

# *Service Manual*

## *~ Ballista Dispenser ~*



F/Model : FRP-301D..  
B/Model: RF-331D..  
RN-331D..

• Notice )  
RF : R-134a (Refrigerant)  
RN : R-600a (Refrigerant)

### ✓ Caution

In this manual, some parts can be changed for improving their performance without notice.  
So, If you need the latest parts information, please visit and refer to PPL (Parts Price List) ]  
in Service Information Center. ( <http://svc.dwe.co.kr> )

Ver. 1.0

Dec. 2014.

## WARNINGS AND PRECAUTIONS FOR SAFETY

Please observe the following safety precautions in order to use safely and correctly the refrigerator and to prevent accident and danger during repair.

1. Be care of an electric shock. Disconnect power cord from wall outlet and wait for more than three minutes before replacing PCB parts.  
Shut off the power whenever replacing and repairing electric components.
2. When connecting power cord, please wait for more than five minutes after power cord was disconnected from the wall outlet.
3. Please check if the power plug is pressed down by the refrigerator against the wall.  
If the power plug was damaged, it may cause fire or electric shock.
4. If the wall outlet is over loaded, it may cause fire.  
Please use its own individual electrical outlet for the refrigerator.
5. Please make sure the outlet is properly earthed, particularly in wet or damp area.
6. Use standard electrical components when replacing them.
7. Make sure the hook is correctly engaged.  
Remove dust and foreign materials from the housing and connecting parts.
8. Do not fray, damage, machine, heavily bend, pull out or twist the power cord.
9. Please check the evidence of moisture intrusion in the electrical components.  
Replace the parts or mask it with insulation tapes if moisture intrusion was confirmed.
10. Do not let the customers repair, disassemble and reconstruct the refrigerator for themselves.  
It may cause accident, electric shock, or fire.
11. Do not store flammable materials such as ether, benzene, alcohol, chemicals, gas, or medicine in the refrigerator.
12. Do not put flower vase, cup, cosmetics, chemicals, etc., or container with full of water on the top of the refrigerator.
13. Do not put glass bottles with full of water into the freezer.  
The contents shall freeze and break the glass bottles.
14. When you scrap the refrigerator, please disconnect the door gasket first and scrap it where children are not accessible.

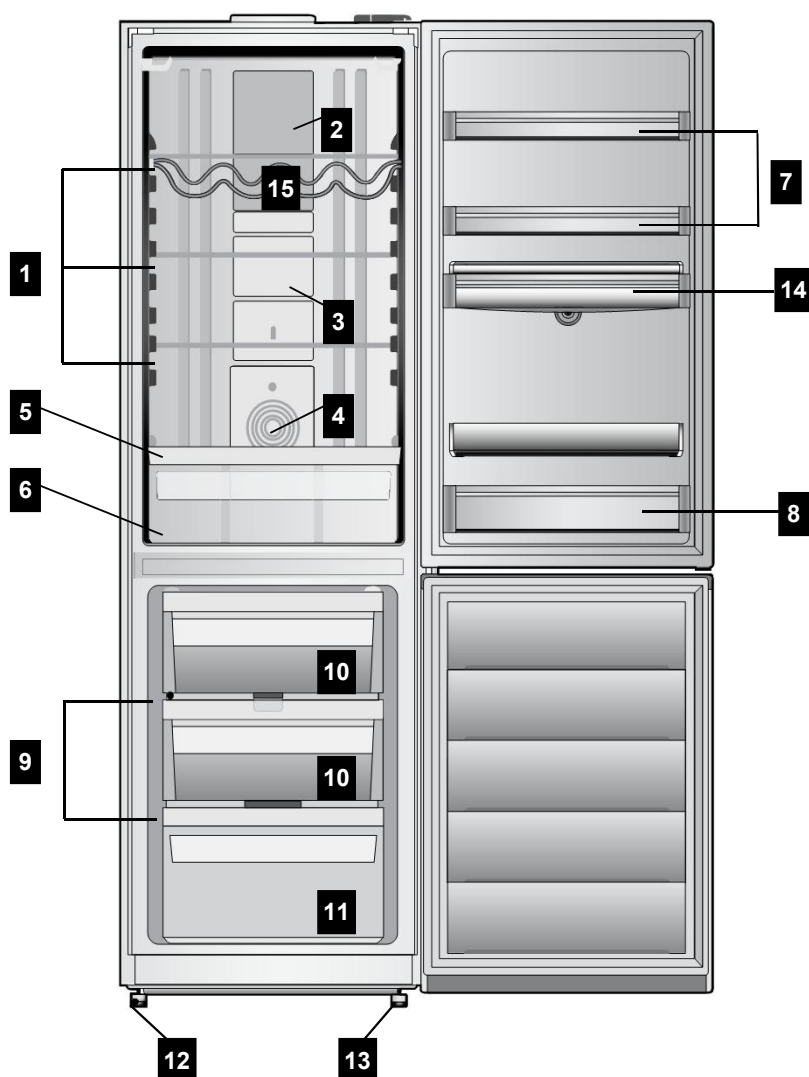
## 1. SPECIFICATIONS

### 1-1. Model Information

\* is the Door Type

Buyer No.		RN-33*D
Factory No.		RFP-30*D*P8N
Gross Vol. ISO 15502 (unit: L)	Total	335
	Freezer	111
	Refrigerator	224
Storage Vol. ISO 15502 (unit: L)	Total	302
	Freezer	84
	Refrigerator	218
Diemension (unit: mm)	Net Width (Packing)	595(634)
	Net Depth (Packing)	650(685)
	Net Height (Packing)	1870(1970)
Net Weight (Packing)		67(73)kg
Control Type		KNOB & Digital Smart Control
Cooling Cycle	Refrigerant Type	R-600a
	Refrigerant Charge	0.044kg
	Evaporator Type	Fin Type
	Condenser Type	Natural Convection Cooling System
	Dryer	Desiccant: Molecular Sieve xH-9
	Capillary Tube (unit: mm)	ID0.7 x T0.55 x L2290
Heater	Defrost Type	Automatic Start & Stop
	Defrost Heater	AC230V, 130W
	Defrost Shape	Sheath Type
Freezer Fan Motor		AC(A+) / DC(A++) MOTOR
Refrigerator Lighting		Bulb LED 1.2W x 1EA
Blowing Agent		C-Pentane

1-2. Interior Parts

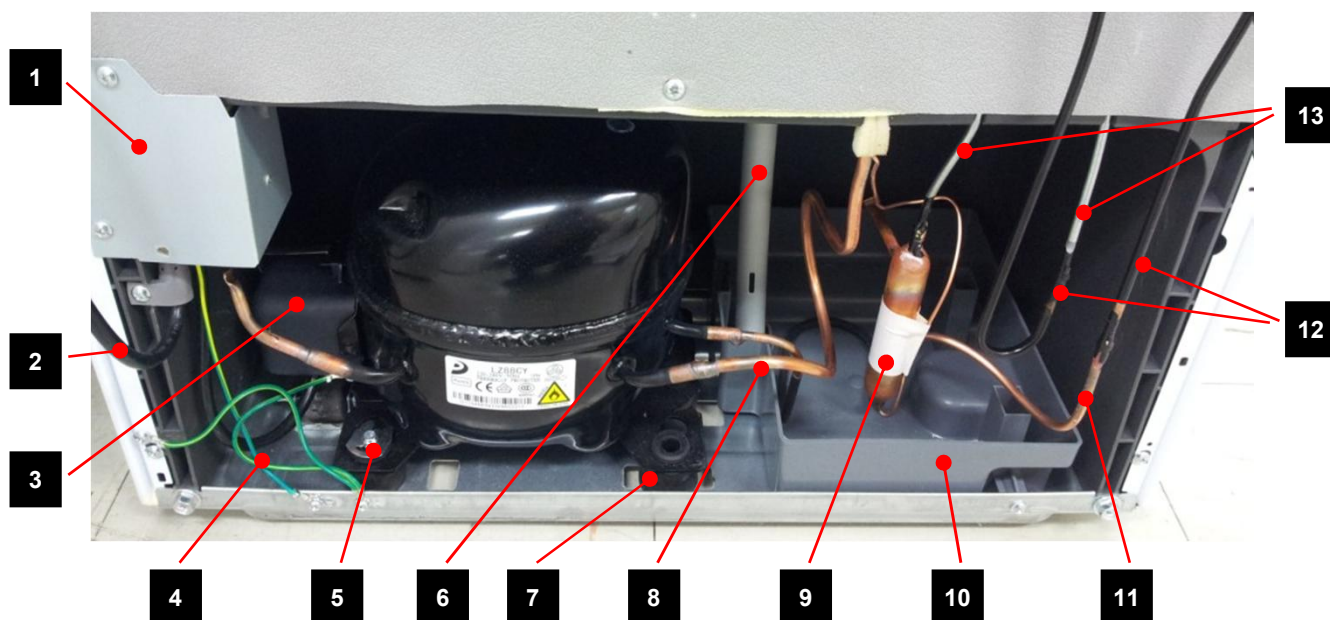


- 1. Refrigerator Shelves
- 2. Lamp Window
- 3. Multi Duct
- 4. Knob R Control
- 5. Cover Vegetable Case
- 6. Vegetable Case
- 7. Refrigerator Pocket "R"

- 8. Refrigerator Pocket "J"
- 9. Freezer Shelves
- 10. Freezer Case "A"
- 11. Freezer Case "B"
- 12. Adjusting Leg (Left)
- 13. Adjusting Leg (Right)
- 14. Tank Water AS
- 15. Wine Rack [Option]

## 1-3. Machine (Compressor) Compartment View

- Features are model dependent



1.Box Power As (Capacitor Run)

