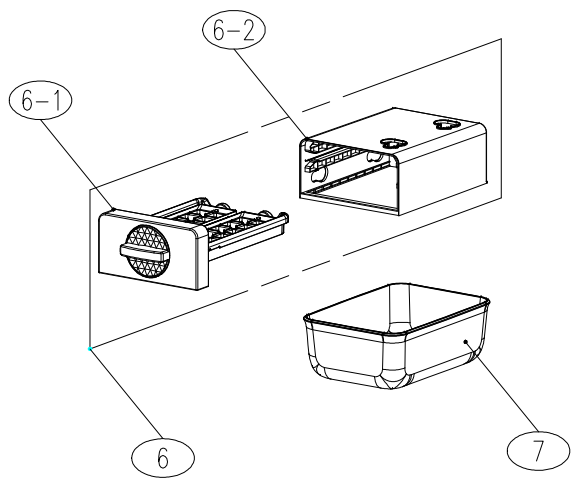
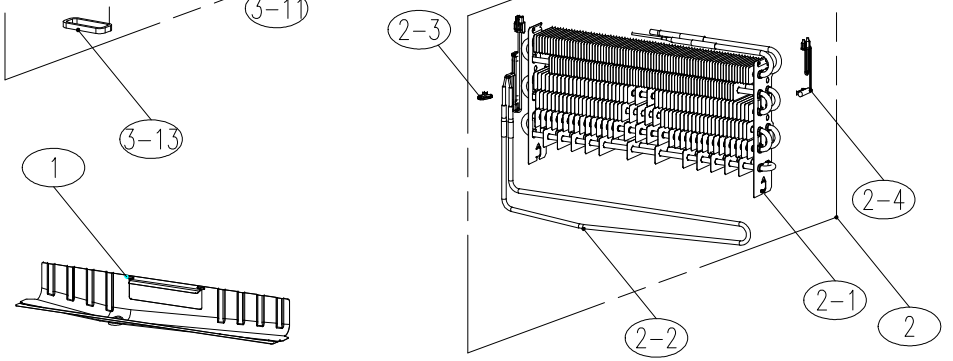
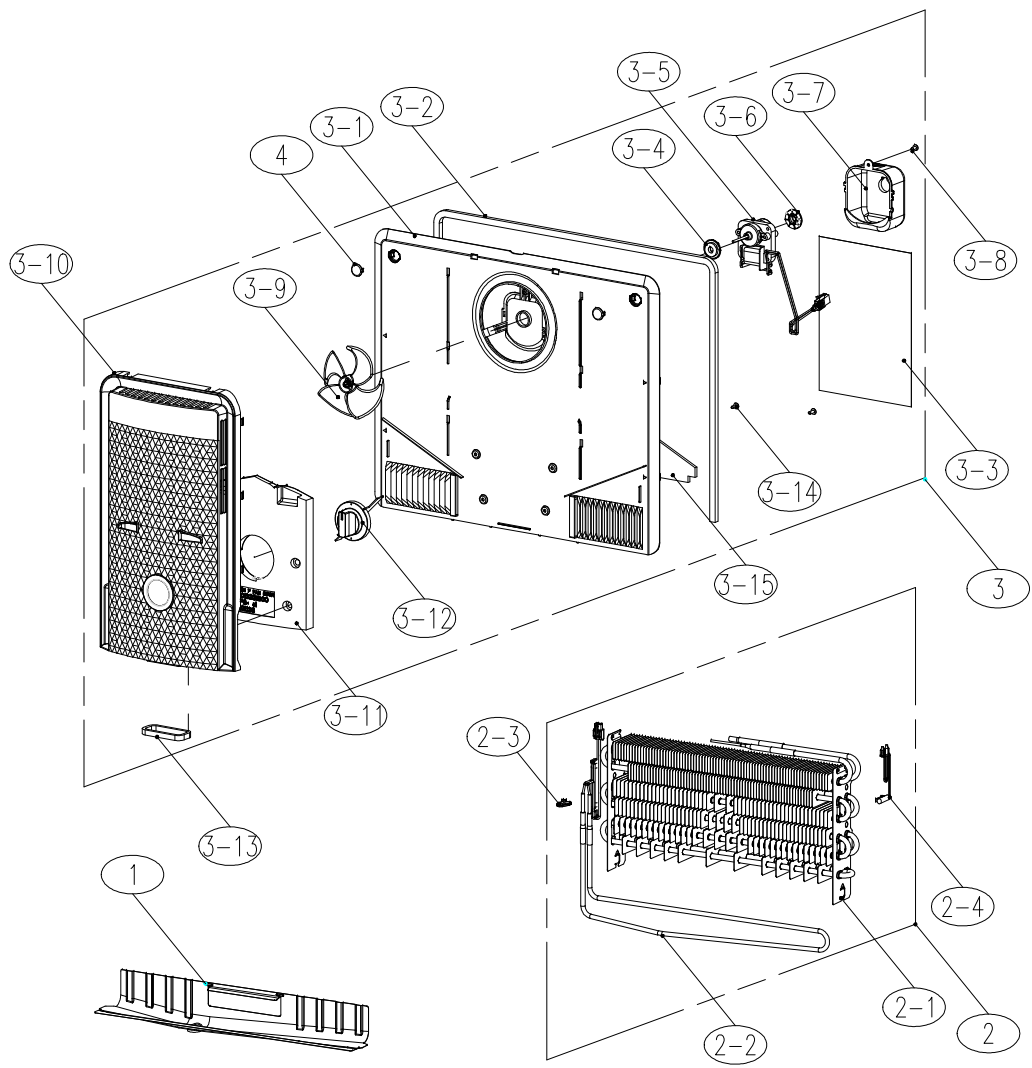
CABINET



