S/M No.: FT32600001

# Service Manual Refrigerator

#### RF-T405N../RN-T405N..



RFT-326..

RFT-346..

#### RF-T455N../RN-T455N..



RFT-356..

# ✓ Caution

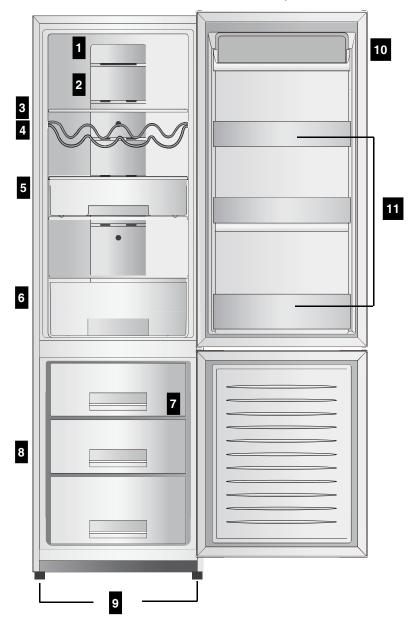
In this manual, some parts can be changed for improving their performance without notice. So, If you need the latest parts information, please visit and refer to PPL (Parts Price List) ] in Service Infromation Center. ( http://svc.dwe.co.kr )

#### 1. Model Information

\* is option code

Refriger		R-134a		R-600a				
Mod	Model No.			RF-T455N**	RN-T405N**	RN-T425N**	RN-T455N**	
Contro	ol Type			FCP Touc	ch control			
	Total	365	375	404	365	375	404	
Gross Vol. (ISO 15502)	Freezer	120	120	120	120	120	120	
	Refrigerator	245	255	284	245	255	284	
	Total	315	332	358	315	332	358	
Storage Vol. (ISO 15502)	Freezer	90	90	90	90	90	90	
	Refrigerator	225	242	268	225	242	268	
	Width	595	595	595	595	595	595	
Diemension	Depth	651	651	651	651	651	651	
	Height	1857	1897	2000	1857	1897	2000	
	Refrigerant Charge		0.095kg		0.040kg			
	Evaporator Type			Fin	Гуре			
Cooling Cycle	Condenser Type			Fan Coolii	ng System			
	Dryer			Molecular	Sieve xH-9			
	Capillary Tube			ID0.7 x T0.	55 x L2320			
	Defrost Type	Automatic S			Start & Stop			
Heater	Defrost Heater	AC230V, 180W		AC230V, 160W		V		
Tieater	Defrost Shape	Glass Type			Sheath Type			
	Freezer Fan Motor	AC 230V/50H			0Hz or DC 12V			
Electric Part	Condenser Fan Motor	AC 230V/50Hz or DC 10V						
	Refrigerator Lamp	LED						
We	eight	67	69	73	70	72	76	
Blowin	g Agent			C-Pe	ntane			

#### 2. Interior Parts

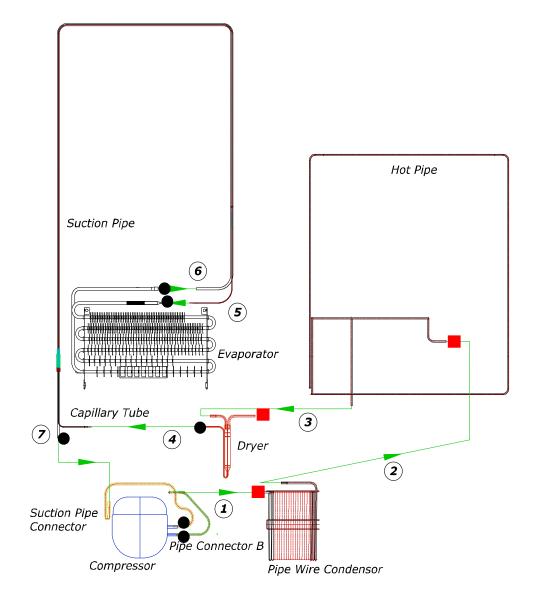


*※* The real features are model dependent

- 1. Freshfood compartment LED
- 2. Multi-Duct
- 3. Freshfood compartment Shelves
- 4. Fresh Care Crisper (option )
- 5. Wine Keeper (option)
- 6. Vegetable Case

- 7. Temperautre control Knob
- 8. Freezer Case (3EA)
- 9. Adjustable Foot
- 10. Dairy Pocket
- 11. Freshfood compartment Pocket

#### 3. Refrigerant Cycle

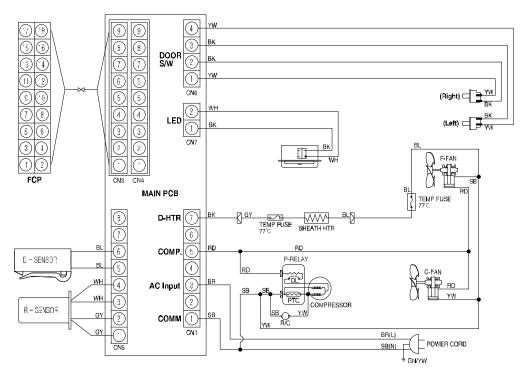


<sup>-</sup> Welding Point

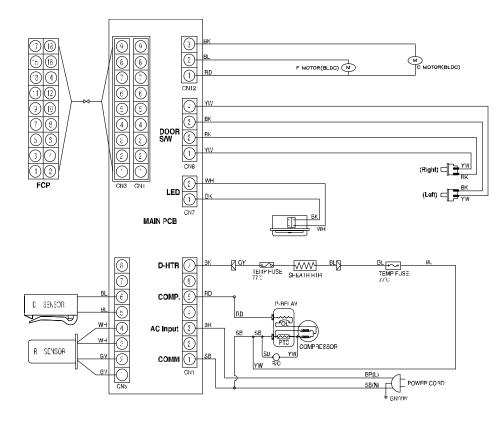
Copper Welding ( Ag 5%)	6 Point
Silver Welding (Ag 30%)	3 Point

