

Service Manual

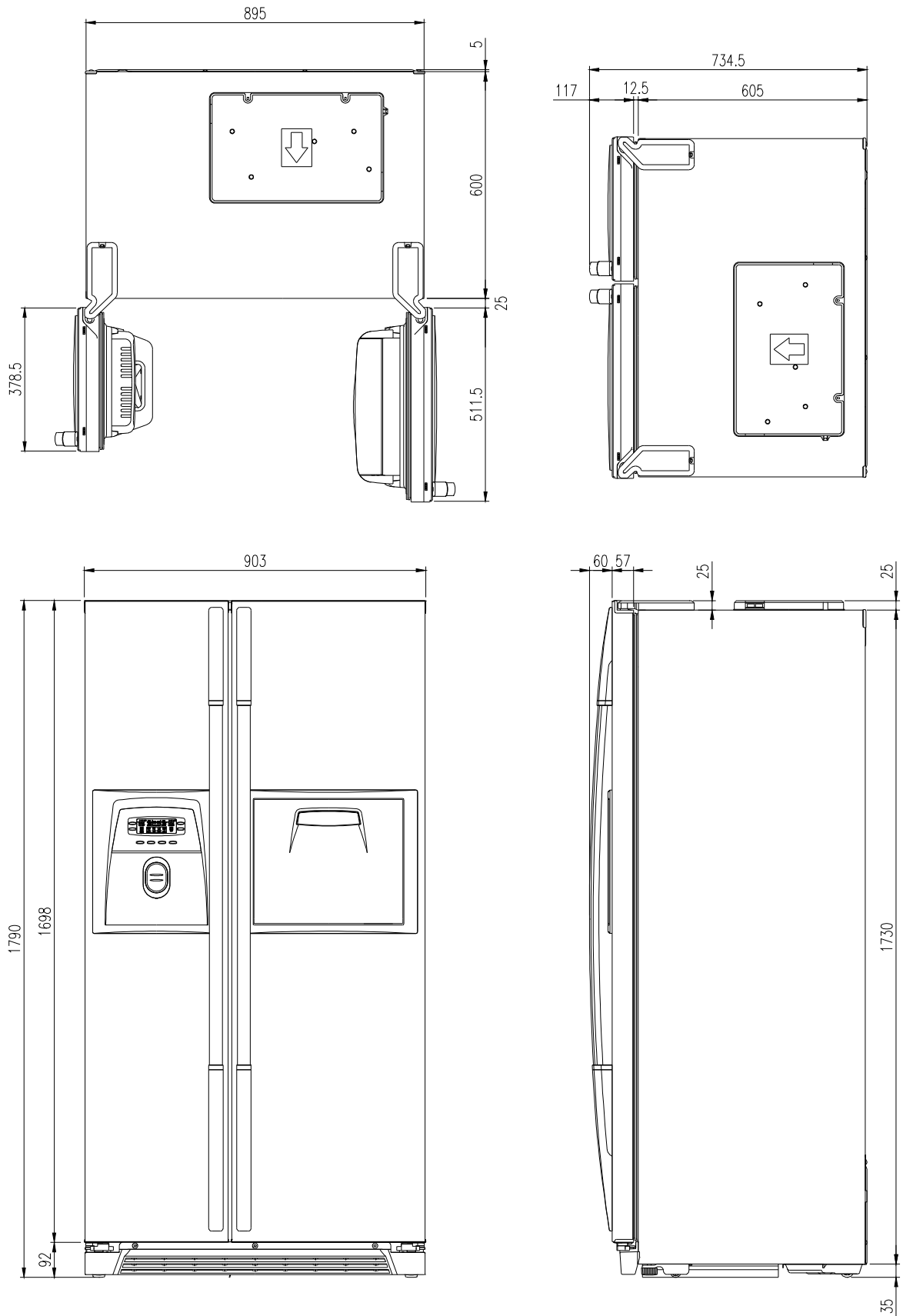
Refrigerator

MODEL : FRN- U20GAI

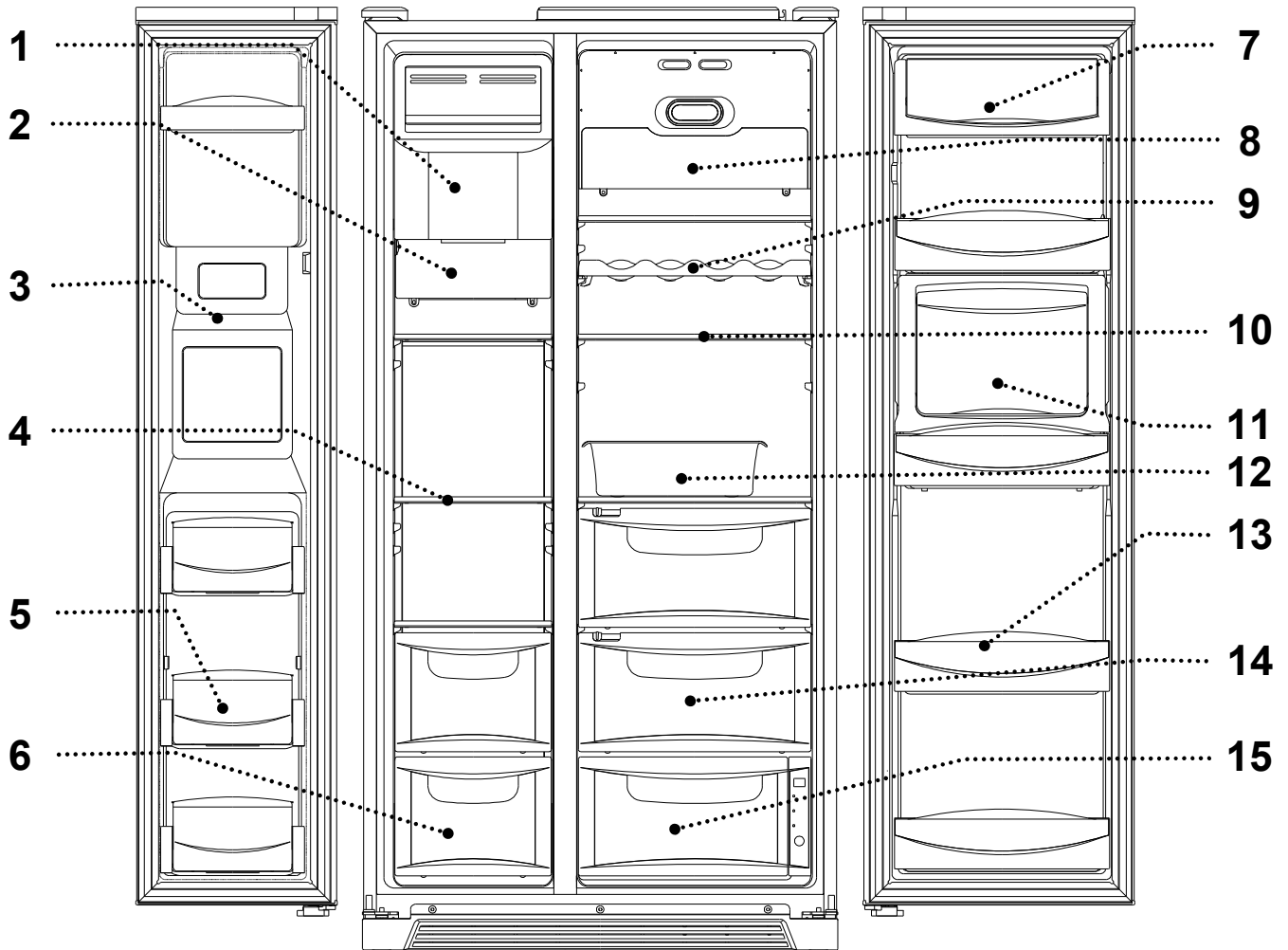
✓ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center

■ FRN-U20GAI



■ FRN-U20GAI



Freezer Compartment	Refrigerator Compartment
1. Ice cubes storage case	7. Dairy pocket
2. Freezer light	8. Refrigerator light
3. Water/Ice dispenser	9. Shelf wine (option)
4. Freezer shelf	10. Refrigerator shelf
5. Freezer pocket	11. Homebar pocket
6. Freezer case	12. Movable egg case
	13. Refrigerator pocket
	14. Refrigerator case
	15. Magic cool zone

3. SPECIFICATION

3-1. Specification

Item		Specification	
Model Name			FRN-U20GAI
ISO Gross Volume (Li)	Total		536 Li
	Freezer		184 Li
	Refrigerator		352 Li
ISO Storage Volume (Li)	Total		500 Li
	Freezer		170 Li
	Refrigerator		330 Li
Weight			117kg
External Dimension (Width x Depth x Height)		903 mm x 734.5mm x 1790 mm	
C Y C L E	Evaporator	Fin Type	
	Condenser	Fan Cooling System	
	Dryer	Molecular Sieve XH-9	
	Capillary Tube	IDΦ0.7 × T0.55 × L2200	

