

S/M No. : FR32000010

DAEWOO

Service Manual

Refrigerator

Model: FR-320



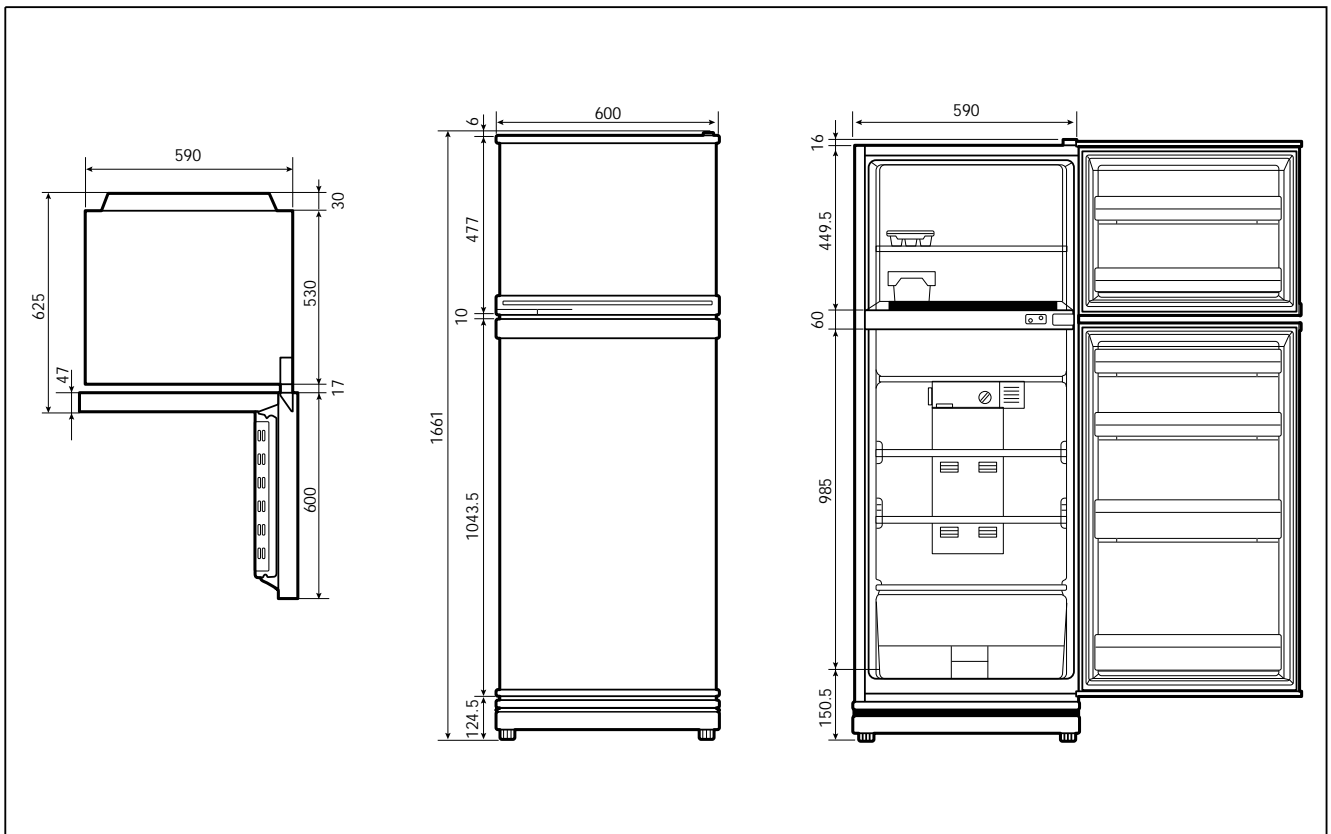
DAEWOO ELECTRONICS CO., LTD.

1. Specification -----	1
2. External view -----	2
3. Wire diagram -----	3
4. Name of parts-----	4
5. Air flow diagram-----	5
6. Refrigerant cycle diagram -----	6
7. Machine room view and part list-----	7
8. Main components -----	8
9. Door color specification -----	11
10. Exploded view and parts list -----	14