#### 4. Wiring Diagram

- For AC Motor



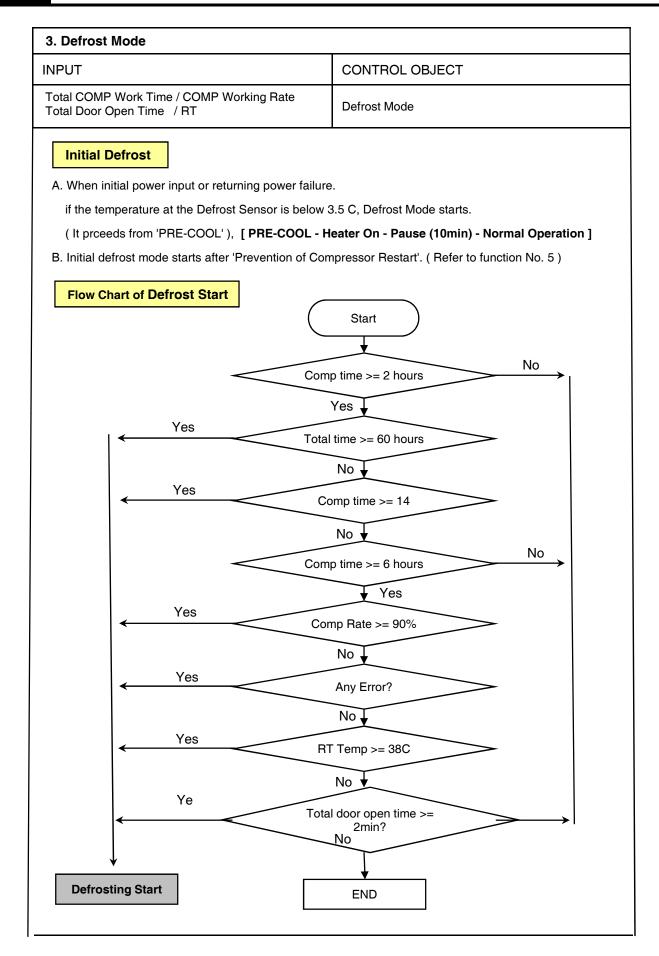
#### - For DC Motor (Europe)



	SPLAY					
INPU <sup>-</sup>	Т	CON	CONTROL OBJECT			
PCB (	Control Panel Buttons	PCB	Control Panel LED			
but	nperature adjustment ton for refrigerator npartment.	MIN SCOOL	5th LED 4th LED 3rd LED 2nd LED 1st LED "Super Cool"			
No	LED DISPLAY	FUNCTION	OPERATION			
	3rd LED	TEMP STEP "NOR"	Initially position			
	3rd LED 4th LED	TEMP STEP "NOR" TEMP STEP "MAX-NOR"	Initially position Push "TEMP" button 1 times.			
1						
1	4th LED	TEMP STEP "MAX-NOR"	Push "TEMP" button 1 times.			
1	4th LED 5th LED	TEMP STEP "MAX-NOR" TEMP STEP "MAX"	Push "TEMP" button 1 times. Push "TEMP" button 2 times.			
1	4th LED 5th LED 1st LED	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN"	Push "TEMP" button 1 times. Push "TEMP" button 2 times. Push "TEMP" button 3 times.			
1	4th LED 5th LED 1st LED 2nd LED	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR"	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.			
1	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.			
2	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on 3rd LED is on/off	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL ERROR R SENSOR.	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.         [Error display]         Push "TEMP" button 5 times while opening			
	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on 3rd LED is on/off 2nd LED is on/off	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL ERROR R SENSOR. ERROR RT SENSOR	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.         [Error display]         Push "TEMP" button 5 times while opening Refrigator door .			
	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on 3rd LED is on/off 2nd LED is on/off 1st LED is on/off	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL ERROR R SENSOR. ERROR RT SENSOR ERROR D SENSOR	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.         [Error display]         Push "TEMP" button 5 times while opening Refrigator door .         The Priorities of Error : R SENSOR> RT SENSOR> DR S/W>			
	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on 3rd LED is on/off 2nd LED is on/off 1st LED is on/off 2nd & 3rd is on/off	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL ERROR R SENSOR ERROR RT SENSOR ERROR D SENSOR ERROR DOOR S/W	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.         [Error display]         Push "TEMP" button 5 times while opening Refrigator door .         The Priorities of Error :			
	4th LED 5th LED 1st LED 2nd LED LED "S-COOL" on 3rd LED is on/off 2nd LED is on/off 1st LED is on/off 2nd & 3rd is on/off 1st & 3rd is on/off	TEMP STEP "MAX-NOR" TEMP STEP "MAX" TEMP STEP "MIN" TEMP STEP "MIN-NOR" TEMP S-COOL ERROR R SENSOR. ERROR RT SENSOR ERROR D SENSOR ERROR DOOR S/W ERROR "CYCLE"	Push "TEMP" button 1 times.         Push "TEMP" button 2 times.         Push "TEMP" button 3 times.         Push "TEMP" button 4 times.         Push "S-COOL" button 1 time.         [Error display]         Push "TEMP" button 5 times while opening Refrigator door .         The Priorities of Error : R SENSOR> RT SENSOR> DR S/W> CYCLE> DEFROST         Push "S-COOL" button 5 times while			