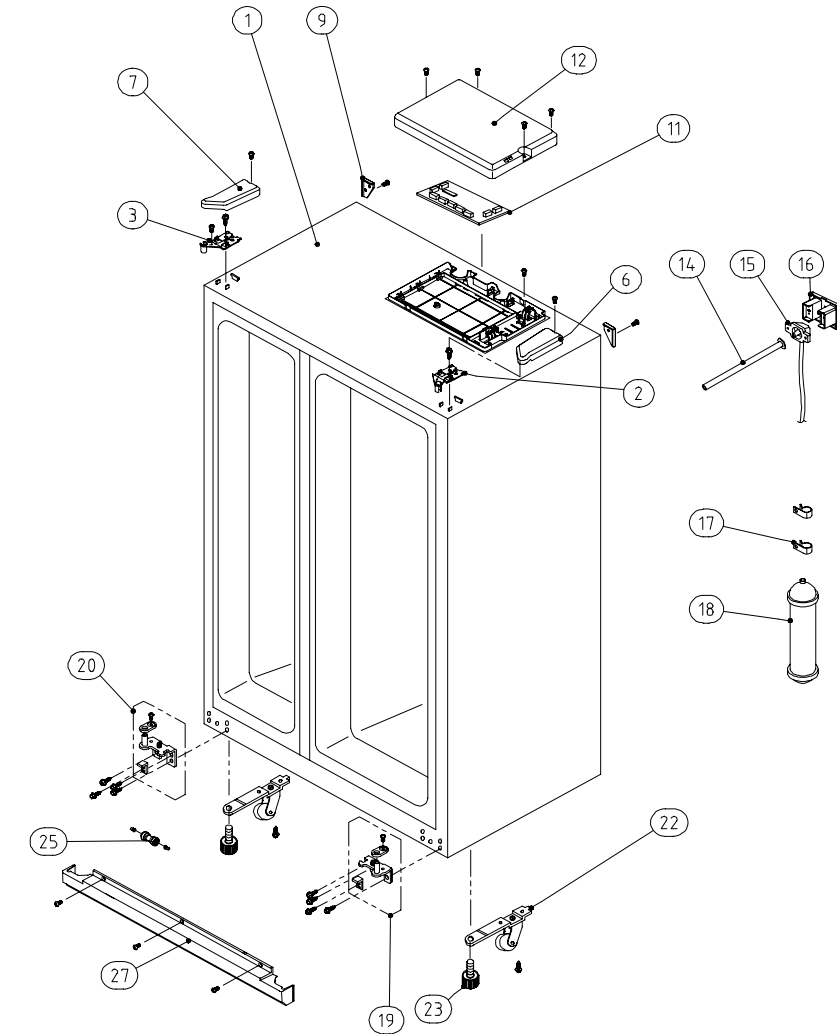
Compressor	Description		MK4A5Q-R1U
	Part Code		3956145250
	Refrigerant (g)		R-600a (76g)
SWITCH P RELAY AS	Description		265RHB, S330
	Part Code		3011402100

CORD POWER AS	Description	CP-2PIN (EUROPE)	
	Part Code	3011346700	

Item		Specification	
Model Name			FRN-U20GAI
S E N S O R	D-Sensor	PBN-43	
	F-Sensor	PBN-38	
	R-Sensor	PBN-43	
H E A T E R	Defrost Heater	AC220V / 192W	
	Main Duct Heater	AC220V / 7W	
	Louver Heater	AC220V / 8W	
	Dispenser Heater	-	AC220V / 5W
	Water Pipe Heater	-	AC220V / 5W
	Homebar Heater	-	AC220V / 10W
E L E C T R I C A L P A R T S	Main Fuse (Power cord)	AC250V 12A	
	Fuse Temp (Defrost)	AC250V , 10A , 77℃	
	F-Fan Motor	DC13V / 2050±100 rpm	
	R-Fan Motor	DC13V / 1850±100 rpm	
	Condenser Fan Motor	DC13V / 1100±100 rpm	
	F-Lamp	AC230~240V / 25W (2EA)	
	R-Lamp	AC230~240V / 25W (2EA)	
	Door Switch , F / R	SP201R-7DL / SP201R-7DR (SPF101B-2D / SPF101B-1D)	

※ () is the specification for the model which use R-600a(refrigerant)