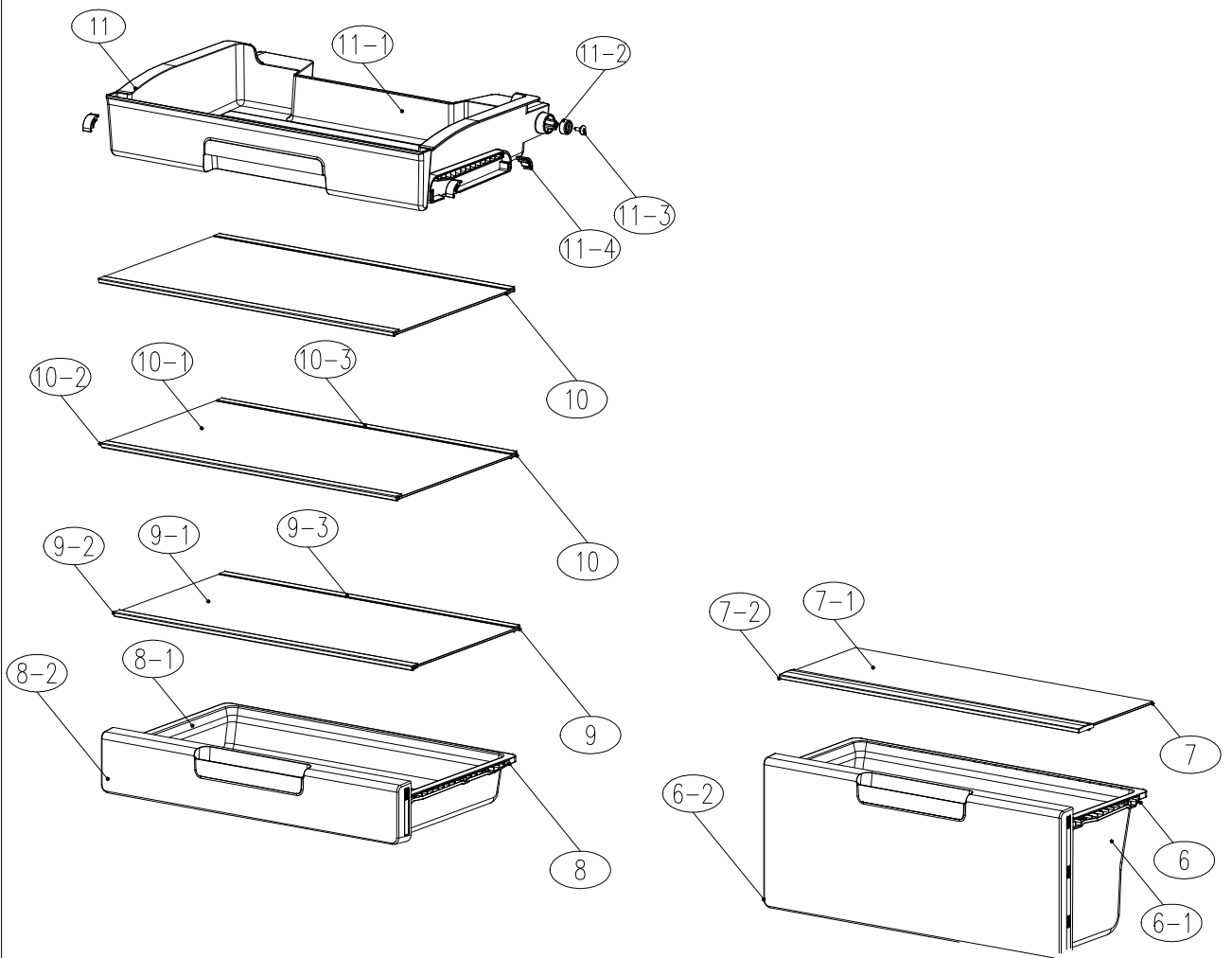
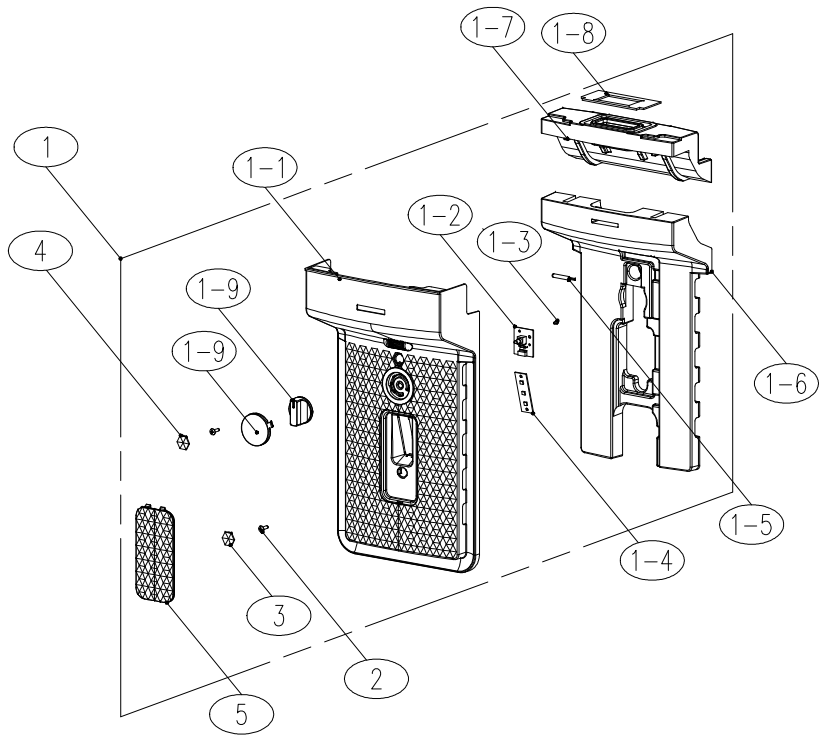
Machine Room



