

S/M No. : FR2800010

DAEWOO

Service Manual

Refrigerator

Model: FR-280



DAEWOO ELECTRONICS CO., LTD.

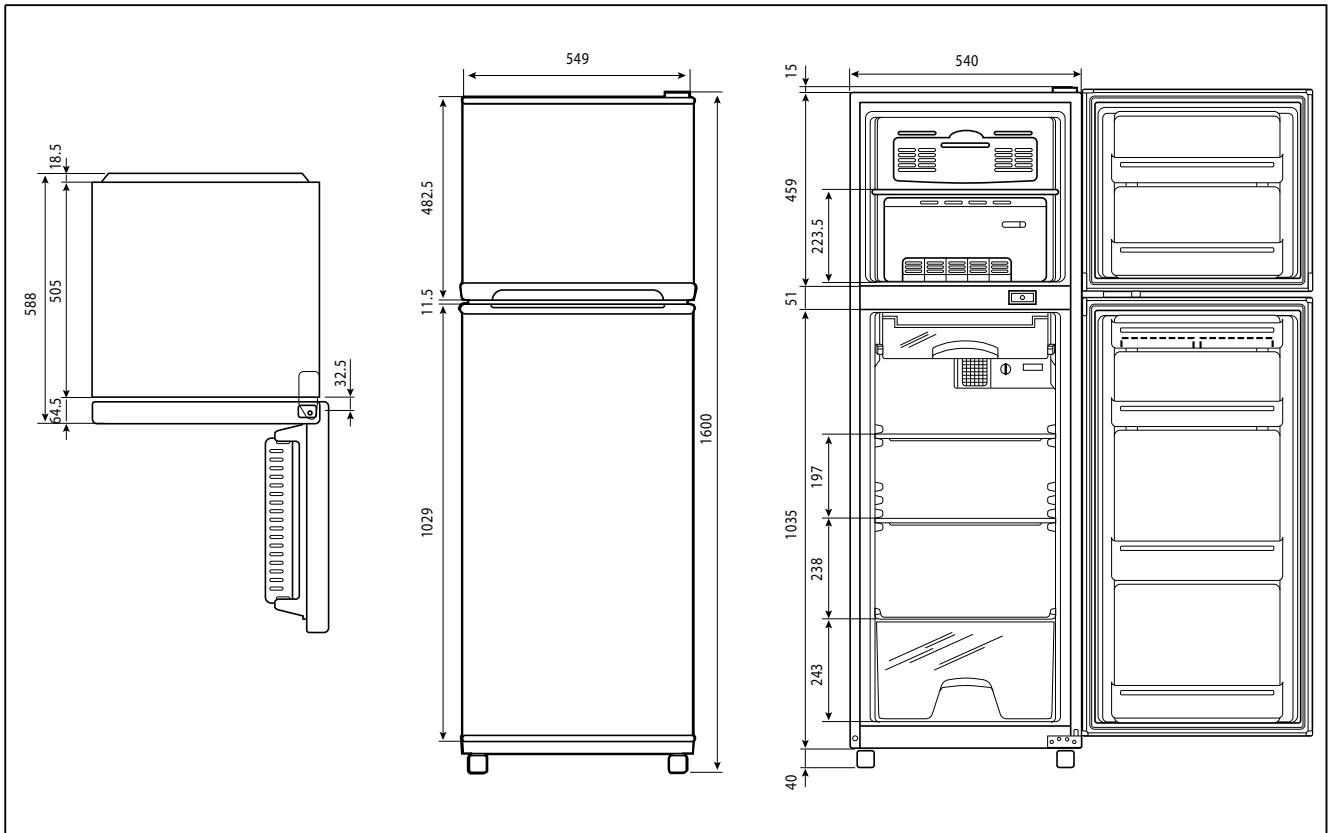
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1. SPECIFICATION