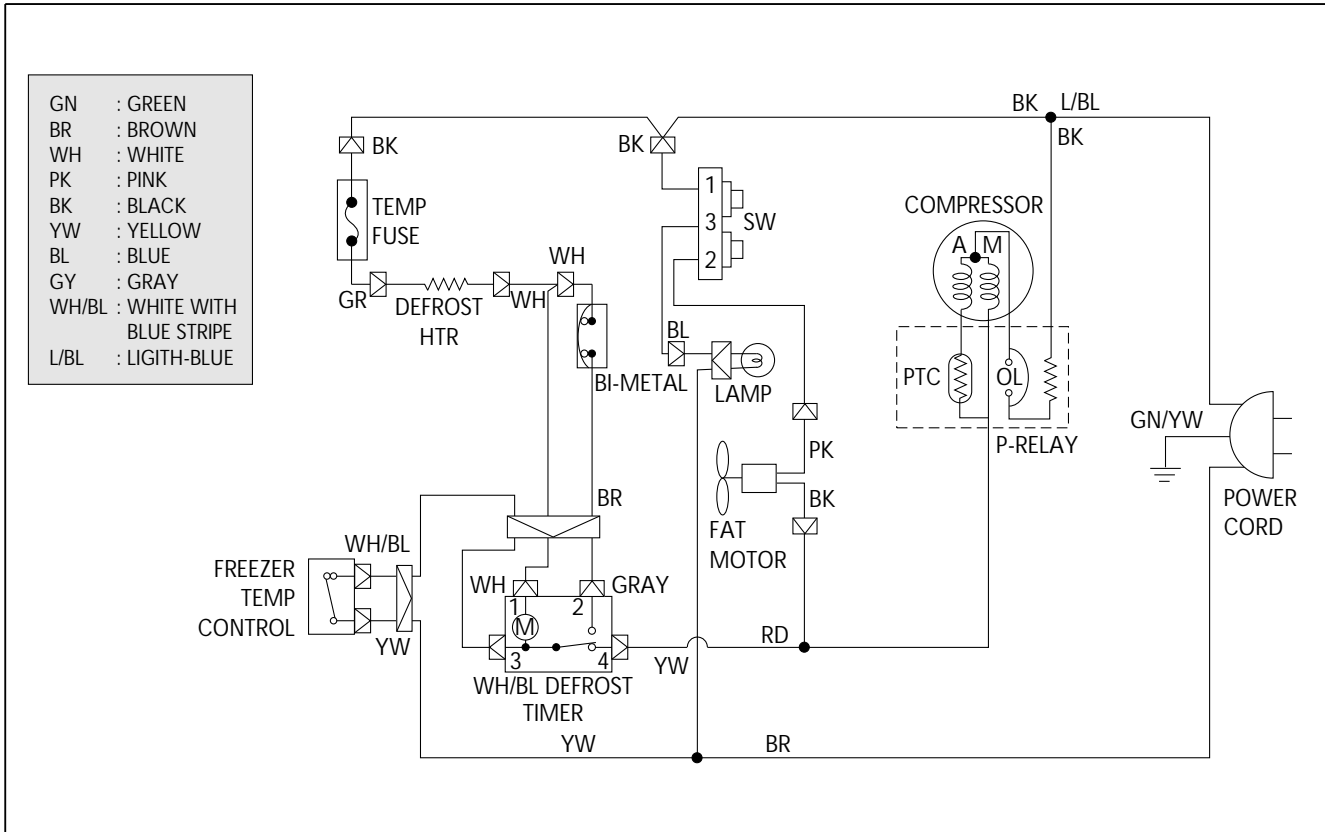
1. SPECIFICATION

MODEL NAME		FR-320
Refrigerant	R12	150g
	R134a	120g
Cooling System		Fan Cooling Convection Type
Refrigeration System		Air Forced Convection
Defrost System		Forced Fin-enanporator Type
Defrost Operation		Automatic Start & Stop
Cold Control		Adjustable Dial
Capacity	Freezer	60 ℓ
	Refrigerator	207 ℓ
	Total	267 ℓ
External Dimension	Height	1661mm
	Width	600mm
	Depth	625mm
Net Weight		62Kg