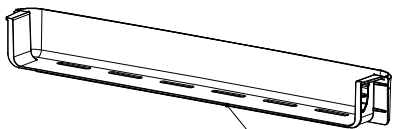
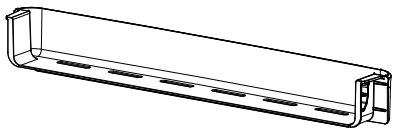
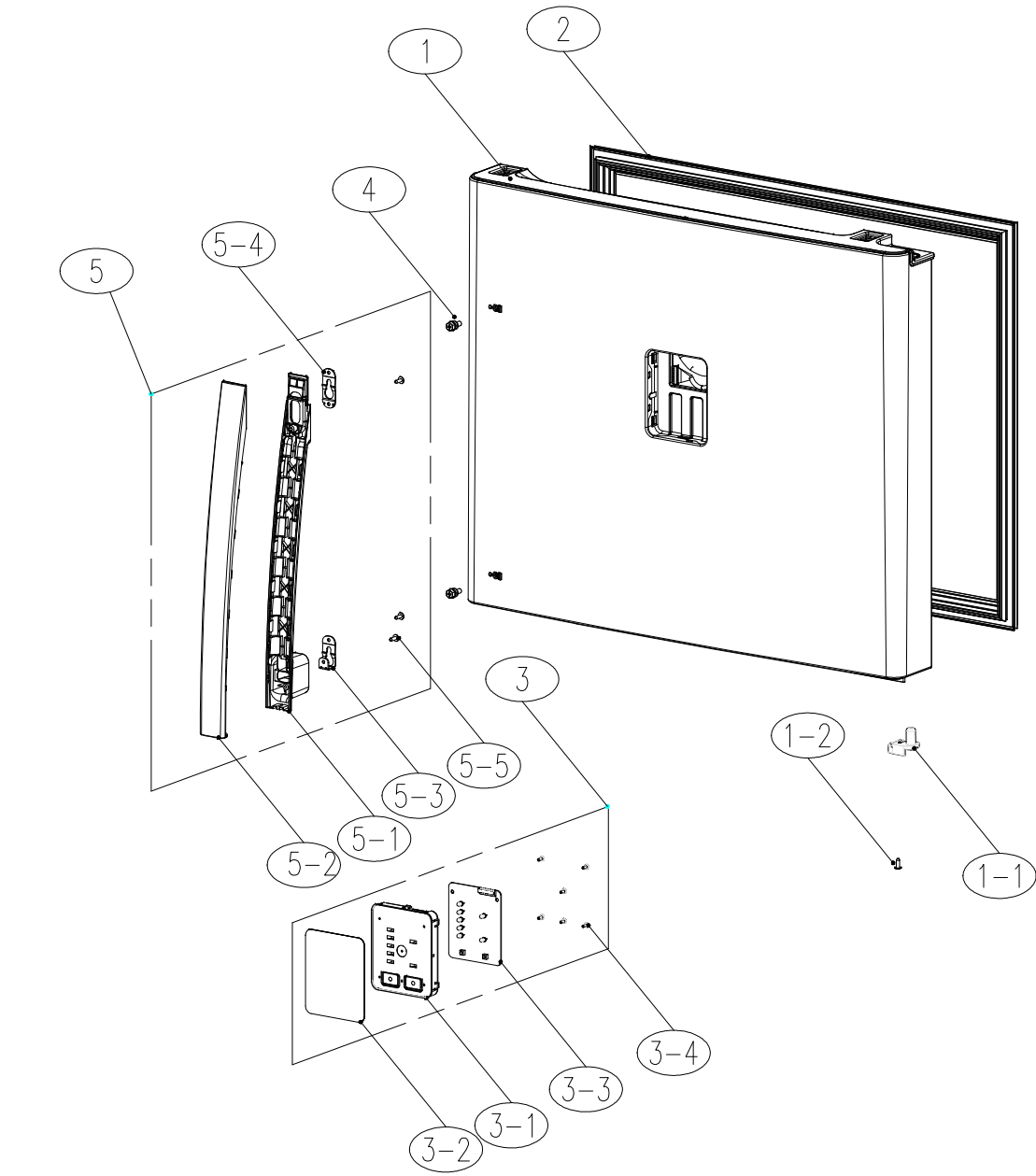
Freezer Compartment