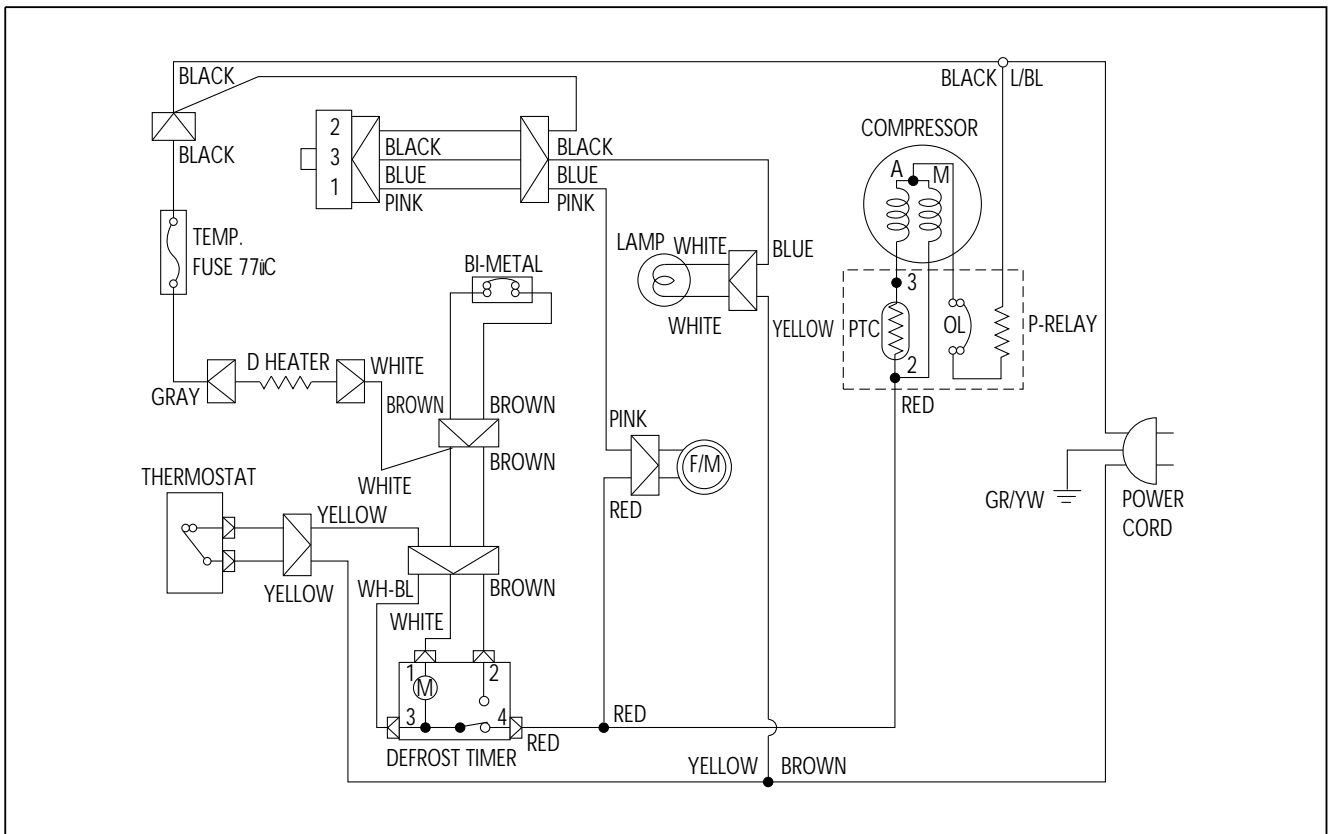
MODEL NAME		FR - 280
Refrigerant	R12	90g
	R134a	80g
Cooling System		Fan Cooling Convection Type
Refrigeration System		Air Forced Convection
Defrost System		Forced Fin-enanporator Type
Defrost Operation		Automatic Start & Stop
Cold Control		Adjustable Dial
Capacity	Freezer	55L
	Refrigerator	170L
	Total	225L
External Dimension	Height	1600mm
	Width	549mm
	Depth	588mm
Net Weight		49Kg