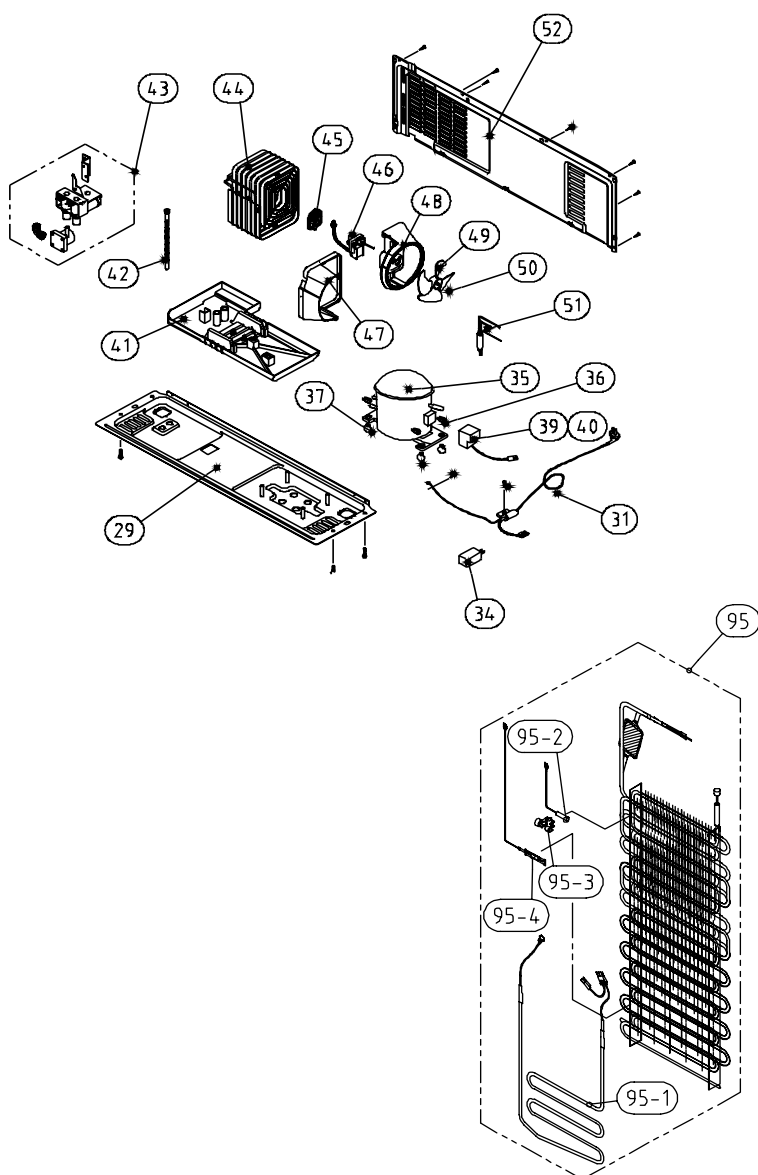
Refrigerant	Model Name	
R-600a		FRN-U20GA



NO	PART-CODE	PART NAME	SPEC.	Q'ty	
					20GA
1		ASSY CAB URT			1
2	3012924400	HINGE *T *R AS	PO T3.0+PAINT		1
3	3012924300	HINGE *T *L AS	PO T3.0+PAINT		1
6	3011446200ISG3E	COVER *T HI *R	PP		1
7	3011446100ISG3E	COVER *T HI *L	PP		1
9	NO DISPON	CAP CAB COVER	PP		2
11	30143D5060	PCB MAIN AS	COMPATIBLE: 30143D5061		1
12	3011446000ISG3E	COVER MAIN PCB BOX	PP(V-235)		1
14	3013224800	HOSE ICE MAKER TUBE AS	FRU-541D		1
15	3012519200	GUIDE CAB W/TUBE A AS	FRU-541D		1
16	3011444100	COVER GUIDE CAB W/T A	HIPS		1
17	NO DISPON	CLAMP WATER TUBE A	PA-66, 5N		2
18	3019974800	S/PAER FILTER WATER AS	FR-S660CW		1
19	301292400 0	HINGE *U *R AS	P/O T5.0 + PAINT		1
20	301292390 0	HINGE *U *L AS	P/O T5.0 + PAINT		1
22	301065720 0	BRACKET ADJ FOOT	SPCC T3.0		2
23	3012105100	FOOT ADJ AS	PP		2
25	3013064200	HOLDER TUBE A	ACETAL		1
27	3011447200ISG3E	COVER CAB BRKT	PP		1