2. Power Cord

3. Switch P Relay As

4. Earth Comp Wire

5. Fixture Compressor (Washer)

6. Drain Hose

7. Compressor Absorber

8. Suction Pipe As

9. Dryer As

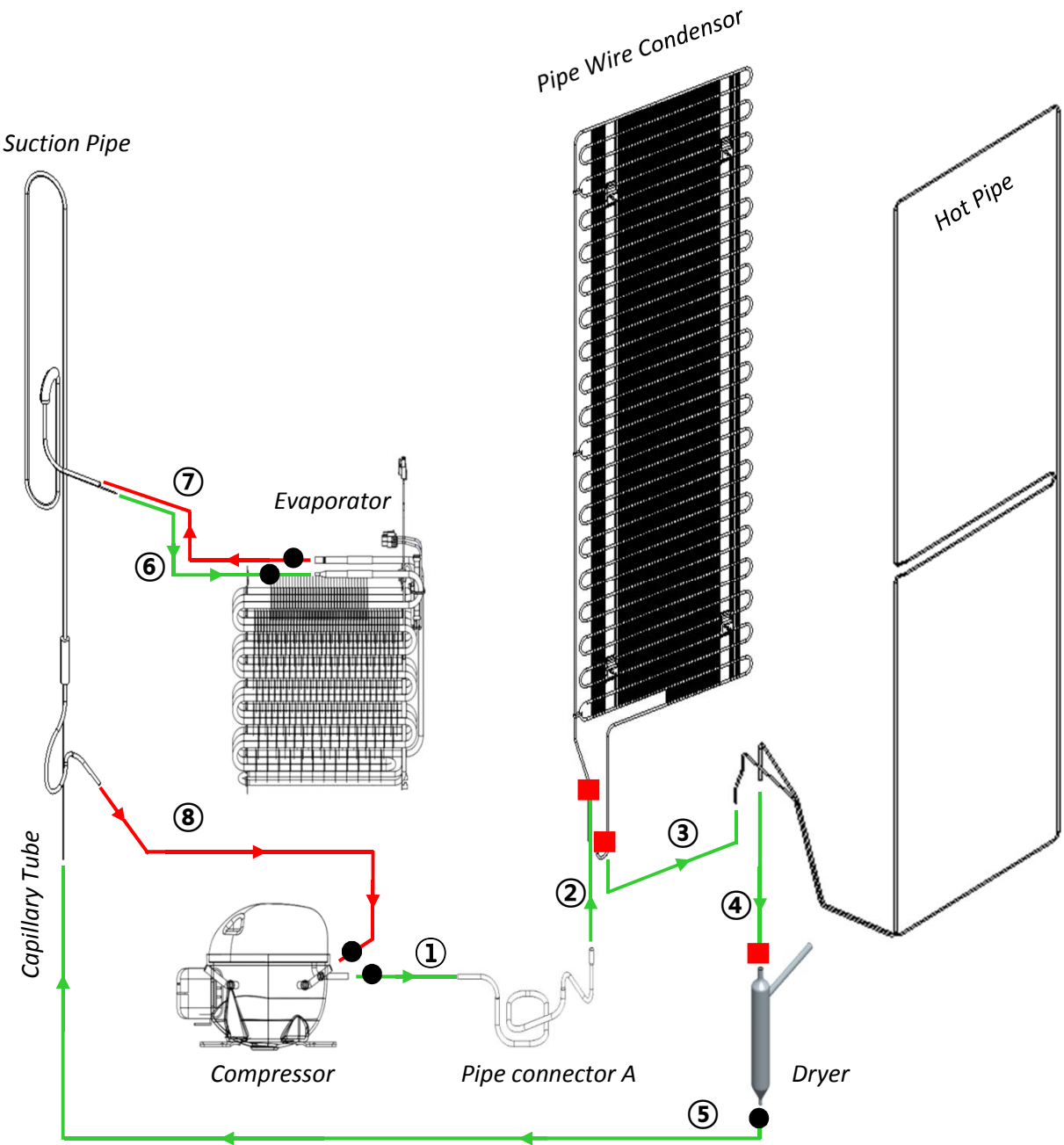
10. Case vaporization As

11. Pipe connector A

12. Pipe Wire Condensor As

13. Pipe Hot

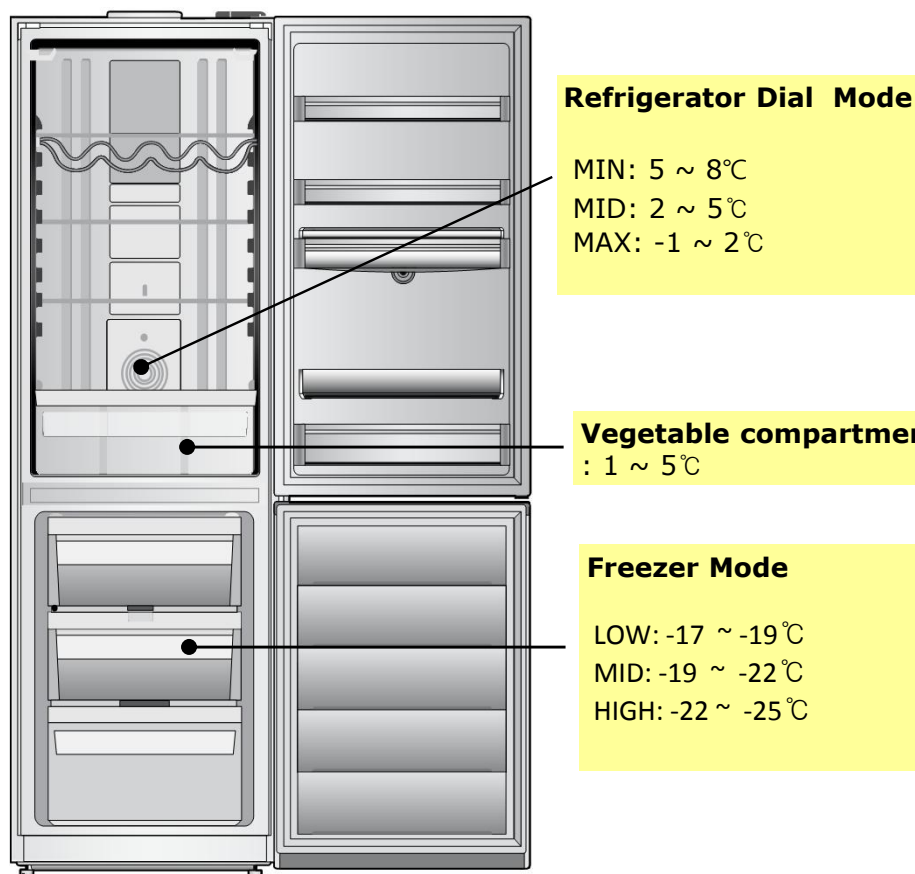
1-4. Refrigerant Cycle



- Welding Point

●	Copper Welding ( Ag 5%)	5 Point
■	Silver Welding ( Ag 30%)	3 Point

## 1-5. Temperature Diagram



\* Features are model dependent

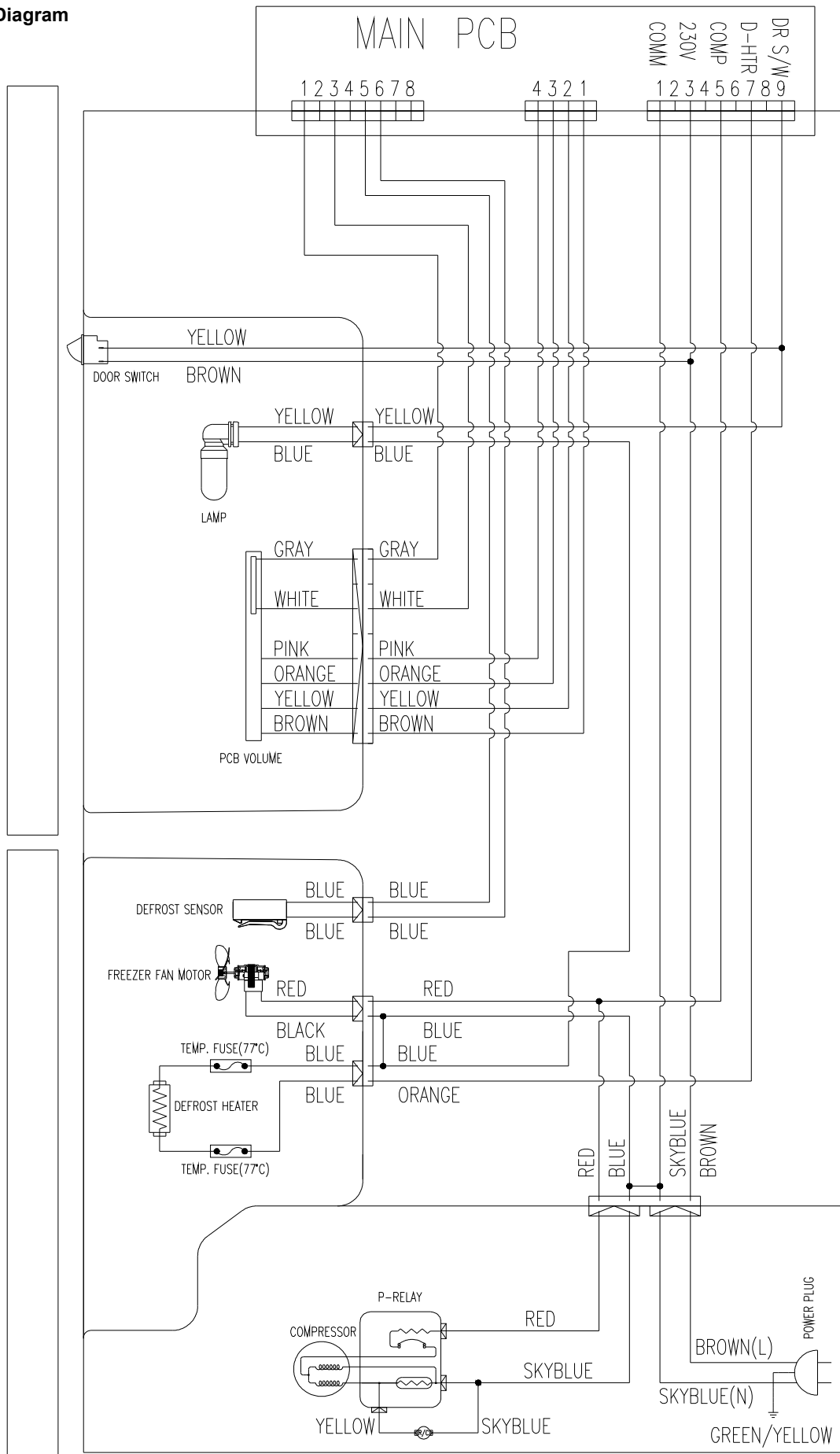


; The actual inner temperature varies depending on the food status, as the indicated setting temperature is a target temperature, not actual temperature within refrigerator.