2. EXTERNAL VIEW

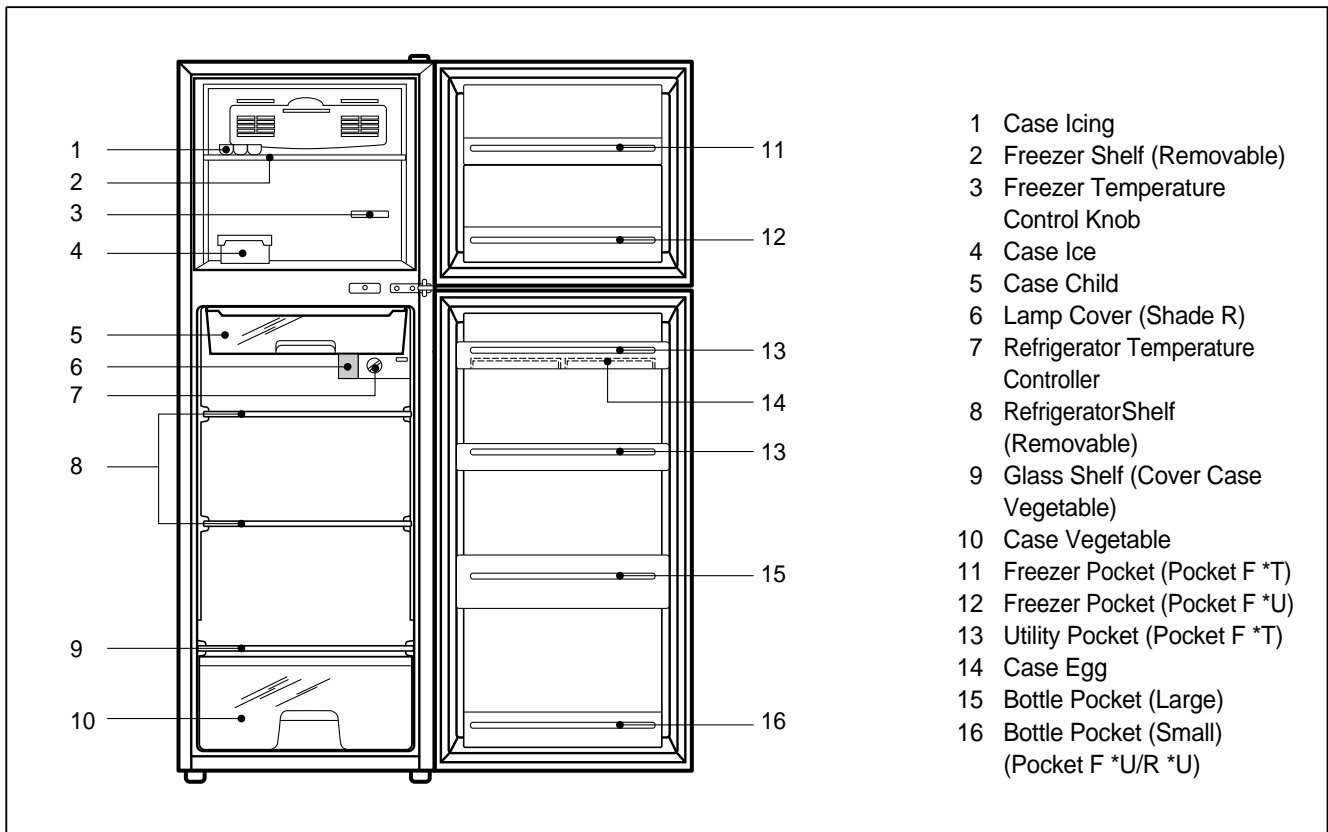
FR - 280



3. WIRE DIAGRAM



4. NAME OF PARTS



5. AIRE FLOW DIAGRAM

Air circulation in the freezer compartment

Cold air flow comes out from the upper hole and comes into the lower hole in louver.

Freezer compartment door pocket

Do not store ice cream or frozen food for a long time. Temperature may rise with frequent opening and closing.

Fresh food preserving case (Chilled case)

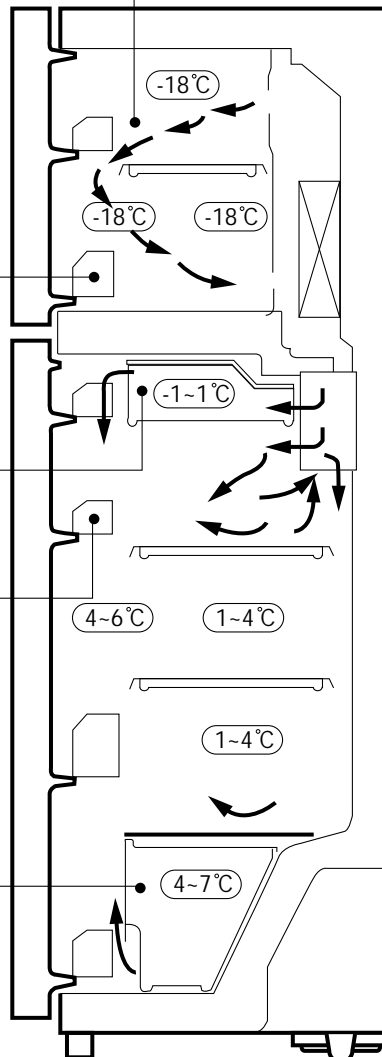
Used for storing fish or meat.

Refrigerator compartment door pocket

The temperature of this position is high. When margarine or something is stored for 1~2 weeks, you may use refrigerator shelf.

Case vegetable

In this vessel and wrap is used to keep them flesh.