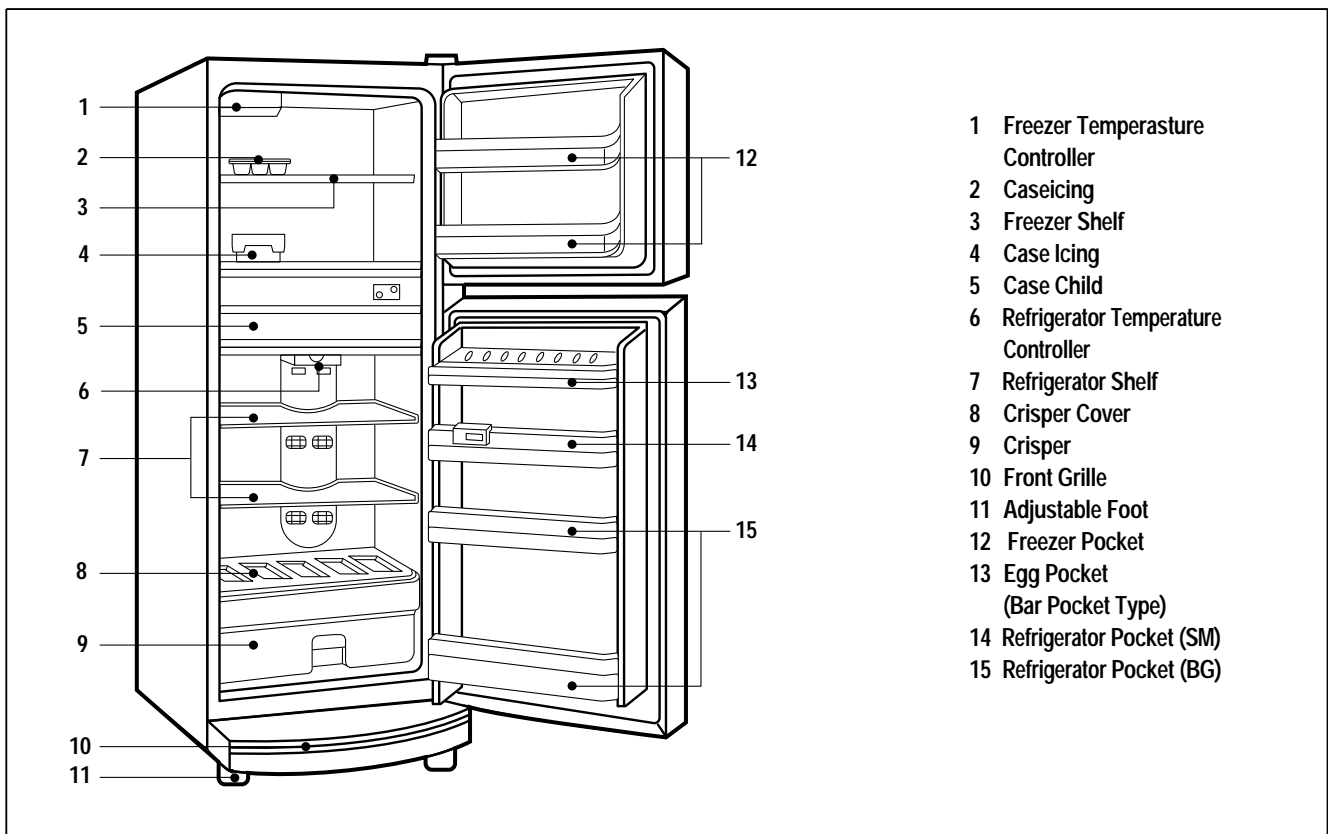
2. EXTERNAL VIEW



3. WIRE DIAGRAM



4. NAME FLOW DIAGRMA



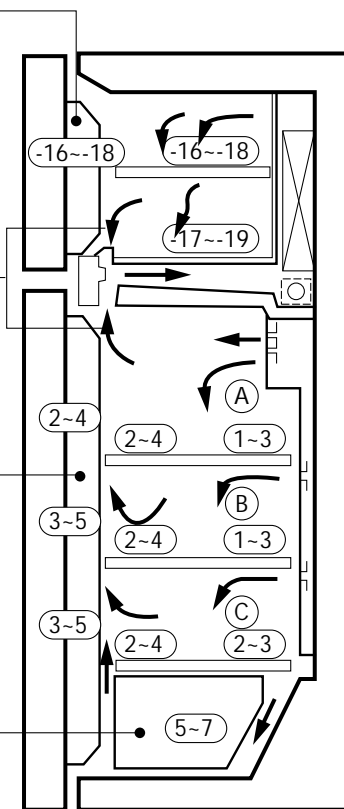
5. AIR FLOW DIAGRAM

Freezer door pocket
 Do not put ice cream or frozen food in freezer door pocket to store for a long term. Opening and shutting the door can rise up the temperature.

Cold air absorbing duct
 Do not place food in front of the duct because it is the entrance of the cold air.

Refrigerator door pocket
 Temperature is high even if the pocket is in the middle.
 When storing margarine or cheese for one or two weeks, make use of the refrigerator shelf.

Crisper
 Suitable in storing fruits or vegetable.
 Wrapping can prevent from dryness.