Refreezer Compartment

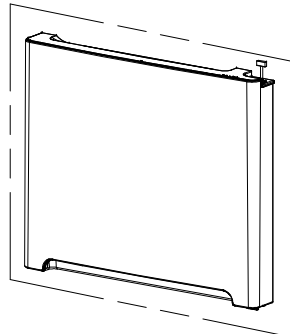


F DOOR

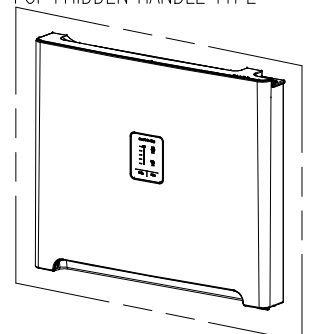


6

Non FCP+HIDDEN HANDLE TYPE

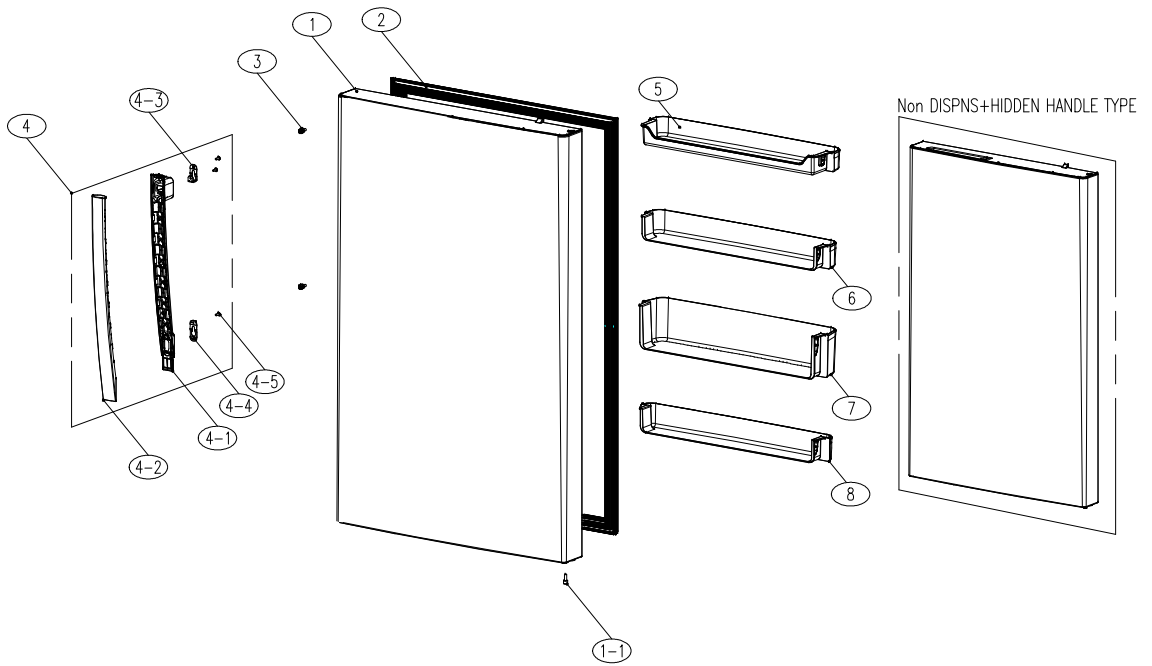


FCP+HIDDEN HANDLE TYPE

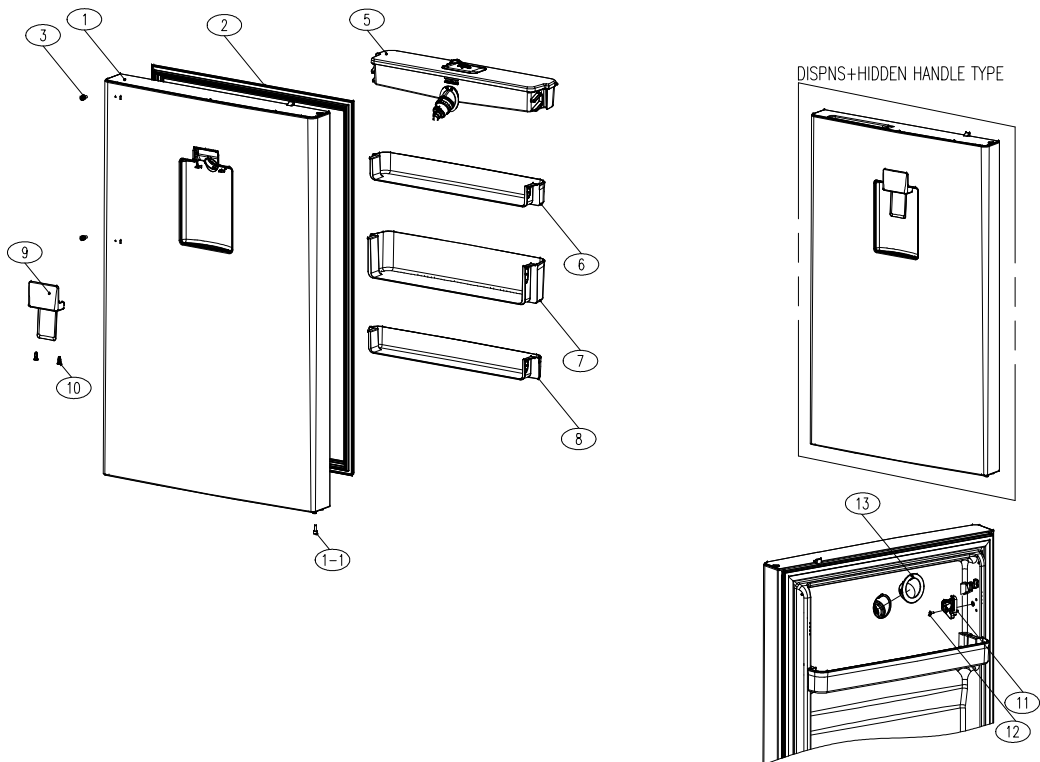


R DOOR

Non DISPNS TYPE



DISPNS TYPE



| |
|-----------------------|
| RGE34/36/40 PART LIST |
|-----------------------|

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|---------------------|---------------|-----------------|-------------------------|------|-------------------|
| CABINET | | | | | |
| 1 | | ASSY CAB URT | AS | 1 | |
| | | ASSY CAB URT | AS | 1 | |
| | | ASSY CAB URT | AS | 1 | |
| 2 | 3012106500 | FOOT ADJ *L AS | PP+INSERT | 1 | RGE34/36/40Common |
| 3 | 3012939300 | HINGE *U AS | AS | 1 | RGE34/36/40Common |
| 4 | 3016003300 | SPECIAL BOLT | T2 M6.5*20 | 2 | |
| 5 | 3012106600 | FOOT ADJ AS | PP J370A+M10 NUT | 1 | RGE34/36/40Common |
| 6 | 3012555500 | GUIDE C/C *L AS | AS | 1 | RGE34/36Common |
| | 3012555600 | GUIDE C/C *L AS | AS | 1 | RGE40 |
| 6-1 | 3012554300 | GUIDE C/C *L | PP | 1 | RGE34/36Common |
| | 3012554500 | GUIDE C/C *L | PP | 1 | RGE40 |
| 7 | 3012555700 | GUIDE C/C *R AS | AS, OPTION | 1 | RGE34/36Common |
| | 3012555800 | GUIDE C/C *R AS | AS, OPTION | 1 | RGE40 |
| 7-1 | 3012554400 | GUIDE C/C *R | PP | 1 | RGE34/36Common |
| | 3012554600 | GUIDE C/C *R | PP | 1 | RGE40 |
| 8 | 30125-0034300 | GUIDE U/C *L AS | AS | 1 | RGE34/36Common |
| | 30125-0034500 | GUIDE U/C *L AS | AS | 1 | RGE40 |
| 8-1 | 3012557200 | GUIDE U/C *L | PP | 1 | RGE34/36Common |
| | 3012557400 | GUIDE U/C *L | PP | 1 | RGE40 |
| 9 | 30125-0034400 | GUIDE U/C *R AS | AS | 1 | RGE34/36Common |
| | 30125-0034600 | GUIDE U/C *R AS | AS | 1 | RGE40 |
| 9-1 | 3012557300 | GUIDE U/C *R | PP | 1 | RGE34/36Common |
| | 3012557500 | GUIDE U/C *R | PP | 1 | RGE40 |
| 10 | 3018100010 | SWITCH DR | 2 BUTTON/4P,DSD-5 | 1 | RGE34/36/40Common |
| 11 | 3012941700 | HINGE *M AS | AS | 1 | RGE34/36/40Common |
| 12 | 3012939200 | HINGE *T AS | SCP-1, 2.6T / DIAL TYPE | | RGE34/36/40Common |
| | 3012935400 | HINGE *T AS | SHP1, 2.6T / FCP TYPE | 1 | RGE34/36/40Common |
| 13 | 3016001250 | SPECIAL BOLT *M | 6*15 SWCH22A(WH) | 1 | |
| 14 | 30149DS00 | COVER *T HI | PP, DIAL TYPE | 1 | RGE34/36/40Common |
| | 3001445400 | COVER *T HI | PP, FCP TYPE | 1 | RGE34/36/40Common |
| MACHINE ROOM | | | | | |
| 1 | 30103-0029000 | BASE COMP AS | AS | 2 | RGE34/36/40Common |
| 2 | 3010101600 | ABSORBER COMP | NBR | 1 | |
| 3 | 39561LJC6A | COMPRESSOR | LJ118DY, 220V/60HZ | 1 | RGE34/36/40Common |