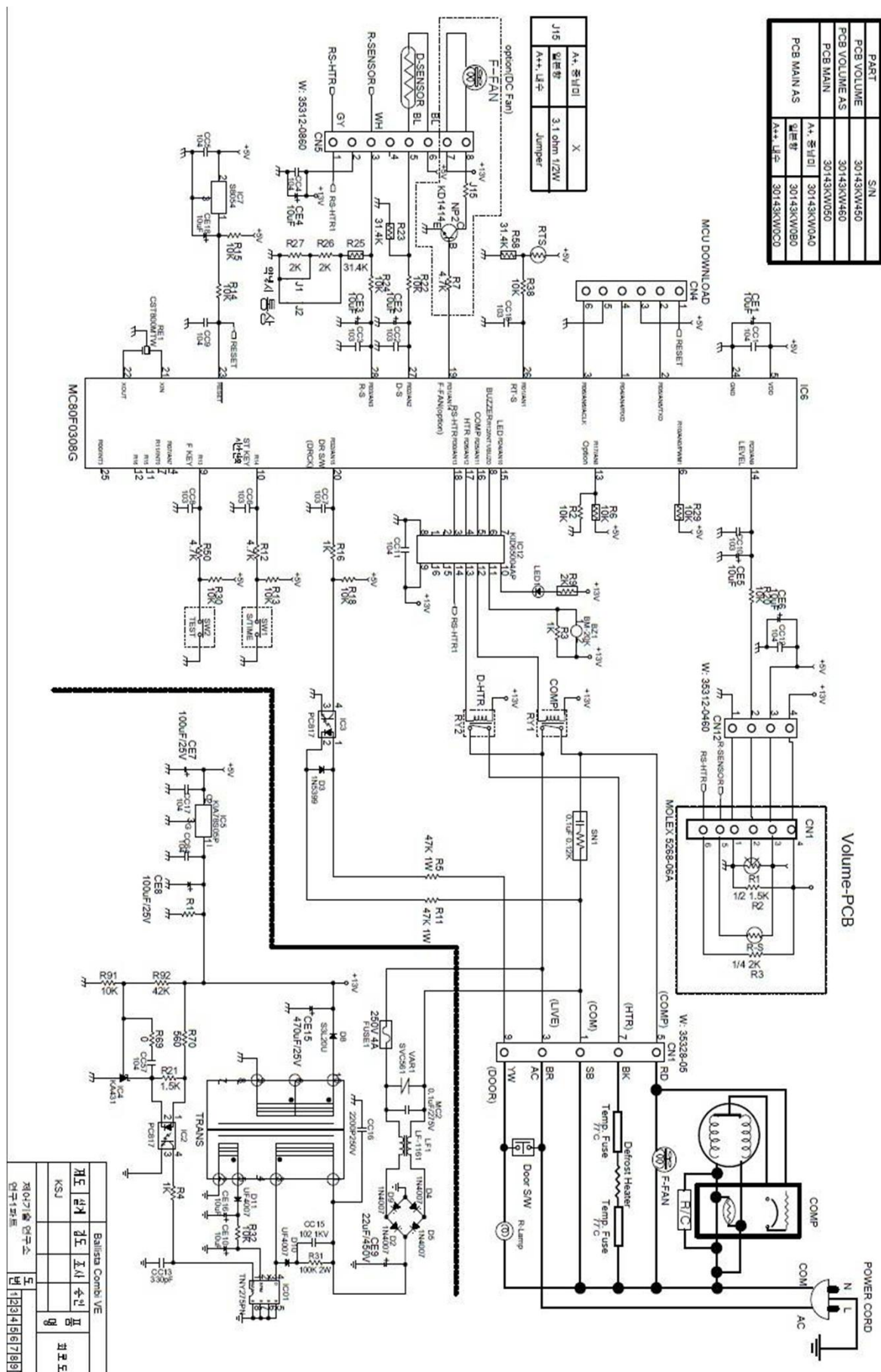
; Refrigeration function is weak in the initial time.

Please adjust temperature as above after using refrigerator for minimum 1 ~ 2 days.

1-6. Wiring Diagram







### 2-1. "PCB VOLUME" Control

#### INPUT

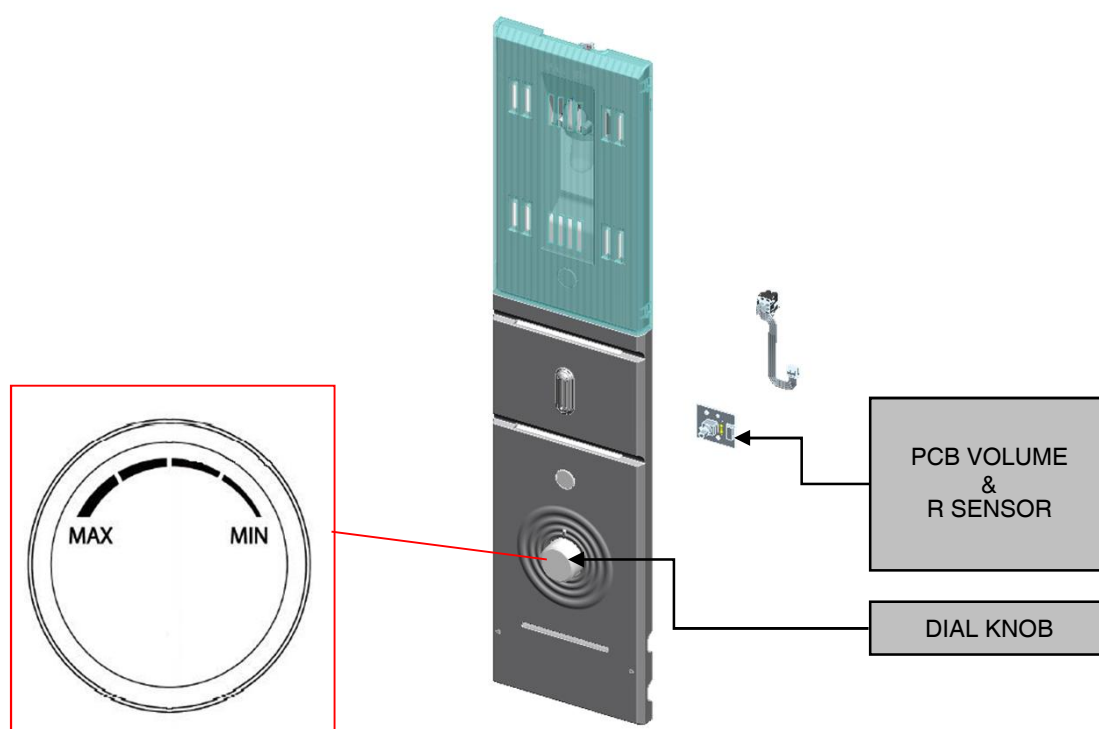
- Turn 'DIAL KNOB' on the 'COVER M/FLOW DUCT'.

#### CONTROL OBJECT

-PCB Volume

- Temperature is controlled by "PCB Volume" assembled with "Dial Knob".
- 16step(0step ~ 15step) mode of successive temperature mode
- Each model is different using range.  
step 4 ~ step 14

- Features are model dependent  
<'COVER M/FLOW DUCT AS': Air Duct Device in the Refrigerating Compartment>



**2-2. Temperature Control of Refrigerator Compartment**

INPUT	CONTROL OBJECT
- Turn 'DIAL KNOB' - R sensor	- COMPRESSOR - FAN

A. COMP and FAN will be controlled by the on/off condition of each mode.

B. Temperature Difference of Refrigerator each step :

STEP	3	4	5	6	7	8	9	10	11	12	13	14
ON(°C)	9.8	9.0	8.3	7.5	6.7	6.0	5.2	4.5	3.8	3.0	2.3	1.6
OFF(°C)	7.5	6.7	6.0	5.2	4.5	3.8	3.0	2.3	1.6	0.9	0.2	-0.6

	MIN					MID						MAX
ON/OFF DIFF	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2

C. Temperature of Refrigerator at Mid-'Dial Knob' OFF point :

- 3.0°C

D. Refrigerator ON/OFF Temp.

Difference: 2.1~2.3°C

E. Temperature of Freezer Control

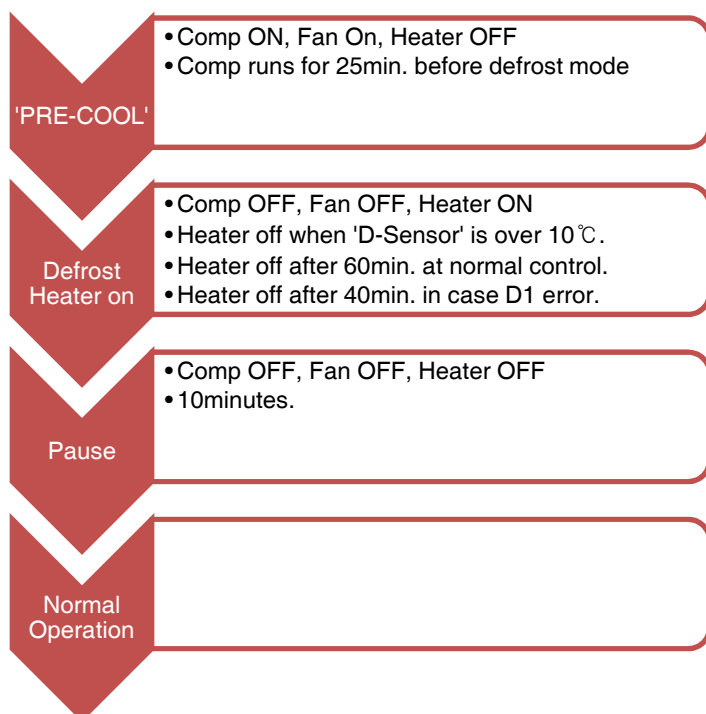
-It will be only controlled by using "KNOB F LOUVER" in the Freezer Comaprtment.

**2-3. Defrost Mode**

INPUT	CONTROL OBJECT
<ul style="list-style-type: none"> <li>- Accumulated Compressor Run Time</li> <li>- Running Time Ratio of Compressor</li> <li>- Accumulated Door Open Time</li> <li>- Ambient temperature (RT)</li> </ul>	<ul style="list-style-type: none"> <li>- Compressor</li> <li>- F Fan</li> <li>- Defrost Heater</li> </ul>

**A. Defrost Mode Operation condition**

- (1) In case accumulated compressor run times: 6, 8, 10, 12 hours,  
 - when there occur any errors:  
   R1, D1, C1, RT, Door SW error etc. (Check "2-9. ERROR DISPLAY")  
 - or, running rate of COMP (per 2hrs of accumulated operation time) is more than 90%  
 - or, accumulated door open time is over 2 minutes  
 - or, ambient temperature (RT) is more than 39.1 °C
- (2) Even if the above condition is not satisfied,  
 defrost mode starts immediately when accumulated compressor run time is 14hrs.