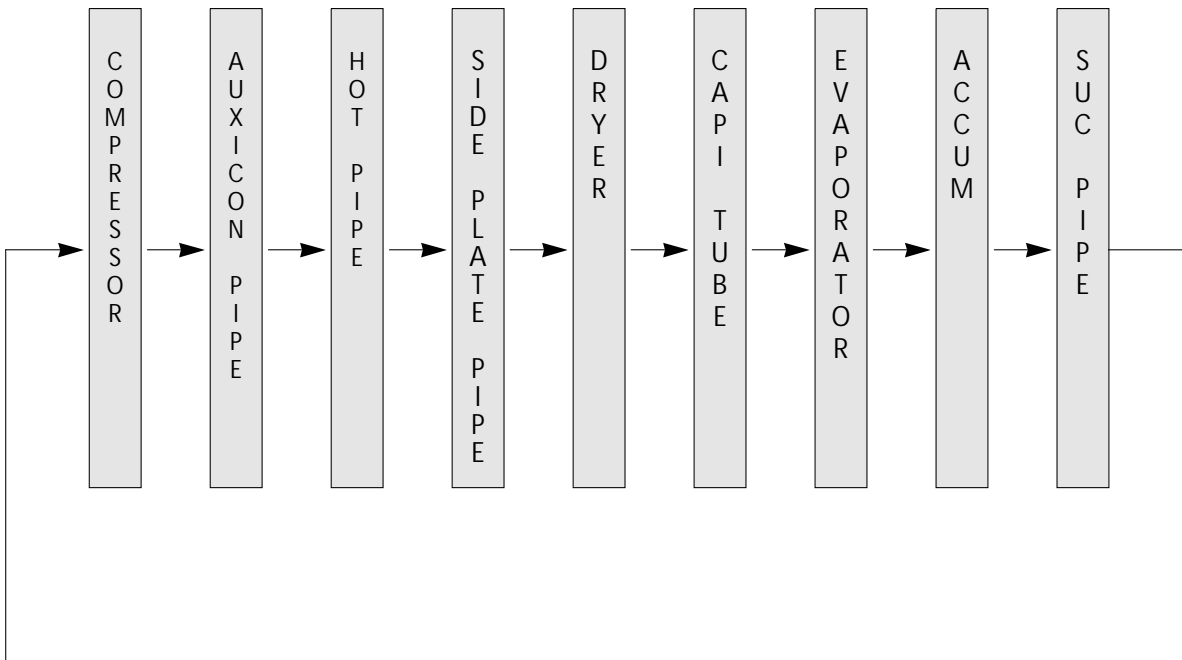
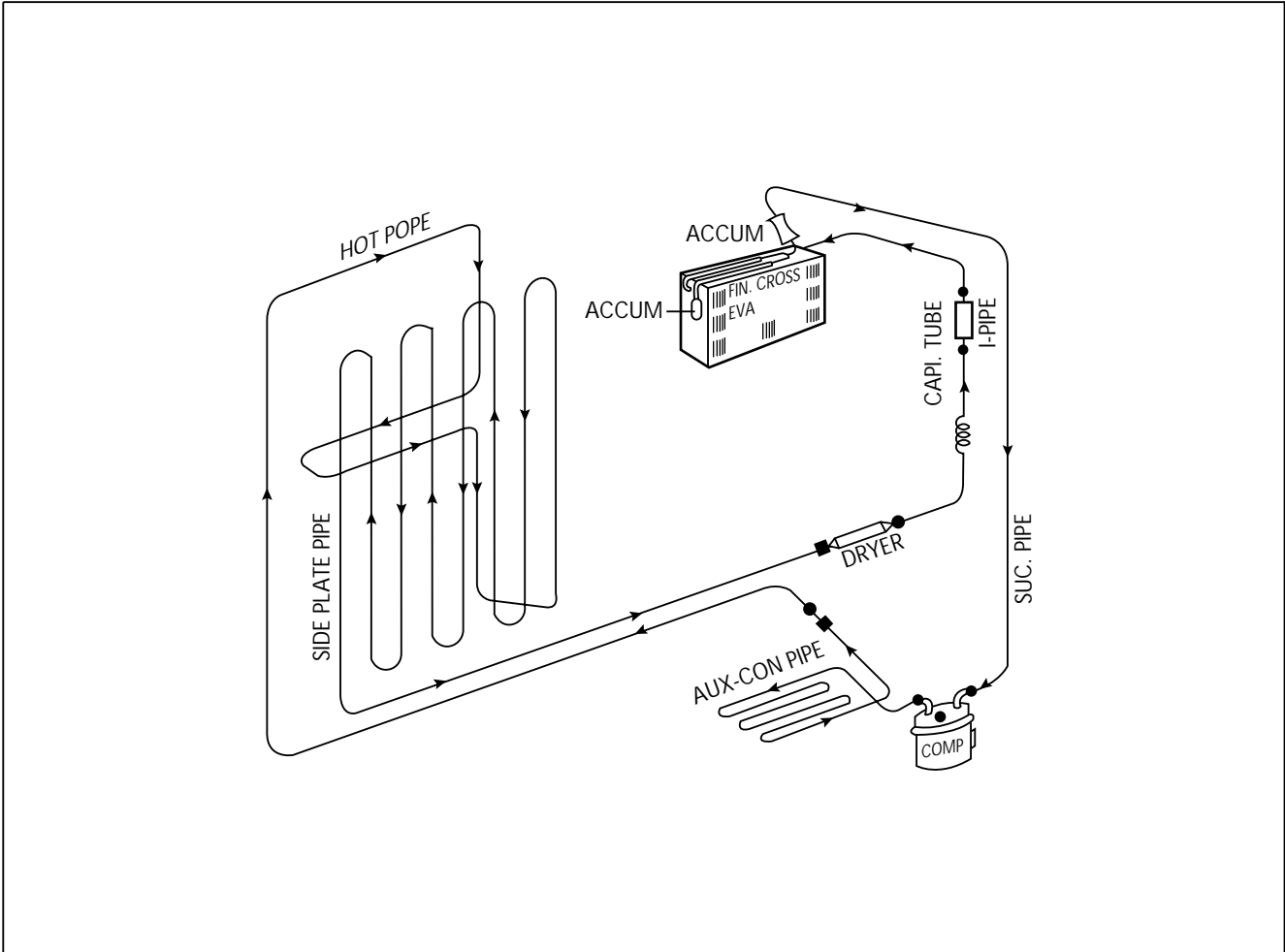