NPUT		INPUT				CONTROL OBJECT				
PCB Control Panel "TEMP" Buttons R-sensor							Panel LI DR, FAN			
<ul> <li>A. "TEMP" Button</li> <li>1. Temperature control of Re</li> <li>2. 5 step mode of successiv</li> <li>3. Initial mode by power input</li> <li>4. Temperature will be set if</li> <li>- Whenever pressing "TEN "NOR" → "MAX-NOR"</li> <li>3. Temperature of Refrigerat</li> <li>1. COMP and FAN will be co</li> <li>2. Temperature Difference of</li> </ul>	e tempera ut: step "N the buttor IP" buttor → "MAX or Contro ontrolled b	ature n IOR" n does n, setti " → "N I by the	node sn't get p ng is rep ∕IIN" → ' on/off co	resse eated "MIN-	d in the NOR"	order (LED	of LAMP			
Temperature Step	"MIN	"	"MIN-NC	DR"	"NO	R"	"MAX	NOR"	"M	AX"
Temp. Diff. of Each S	tep	1.3	С	1.5	5C	2	.3C		2.2C	
<ol> <li>4. Refrigerator ON/OFF Ten Difference: 3.4C</li> <li><b>C. "S-COOL" MODE</b></li> <li>Press S-COOL SWITCH and make S-COOL led lan</li> <li>COMP &amp; FAN are on until reaches to "Over Refriger</li> </ol>	np on. R-sensor		-	Temr	5				·	
Difference: 3.4C C. "S-COOL" MODE I. Press S-COOL SWITCH and make S-COOL led lan 2. COMP & FAN are on until reaches to "Over Refriger OFF Point", -7C 3. After the reach of -7°C, S 4. When "S-COOL" MODE (C lasts for about 40 minutes, operation mode.	np. R-sensor ation TEP "MA) Quick Refi , it returns	۲" moo	de contin tion Mode	iues.	6.0 C			             	               	
Difference: 3.4C C. "S-COOL" MODE I. Press S-COOL SWITCH and make S-COOL led lan 2. COMP & FAN are on until reaches to "Over Refriger OFF Point", -7C 3. After the reach of -7°C, S 4. When "S-COOL" MODE (C lasts for about 40 minutes)	np. R-sensor ation TEP "MA) Quick Refu , it returns <b>Control</b> Ising	۲" moo	de contin tion Mode	iues.		i	5 C		0.8 C	-1.3
Difference: 3.4C C. "S-COOL" MODE I. Press S-COOL SWITCH and make S-COOL led lan 2. COMP & FAN are on until reaches to "Over Refriger OFF Point", -7C 3. After the reach of -7°C, S 4. When "S-COOL" MODE (C lasts for about 40 minutes operation mode. D. Temperature of Freezer It will be only controlled by u	np. R-sensor ation TEP "MA) Quick Refu , it returns <b>Control</b> Ising	۲" moo	de contin tion Mode	iues.		4	.5 C 3	2.0C	0.8 C	

3. Defrost Mode								
INPUT			CONTROL OF	3JECT				
Total COMP Work Total Door Open T		orking Rate	Defrost Mode					
<ul> <li>A. When total operative of the second seco</li></ul>	Total Door Open Time / RT       Defrost Mode         Conditions of Defrost Mode         A. When total operation time of compressor becomes: 6, 8, 10, 12 hours.         - any error mode-R1, D1, F3, C1, RT/S, Door SW error- happens.         - or, running rate of COMP (per 2hrs of total operation time) is more than 80%.         - or, total door open time is over 3 minutes.         - or, ambient temperature (RT) is more than 40C.         B. Even if the above condition "A" is not satisfied,         - Defrost mode starts immediately when total operation time of COMP is 14hrs.         - or, defrost mode starts immediately as long as total time (COMP on time + COMP off time) is 60 hrs.							
; PRE-COOL: W So the COM - Limited Time of ; 40 minutes: He ; 60 minutes: He	L t Mode conditions of defro on- Defrost Heater on- hen the defrost he P works for 25 mir	Pause(10 min)-Ga eater works, the te before defrost m n "D SENSOR" is maximum 60 min	mp. of freezer incl ode. OPEN or SHORT. utes.					
	PRE-COOL	Defrost	Pause					
Compressor	ON	OFF	OFF					
Fan	ON	OFF	OFF					
Defrost	OFF	ON	OFF					
(for TEST) - How to confirm:	ISH the "S-COOL" as General Defrost osed to be on Initi Push "TEMP" bu And then, the mod	t Mode except "PF al 30 seconds eve utton 5 times wl le displays.	RE-COOL" en though the temp	irigerator door. p. at "D SENSOR" is over 10C. refrigerator door				



4. Prevention of Compressor Restart					
INPUT	CONTROL OBJECT				
	COMP				
COMP. doesn't work after COMP turns off even though					

A. General operation (Temp. at the RT sensor is over 20C): The COMP can't be on within 6 min.
B. Operation of LOW RT (Temp. at the RT sensor is below 19C): The COMP can't be on within 30 min.

(But the COMP can be on after 6min when the doors open more than 20 seconds.)