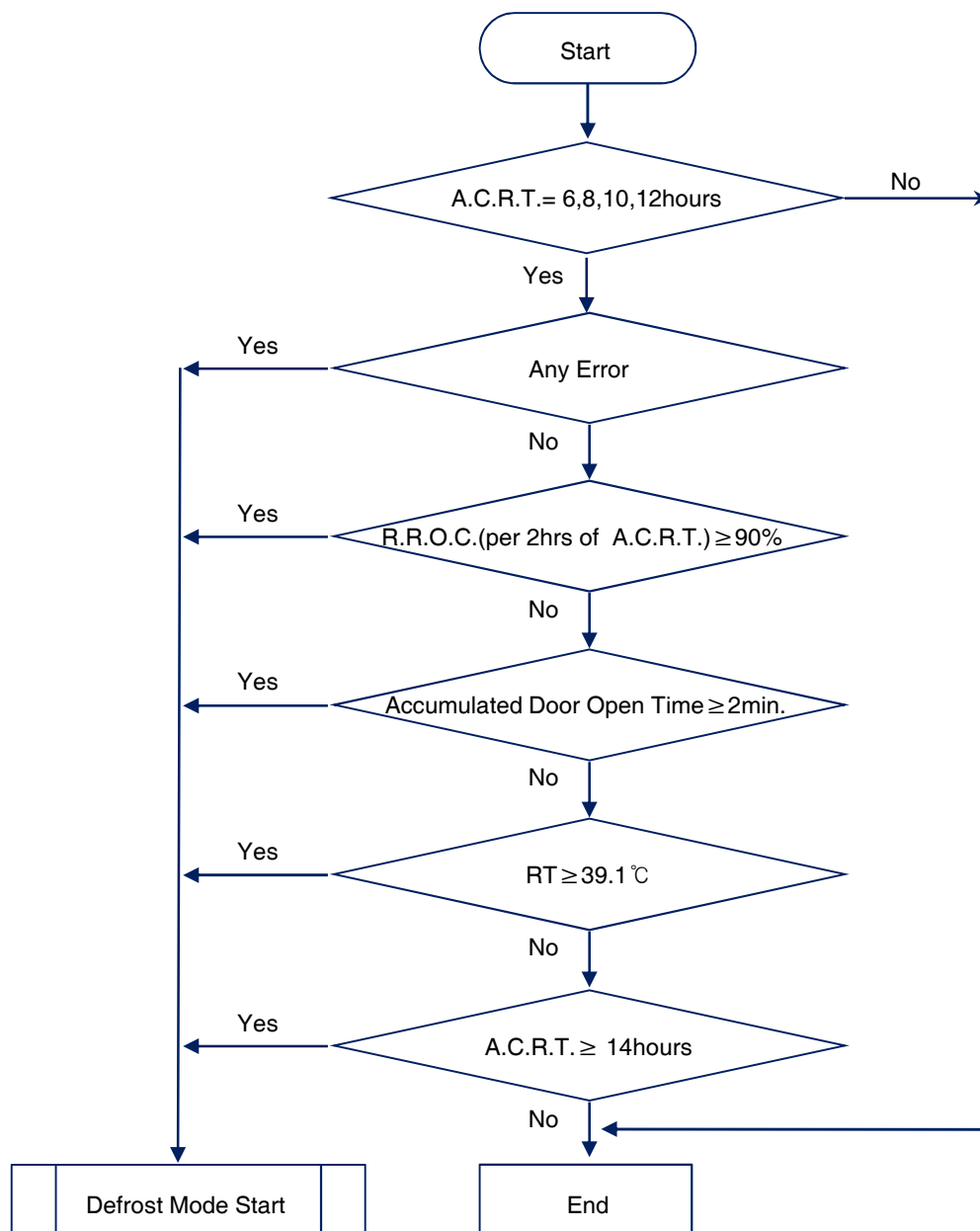
**B. Normal Defrost Mode****C. Forced Defrost Mode**

- How to start:
  - (1) by press Door S/W for continuously and Control 'Dial Knob'(MIN -> MAX) 1 times.
  - (2) or, by press 'Test Key' 3 times on Main PCB
- If appliance has any error, Forces Defrost Mode don't start.
- Process: same as Normal Defrost Mode except 'PRE-COOL'
  - ※ Heater is supposed to be on Initial 30sec. even though the temp. at "D SENSOR" is over 13 °C. (for TEST)
- How to confirm: If Force Defrost Mode start, you can buzzer sound

## 2-3. Defrost Mode

D. Flow chart of How to Start Defrost Mode

- ※ A.C.R.T. : Accumulated Compressor Run Times
- ※ R.R.O.C. : Running Rate of Compressor
- ※ RT: Ambient temperature



2-4. Function of Low Ambient Temperature (RT)	
INPUT	CONTROL OBJECT
RT	- R HTR - COMP
<p>A. Condition of LOW RT</p> <ul style="list-style-type: none"> <li>- RT sensor below 20.7°C</li> <li>- When the RT sensor is over 21.7°C, the system comes to be "General Operation Mode".</li> <li>- When the RT sensor is between 20.7°C to 21.7°C, the system keeps the previous mode.</li> </ul> <p>B. Control</p> <ul style="list-style-type: none"> <li>- When the temp of RT sensor is between 13.8°C to 20.7°C, COMP on/off temp is 0.67°C UP</li> <li>- When the temp of RT sensor is below 13.8°C, COMP ON/OFF temp is 1.0°C DOWN</li> </ul>	

2-5. Prevention of Compressor Restart	
INPUT	CONTROL OBJECT
N/A	COMP
<p>It takes several minutes to protect Compressor:</p> <ul style="list-style-type: none"> <li>(1) 6 minutes after Comp off</li> <li>(2) 30 minutes at operation of Low RT, but 6 minutes when the doors open more than 20 seconds</li> </ul>	

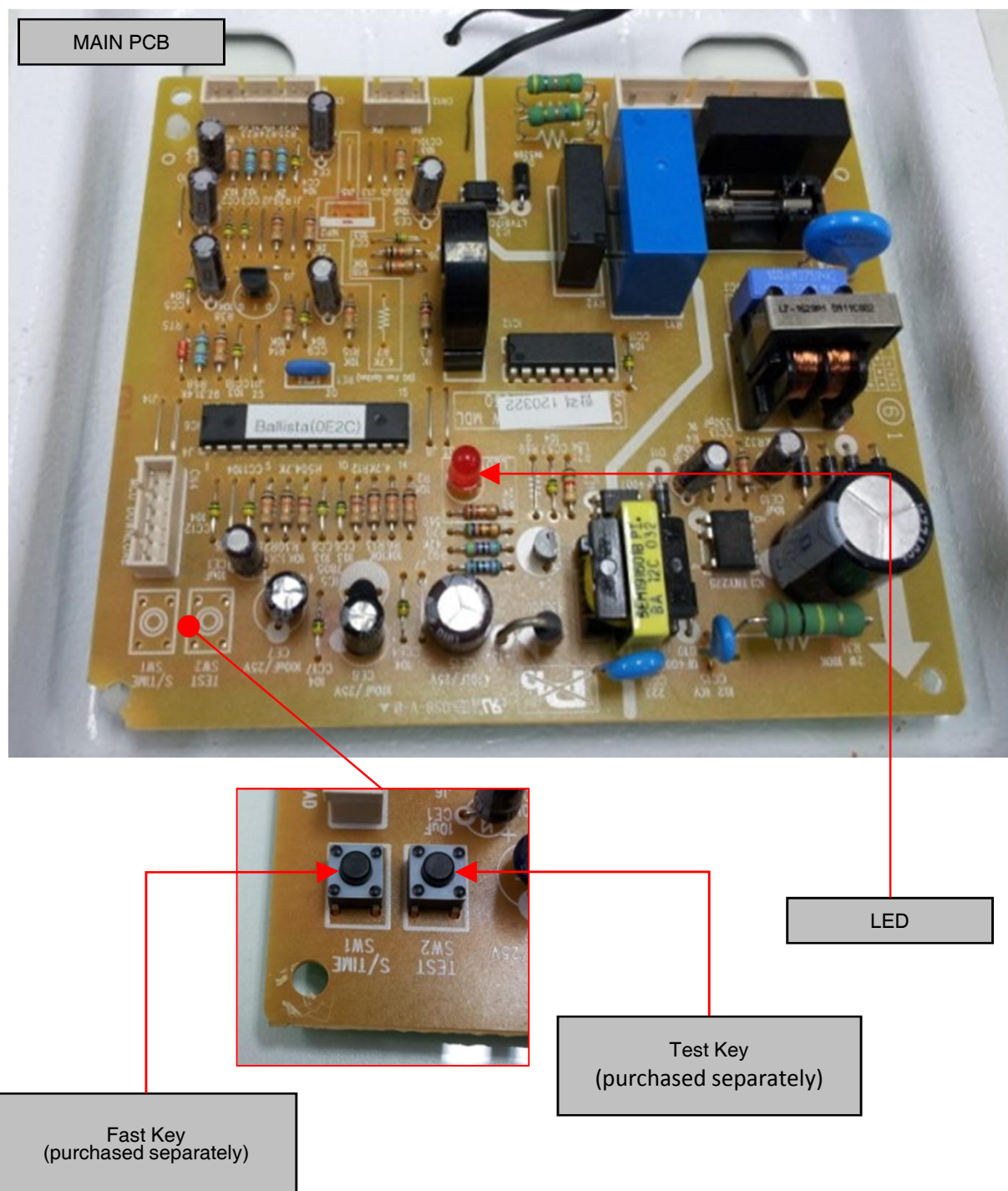
2-6. Buzzer Sound	
INPUT	CONTROL OBJECT
<ul style="list-style-type: none"> <li>- Forced Defrost Mode start</li> <li>- Door Switch</li> <li>- Initial Power Input</li> </ul>	Buzzer
<p>A. When Forced Defrost Mode start, the buzzer rings 3times.</p> <p>B. After 2 seconds power's on, the buzzer rings 3 times.</p> <p>C. At Short Circuit Test, the buzzer rings 1 times.</p> <p>D. When door opens, the buzzer rings every 1 minute for 5 minutes.</p>	

## 2-7. Time Saving Function

INPUT	CONTROL OBJECT
"FAST KEY"	Buzzer

A. How to Save  
 - 1 min : Click FAST KEY one time on MAIN PCB.  
 - 30 min : If you press FAST KEY continuously, you can reduce 30 minutes on each 2.5 seconds with buzzer.

B. Example for usage: when reduce test time



**2-8. Control of R-sensor OFF Point**

INPUT	CONTROL OBJECT
"J1", "J2" On Main PCB	Control Resistance of R sensor OFF Point

- When the refrigeration of refrigerator is poor or weak though Fan and COMP are working continuously, the following actions are recommended for service.

(1) Resistance (R25) : Default resistance (31.4Kohms)

(2) Resistance (R25+R26) :

Cut the "J2" off to reduce Default R sensor OFF Point by 1.5°C. (2Kohms up)

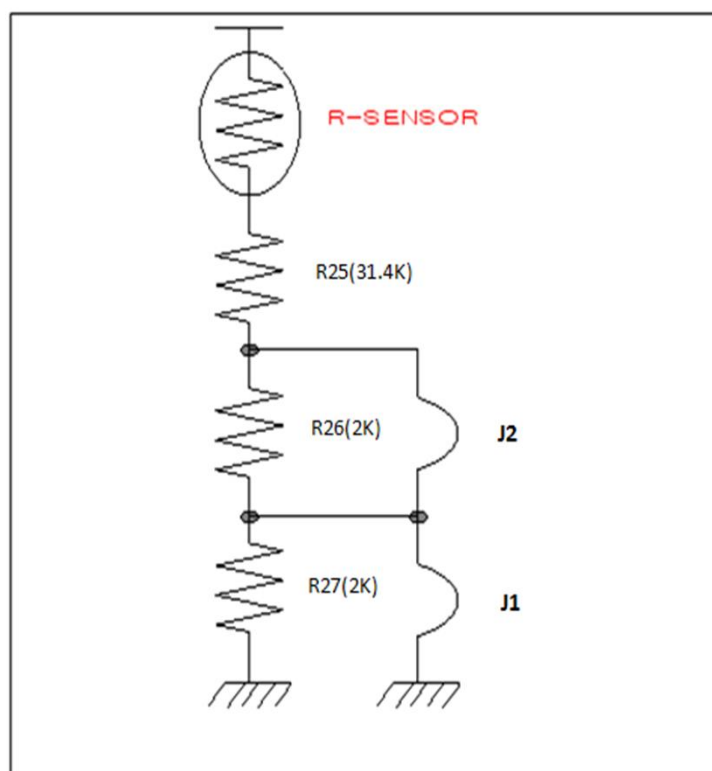
(3) Resistance (R25+R26+27) :

Cut the "J1" off additionally to reduce Default R sensor OFF Point by 3.0°C. (total 4Kohms up)

※ R25 = R-SENSOR OFF point

R25 + R26 = R-SENSOR OFF point - 1.5°C

R25 + R26 + R27 = R-SENSOR OFF point - 3°C





**2-9. Error Display**

INPUT	CONTROL OBJECT
Sensor Error	LED Lamp

**- ERROR DISPLAY**

- If appliance has any errors, LED on the Main PCB is flickering.
- If the appliance is normal (no error), LED IS off.