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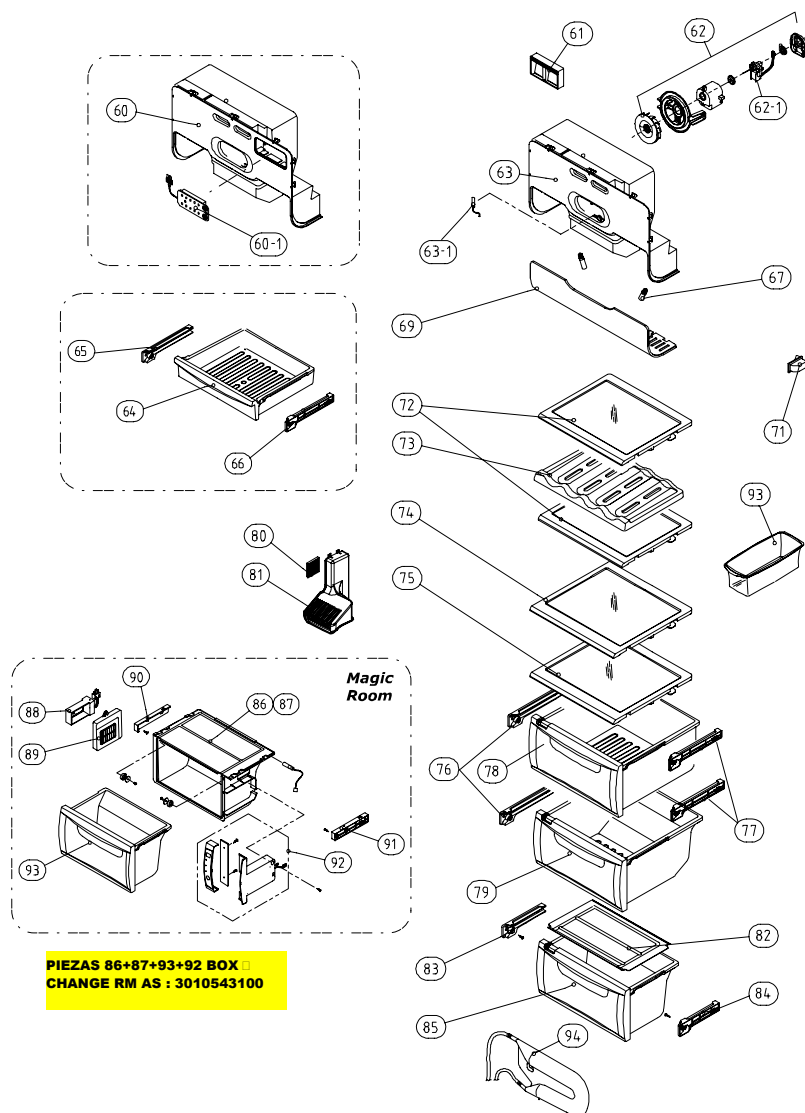
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NO	PART-CODE	PART NAME	SPEC.	Q'ty	
					20GA
29	NO DISPON	BASE COMP AS	FRU-571I		1
31	NO DISPON	CORD POWER AS			1
34	3016401920	CAPACITOR RUN	Model dependent		1
35	3956145250	COMP	Model dependent		1
36	NO DISPON	SPECIAL WASHER	SK-5, T0.8		4
37	NO DISPON	RUBBER ABSORBER COMP	NBR (R-134a)		4
	NO DISPON	ABSORBER COMP AS	FRU-541D (R-600a)		
39	3018129600	SWITCH P RELAY AS	Model dependent		1
40	NO DISPON	COVER RELAY	Model dependent		1
41	3011181300	CASE VAPORI AS	PP		1
42	NO DISPON	HOSE DRN B	PE FRB-5350NT		1
43	3015402300	VALVE WATER AS	220~240V 50,60Hz		1
44	3014461510	PIPE WICON AS	TSW OD4.76XT0.7		1
45	NO DISPON	FIXTURE MOTR	PP		1
46	3015916100	MOTOR C FAN AS	DC-2213DWCA-3		1
47	3018500300	M/BELL B	PP		1
48	3018500200	M/BELL A	PP		1
49	3011834700	FAN	ABS OD3.17XD150		1
50	NO DISPON	CLAMP FAN	SUS 304		1
51	NO DISPON	DRYER AS	C1220T		1
52	3011497000	COVER MACH ROOM AS	SBHG T0.35		1
95	3017053500	EVA AS	FRU-571I		1
95-1	3012818300	HEATER SHEATH AS	AC220V/ 192W		1
95-2	3014806900	SENSOR D AS	PBN-43		1
95-3	NO DISPON	FIXTURE D SENS	PP		1
95-4	30172020 00	FUSE TEMP AS	AC250V 10A 77C	COMPATIBLE: 3017201400	1