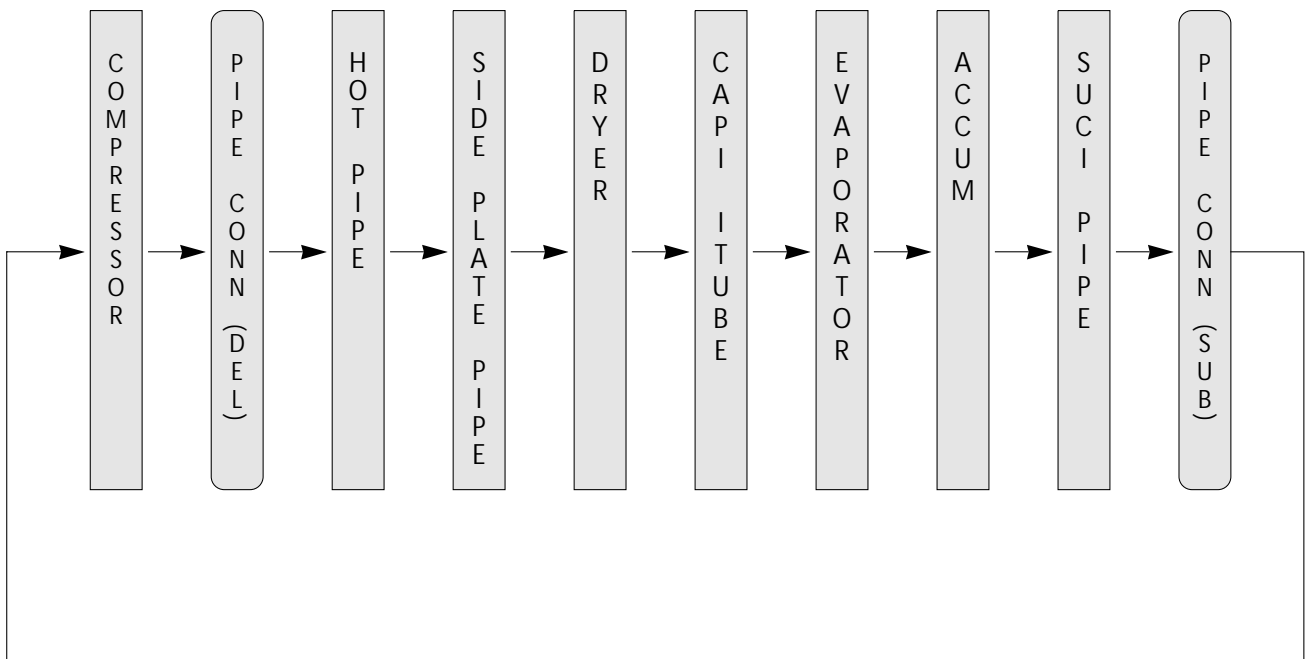
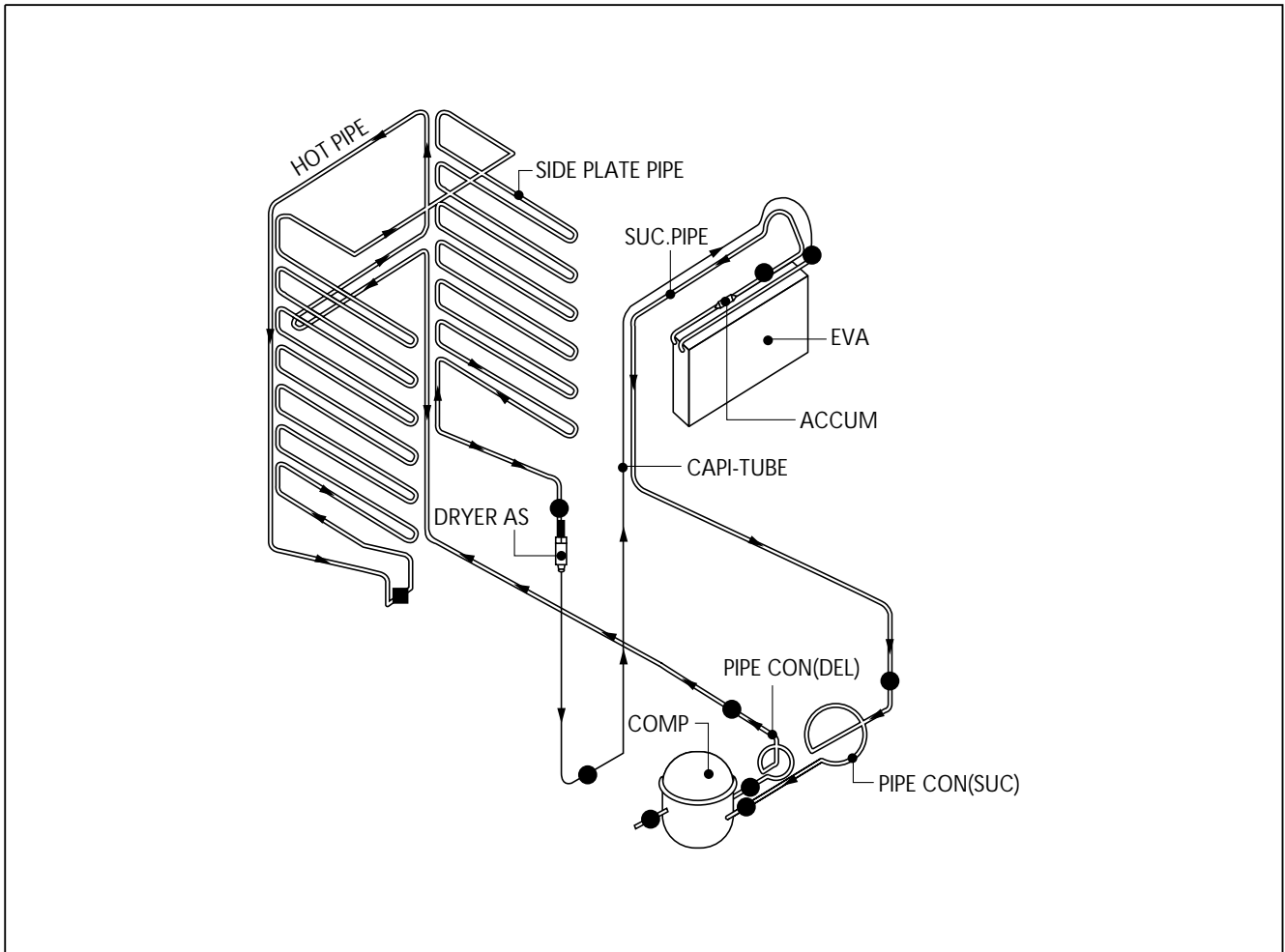
Freezer room