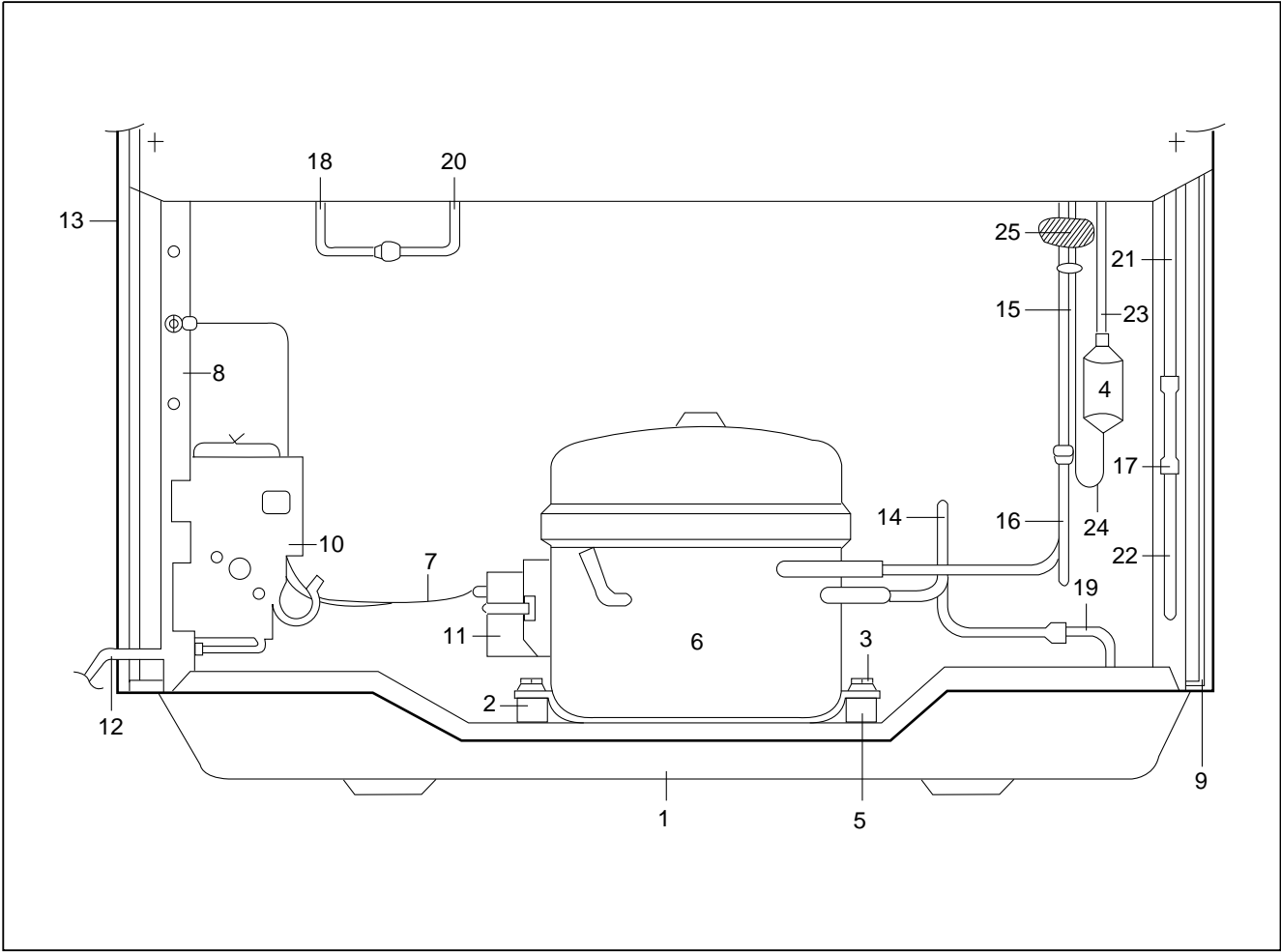
Freezer room
 Do not put in any bottle such as beer or beverage because it can be frozen and broken.

Refrigerator room
 This model is multi-flow type which flows out cold air from each shelf space. The hot air after making the refrigerator cold, flows into cooling system through the front upper part.

Do not put food having much moisture at the middle part of each shelf space (0A0, 0B0 and 0C0 part). It can be frozen owing to the low temperature.