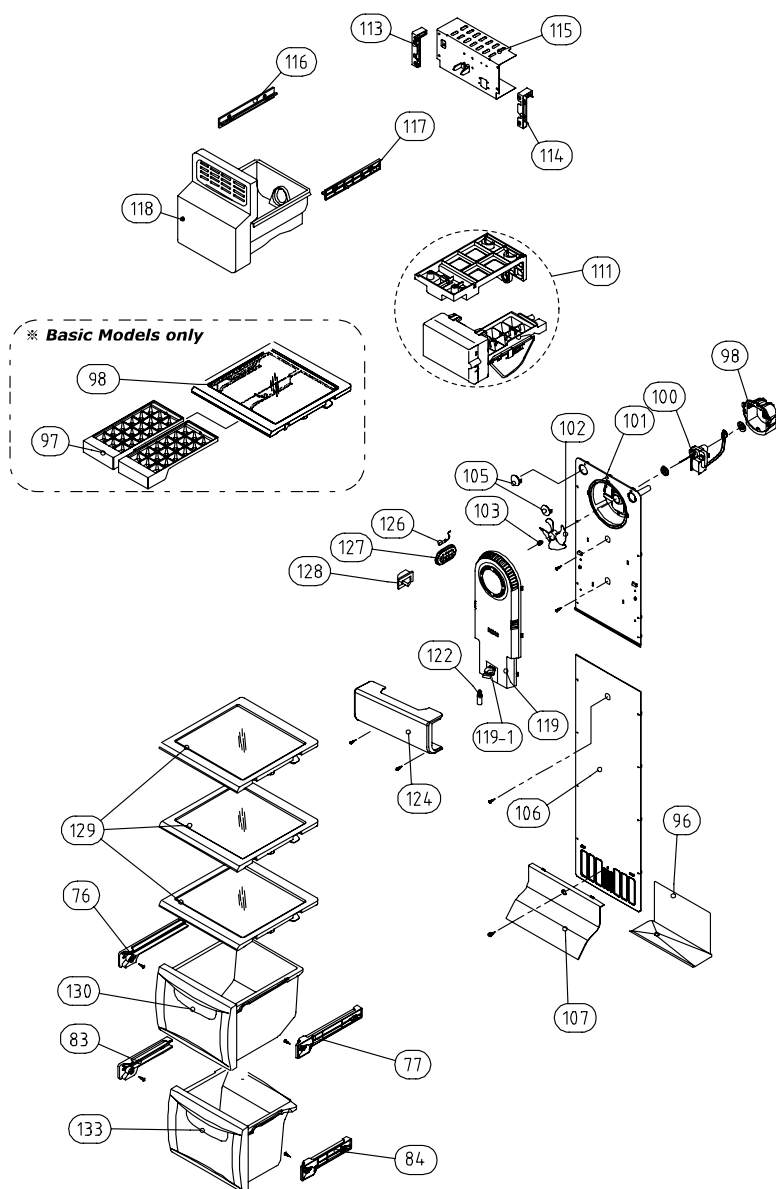
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Date	A mendment Note
07. 4. 5	No. 37 Q'ty change, 95-4 code change.
	Screw code delete, No. 95-5 'Fixture fuse temp' code delete.