Do not put in any breakable bottle

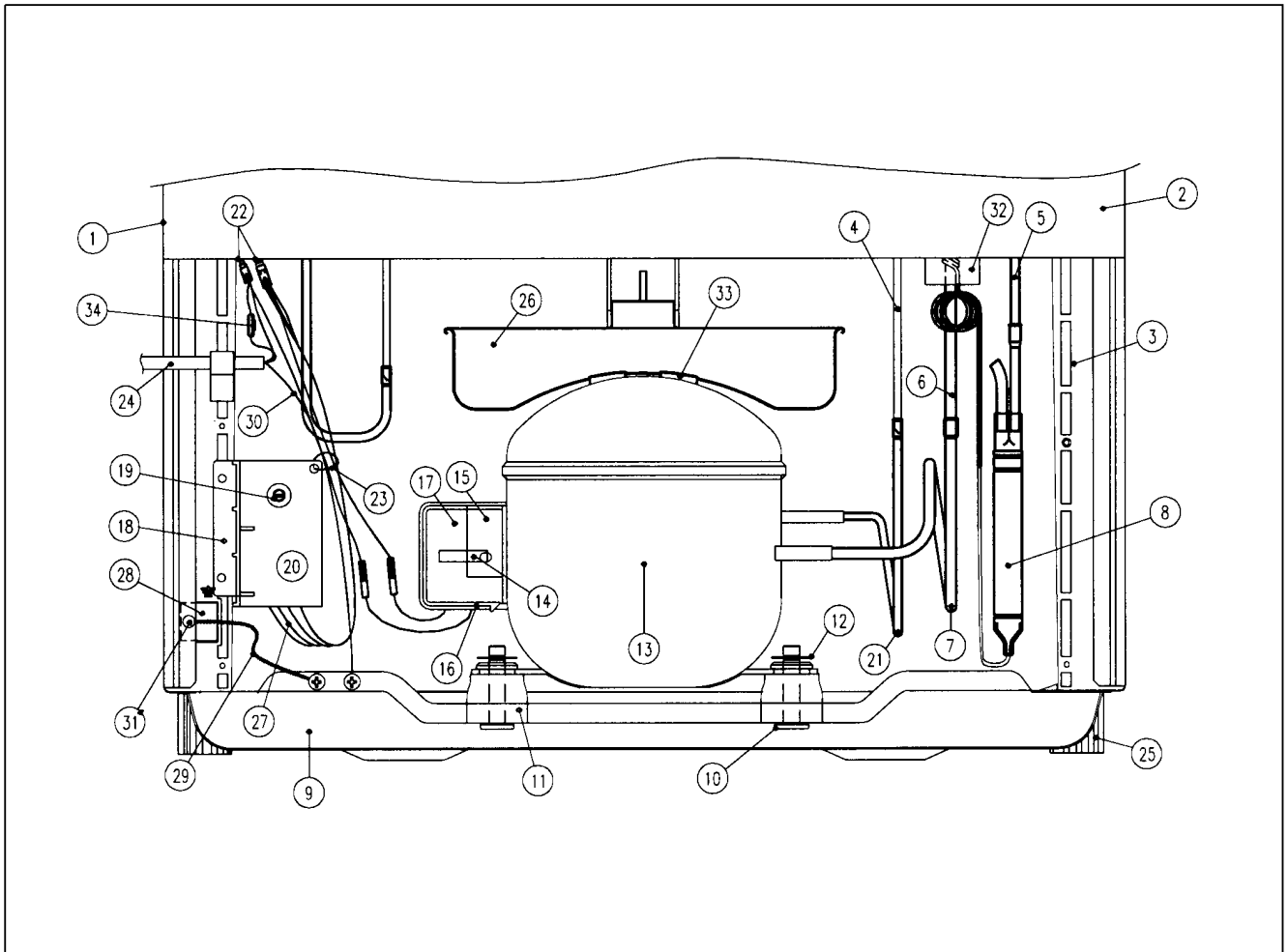
Refrigerator room

Do not place frozen food near the duct. It may freeze due to low temperature.