| | 39516LJC5A | COMPRESSOR | LJ126CY, 230V/50HZ | 1 | RGE34/36/40Common |

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|------|---------------|-----------------------|-----------------------------|------|-------------------|
| 4 | 4019H09031 | SPECIAL WASHER | SWRH | 3 | |
| 5 | 60181-0010001 | SWITCH P RELAY AS | 220V/60HZ, LJ118DY | 1 | RGE34/36/40Common |
| | 3018136500 | SWITCH P RELAY AS | 230V/50HZ, LJ126CY | 1 | RGE34/36/40Common |
| 6 | 3811404100 | COVER RELAY | PP | 1 | |
| 7 | 3816100120 | CLAMP BAND | | 1 | |
| 8 | 30111-0043400 | CASE VAPORI AS | AS | 1 | RGE34/36/40Common |
| 8-1 | 301119YY00 | CASE VAPORI | PP NATURAL | 1 | |
| 8-2 | 3017708380 | SEAL LUVVR | F-PE, T2*W12*L40 | 1 | |
| 8-3 | 60144-0025800 | PIPE DELI CONN AS | AS | 1 | |
| 8-4 | 3018501200 | SEAL PIPE | PE+EPDM, 26*26*20 | 1 | |
| 9 | 30185-0002100 | M/BELL AS | AS, 220V/60HZ | 1 | RGE34/36/40Common |
| | 30185-0002300 | M/BELL AS | AS, 230V/50HZ | 1 | RGE34/36/40Common |
| 9-1 | 3018501200 | M/BELL A1 | PP NATURAL | 1 | |
| 9-2 | 3018501300 | M/BELL A2 | PP NATURAL | 1 | |
| 9-3 | 3010107100 | ABSORBER F MOTR | NBR | 1 | |
| 9-4 | 3015925800 | MOTOR C FAN | AC, 1500RPM, 220V/60HZ | 1 | RGE34/36/40Common |
| | 3015925400 | MOTOR C FAN | AC, 1500RPM, 230V/50HZ | 1 | RGE34/36/40Common |
| 9-5 | 3010107100 | ABSORBER F MOTR | NBR | 1 | |
| 9-6 | 3012048300 | FIXTURE C MOTOR | PP NATURAL | 1 | |
| 9-7 | 7122401011 | SCREW TAPPING | T2 TRS 4*10 MFZN | 2 | |
| 9-8 | 7122401011 | SCREW TAPPING | T2 TRS 4*10 MFZN | 2 | |
| 9-9 | 3011836500 | FAN | OD130, ABS | 1 | RGE34/36/40Common |
| 9-10 | 3011200510 | CLAMP FAN | SUS 304(SPRING) OD9.7 | 1 | |
| 10 | 3014486600 | PIPE WICON AS | AS | 1 | RGE34/36/40Common |
| 11 | 7112400811 | SCREW TAPPING | T1 TRS 4*8 MFZN | 4 | |
| 12 | 7122401211 | SCREW TAPPING | T1 TRS 4*12 MFZN | 3 | |
| 13 | 3013201700 | HOSE DRN B | PE | 1 | |
| 14 | 30105-0031200 | BOX M/PCB AS | AS, DIAL TYPE | 1 | RGE34/36/40Common |
| | 30105-0031400 | BOX M/PCB AS | AS, FCP TYPE | 1 | RGE34/36/40Common |
| 15 | 30105-0031300 | BOX M/PCB SAS | SAS, DIAL TYPE | 1 | RGE34/36/40Common |
| | 30105-0031500 | BOX M/PCB SAS | SAS, FCP TYPE | 1 | RGE34/36/40Common |
| 15-1 | 3010586800 | BOX M/PCB | SGCC T0.4 | 1 | |
| 15-2 | 3012047600 | FIXTURE M/PCB | NYLON 66 | 1 | |
| 15-3 | 3017760600 | SEAL FLAP MULTI DUCCT | F-PE(G) T2*W15*L50 | 1 | |
| 15-4 | 3016407040 | CAPACITOR RUN | 450V, 4UF(WIRE HOUSING,CQC) | 1 | RGE34/36/40Common |
| 15-5 | 7122401011 | SCREW TAPPING | T2S TRS 4*10 MFZN | 1 | |