NO	PART-CODE	PART NAME	SPEC.	Q'ty	
60	NO DISPONIBLE PARA ESTE MODELO				20GA
60-1	NO DISPONIBLE PARA ESTE MODELO				
61	3012214100	FRAME CHECK VALVE AS	FRU-571I		1
62	3012024200	FIXTURE MOTR AS			1
62-1	3015916000	MOTOR R FAN	D4612AAA20		1
63	3011495100	COVER DAMP AS	FRU-541D		1
63-1	3014807100	SENSOR R AS	PBN-43B		1
64	NO DISPONIBLE PARA ESTE MODELO				
65	30125145 00	GUIDE CASE A *L AS	HIPS		
66	30125146 00	GUDIE CASE A *R AS	HIPS		
67	3013602500	LAMP F/R	AC 240V 25W(S) AC 125V 25W		2
69	3015510800	WINDOW R LAMP	MIPS		1
71	3018128600	SWITCH DR	SPF101B-2D(R-600a)		1
72	3017842800	SHELF INMOLDING R A AS	FRAME+PRINTED GLASS		2
73	3017842500	SHELF WINE	GPPS		
74	NO DISPONIBLE PARA ESTE MODELO				
75	3017842900	SHELF INMOLDING R B AS	FRAME+PRINTED GLASS		1
76	30125145 00	GUIDE CASE A *L AS	HIPS		2
77	30125146 00	GUDIE CASE A *R AS	HIPS		2
78	3011109200	CASE VEGETB A AS	CASE+FRAME CASE(NANO)+FRAME		1
79	3011114630	CASE VEGETB B AS	CASE(NANO)+FRAME		1
80	3018701800	DEO ANTI AS	W40XT5XL40		1
81	3011445900	COVER RETURN DUCT	PP		1
82	NO DISPONIBLE PARA ESTE MODELO				
83	NO DISPONIBLE PARA ESTE MODELO				
84	NO DISPONIBLE PARA ESTE MODELO				x
85	NO DISPONIBLE PARA ESTE MODELO				
86	3011446800	COVER CHANGE RM	COMPLETO: 3010543100		1
87	PEDIR COMPLETO	BOX CHANGE RM			1
88	3016767100	DAMPER AS	DU24-012		1
89	3011450900	COVER DUCT CH RM AS	PP+SEAL		1
90	3012529500	GUDIE CHANGE RM *L	ABS		1
91	3012529600	GUDIE CHANGE RM *R	ABS		1
92	3010551000	BOX CONTL CH RM AS			1
93	3011115000	CASE CHANGE RM AS	CASE+FRAME+GASKET		1
93	3011171330	CASE EGG AS	CASE+VINYL		1
94	3018201000	TANK WATER AS	FRU-541D		1

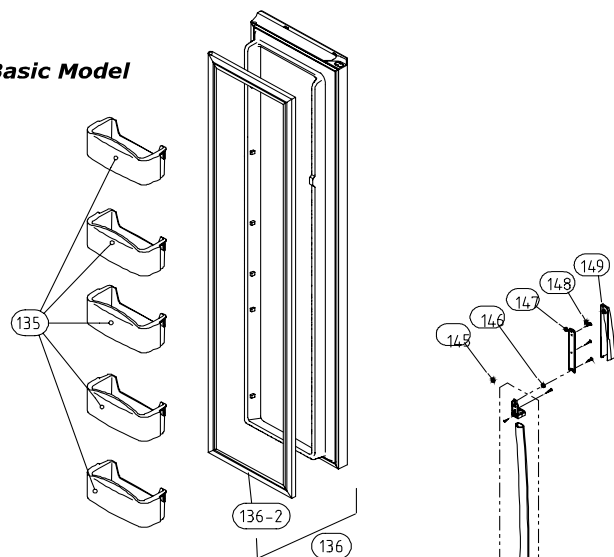
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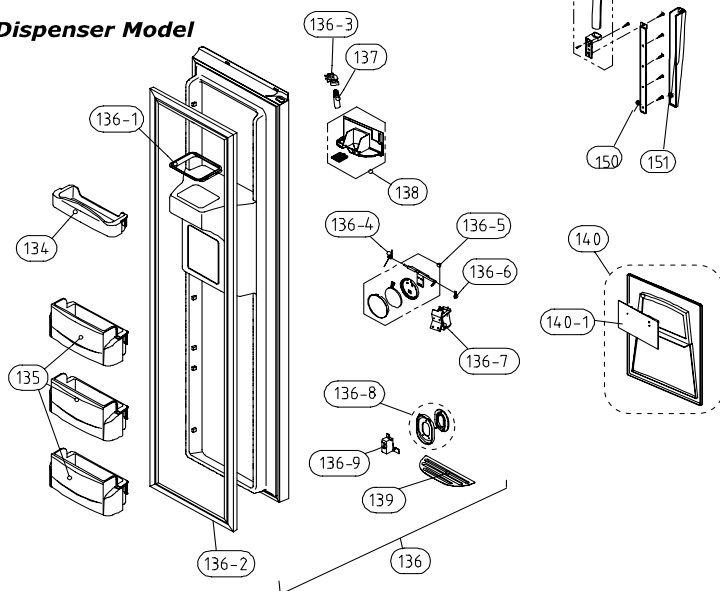
NO	PART-CODE	PART NAME	SPEC.	Q'ty	
					20GA
76	30125145 00	GUIDE CASE A *L AS	HIPS		1
77	30125146 00	GUIDE CASE A *R AS	HIPS		1
83	30125297 00	GUIDE CASE C *L AS	HIPS		1
84	30125298 00	GUIDE CASE C *R AS	HIPS		1
96	NO DISPON	GUIDE DRN	GA		1
97	NO DISPONIBLE PARA ESTE MODELO				
98	NO DISPONIBLE PARA ESTE MODELO				
100	3015915900	MOTOR F FAN	D4612AAA21		1
101	3018921300	LOUVER F A	ABS		1
102	3011834500	FAN	ABS OD3.17XD130		1
103	NO DISPON	CLAMP FAN	SUS 304		1
105	3010968600	CAP F LOUVER B	HIPS		2
106	3018921500	LOUVER F B AS	HIPS		1
107	3011443200	COVER F RETURN	HIPS		1
111	3012205820	FRAME ICE MAKER AS	COMPATIBLE: 3000025920		1
113	3012517800	GUIDE G/MOTR BRKT *L	ABS		1
114	3012517900	GUIDE G/MOTR BRKT *R	ABS		1
115	3010658110	BRACKET GEARED MOTR AS	COMPATIBLE: 3010658100		1
116	NO DISPONIBLE	GUIDE ICE CRUSHER *L	ABS		1
117	NO DISPONIBLE	GUIDE ICE CRUSHER *R	ABS		1
118	3011115200SBS	CASE I/CRUSHER AS	FRU-541D		1
119	3001401700	COVER F FAN AS	FRU-541/547/549/54B		1
119-1	3017906600	SOCKET F LAMP AS	FR-S570FRB		1
122	3013602500	LAMP F	AC 240V 25W(S)		1
124	3015510700	WINDOW F LAMP	MIPS		1
126	3014807000	SENSOR F AS	PT-38		1
127	3011442600	COVER F SENS	ABS		1
128	3018128500	SWITCH DR	SPF101B-1D (R-600a)		1
129	3017842600	SHELF F AS	PRINTED GLASS		3
130	3011114830	CASE F A AS	CASE(NANO)+FRAME		1
133	3011114930	CASE F B AS	CASE(NANO)+FRAME		1