6. REFRIGERANT CYCLE DIAGRAM





NO	PART NAME	NO	PART NAME	NO	PART NAME
1	BASE COMP	10	POWER BOX AS	19	ENTRANCE OF AUX-CON PIPE
2	FIXTURE BOLT COMP	11	SWITCH P-RELAY AS	20	ENTRANCE OF SIDE PLATE PIPE
3	WASHER	12	POWER CORD	21	ENTRANCE OF HOT PIPE
4	DRYER	13	CABINET URT AS	22	EXIT OF AUX-CON PIPE
5	ABSORBER	14	PIPE CON (PA)	23	EXIT OF SIDE PLATE PIPE
6	COMPRESSOR	15	SUC-PIPE AS	24	CAPILLARY TUBE
7	P-RELAY LEAD WIRE	16	SUC-PIPE CON	25	VIBRATIONPROOF MASS
8	REINFORCE *R	17	PIPE CON		
9	REINFORCE *L	18	EXIT OF HOT PIPE		

8. MAIN COMPONENTS

1. COMPRESSOR

Refrigerant	R12							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Comp. model	X	FL21Y-3	X	FL21YE-2	SL21YE-5	PL21YE-4	SL21YE-5	←
Part code	X	3951121A30	X	3956121A20	3954121A50	3956121A40	3954121A50	←
Strating type	X	RSIR	X	RSIR	RSIR	RSCR	RSIR	←

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Comp. model	HBL23YE-C	HBL23YE-3	HBL23YE-1	X	HSL23YE-5	HPL23YE-4-C	HSL23YE-5	←
Part code	3952123L00	3952123G30	3952123G10	X	3954123G50	3956123L40	3954123G50	←
Strating type	CSR	←		X	RSIR	RSCR	RSIR	←

2. RELAY ASSEMBLY

Refrigerant	R12							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Relay model	X	S068	X	S068	S220	S330	S220	←
Part code	X	3018102820	X	3018102810	3018102750	3018103010	3018102750	←

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Relay model	S068	S220	S220	X	S220	S330	S220	←
Part code	3018110590	3018108120	3018108120	X	3018108010	3018110610	3018108010	←

3. RUNNING CAPACITOR

Refrigerant	R12							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	X	X	X	X	X	350V/5μF	X	X
Part code	X	X	X	X	X	400EL15110	X	X

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	230V/10μF	300V/7μF	X	X	X	X	X	X
Part code	400EL15130	3016800400	X	X	X	X	X	X

4. STARTING CAPACITOR

Refrigerant	R12							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	X	X	X	X	X	X	X	X
Part code	X	X	X	X	X	X	X	X

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	200V/100µF	←	X	X	X	X	X	X
Part code	3016400100	←	X	X	X	X	X	X

5. F-FAN MOTOR

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	3211DREB	3010DWNFH-2	X	X	3210DWNFF-2	3210DWNFD-1	3210DWNFI-2	←
Part code	3011804220	401ND24402	X	X	4019A24402	4017G24405	401NB24402	←

6. DEFROST HEATER

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	110V/150W	←	X	X	220V/150W	←	←	←
Part code	400EL22321	←	X	X	3012800500	←	←	←

7. LAMP ASSEMBLY

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	120V/10W	←	←	←	240V/15W	←	←	←
Part code	4019S15200	←	←	←	400EL20111	←	←	←

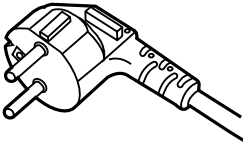
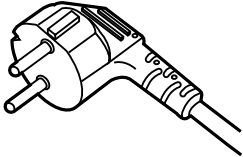
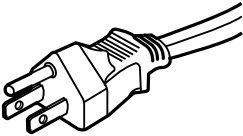
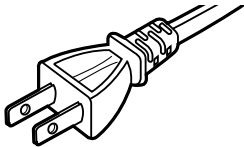
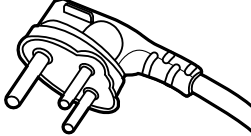
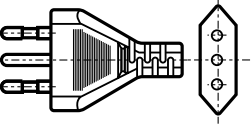
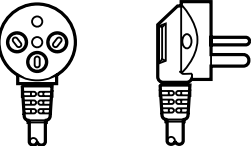
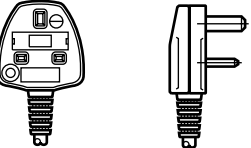
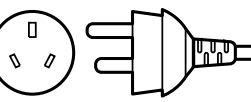
8. DEFROST TIMER

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	TMDEX09UA1	←	←	←	TMDEX09UM1	←	←	←
Part code	3018101200	←	←	←	3018100310	←	←	←

9. DRYER

Refrigerant	R12	R134a
Spec.	10 g	15 g
Part code	3016800103	3016801100

POWER CORD SPECIFICATION

NO	SHAPE OF POWER CODE	PART CODE	DESCRIPTION	REMARK
1		3011315000	CP-2PIN	FOR EUROPEAN COUNTRY
2		401RA17200	CP-2PIN	FOR OTHER COUNTRY
3		4006D17101	KP-30	FOR AMERICA
4		401PD17101	KP-211	FOR JAPAN & TAIWAN
5		3011300801	BP-3PIN	
6		3011303010	#267	FOR CHILE
7		3011315310		FOR ISRAEL
8		3011303050	BS-1363A	FOR U.K, MIDDLE ASIA SINGAPORE & MALAYSIA
9		3011301200	KP-551/550	FOR CHINA & AUSTRALIA

* Upper power cord's part code is only for lead wire, without any kinds of terminal or housing.