6. REFRIGERANT CYCLE DIAGRAM



7. MACHINE ROOM VIEW AND PART LIST



NO	PART NAME	NO	PART NAME	NO	PART NAME
1	CABINET AS	13	COMPRESSOR	25	FOOT ADJ
2	COVER CAB AS	14	PIPE SERVICE	26	CASE VAPORI
3	BASE CAB AS	15	SWITCH P-RELAY AS	27	HARNES TIMER AS
4	PIPE HOT	16	CLAMP RELAY COVER	28	BRACKET EARTH
5	PIPE *S PLT	17	COVER P-RELAY	29	WIRE EARTH
6	PIPE SUC AS	18	BOX POWER	30	POWER CORD EARTH
7	PIPE CONN (SUC)	19	TIMER	31	SCREW MACHINE
8	DRYER AS	20	CAPACITOR RUNNING	32	VIBRATIONPROOF GUM
9	BASE COMP	21	PIPE CONN (DEL)	33	ABSORBER VAPORI
10	FIXTURE COMP BOLT	22	HARNES MAIN	34	FUSE POWER
11	ABSORBER COMP RUB	23	WIRE BAND		
12	WASHER COMP *T	24	CORD POWER		

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	X	EL19J-1	FL19J-2	KL19J-5	PL19J-4	SL21YE-5	←
Part code	X	X	3953119330	3951119320	3958119350	3956119340	3954121A50	←
Strating type	X	X	RSCR	RSIR	CSIR	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	HEL19J	HEL19-3	X	HEL19J-3	HSL23YE-5-N	HPL19J-4	HPL25YG 2-5	HSL23YE-5-N
Part code	3953119E00	3953119E30	X	3953119E30	3954123G50	3956119E40	3956125S50	3954123G50
Strating type	RSCR	←	X	RSCR	RSIR	CSUR	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	X	232THBY-52	276THBY-52	149SHBY-52	129SHBY-52	213NHBY-52	←
Part code	X	X	3018113700	3018114100	3018114200	3018113800	3018116911	←

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Relay model	427THBZZ-52	317NHBY-52	X	317NHBY-52	213THBY-52	129SHBY-52	213THBY-52	←
Part code	3018113300	3018113600	X	3018113700	3018113400	3018113800	3018113400	←

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	350V/25μF	X	350/4	X
Part code	X	X	X	X	400EL16110	X	3010515701	X

Refrigerant	R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	X	X	X	X	350V/25μF	X	X	X
Part code	X	X	X	X	400EL16110	X	X	X

4. STARTING CAPACITOR

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	X	X	230V/10 μ F	X	X	350V/25 μ F	X	X
Part code	X	X	400EL15130	X	X	400EL15110	X	X

Refrigerant	R12, R134a							
Voltage	100V/50,60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	230V/50Hz	240V/50Hz
Spec.	250V/16 μ F	←	X	230V/10 μ F	X	X	X	X
Part code	3816400600	←	X	400EL15130	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.	3210DWNFO-1	←	←	←	3210DWNFO-1	3210DWNFP-1	3210DWNFR-1	←
Part code	3015900430	←	←	←	3015900410	3015900420	3015900400	←

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/110W	←	←	←	220V/110W	←	←	←
Part code	3012803700	←	←	←	3012803900	←	←	←

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/15W	←	←	←	240V/15W	←	←	←
Part code	3013600050	←	←	←	3013600020	←	←	←

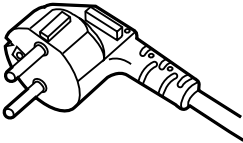
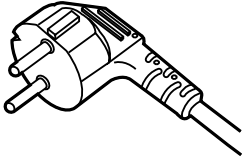
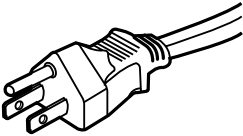
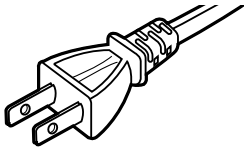
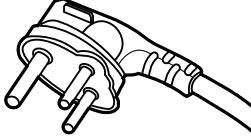
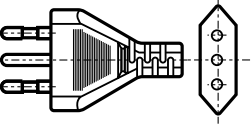
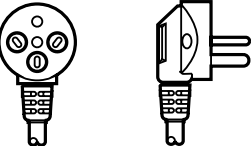
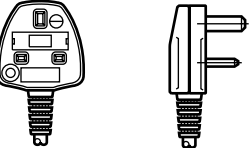
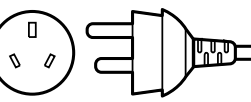
8. DEFROST TIMER