Date	Amendment Note
07. 4. 5.	No.76,77,83,84,119(ECM) code change.

※ Basic Model



※ Dispenser Model



NO	PART-CODE	PART NAME	SPEC.	Q'ty	
					20GA
134	3019026700	POCKET F *T	HIPS		1
135	3019026600	POCKET F	HIPS		3
136	300060410ISG3E	ASSY F DR			1
136-1	3010964600	CAP ICE PATH FRAME	PP(FRS-551F)		1
136-2	3012318800	GASKET F DR AS	COMPATIBLE: 3012318810		1
136-3	3017903702	SOCKET LAMP AS	220V 15W		1
136-4	3015102200	SPRING ICE D LEVR	SUS		1
136-5	3011495300	COVER I/FLAP AS	FRU-541D		1
136-6	3012019700	FIXTURE I/SHUT LUVR	FR-S650CD		1
136-7		VALVE SOL DISP			1
	301540 3000		220~240V/50Hz		
136-8	3016304900	BUTTON DISPNS AS	COMPATIBLE: 3016304600 + 3012213200		1
136-9	3018125800	SWITCH MICRO	VP333A-2D		1
137	3013600020	LAMP AS	240V/15W		1
138	3010544000	BOX DISPNS I/SHUT AS	FRU-541D		1
139	3012406900ISG3E	GRILLE DISPNS	ABS		1
140	3011494700ISG3E	COVER DISPNS BOX AS	FRU-541D		1
140-1	30143D5160	PCB FRONT AS	FRU-541F		1
145	3012641500ISG3E	HANDLE AS	FRU-571I		1
146	NO DISPONIBLE	SPECIAL SCREW	WASR+TR5X16MFZN		2
147	3010339500	BASE HANDLE *T	HIPS		1
148	NO DISPONIBLE	SCREW TAPPING	T1 TRS 4*12 MFZN		8
149	3011446400ISG3E	COVER HNDLDECO *T	ABS+SPRAY		1
150	3010339600	BASE HANDLE *U	HIPS		1
151	3011446500ISG3E	COVER HNDLDECO *U	ABS+SPRAY		1

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Date	A mendment Note
07. 4. 6.	No.136-7 code change, No. 136 Renumbering.



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