9. DOOR COLOR SPECIFICATION

1. ASSEMBLY URETHAN FREEZER DOOR

Refrigerant	R12				R134a			
Color type	Dull lamina sheet	High glossy lamina sheet	Normal PCM	High glossy bright PCM	Dull lamina sheet	High glossy lamina sheet	Normal PCM	High glossy bright PCM
Part code	X	X	X	PFDT1UF010	X	X	X	PFDT1UF015

2. ASSEMBLY URETHAN REFRIGERATOR DOOR

Refrigerant	R12				R134a			
Color type	Dull lamina sheet	High glossy lamina sheet	Normal PCM	High glossy bright PCM	Dull lamina sheet	High glossy lamina sheet	Normal PCM	High glossy bright PCM
Part code	X	X	X	PFDU2UF120	X	X	X	PFDU2UF125

COLOR TABLE

1. PCM Type

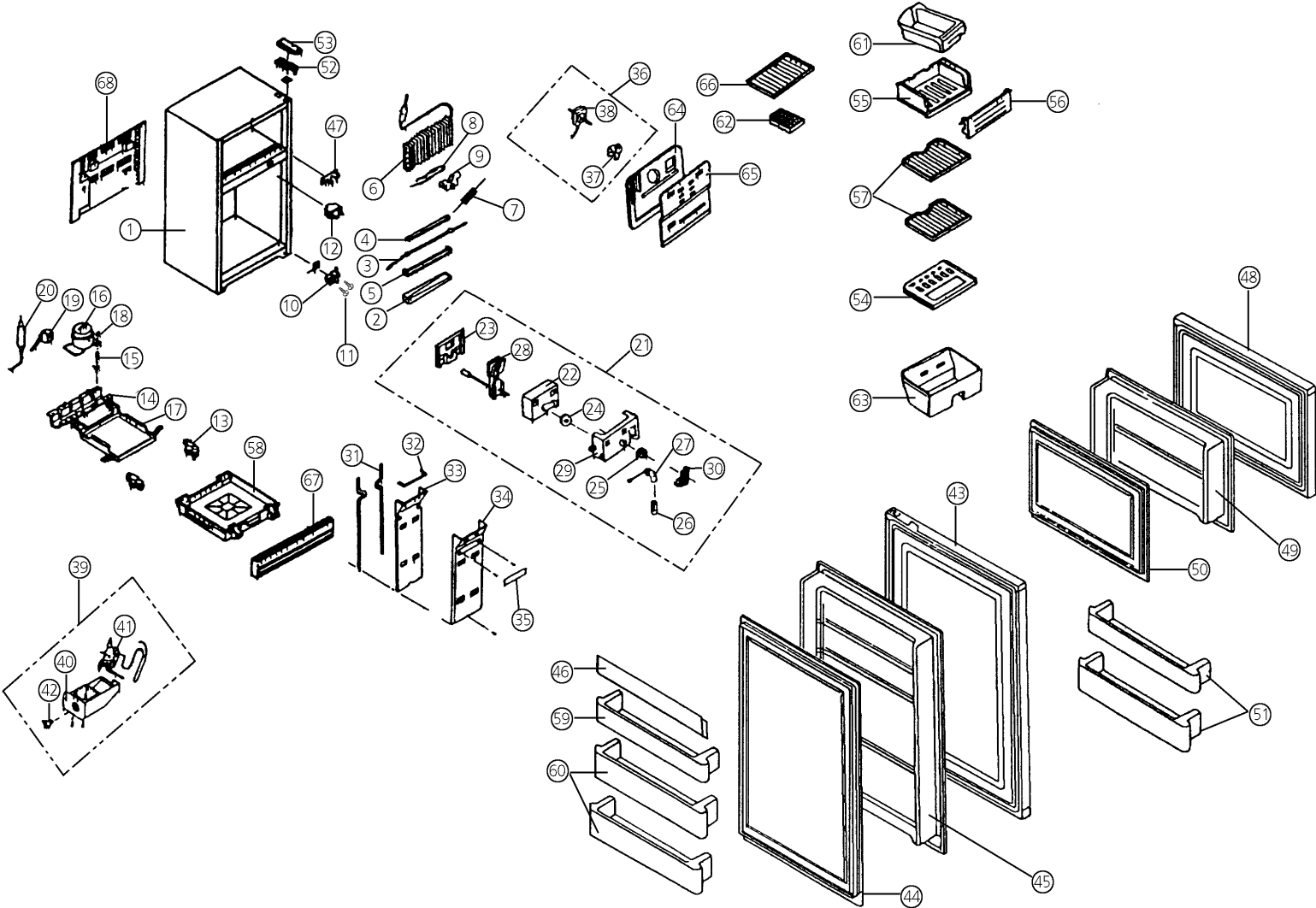
NO	COLOR CHIP	COLOR NAME
1		P/WITH (WH069)
2		'94 L/GRAY (GY158)
3		'95 L/GRAY (GY259)
4		'94 M/GRAY (GY331)
5		'95 M/GRAY (GY335)
6		'97 M/GRAY (GY267)
7		M. D/GRAY (GY750)
8		N/BLUE (BL718)
9		MINT GREEN (GN206)
10		'97 BEIGE (BE215)