**A. 'R1' ERROR**

: It happens when R-Sensor is OPEN or SHORT.

(1) LED DISPLAY: Shortly flickering(0.3sec.) 1 times.

(2) CONTROL:

Controlled by the following condition of RT

RT sensor TEMP (unit: °C)	~13.8	~20.7	~30.6	31.2~
COMP. Operating ON/OFF TIME (unit: min.)	6/34	10/30	16/24	20/20

※ If 'RT ERROR' happens at the same time, "COMP. ON/OFF Operating Time" is 16min/24min.

(3) RELEASE: When R-Sensor is working normally.

**B. 'RT' ERROR**

: It happens when RT-Sensor is OPEN or SHORT.

(1) LED DISPLAY: Shortly flickering(0.3sec.) 2 times.

(2) CONTROL: Delete the conditions of 'RT-sensor Control' and operate normally.

(3) RELEASE: When RT-Sensor is working normally.

**C. 'd1' ERROR**

: It happens when D-Sensor is OPEN or SHORT.

(1) LED DISPLAY: Shortly flickering(0.3sec.) 3 times.

(2) CONTROL: Return to next limit defrost time (40 min)

(3) RELEASE: When D-Sensor is working normally.

**D. 'DR' ERROR**

: It happens when the system senses door opens more than 1 hour.

(1) LED DISPLAY: Shortly flickering(0.3sec.) 4 times.

(2) CONTROL: Delete function relating to door switch sensing

(3) RELEASE: When sensing close from door S/W.

**E. 'F3' ERROR**

: It happens when Defrost Heater off after 60min.

(1) LED DISPLAY: Shortly flickering(0.3sec.) 5 times.

(2) CONTROL: Skip the step 'PRE-COOL' of Defrost Mode.


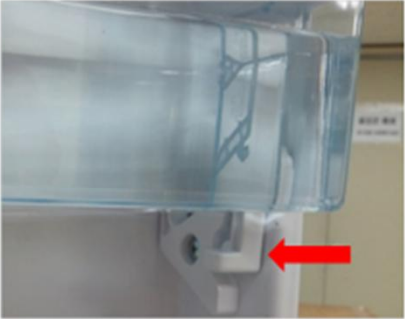

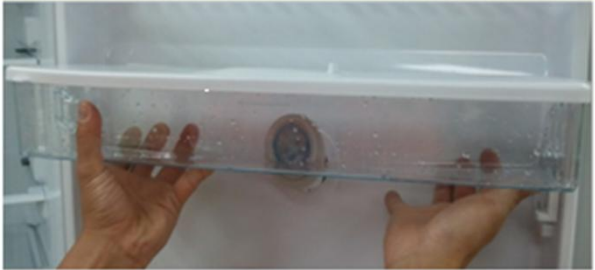




(3) RELEASE: Defrost Heater off by D-Sensor.

※ When pusing 'TEST KEY' on the main PCB,  
LED is long(1.0sec.) flickering several times.  
ex. 'Forced Defrost Mode:' long flickering 2 times



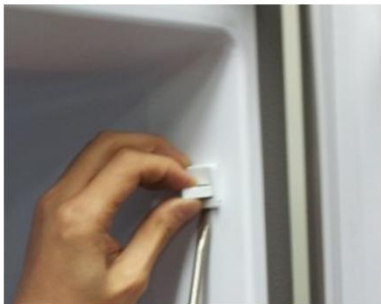



CODE	LED	ERROR
R1	1time	R sensor
RT	2times	RT sensor
d1	3times	D sensor
DR	4times	DR Switch
F3	5times	Defrost
- To Confirm Errors: Check LED on the main PCB		
- The Priorities of Error : R1→RT→D1→DR→F3		

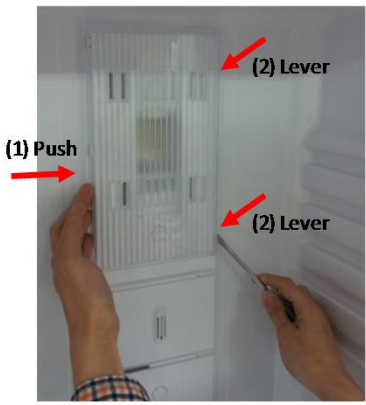
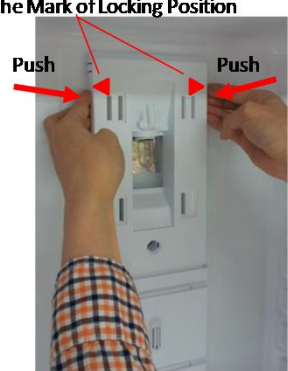
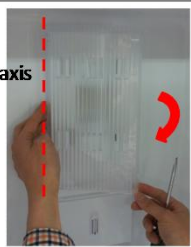


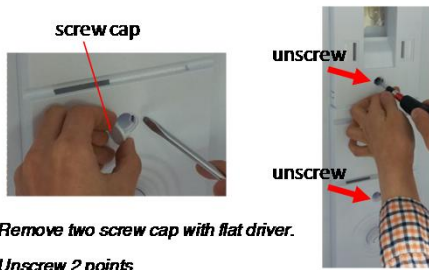
## 3-1. Tank water as

No	Procedure	No	Procedure
1	   <p><i>Push the locking and Pool the Tank Water as.</i></p>	2	   
3	 <p><i>You can completely disassembly the Tank Water as.</i></p>	<p><i>Turn the Valve assy(Left)' CCW and Remove.</i></p>	



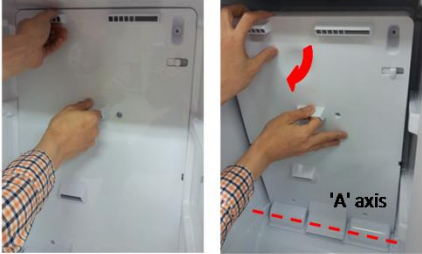
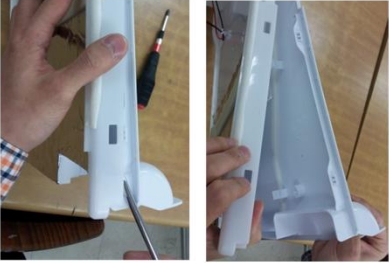

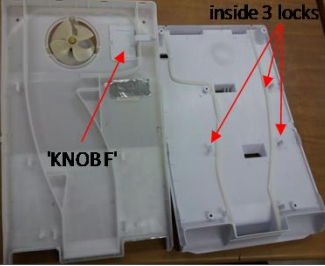
## 3-2. Door Switch

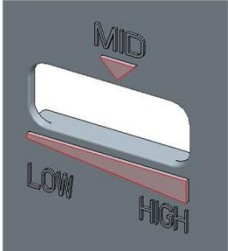
No	Procedure	No	Procedure
1	 <p><i>Inuput a thin driver in the upper part as above picture.</i> <i>And lift up 'Door Switch' carefully.</i></p>	3	
2	 <p><i>Inuput a thin driver in the lower part as above picture.</i> <i>And lift up 'Door Switch' carefully.</i></p>		 <p><i>Disconnect the wire housing.</i></p>

## 3-3. Cover Multi-Flow Duct As (in Fresh food Compartment)


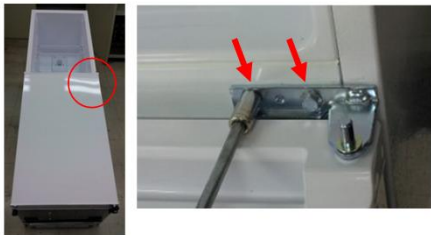

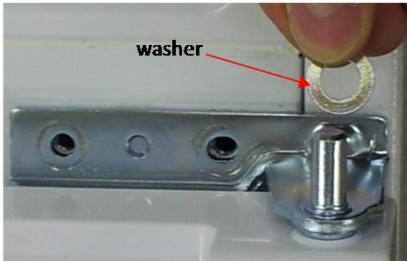


No	Procedure	No	Procedure
1	 <p>Unlock the lamp window            (1) Push the window right side            (2) Lever two window lock with flat driver</p>	4	<p>the Mark of Locking Position</p>  <p>Unlock the 'COVER MFLOW DUCT'            (1) Check the marks of locking position on 'Cover'.            (Number of the marks are model dependent)            (2) Push the 'cover' inside and Unlock.</p>
2	 <p>Open window turning on the axis 'A'</p>	5	  <p>Disconnect the Lamp &amp; Sensor wire housing.</p>
3	 <p>Remove two screw cap with flat driver.            Unscrew 2 points</p>		

3-4. Louver F As (in Frozen Food Compartment)

No	Procedure	No	Procedure
1	 <p>Unscrew to disassemble the 'Louver F As' from Freezer.</p>	4	 <p>Unscrew to disassemble as each component part.</p>
2	 <p>Remove the 'Louver F As' pulling the top side.</p>	5	 <p>Unlock carefully. (especially, inside 3 locks)</p>
3	 <p>Disconnect Fan motor wire housing.</p>		 <p>※Default position of 'KNOB F' is 'MID'</p>