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|----------------------------|---------------|-------------------|------------------------------|------|-------------------|
| 16 | 30143NC010 | REF PCB MAIN ASSY | FR-1, 122*97*1.6T, DIAL TYPE | 1 | RGE34/36/40Common |
| | 30143ND010 | REF PCB MAIN ASSY | FR-1, 122*97*1.6T, FCP TYPE | 1 | RGE34/36/40Common |
| 17 | 3016808220 | DRYER AS | 10G, SINGLE TUBE | 1 | RGE34/36/40Common |
| 18 | 60113-0006600 | CORD POWER AS | LP 61L | 1 | |
| 19 | 3012701170 | HARNESS EARTH | L145 | 1 | |
| 20 | 7S422X4081 | SPECIAL SCREW | TT3 TRS 4*8 SE MFZN | 3 | RGE34/36/40Common |
| 21 | 300149E200 | COVER MACH RM | SGCC, T0.25 | 1 | RGE34/36/40Common |
| Freezer Compartment | | | | | |
| 1 | 3012554700 | GUIDE DRN | GL. T0.35 | 1 | RGE34/36/40Common |
| 2 | 60170-0008900 | EVA AS | AS | 1 | RGE34/36/40Common |
| 2-1 | 60170-0009000 | EVA SAS | SAS | 1 | RGE34/36/40Common |
| 2-2 | 3012834100 | HEATER SHEATH AS | 230V | 1 | RGE34/36/40Common |
| 2-3 | 4856813100 | CABLE TIE | DA-140 | 1 | |
| 2-4 | 3012767720 | SENSOR D AS | ABS CAP, L110 | 1 | |
| 3 | 30189-0012200 | LOUVER F AS | AS, 220V/60HZ | 1 | RGE34/36/40Common |
| | 30189-0012300 | LOUVER F AS | AS, 230V/50HZ | 1 | RGE34/36/40Common |
| 3-1 | 3018905300 | LOUVER F | PP J370A | 1 | RGE34/36/40Common |
| 3-2 | 3018905300 | SEAL MULTI DUCT | F-OJC, T5*W88L1300 | 1 | |
| 3-3 | 2TA0301QWH | TAPE ALUMINUM | AL, T0.03*W170 | 1 | |
| 3-4 | 3010107100 | ABSORBER MOTOR | NBR | 1 | |
| 3-5 | 3015925500 | MOTOR F FAN | 220V/60HZ, 2000Rpm | 1 | RGE34/36/40Common |
| | 3015925100 | MOTOR F FAN | 230V/50HZ, 2000Rpm | 1 | RGE34/36/40Common |
| 3-6 | 3010107100 | ABSORBER MOTOR | NBR | 1 | |
| 3-7 | 3012045400 | FIXTURE MOTR *B | PP J370A | 1 | RGE34/36/40Common |
| 3-8 | 7112401211 | SCREW TAPPING | T2 TRS 4X12 MFZN | 1 | |
| 3-9 | 3011802700 | FAN AS | FAN(OD110)+CLAMP | 1 | RGE34/36/40Common |
| 3-10 | 301149FU00 | COVER F FAN | PP, 2.5T, SILK PRINT | 1 | RGE34/36/40Common |
| 3-11 | 3013331600 | INSU F FNA COVR | EPS ZKF-401 | 1 | RGE34/36/40Common |
| 3-12 | 3013417100 | KNOB F CONTL | HIPS | 1 | RGE34/36/40Common |
| 3-13 | 301779EWOO | SEAL F FAN COVR | EPDM T8*W34*L75 | 1 | |
| 3-14 | 7122401411 | SCREW TAPPING | T2 TRS 4X12 MFZN | 1 | |
| 3-15 | 60177-0055400 | SEAL F LUVR | F-PE(G) T5*W450*L65(SHAPE) | 1 | |
| 4 | 3010924600 | CAP F LOUVER | HIPS | 2 | |