#### 5. Buzzer Sound

INPUT	CONTROL OBJECT
Control Buttons / Door Switch Initial Power Input	Buzzer

A. Whenever "PCB Control Panel" button's pushed, the buzzer rings.

B. After 2 minutes power's on, the buzzer rings 3 times.

C. Time of Buzzer: Forced Defrost Mode (3 times), Short Circuit Test (1 time)

D. When door opens, the buzzer rings every 1 minute for 5 minutes.

"J1", "J2" On Main PCB Control Resistance of R sensor OFF Point          A LOW COOLING OPTION (Weak Cooling)         • When the refrigeration of refrigerator is poor or weak though Fan and COMP are working continuously, the following actions are recommended for service.         • Resistance (R47): Default resistance (31.4KOnms)         • Resistance (R42): Cut the "J1" off to reduce basic resistance by 1.5°C. (2Kohms up)         • Resistance (R42): Cut the "J1" off additionally to reduce basic resistance by 1.5°C. (total 4Kohms up R47 = R-SENSOR OFF point R47 + R45 = R-SENSOR OFF point - 1.5C         R47 + R45 = R-SENSOR OFF point - 1.5C         R47 + R45 = R-SENSOR OFF point - 3C	NPUT	CONTROL OBJECT
<ul> <li>When the refrigeration of refrigerator is poor or weak though Fan and COMP are working continuously, the following actions are recommended for service.</li> <li>Resistance (R47): Default resistance (31.4Kohms)</li> <li>Resistance (R42): Cut the "J1" off to reduce basic resistance by 1.5°C. (2Kohms up)</li> <li>Resistance (R42): Cut the "J2" off additionally to reduce basic resistance by 1.5°C. (total 4Kohms up R47 = R-SENSOR OFF point R47 + R45 = R-SENSOR OFF point - 1.5C</li> <li>R47 + R45 = R-SENSOR OFF point - 1.5C</li> <li>R47 + R45 + R42 = R-SENSOR OFF point - 3C</li> </ul>	"J1" , "J2" On Main PCB	Control Resistance of R sensor OFF Point
R47(31.4K) R45(2K) R42(2K) J2	<ul> <li>When the refrigeration of refrigerator is poor the following actions are recommended for . Resistance (R47) : Default resistance (31</li> <li>. Resistance (R45) : Cut the "J1" off to red . Resistance (R42) : Cut the "J2" off additi R47 = R-SENSOR OFF point R47 + R45 = R-SENSOR OFF point - 1.5C</li> </ul>	r service. 1.4Kohms) duce basic resistance by 1.5°C. (2Kohms up) ionally to reduce basic resistance by 1.5°C. (total 4Kohms up
		R47(31.4K) R45(2K) J1 R42(2K) J2

-		Display	
	Fror	LISDIAV	
		Display	

INPUT	CONTROL OBJECT
PCB Control Panel Buttons / Door	LED Lamp

#### - ERROR DISPLAY

- To check the appliance has error or not, push TEMP button 5 times while opening the refrigerator, door. - To stop the Error Display Set, push "TEMP" button 1 times, or wait 4 minutes.

#### A. R1 ERROR (It happens when R-Sensor is OPEN or SHORT)

- DISPLAY : 3rd LED is on & off continually.
- CONTROL :
  - ; Controlled by the following condition of RT
  - ; When "RT ERROR" happens at the same time, "COMP. ON/OFF Operating Time" is 16min/24min. (Unit : min)

RT sensor TEMP	~13C	~19C	~29C	29C ~
COMP. Operating TIME (ON/OFF)	6/34	10/30	16/24	20/20

- Termination : when R-Sensor is normal.

#### B. RT ERROR (It happens when RT-Sensor is OPEN or SHORT)

- DISPLAY : 2nd LED is on & off continually.
- CONTROL : Delete the conditions of "RT-sensor Control" and operate normally.
- Termination : when R-Sensor is normal.
- C. D1 ERROR (It happens when D-Sensor is OPEN or SHORT)
- DISPLAY : 1st LED is on & off continually.
- CONTROL : Defrosting is active maximum time (40 min)
- Termination: when D-Sensor is normal.

#### D. DR ERROR (It happens when the system senses door opens more than 1 hour.)

- DISPLAY : 2nd & 3rd LED are on & off continually.
- CONTROL : Deletion of function related door switch sensing
- If door switch (open & close) is sensed, the error is terminated automatically.

E. C1 ERROR (When D-Sensor is more than -5C, Comp operates continuosely over 3 hrs)

- DISPLAY : 1st & 3rd LED are on & off continually.
- CONTROL : Normal operation.
- Termination : When Comp is off, D-Sensor is less than -5C.

#### F. F3 ERROR (When defrosting is active for 60 minutes.)

- 6.1- DISPLAY : 1st & 2nd LED are on/off continually.
- 6.2- CONTROL : Skip the Pre-cool process.
- 6.3- Termination: When defrosing ends by the defrost sensor.

- If the appliance is normal (no error), just 4th and 5th LED is on/off in Error Mode.