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

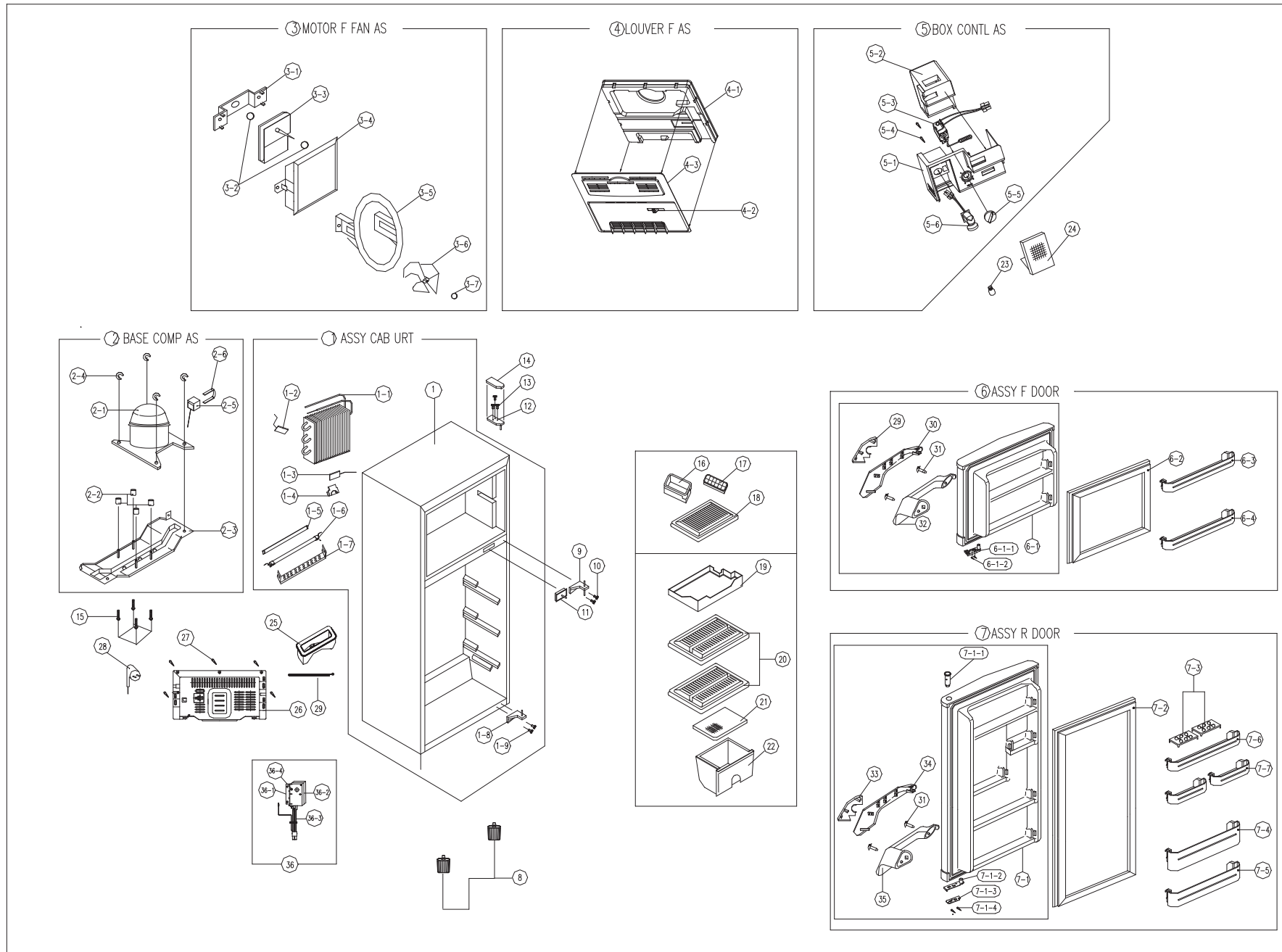
POWER CORD SPECIFICATION

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. EXPLODED VIEW AND PARTS LIST

1. Exploded view



PART LIST

N0	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
1	PFCCCUE105	ASS'Y CAB URT		1	R-134A
1-1	3017002811	EVAPORATOR SAS		1	
1-2	3018111840	SWITCH BI-METAL SAS		1	
1-3	3017200602	FUSE TEMP AS		1	250V/10A
1-4	4017Z90590	FIXTURE TEMP FUSE		1	
1-5	3011429900	COVER D HEATER *T	AL T0.4	1	
1-6	3012864401	HEATER DEFROST AS		1	220V/110W
1-7	3011443800	COVER D HEATER *U	AL T0.4	1	
1-8	3012906701	HINGE *U AS		1	
1-9	7650602011	BOLT HEX	M6 X 20	2	
2	3010312500	BASE COMP AS		1	
2-1		COMPRESSOR	HSL23YE-5	1	240V/50Hz(HCFC)
2-2	3010100201	ABSOBER COMP	NR-A	4	
2-3	3010312600	BASE COMP SAS		1	
2-4	4019H09030	WASHER SPECIAL		4	
2-5	3018113401	SWITCH RELAY AS		1	240V/50Hz
2-6	3816100110	BAND RELAY		1	
3	3015904001	MOTOR F FAN AS		1	240V/50Hz
3-1	4017Z32246	COVER FAN MOTOR(B)	PP	1	
3-2	4017Z08430	ABSOBER MOTOR		2	
3-3	3015900400	MOTOR AS	IS-3210DWNFR-1	1	240V/50Hz
3-4	4017Z32235	COVER FAN MOTOR(C)	PP	1	
3-5	4019H32231	COVER FAN MOTOR(A)	PP	1	
3-6	4019H10310	FAN	ABS	1	
3-7	4019H10060	FAN FIX RING	STS 27	1	
4	3018906000	LOUVER F AS		1	
4-1	3013328000	INSU F LUVR AS		1	
4-2	3013401000	KNOB F LUVR	PP	1	
4-3	3018904900	LOUVER F	PP	1	
5	3010517502	BOX CONTL AS		1	
5-1	3010514300	BOX CONTL	HIPS	1	
5-2	3013328100	INSU CONTL BOX AS	EPS	1	