3-5. DOOR F/R

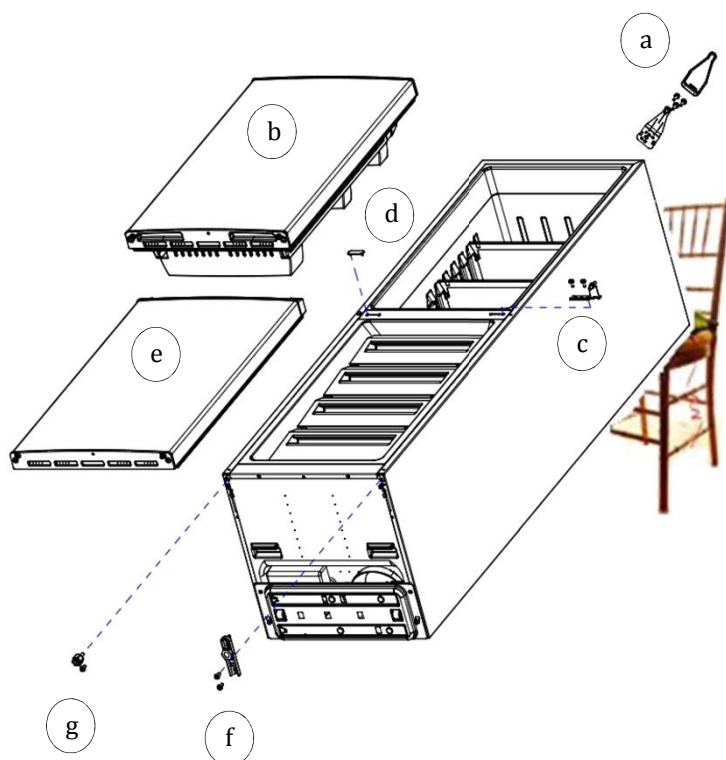
No	Procedure	No	Procedure
1	 <i>Tilt down the appliance to the rear.</i>	 <i>Remove door in fresh food compartment. And unscrew middle hinge.</i>	
2	 <i>Lift up top cover hinge to remove.</i>	4  <i>※ Don't forget the washer for middle hinge.</i>	
3	 <i>Unscrew and remove top hinge.</i>	5  <i>Lift up middle cover hinge to remove.</i>	



3-5. DOOR F/R

No	Procedure	No	Procedure
6	  <i>Unscrew and remove under hinge.</i>  ✕ Don't forget the washer for under hinge. ✕ The washer for under hinge's bigger than middle one.	7	   <i>Turn the 'Adjusting Leg (Left)' CCW and Remove.</i>
		8	 <i>Remove door in frozen food compartment.</i>

### Features



1-1> Tilt down the appliance to the rear.  
(Watch out for "Pipe Wire Condensor" damage.)

1-2> Disassemble following parts in order.

- 'Top Cover Hinge' and 'Top Hinge'(a)
- 'Refrigerator Door'(b)
- 'Middle Hinge'(c)
- 'Middle Cover Hinge'(d)
- 'Freezer Door'(e)
- 'Under Hinge'(f)
- 'Adjusting Leg '(g)

1-3> Move following 'Door Accessories' in the opposite position:

- 'Cover Bushings'(i)
- 'Door Stoppers'(j)

1-4> Change the position of following parts each other and assemble them:

'Adjusting Leg '(g) & 'Under Hinge'(f)

1-5> Level and assemble the 'Freezer Door'(e)

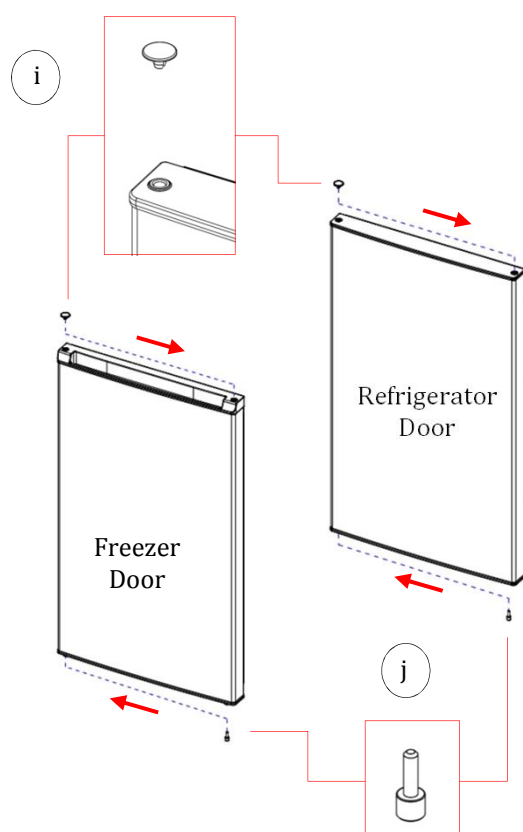
1-6> Change the position of following parts each other and assemble them:

'Middle Cover Hinge'(d) & 'Middle Hinge'(c)

1-7> Level and assemble the 'Refrigerator Door'(b).

1-8> Assemble following parts on the opposite side:

'Top Cover Hinge' and 'Top Hinge'(a)





### 5-1. Safety Warning ( R-600a Refrigerant Models Only)



This appliance contains a certain amount of isobutane refrigerant (R600a) a natural gas with high environmental compatibility that is, however, also combustible.

When transporting and installing the appliance, care should be taken to ensure that no parts of the refrigerating circuit are damaged.

Refrigerant squirting out of the pipes could ignite or cause an eye injury. If a leak is detected, avoid any naked flames or potential sources of ignition and air the room in which appliance is standing for several minutes.

- In order to avoid the creation of a flammable gas-air mixture if a leak in the refrigerating circuit occurs, the size of the room in which the appliance may be sited depends on the amount of refrigerant used. The room must be 1m<sup>3</sup> in size for every 8g of R600a refrigerant inside the appliance. The amount of refrigerant is shown on the identification plate inside the appliance.
- Never start up an appliance showing any signs of damage. If in doubt, consult your dealer.

### 5-2. Tools

1. R-600a ref. Can	2. Can adapter	3. Pinch Plier
4. Ref. discharging hose	5. Vacuum pump	6. Welder
7. Coupling Pipe	8. Leakage Tester	9. Electronic-scale

### 5-3. Process Summary

#### 1st Step. R-600a ref. discharging

- Connect the discharging hose to the outdoors.
- Time : 7 min.

#### 2nd Step. Removing the remaning refrigerant

- For removing of remaning refrigerant., connect the discharging hose to the vacuum pump
- Time : 10min

#### 3th Step. Exchanging comp. & dryer / pipe welding

- Exchange Comp. and Dryer
- Welding the Pipe
- Copper-Copper : 5% rod
- Copper-Steel : 30% rod

#### 4th Step. Welding coupling pipe

Coupling cap and gas charging cap should be seperated before welding.




#### 5th Step. Vacuum


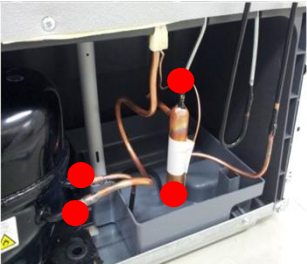

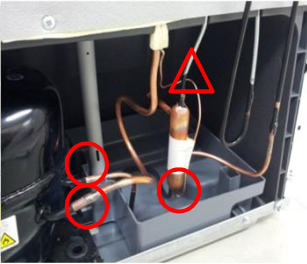


- Check the vacuum with (mani-polder) gauge
- Time : 60~80min

#### 6th Step. Charge R-600a

- Charging the ref. on POWER ON
- Time : 10min





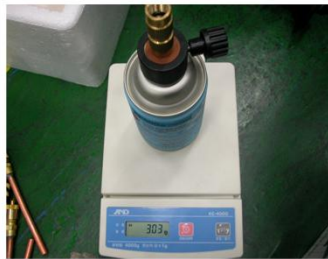
### 5-4. In Detail Precess

NO.	SVC process	Image	Details
1	Connecting the pinch-plier & discharging hose		<ol style="list-style-type: none"> <li>1. Connect the discharging hose to the pinch-plier</li> <li>2. The outlet of discharging hose should be placed to the outdoor(window)</li> </ol>
2	Fixing the pinch-plier & charging pipe		<ol style="list-style-type: none"> <li>1. Fix the pinch-plier to the compressor charging pipe.</li> <li>2. Pinch-plier should not be moving freely.  <b>※ If that is moving freely, it would cause fire/explosion as leakage gas in the room.</b> </li> </ol>
3	Discharging the R-600a ref.		<ol style="list-style-type: none"> <li>1. Discharge the R-600a ref. to outdoor. [Befor connecting the vacuum pump]</li> <li><b>※ It should have enough time more than 7 minutes to discharge.</b></li> </ol>


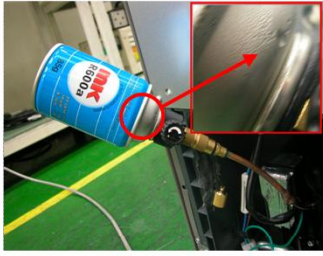


NO.	SVC process	Image	Details
4	Removing the remaining ref.		<p>1. And then, connect the vacuum pump to the outlet of discharging hose</p> <p>※ Vacuum pump should be placed at the outdoor where is able to clear air easily.</p> <p>※ It should have enough time more than 10 minutes to discharge.</p>
5	Removing the pinch-plier & pipe		<p>1. Disassemble the each pipe (Del-pipe, Suc-pipe, Capi-pipe, Dryer &amp; Hot-pipe)</p> <p>※ Caution ; A part is easily damaged by flame so that disassembly should be done carefully.</p>
6	Exchanging comp & dryer		<p>1. Change the comp. &amp; dryer.</p> <p>※ You should check the comp. spec. and assemble correctly.</p>
7	Welding	 	<p>1. Weld the each pipe.</p> <p>※ ○ Copper-Copper welding - 5% rod          △ Copper-Steel welding - 35% rod</p>
8	Disassembly of charging valve (Coupling pipe)		<p>1. Decap the couplig pipe cap and disassemble the vlave ass'y.</p> <p>※ If you don't disassemble, the coupling rubber would be melted.</p>