## 8. Function Key Summary Table

MODE	Action	Button / Remark
	How to enter the Mode	S-COOL 5 times + Refrigerator door open
Forced(Quick) Defrost Mode	How to terminate	After mode end or unplug.
	Display	3rd and S-COOL LED is on.
	How to enter the Mode	TEMP button 30 times
Pull Down Mode	How to terminate	After mode end or unplug.
	Display	1st and S-COOL LED is on.
	How to enter the Mode	TEMP 5 times + Refrigerator door open
Error Display	How to terminate	After 4 minutes or unplug.
	Display	4th and 5th LED is ON/Off (When no error )

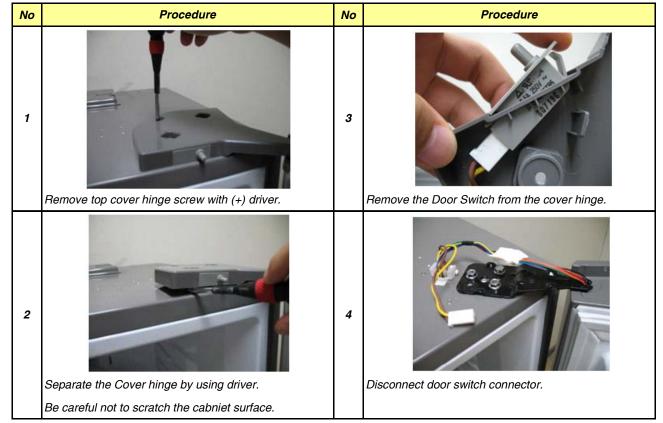
 $\triangle$ 

In Error Mode, you can find the current mode (What mode is operationg) and what kinds of Error happen.

No	Procedure	No	Procedure
1	Remove cap cover.	3	Pull the FCP FIXTURE UP by using (-)driver.
2	Separate the F-PCB housing from refrigerator. Be careful not to scratch the cabniet surface.	4	After separating F-PCB from fixture , change the FCP to new ones

1. Front PCB ( some parts can vary from the actual appearance. )

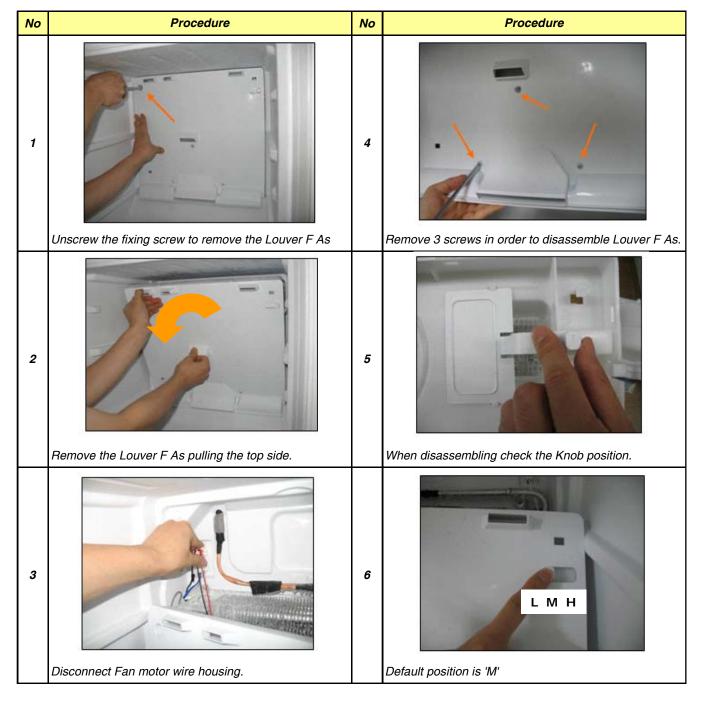
#### 2. Door Switch



#### 3. Multi-Duct As ( In Freshfood Compartment )

No	Procedure	No	Procedure
1	Remove screw cap with (-) driver(2 points)		
2	Unscrew 2 points with (+)driver	3	Disconnect the Sensor wire housing.

#### 4. Freezer Louver As



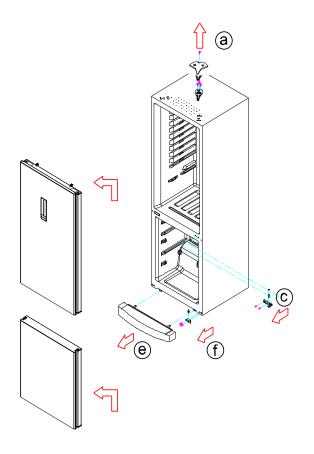
### 5. LED Lamp ( In Freshfood Compartment )

No	Procedure
1	Using a thin driver, Pull both locker and Separate a Window LED from Liner.
2	Unscrew 2 points with (+) driver
3	Disconnect LED PCB form housing.

No	Procedure	No	Procedure			
1	Remove top cover hinge screw with (+) driver.	6	After hiding door wire harness, remove the button Door Switch and Cover Bushing.			
2	Separate the Cover hinge by using driver.	7	After unscrewing the Cover Hinge Harness *T *L, disclose the door wire harness.			
3	Remove the Door Switch from the cover hinge.	8	Stopper         Stopper         Reassemble the cover and button door switch.         And also assemble the door stopper to opposite side.         (Which is located the Door under Cap. )			
4	Disconnect all wire connector and hinge.	9	Freezer Door       Freezer Door         Remove the Middle Hinge.         Assemble Cover Bushing & Stopper to the opposite.			
5	Unscrew the Cover Hinge Harness *T *R and hide the door wire harness.	10	<ul> <li>a. Change the location (screw &amp; division hinge cap)</li> <li>b. Change the unnder hinge location to the opposite.</li> </ul>			

No	Procedure	No	Procedure
11	Screw the middle hinge to fix the Freezer Door. ( Washer should be up. )	14	Connect the wire harness to door swtich. ( Be careful the dircetion. )
12	Also assemble wire cover on the top plate. ( On the right	15	Assemble Door and hing cover.
13	Change the plate position and separate door switch.		

#### 1-1. Remove the Door As



a. Remove 'Top Cover Hinge' and 'Top Hinge'

b. Separate 'Refrierator Door'.

c. Remove 'Middle Hinge'

d. Separate 'Freezer Door'.

e. Remove 'Cover Bracket'.