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|------------------------------|---------------|----------------------|-----------------------------|------|-------------------|
| 5 | 30178-0026500 | SHELF F GLAS AS | AS | 1 | RGE34/36Common |
| | 30178-0026600 | SHELF F GLAS AS | AS | 1 | RGE40 |
| 5-1 | 3017867700 | SHELF F GLAS | W567*251.5, T3.2 | 1 | RGE34/36Common |
| | 3017867800 | SHELF F GLAS | W567*296.5, T3.2 | 1 | RGE40 |
| 5-2 | 3011615100 | DECO GLASS SHELF *F | ABS+URT(EXT), W567 | 1 | RGE34/36/40Common |
| 5-3 | 3011615000 | DECO GLASS SHELF *B | ABS+URT(EXT), W567 | 1 | RGE34/36/40Common |
| 6 | 30104-0026000 | BODY I/MAKER AS | AS, OPTION | 1 | RGE34/36/40Common |
| 6-1 | 30122-0033100 | FRAME I/MAKER AS | AS | 1 | |
| 6-2 | 3010405000 | BODY I MAKER | HIPS | 1 | |
| 7 | 301119YU00 | CASE ICE | PP | 1 | RGE34/36/40Common |
| Refreezer Compartment | | | | | |
| 1 | 30114-0077400 | COVER M/FLOW DUCT AS | AS, DIAL TYPE | 1 | RGE34/36/40Common |
| | 30114-0077300 | COVER M/FLOW DUCT AS | AS, FCP TYPE | 1 | RGE34/36/40Common |
| 1-1 | 301149FV00 | COVER M/FLOW DUCT | PP, SILK PRINT | 1 | RGE34/36/40Common |
| 1-2 | 30143KW260 | REF PCB SUB ASSY | AS, DIAL TYPE | 1 | RGE34/36/40Common |
| 1-3 | 7121300811 | SCREW TAPPING | T2S PAN 3*8 MFZN, DIAL TYPE | 1 | RGE34/36/40Common |
| 1-4 | 30136A1600 | LAMP LED AS | 3 Spot | 1 | |
| 1-5 | 3012796000 | HARNESS M/F DUCT AS | AS, VOLUME+SENSOR+LED | 1 | RGE34/36/40Common |
| | 60127-0037801 | HARNESS M/F DUCT AS | AS, SENSOR+LDE/FCP TYPE | 1 | RGE34/36/40Common |
| 1-6 | 3013392300 | INSU M/F DUCT A1 | EPS ZKF-401 | 1 | RGE34/36/40Common |
| 1-7 | 3013392400 | INSU M/F DUCT A2 | EPS ZKF-401 | 1 | RGE34/36/40Common |
| 1-8 | 60177-0055500 | SEAL M/FLOW DUCT A1 | F-OJC T3*W150*D70 | 1 | RGE34/36/40Common |
| 1-9 | 3013417300 | KNOB R CONTL | HIPS, DIAL TYPE | 1 | RGE34/36/40Common |
| | 301099YA00 | CAP KNOB R CONTL | HIPS, FCP TYPE | 1 | RGE34/36/40Common |
| 2 | 7122401411 | SCREW TAPPING | T2S TRS 4*14 MFZN | 2 | RGE34/36/40Common |
| 3 | 301099YB00 | CAP M/F DUCT | HIPS | 1 | |
| 4 | 301099YB00 | CAP M/F DUCT | HIPS | 1 | |
| 5 | 3015530S00 | WINDOW R LAMP | GPPS | 1 | RGE34/36/40Common |
| 6 | 30111-0042900 | CASE VEGETB AS | AS | 1 | RGE40 |
| | 30111-0043000 | CASE VEGETB AS | AS | 1 | RGE34/36Common |
| 6-1 | 301119YZ00 | CASE VEGETB | PP | 1 | RGE34/36Common |
| | 301119Z000 | CASE VEGETB | PP | 1 | RGE40 |
| 6-2 | 3015530T00 | WINDOW V/CASE | GPPS, SILK PRINT+HOT SP | 1 | RGE34/36/40Common |

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|---------------|---------------|----------------------|---------------------------|------|-------------------|
| 7 | 30178-0025600 | SHELF V/CASE AS | AS | 1 | RGE34/36Common |
| | 30178-0025800 | SHELF V/CASE AS | AS | 1 | RGE40 |
| 7-1 | 30178-0025500 | SHELF V/CASE GLAS | W567*D193.5, T3.2 | 1 | RGE34/36Common |
| | 30178-0025700 | SHELF V/CASE GLAS | W567*D238.5, T3.2 | 1 | RGE40 |
| 7-2 | 3011673300 | DECO V/CASE SHELF *F | PP | 1 | RGE34/36/40Common |
| 8 | 30111-0043100 | CASE FRESH AS | AS, OPTION | 1 | RGE34/36Common |
| | 30111-0043200 | CASE FRESH AS | AS, OPTION | 1 | RGE40 |
| 8-1 | 301119YS00 | CASE FRESH | PP | 1 | RGE34/36Common |
| | 301119YT00 | CASE FRESH | PP | 1 | RGE40 |
| 8-2 | 3015530R00 | WINDOW FRESH CASE | GPPS, SILK PRINT+HOT SP | 1 | RGE34/36/40Common |
| 9 | 30178-0026900 | SHELF F/CASE GLAS AS | AS | 1 | RGE34/36Common |
| | 30178-0027000 | SHELF F/CASE GLAS AS | AS | 1 | RGE40 |
| 9-1 | 30178-0026300 | SHELF F/CASE GLAS | W567*D294, T3.2 | 1 | RGE34/36Common |
| | 30178-0026400 | SHELF F/CASE GLAS | W567*D339, T3.2 | 1 | RGE40 |
| 9-2 | 3011615100 | DECO SHELF GLAS *F | ABS+URT L567 | | "10-2" Common |
| 9-3 | 3011615000 | DECO SHELF GLAS *B | ABS+URT L567 | 1 | "10-3" Common |
| 10 | 30178-0026700 | SHELF R GLAS AS | AS | 2 | RGE34/36Common |
| | 30178-0026800 | SHELF R GLAS AS | AS | 2 | RGE40 |
| 10-1 | 30178-0026100 | SHELF R GLAS | W567*D325, T3.2 | 1 | RGE34/36Common |
| | 30178-0026200 | SHELF R GLAS | W567*D370, T3.2 | 1 | RGE40 |
| 11 | 30111-0042700 | CASE UTIL AS | AS, OPTION | 1 | RGE34/36Common |
| | 30111-0042800 | CASE UTIL AS | AS, OPTION | 1 | RGE40 |
| 11-1 | 301119YW00 | CASE UTILITY | GPPS | 1 | RGE34/36Common |
| | 301119YX00 | CASE UTILITY | GPPS | 1 | RGE40 |
| 11-2 | 3010708300 | ROLLER UTIL CASE | PP | 1 | RGE34/36/40Common |
| 11-3 | 30106-0012000 | ABSORBER UTIL CASE | SILICON | 1 | RGE34/36/40Common |
| 11-4 | 3010146100 | SPECIAL SCREW | SWCH 1018A, ZN+NI Plating | 1 | RGE34/36/40Common |
| F Door | | | | | |
| 1 | | ASSY F DR URT | AS, DIAL TYPE | 1 | RGE34/36/40Common |
| | | ASSY F DR URT | AS, FCP TYPE | 1 | RGE34/36/40Common |
| | | ASSY F DR URT | AS ("5" Non GRIP HANDLE) | 1 | RGE34/36/40Common |
| 1-1 | 3010708200 | BUSH F DR CAP *U | POM(TX*11H) | 1 | RGE34/36/40Common |
| 1-2 | 7122401611 | SCREW TAPPING | T2S TRS 4X16 MFZN | 1 | |
| 2 | 3012332900 | GASKET F DR AS | PVC-S | 1 | RGE34/36/40Common |
| 3 | 60142-0022200 | PANEL CONTL *F AS | AS, FCP TYPE | 1 | RGE34/36/40Common |
| 3-1 | 3014263600 | PANEL CONTL *F | ABS | 1 | RGE34/36/40Common |
| 3-2 | 30155-0019100 | WINDOW FCP AS | PC | 1 | RGE34/36/40Common |
| 3-3 | 30143NE160 | REF PCB FRONT ASSY | FR-1, 81*196-1.6T | 1 | RGE34/36/40Common |
| 3-4 | 7173300811 | SCREW TAPPING | TT2 BIN 3*8 MFZN | 1 | |