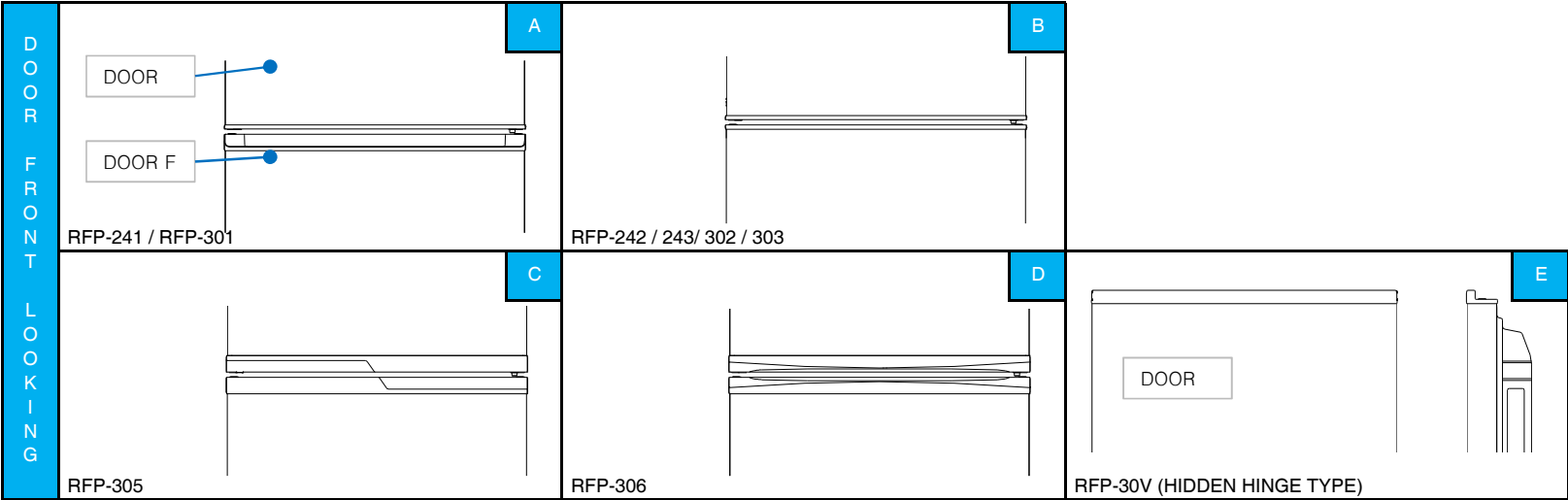
## 5. How To Charge R-600a Refrigerant

NO.	SVC process	Image	Details
9	Coupling pipe welding		<ol style="list-style-type: none"> <li>1. Weld after inserting the coupling pipe to the compressor.</li> </ol> <p>※ Use the wet cloth for preventing the other part of machinery-room from damage.</p>
10	Valve reass'y & guage connecting		<ol style="list-style-type: none"> <li>1. Reassemble the valve ass'y with coupling pipe to clockwise.</li> <li>2. Connect the blue hose of the guage to the coupling pipe and the yellow hose to the vacuum pump.</li> <li>3. Open the blue guage lever and start the vacuum pump</li> </ol>
11	Vacuum		<ol style="list-style-type: none"> <li>1. Be vacuumed the cycle with pump.</li> </ol> <p>※ Time : 60~80min</p> <p>=&gt; If the vacuum time is less than 60min, ref. COP &amp; air coolong would be weak.</p>
12	Check		<ol style="list-style-type: none"> <li>1. Check the guage : -76<sub>cm</sub> Hg</li> </ol> <p>※ If the cycle is not vacuumed, it would be leak.</p>
13	Adjusting the amounts of refrigerants (R-600a can)		<ol style="list-style-type: none"> <li>1. Check the amounts of R-600a can with scale and discharge the surplus ref.</li> </ol> <p>※ Discharging is surely done at the outdoor where is able to clear air.</p> <p>※ Tip of adjusting.</p> <ul style="list-style-type: none"> <li>- Can total weight : 160g (Can 75g + Ref. 85g)</li> <li>- Adapter : 145g</li> </ul> <p>=&gt; Total : 305g</p> <ul style="list-style-type: none"> <li>- The amounts of charging : 79g</li> </ul> <p>=&gt; Discharging : 6g =&gt; Total : 299g</p>

## 5. How To Charge R-600a Refrigerant

NO.	SVC process	Image	Details
14	Connecting of coupling pipe & adapta		<ol style="list-style-type: none"> <li>1. Conect can adapter to the coupling pipe.</li> <li>2. Charge the ref. with open lever slowly.</li> </ol> <p>※ Refrigerant should never leak in the room.</p>
15	Charging		<ol style="list-style-type: none"> <li>1. On the power of refrigerator and then start to charge the ref. (10min)</li> </ol> <p>※ Charge the ref. until going out the water vapour condensing on the can outlet.</p>
16	Leakage Test		<ol style="list-style-type: none"> <li>1. Check the leakage.</li> </ol> <p>※ You must rework from Step.1 when the leakage is detected.</p>
17	Finish		<ol style="list-style-type: none"> <li>1. Clean and clear around the machinery room when the service is finished.</li> <li>2. Assemble the machinery room cover.</li> </ol>

## 6. PART LIST

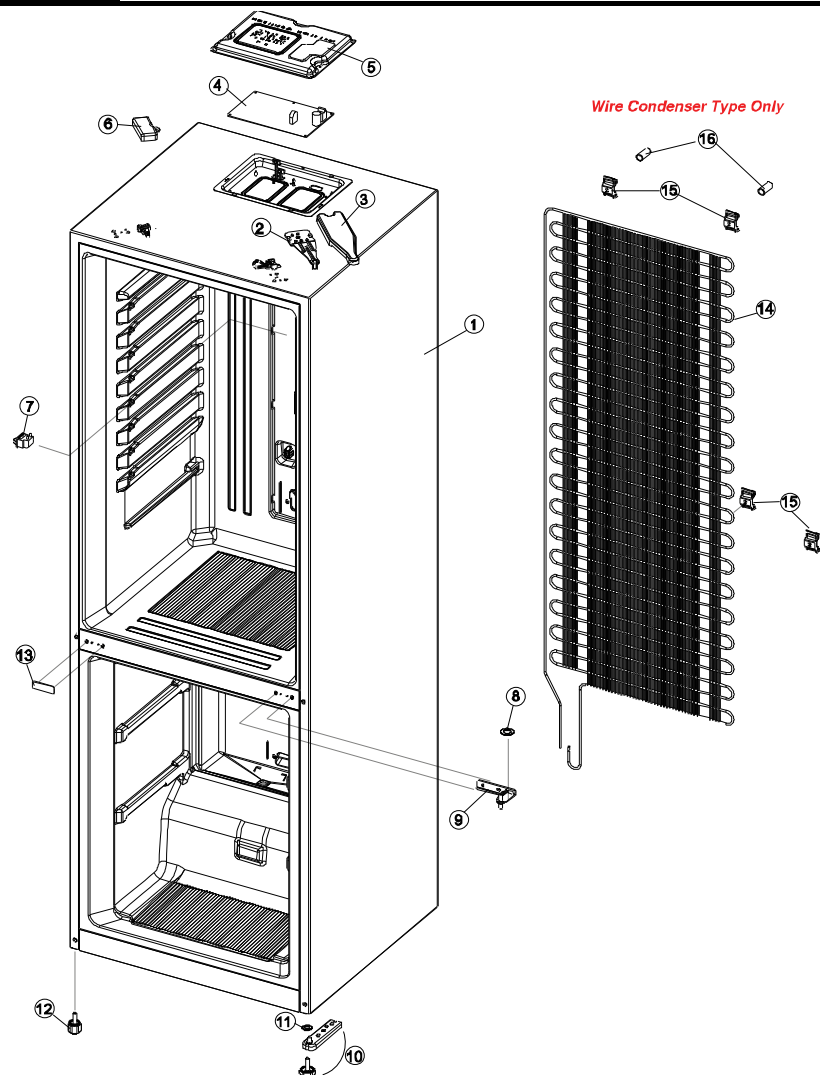


***\*Some parts can be changed for improving without notice.***

[illegible]

## Cabinet / Condenser

### Cabinet compartment



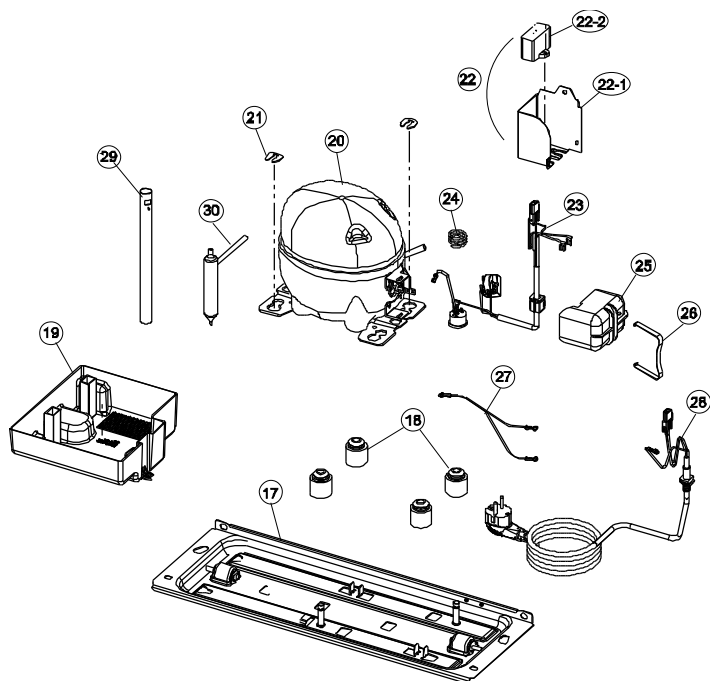
NO	PART-CODE	PART NAME	SPEC.	Q'ty
1	-	ASSY CAB URT	WHITE / SILVER/BLACK	1
2	3012937900	HINGE *T AS	RFP-301	1
3	3001448500	COVER HI *T	PP, WHITE	1
	3001448510		PP,SILVER	1
	3001448520		PP, BLACK	1
4	30143KW0A0	PCB MAIN AS	ENERGY A+ , NORAML	1
	30143KW0C0		ENERGY A+ + ONLY	1
5	3001416640	COVER M/PCB BOX AS	EMBO PCM	1
6	3001412200	COVER CAB HRNS	PP	1
7	301179DP00	DOOR S/W AS	HC-050K4 250V2.5A	1
8	3016044410	SPECIAL WASHER *M HI	SGCC, T1.0X1.D9.0XO.D15	1
9	3012938000	HINGE *M AS	RFP-301	1
10	3012938100	HINGE *U AS	RFP-301	1
11	3816000200	SPECIAL WASHER	SPCC T1.0 O.D21*I.D8 MFZN	1
12	3012106500	FOOT ADJ *L AS	PP+INSERT	1
13	3010937720	CAP DV HI HOLE *M	HIPS	1

### Condenser compartment

14	3014480021	PIPE WI-CON AS	RFP-24.30	1
15	3012041510	FIXTURE W-ICON	PP	4
16	3015091400	SPACER CAB	PP	2

Some parts can be changed for improving without notice.