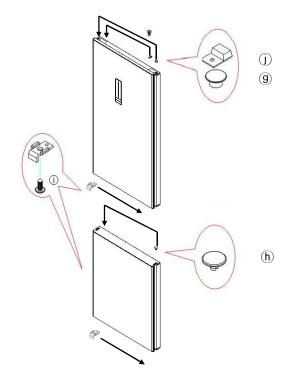
f. Remove 'Under Hinge'.

1-2. Reverse the Door Accessories

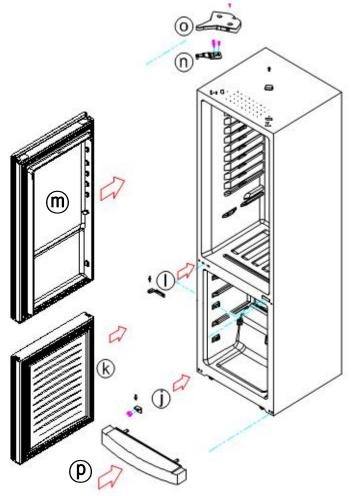
- g. Reverse the position of 'Cover Bushing Refrigeraor Door'
  - Unscrew and remove 'Harness Cover'.
  - Take out 'Left Door Harness' and assemble 'Harness Cover' on 'Right Door Harness'.
- h. Reverse the position of 'Cover Bushing Freezer Door'.

i. Reverse the position of 'Door Stoppers'.

J. Reverse the position of 'Button Switch'. - Unscrew 'Button Switch'



1-3. Reassemble the Freezer and Refrigerator Door



j. Assemble the 'Under Hinge' on the left.

k. Attach the 'Freezer Door' to Cabniet.

I. Assemble the 'Middle Hinge' on the left.

m. Attach the 'Refrigerator Door' to Cabinet. ( Be careful not to fall down )

n. Assemble 'Top' hinge and connect the FCP wire.

o. Connect the 'Door Switch' wire housing. Assemble the 'Door Switch' on the other side.

p. Assemble the 'Cover Bracket'.

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



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

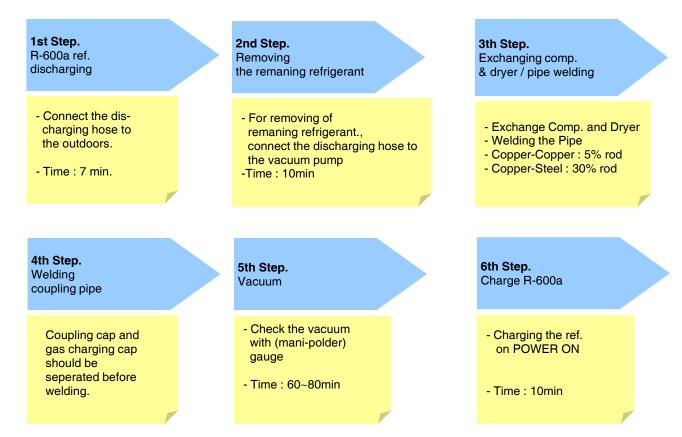
When transporting and installing the appliance, care should be taken to ensure that no parts of the refrigerating circuit are damaged.

- 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 appiance may be sited depends on the amount of refrigerant used. The room must be 1m3 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 sings of damage. If in doubt, consult your dealer.

#### 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
<u>a</u>		

#### 3. Process Summary



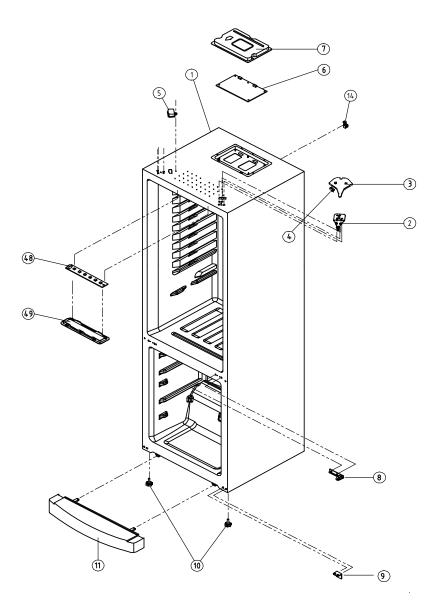
#### 4. In Detail Precess

NO.	SVC process	Image	Details
1	1 Connecting the pinch-plier &		<ol> <li>Connect the discharging hose to the pinch-plier</li> <li>The outlet of discharging hose should be placed to the outdoor(window)</li> </ol>
2	Fixing the pinch-plier & charging pipe		<ol> <li>Fix the pinch-plier to the compressor charging pipe.</li> <li>Pinch-plier should not be moving freely.</li> <li>If that is moving freely, it would cause fire/explosion as leakage gas in the room.</li> </ol>
3	Discharging the R-600a ref.		<ol> <li>Discharge the R-600a ref. to outdoor.</li> <li>[Befor connecting the vacuum pump]</li> <li>It should have enough time more than 7 minutes to discharge.</li> </ol>

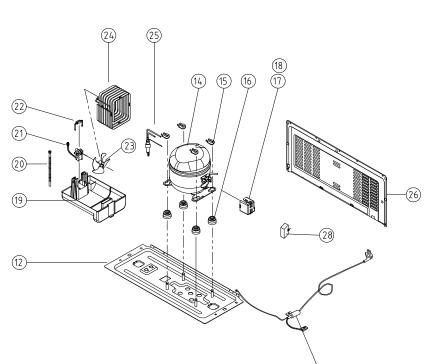
NO.	SVC process	Image	Details		
4	Removing the remaining ref.		<ol> <li>And then, connect the vacuum pump to the outlet of discharging hose</li> <li>Vacum pump should be placed at the outdoor where is able to clear air easily.</li> <li>It should have enough time more than 10 minutes to discharge.</li>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