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NO	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
5-3	3018301300	THERMOSTAT	PFN 175-D1 BU-274	1	
5-4	7124001811	SCREW TAPPING	T2S, PAN 4X8 MFZN	2	
5-5	4017G31041	KNOB THERMOSTAT		1	
5-6	3017900630	SOCKET R LAMP AS		1	
6	3000004020	ASSY F DOOR		1	FRM-236
6-1	3010020300	DOOR F URT AS	PRE+URT	1	
6-1-1	3015200900	STOPPER *M HI	POM	1	
6-1-2	7122401611	SCREW TAPPING	T2 TS 4X16 MFZN	2	
6-2	3012306101	GASKET F DR AS	PVC+MAGNET	1	
6-3	3019017700	POCKET F*T	GPPS	4	
6-4	3019017800	POCKET F*U	GPPS	4	
7	3000004030	ASSY R DOOR		1	FRM-236
7-1	3010098100	DOOR R URT AS	PRE+URT	1	
7-1-1	4010Y36211	BUSHING R HNDL	PP	1	
7-1-2	3010700100	BUSHING R DOOR	PA-66	1	
7-1-3	4010G38034	STOPPER R DOOR	SGCC T3.0	1	
7-1-4	7122401611	SCREW TAPPING	T2 TS 4X16 MFZN	2	
7-2	3012306001	GASKET R DR AS	PVC+MAGNET	1	
7-3	3011168400	CASE EGG	GPPS	2	
7-4	3019018200	POCKET BOTTEL	GPPS	1	
7-5	3019007900	POCKET SM	GPPS	1	
7-6	3019017900	POCKET EGG	GPPS	1	
7-7	3019018100	POCKET MULT	GPPS	2	
8	4001E32531	FOOT ADJ AS	PP+M6 BOLT	2	
9	3012906300	HINGE *M AS	P/D+plating,T3.2	1	
10	3012906300	SPECIAL BOLT	M6*L10	2	
11	3011721300	DOOR SWITCH AS		1	
12	3012904500	HINGE *T AS	SPC-1+plating,T3.2	1	
13	3016000301	SPECIAL SCREW	M5*L14	3	
14	3011458400	COVER *T HI	PP	1	
15	7650602011	BOLT HEX	M6*L20	4	

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N0	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
16	4017Z99112	CASE ICE	HC-2	1	
17	4017Z98110	CASE ICING	PE	1	
18	3017811001	SHELF F	GPPS	1	
19	3011112000	CASE CHILLED	GPPS	1	
20	3017811101	SHELF R	GPPS	2	
21	3011468400	COVER CASE VEGETB	GPPS	1	
22	3011119000	CASE VEGETB	GPPS	1	
23	3013600010	LAMP AS		1	240V/15W
24	4017Z87570	SHADE R	HC-2	1	
25	3011116103	CASE VAPORI AS	EGI T0.5	1	
26	3012400301	GRILLE	PP	1	
27	7112401211	SCREW TAPPING	T1 TRS 4*12 MFZN	5	
28	30113115121	CORD POWER AS		1	250V,6A
29	3011613000	DECORATOR F HNDL	ABS	1	
30	3011468100	COVER F HNDL	ABS	1	
31	7002501611	SCREW MACHINE	TRS 5X16 MFZN	2	
32	3012628100	HANDLE F	ABS	1	
33	3011613100	DECORATOR R HNDL	ABS	1	
34	3011468200	COVER R HNDL	ABS	1	
35	3012628200	HANDLE R	ABS	1	
36	3010517120	POWER BOX ASS'Y	ASS'Y	1	
36-1	401NA29101	POWER BOX		1	
36-2	3018100310	SWITCH TIMER	TMDEY11UB9	1	
36-3	3012717200	TIMER HARNESS ASS'Y	ASS'Y	1	
36-4	7122401211	TAPPING SCREW	T2 TRS 4X12 MFZN	1	

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