2. Lamina sheet type

NO	COLOR CHIP	COLOR NAME
1		P/WITH (WH069)
2		'94 L/GRAY (GY158)
3		'95 L/GRAY (GY259)
4		'94 M/GRAY (GY331)
5		'95 M/GRAY (GY335)
6		'97 M/GRAY (GY267)
7		M. D/GRAY (GY750)
8		N/BLUE (BL718)
9		MINT GREEN (GN206)
10		S/GOLD
11		G/GREEN

10. EXPLODED VIEW AND PARTS LIST

1. Exploded views



2. Parts list

NO	PART CODE	PART NAME	DESCRIPTION	QUANTITY	REMARK
1		ASSY URT CAB		1	
2	4018G57110	GUIDE DRN *O		1	
3		HEATER GLAS AS		1	REFER TO # 9
4	4019R73570	COVER DEFR HTR *T	AL	1	
5	4019R73580	COVER DEFR HTR *U	AL	1	
6	4019R03205	EVAPORATOR AS		1	
7	3018100603	SWITCH BIMTL AS		1	
8	4017Z90590	FUSE TEMP AS		1	
9	4017Z90590	FIXTURE FUSE TEMP	PP	1	
10	3012900401	HINGE *U AS	MF-ZN5-C	1	
11	3016000600	SPECIAL SCREW	M6 X20	4	
12	3010023400	SWITCH DR AS		1	
13	4017Z40622	FOOT *F ASS		2	
14	3010302300	BASE COMP		1	
15	4019H09010	ABSORBER COMP	NR-A	4	
16		COMPRESSOR		1	REFER TO # 8
17	3014503802	PLATE AXCON AS		1	
18	4019H09030	SPECIAL WASHER	SWRH	4	
19		SWITCH P RELAY AS		1	REFER TO # 8
20		DRYER AS		1	REFER TO # 9
21	401ZA26000	DAMP R ASS		1	
22	4010C31261	INSULATOR DAMP A	F-PS	1	
23	4017Z31272	INSULATOR DAMP B	F-PS	1	
24	4017G32670	GEAR	ABS	1	
25	4017Z18180	KNOB	ABS	1	
26		LAMP AS		1	REFER TO # 9
27	400EL19311	SOCKET LAMP AS	200, 200/WHITE HOUSING	1	
28	4010R21300	DAMPER AS	D-702-1	1	
29	4010R22131	COVER DAMP	HIPS	1	
30	4017Z87570	SHADE R	HC-2	1	
31	4010C75260	SEAL MULTI DUCT		1	
32	4010C75270	SEAL MULTI DUCT B		1	
33	4010R75220	INSU MULTI DUCT		1	
34	4010R75213	DUCT MULTI	HIPS	1	
35	4010C75252	LABEL DUCT	PC T0.17	1	
36		FAN MOTOR ASS		1	
37	4017Z42312	FAN	ABS	1	
38		MOTOR SHADED AS		1	REFER TO # 9
39	3010502401	BOX CONTL AS		1	

NO	PART CODE	PART NAME	DESCRIPTION	QUANTITY	REMARK
40	3010500403	BOX CONTL	HIPS	1	
41	3018300400	THERMOSTAT		1	
42	4017G31041	KNOB C/S	ABS	1	
43		ASSY URT *U DOOR		1	REFER TO # 11
44	4019R47023	GASKET R DR AS		1	
45	4019R37016	LINER R DR	ABS 1.4 X630 X 1083	1	
46	3019005010	POCKET EGG	PVC-H BAR	1	
47	3012900611	HINGE *M AS		1	
48		ASSY URT *T DOOR		1	REFER TO # 11
49	4019R46015	LINR *F DR	ABS 1.4 X610 X1005	1	
50	4019R47014	GASKET F DR AS	PVC-S	1	
51	4019R30011	POCKET F *T	GP	2	
52	4010G51402	HINGE *T AS	SPHC	1	
53	4010G51455	COVER *T HI	PP	1	
54	3011415700	COVER V/CASE	GASKET A	1	
55	4019R30133	CASE CHILD	GP	1	
56	4019R30143	DOOR CHILD	GP	1	
57	4010R55212	SHELF R	GP	2	
58	4019R91110	CASE VAPORI	PP	1	
59	4019R30030	POCKET EGG	HIPS	1	
60	4019R30041	POCKET BOTL	HIPS	2	
61	4017Z99112	CASE ICE	HC-2	1	
62	4010G56011	CASE ICING	PE-HD	1	
63	4019R30812	CASE VEGTB	GP	1	
64	4019R74109	INSULATOR F LUVR AS		1	
65	4019R74015	LOUVER F	PP	1	
66	3017800305	SHELF F	GPPS	1	
67	4010R44510	COVER CAB BRKT	PP	1	
68	4019R10686	GRILL	PP	1	