| NO | PART NUMBER | PART NAME | PART DESCRIPTION | Q'ty | Remark |
|---------------|---------------|-------------------------|---------------------------|------|-------------------|
| 4 | 3016046400 | SPECIAL BOLT HNDL | M6, SWCH10A | 1 | |
| 5 | 30126-0021300 | HANDLE F AS | AS | 1 | RGE34/36/40Common |
| 5-1 | 3012663N00 | HANDLE F | ABS | 1 | |
| 5-2 | 3011673000 | DECO F HANDLE | ABS | 1 | |
| 5-3 | 3012048400 | FIXTURE HNDL A2 | SPCC, 1.6T Zn Plating | 1 | |
| 5-4 | 30120-0024400 | FIXTURE HNDL A1 | SPCC, 1.6T Zn Plating | 1 | |
| 5-5 | 7122401211 | SCREW TAPPING | T2S TRS 4X12 MFZN | 1 | |
| 6 | 3019074000 | POCKET F | GPPS | 1 | RGE34/36/40Common |
| R Door | | | | | |
| 1 | | ASSY R DR URT | AS | 1 | RGE34 |
| | | ASSY R DR URT | AS, DISPNS TYPE | 1 | RGE34 |
| | | ASSY R DR URT | AS("4" Non GRIP HANDLE) | 1 | RGE34,HIDDEN |
| | | ASSY R DR URT | AS | | RGE34 |
| | | ASSY R DR URT | AS | 1 | RGE34 |
| | | ASSY R DR URT | AS("4" Non GRIP HANDLE) | 1 | RGE34,HIDDEN |
| 1-1 | 3016047410 | SPECIAL STOPPER DR BOLT | TAP-TITE 5*16 | 1 | |
| 2 | 3012333100 | GASKET R DR AS | PVC-S | 1 | RGE34/36/40Common |
| 3 | 3016046400 | SPECIAL BOLT HNDL | M6, SWCH10A | 2 | |
| 4 | 3012655600 | HANDLE R AS | AS | 1 | RGE34/36/40Common |
| 4-1 | 3012663P00 | HANDLE R | ABS | 1 | |
| 4-2 | 3011673200 | DECO R HANDLE | ABS | 1 | RGE34/36/40Common |
| 4-3 | 3012048400 | FIXTURE HNDL A2 | SPCC, 1.6T Zn Plating | 1 | RGE34/36/40Common |
| 4-4 | 30120-0024400 | FIXTURE HNDL A1 | SPCC, 1.6T Zn Plating | 1 | RGE34/36/40Common |
| 4-5 | 7122401211 | SCREW TAPPING | T2S TRS 4X12 MFZN | 3 | |
| 5 | 3019074300 | POCKET R *T | GPPS | 1 | RGE34/36/40Common |
| | 30182-0003800 | TANK WATER AS | AS, DISPNS TYPE | 1 | RGE34/36/40Common |
| 6 | 3019074200 | POCKET R *M | GPPS | 1 | RGE34/36/40Common |
| 7 | 3019074100 | POCKET JUMBO | GPPS, SILK PRINT | 1 | RGE34/36/40Common |
| 8 | 3019074400 | POCKET R *U | GPPS | 1 | RGE34/36/40Common |
| 9 | 60142-0022100 | PANEL DISPNS AS | AS, DISPNS TYPE | 1 | RGE34/36/40Common |
| 10 | 3012042100 | FIXTURE K | ABS, DISPNS TYPE | 1 | RGE34/36/40Common |
| 11 | 3015206400 | STOPPER W/TANK *R | ABS, DISPNS TYPE | 1 | RGE34/36/40Common |
| 12 | 7112401211 | SCREW TAPPING | T1 TRS 4*12 MFZN, DISPNS | 1 | RGE34/36/40Common |
| 13 | 3013002100 | HOLDER W/TANK | LDPE, DISPNS TYPE | 1 | RGE34/36/40Common |