NO.	SVC process	Image	Details		
9	Coupling pipe welding		<ol> <li>Weld after inserting the coupling pipe to the compressor.</li> <li>Weld after inserting the coupling the other part of machinery-room from damage.</li> </ol>		
10	Valve reass'y & guage connecting		<ol> <li>Reassemble the valve ass'y with coupling pipe to clockwise.</li> <li>Connect the blue hose of the guage to the coupling pipe and the yellow hose to the vacuum pump.</li> <li>Open the blue guage lever and start the vacuum pump</li> </ol>		
11	Vacuum		<ul> <li>1. Be vacuumed the cycle with pump.</li> <li>* Time : 60~80min</li> <li>=&gt; If the vacuum time is less than 60min, ref. COP &amp; air coolong would be weak.</li> </ul>		
12	Check		<ol> <li>Check the guage : -76cmHg</li> <li>If the cycle is not vacuumed, it would be leak.</li> </ol>		
13	Adjusting the amounts of refrigerants (R-600a can)		<ol> <li>Check the amounts of R-600a can with scale and discharge the surplus ref.</li> <li>Discharging is surely done at the outdoor where is able to clear air.</li> <li>Tip of adjusting.</li> <li>Can total weight :160g(Can 75g+Ref. 85g)</li> <li>Adapter : 145g</li> <li>=&gt; Total : 305g</li> <li>The amounts of charging : 79g</li> <li>=&gt; Discharging : 6g =&gt; Total : 299g</li> </ol>		

NO.	SVC process	Image	Details		
14	Connecting of coupling pipe & adapta		<ol> <li>Conect can adapter to the coupling pipe.</li> <li>Charge the ref. with open lever slowly.</li> <li><b>Refrigerant should never leak in the room.</b></li> </ol>		
15	Charging		<ul> <li>1. On the power of refrigerator and then start to charge the ref. (10min)</li> <li>* Charge the ref. until going out the water vapour condensing on the can outlet.</li> </ul>		
16	Leakage Test		<ol> <li>Check the leakage.</li> <li>X You must rework from Step.1 when the leakage is detected.</li> </ol>		
17	Finish		<ol> <li>Clean and clear around the machinery room when the service is finished.</li> <li>Assemble the machinery room cover.</li> </ol>		

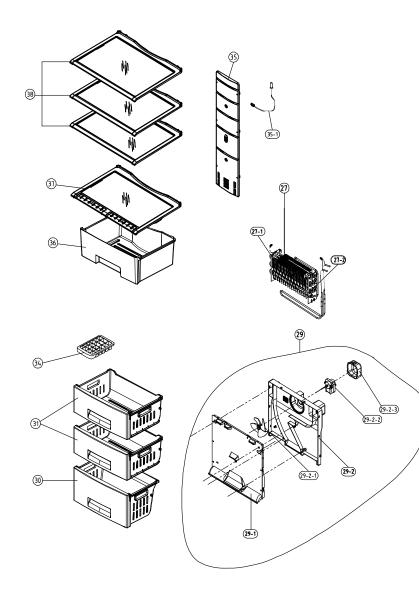


NO	PART-CODE	ART-CODE PART NAME	SPEC.	Q'ty			
NO	PANFCODE	FANTNAME	SFEC.	T405	T425	T455	
1	-	ASSY CAB URT	BLACK / WHITE	1	1	1	
2	3012929000	HINGE *T AS	RFP-340	1	1	1	
3	3001427700	COVER *T AS	PP (WHITE)	1	1	1	
4	3018125601	SWITCH H/BAR DR AS	SP101B-2D1	1	1	1	
5	3001412200	COVER CAB HRNS	PP(WHITE)	1	1	1	
Э	3001412220	COVER CAB HRNS	PP(T/SILVER)	I	1	,	
6	30143HN060	PCB MAIN AS	V3 COMBI(AC FAN)	1	1	1	
0	30143HN090		V3 COMBI(DC FAN)	1	1	1	
7	3001416600	COVER M/PCB BOX AS	SPCC(WHITE)	- 1	1	1	
7	3001416630	COVEN MUP CB BOX AS	SPCC(BLACK)			I	
8	3012928600	HINGE *M	PO, T3.2	1	1	1	
9	3012928800	HINGE *U	PO, T3.2	1	1	1	
10	3012104600	FOOT ADJ AS	PP+INSERT	2	2	2	
11	3001442200	COVER CAB BRKT AS	PP (WHITE)	1	1	1	
48	30143HJ210	PCB FRE LED AS	6-LED FR-4 120X20-1.6T	1	1	1	
49	3015517200	WINDOW F LED *T	ABS	1	1	1	

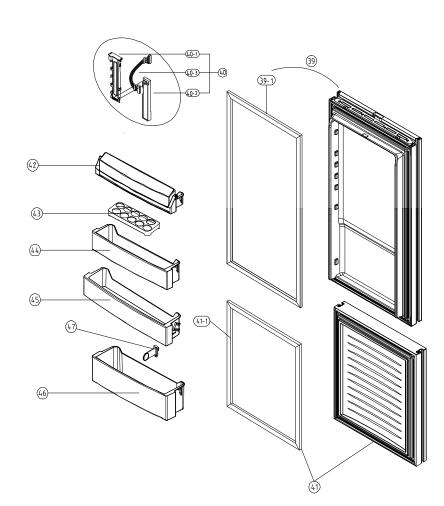


(13)