Date	Note

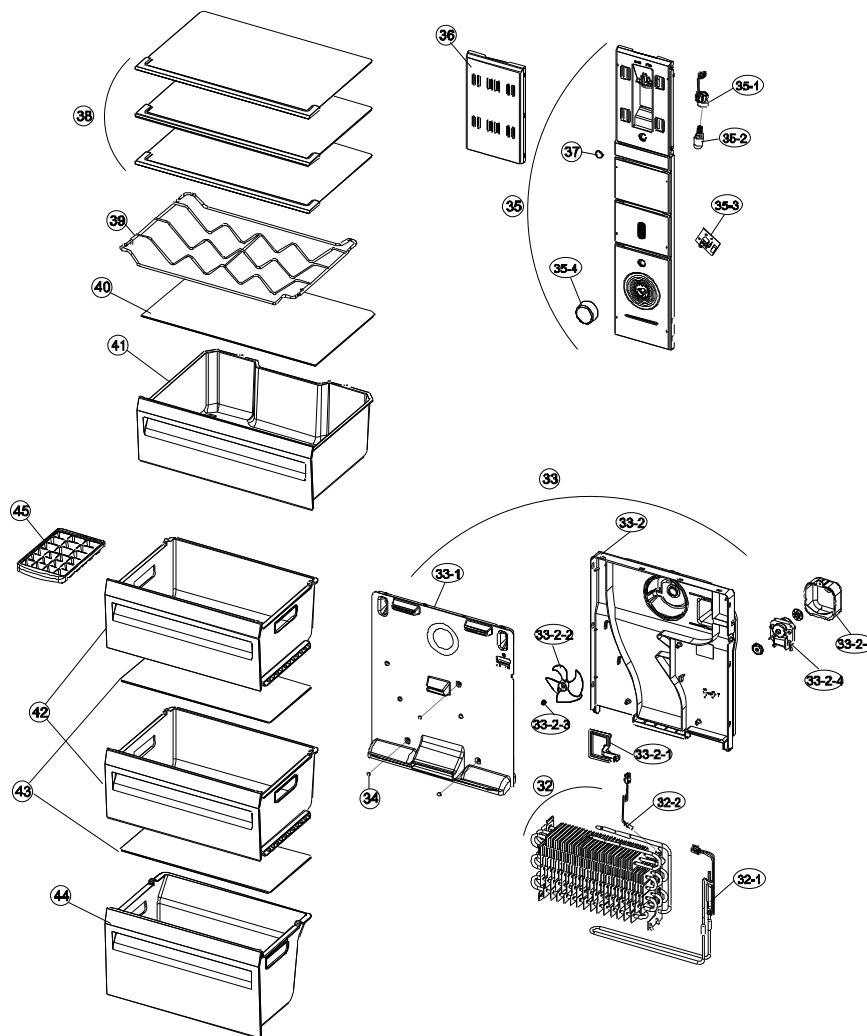


NO	PART-CODE	PART NAME	SPEC.	Q'ty
17	3010365500	BASE COMP AS	RFP-301	1
18	3010103410	ABSORBER COMP	RUBBER	4
19	301119VJ01	CASE VAPORI AS	PP,SEAL,ABSORBER	1
20	3956188C50	COMPRESSOR	LZ88CY 220-240V 50HZ , A+	1
	3956182M80		LR82CY 230V 50HZ, A++	1
21	4019H09031	SPECIAL WASHER	SWRH	2
22	3010583700	BOX POWER AS	GI T0.5 , LZ88CY Only	1
	3010583740		GI T0.5 , LR82CY Only	1
22-1	3016406010	CAPACITOR RUN	DMF-40405(400V 4UF)	1
	3016407000		400V,3UF,HOUSING	1
23	3018134600	SWITCH P RELAY AS	OL:B60-120, QP2-15C ,LZ88CY COMP	1
	3018134640		OL:B54-105, TY-QZ-003 ,LR82CY COMP	1
24	3015103900	SPRING OVERLOAD PROTECTOR	LZ88CY OLP FIXING	1
25	3811402600	COVER RELAY	-	1
26	3015103800	SPRING COVER RELAY	-	1
27	3012763210	HARNESS EARTH COMP	FRM-241, L140	1
28	-	CORD POWER AS	COUNTRY DEPENDENT	1
29	3012513950	HOSE DRN B	PVC	1
30	3016808231	DRYER AS	10G, SINGLE TUBE	1

Some parts can be changed for improving without notice.

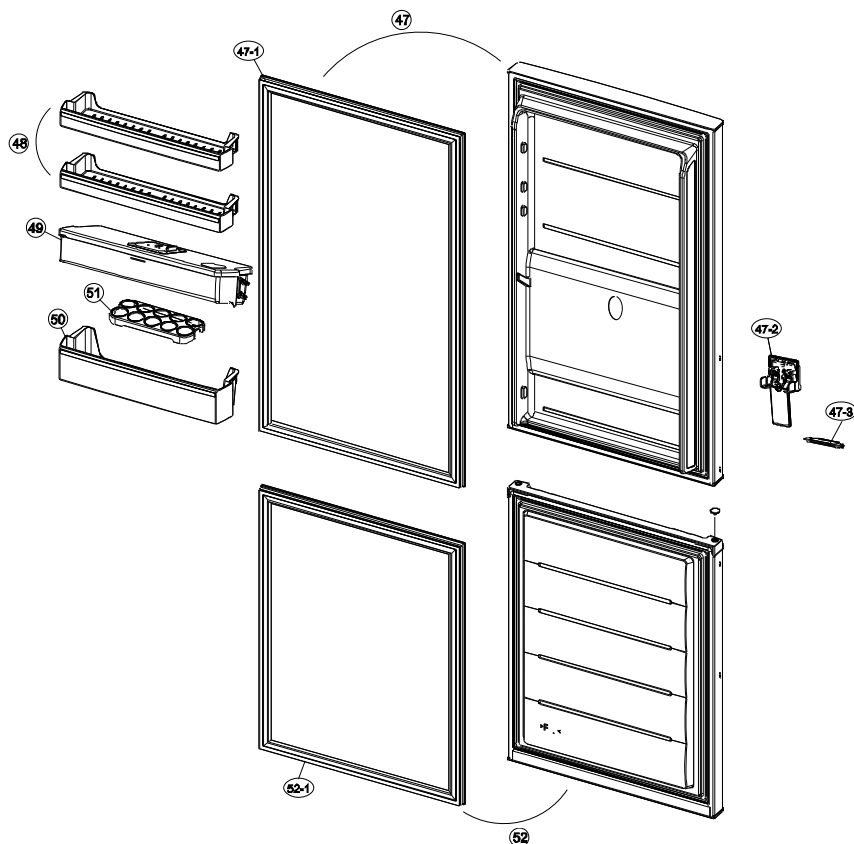
Date	Note





NO	PART-CODE	PART NAME	SPEC.	Q'ty
32	3017070000	EVA AS	RFP-301(230V 130W)	1
	3017070020		RFP-301(DC MOTOR),230V,130W	1
32-1	3012831200	HEATER SHEATH AS	RFP-301(AC MOTOR), 230V, 130W	1
	3012831220		RFP-301(DC MOTOR),230V,130W	1
32-2	3012764100	HARNESS D SENS	RFP-340(NBC-K43-24)	1
33	3018932500	LOUVER F AS	RFP-301(AC 230V 50HZ)	1
	3018932540		RFP-301(DC 12V)	1
33-1	3018932300	LOUVER F A	PP	1
33-2	3018932400	LOUVER F B	PP	1
33-2-1	3013415800	KNOB F CONTL	PP	1
33-2-2	3011835900	FAN	OD100,SHAFT OD3.17	1
33-2-3	3011200510	CLAMP FAN	SUS 304 (SPRING) OD 9.7	1
33-2-4	3015922200	MOTOR F AS	AC MOTOR, S6111BDF04	1
	3015905360		DC-MOTOR , D4612AAA33	1
33-2-5	3010664700	BRACKET FAN MOTR	PP, T2.0 , AC MOTOR	1
	3010664710		PP NATURAL T2.0 , DC MOTOR	1
34	7112402011	SCREW TAPPING	T1 TRS 4*12 MFZN	2
35	300149DR20	COVER M/FLOW DUCT AS	RFP-302 VE PCB(230V, 1.2W LED)	1
35-1	3017903900	SOCKET LAMP AS	AC250V	1
35-2	3017908400	SOCKET LED LAMP	230V 1.2W	1
35-3	30143KW460	PCB VOLUME AS	BALLISTA VOLUME VE	1
35-4	3013415700	KNOB R CONTL	HIPS + PRINT	1
36	3015523800	WINDOW M/FLOW DUCT	GPPS	1
37	3010924600	CAP F LOUVER	HIPS T2.3	2
38	3017861100	SHELF R AS	RFP-301	3
39	3017861900	SHELF WINE [Option]	SUS 204	1
40	301119V400	CASE GLAS VEGTB	T3.2	1
41	301119V030	CASE VEGTB [Option]	GPPS(CRYSTAL)+PRINT	1
	301119V040		GPPS(GRAY)+PRINT	1
	301119V050		GPPS(BLUE)+PRINT	1
42	301119V100	CASE F A [Option]	GPPS(CRYSTAL)	2
	301119V110		GPPS(GRAY)	2
	301119V120		GPPS(BLUE)	2
43	3017861500	SHELF GLAS F	T3.2 RFP-301	2
44	301119V200	CASE F B	GPPS(CRYSTAL)	1
	301119V210		GPPS(GRAY)	1
	301119V220		GPPS(BLUE)	1
45	3011187310	CASE ICING AS	CASE+VINYL	1

## Door&Pocket Compartment



NO	PART-CODE	PART NAME	SPEC.	Q'ty
47	30100CCL00	ASSY R DR	RFP-301D, WHITE PCB	1
	30100CCL10		RFP-301D, METAL SILVER	1
	30100CCL20		RFP-301D, BLACK PCM	1
47-1	3012331000	GASKET R DR AS	PVC, WHITE,SILVER DOOR ONLY	1
	3012331010		PVC, BLACK DOOR ONLY	1
47-2	3014263400	PANEL DISPNS AS	WHITE	1
	3014263410		SILVER , SPRAY	1
	3014263420		BLACK , SPRAY	1
47-3	301119YH00	CASE DISPNS DRN	WHITE	1
	301119YJ00	CASE DISPNS DRN AS	SILVER , SPRAY	1
	301119YJ10		BLACK , SPRAY	1
48	3019068700	POCKET R [Option]	GPPS(CRYSTAL)	2
	3019068710		GPPS(GRAY)	2
	3019068720		GPPS(BLUE)	2
	3019068730		GPPS(CRYSTAL).H/STAMPING	2
	3019068740		GPPS(GRAY).H/STAMPING	2
	3019068750		GPPS(BLUE).H/STAMPING	2
49	3018203500	TANK WATER AS [Option]	GPPS(CRYSTAL) + PRINT	1
	3018203510		GPPS(BLUE) + PRINT	1
	3018203520		GPPS(GRAY) + PRINT	1
50	3019068890	POCKET J [Option]	GPPS(CRYSTAL)+PRINT	1
	30190688A0		GPPS(GRAY)+PRINT	1
	30190688B0		GPPS(BLUE)+PRINT	1
	3019068860		GPPS(CRYSTAL)+PRINT+.H/STAMPING	1
	3019068870		GPPS(GRAY)+PRINT+.H/STAMPING	1
	3019068880		GPPS(BLUE)+PRINT+.H/STAMPING	1
51	3011190800	CASE EGG TRAY	GPPS(CRYSTAL)	1
52	30100CDB00	ASSY F DR	RFP-301D, WHITE PCB	1
	30100CDB10		RFP-301D, METAL SILVER	1
	30100CDB20		RFP-301D, BLACK PCM	1
52-1	3012330900	GASKET F DR AS	PVC, WHITE,SILVER DOOR ONLY	1
	3012330910		PVC, BLACK DOOR ONLY	1