NO	PART-CODE	PART NAME	SPEC.		Q'ty	
NO	PANT-CODE		SFEC.	T405	T425	T455
12	3010349300	BASE COMP AS	RFP-340	1	1	1
13	OPTION	CORD POWER AS	RFP-340	1	1	1
	3956188C50		LZ88CY (A+,EUROPE)			
14	3956158K50	COMPRESSOR	YX58LHP5 2	1	1	1
	3956141250		MD4A1Q-L1U			
15	3016002500	SPECIAL WASHER	SK-5 T0.8	4	4	4
16	3010101480	ABSORBER COMP AS	SPRING (R-600a)	4	4	4
10	3010101600	ABSORBER COMP	NBR (R-134a)	4	4	4
	3018133020		B60-120(LZ88CY)			
17	3018131810	SWITCH P RELAY AS	YX58LHP5	1	1	1
	3018132900		MD4A1Q-L1U			
	3811402600		LZ88CY (A+,EUROPE)	1	1	
18	381140050	COVER RELAY	YX58LHP5			1
	3811400503		MD4A1Q-L1U			
19	3011122800	CASE VAPORI AS	PP + TAPE ALUMINUM	1	1	1
20	3013202700	HOSE DRN B	PE	1	1	1
21	3015918110	MOTOR C AS	AC 230V/50HZ	- 1	1	1
21	3015906850	MOTOR CAS	DC 10V			'
22	3010102100	ABSORBER C MOTOR	NR FRB -5350NT	1	1	1
23	3011802200	FAN	ABS OD3.17XD110	1	1	1
24	3014469600	PIPE WICON AS		1	1	1
25	3016808100	DRYER AS	SBS 12G	1	1	1
26	3001414000	COVER MACH RM AS	RFP-340	1	1	1
	301640600		400VAC /4uF(LZ88CY)	1	1	
28	3016405800	CAPACITOR RUN	350VAC/4uF(YX58LHP5)			1
	3016406100		400VAC /5uF(MD4A1Q-L1U)			



NO	PART-CODE	PART NAME	SPEC.		Q'ty			
				T405	T425	T455		
27	3017065200	EVA AS	R-134a	1	1	1		
	3017068200		R-600a	,				
27-1	30127694100	HARNESS D SENS	R-134a	1	1	1		
	3012769400		R-600a	,				
27-2	3012822000	HEATER D AS	R-134a (GLASS)	1	1	1		
	3012823000	HEATER SHEATH AS	R-600a	,		I		
29	3018927900	LOUVER F AS	RFP-341, AC FAN	1	1	1		
	3018927950	LOUVER F AS	RFP-341, DC FAN	1	1	1		
29-1	3018923700	LOUVER F A AS	LOUVER F A+SEAL	1	1	1		
29-2	3018923800	LOUVER F B AS		1	1	1		
29-2-1	3011836000	FAN AS	FAN+CLAMP	1	1	1		
29-2-2	3015918210	MOTOR F AS	AC 230V/50HZ	1	1	1		
29-2-2	3015905350		DC 12V	1	1	1		
29-2-3	3010664700	BRACKET FAN MOTOR	PP, T2.0	1	1	1		
30	3011198000	CASE F C AS	CASE+WINDOW	1	1	1		
31	3011197900	CASE F B AS	CASE+WINDOW	2	2	2		
34	3010564910	CASE ICING AS	CRYSTAL	1	1	1		
	3001439500	COVER MULTI DUCT	ABS, RFP-326	1	Х	X		
35	3001439600		ABS, RFP-346	X	1	X		
	3001439700		ABS, RFP-356	X	Х	1		
35-1	3012764600	HARNESS R SENS	NBC-K43-D21	1	1	1		
36	3011197500	CASE VEGETB	GPPS	1	1	1		
37	3001438700	COVER V/CASE AS	COVER+KNOB	1	1	1		
38	3017851900	SHELF R INSERT AS	PP	3	3	3		



NO	PART-CODE	PART NAME	SPEC.	Q'ty		
				T405	T425	T455
39	30100A6210	ASSY R DR	BLACK	1	x	x
	30100A6310			x	1	x
	30100A6410			x	x	1
	30100A6200		WHITE	1	x	x
	30100A6300			x	1	x
	30100A6400			x	x	1
39- 1	3012327700	GASKET R DR AS	RFP-326	1	x	x
	3012321200		RFP-346	x	1	x
	3012327800		RFP-356	x	x	1
40	3012037300	FIXTURE F PCB AS	WHITE	- 1	1	1
	3012037310		BLACK			
40-1	3012035800	FIXTURE F PCB	WHITE	- 1	1	1
	3012035810		BLACK			
40-2	30143HN170	PCB INTR FRONT AS	RFT-346	1	1	1
40-3	3012779300	HAARNESS INTR FCP AS	RFT-326,346,356	1	1	1
41	30100A6300	ASSY F DR	WHITE	- 1	1	1
	30100A6310		BLACK			
41-1	3012321100	GASKET F DR AS	RFP-340	1	1	1
42	3019056100	POCKET DAIRY AS	RFP-341	1	1	1
43	3011190800	CASE EGG TRAY	GPPS	1	1	1
44	3019055900	POCKET BOTL	GPPS	1	1	1
45	3019059700	POCKET R *M	GPPS	1	1	1
46	3019055800	POCKET JUMBO	GPPS	1	1	1
47	3012532100	GUIDE BOTL POKT	HIPS	1	1	1