



Commercial Upright Refrigerator & Freezer Service Manual



Freezer
LFT-771E
LFT-1471E



Refrigerator
LRT-771E
LRT-1471E

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Safety cautions during service

- **When exchanging or repairing electric parts, pull the plug out before exchanging and repairing.**
- **When exchanging electric parts, use a rating part.**
 - Be sure to check marks such as MODEL name, rating voltage, rating currents, movement temperature etc.
- **During repairing, make sure wirings such as HARNESS, WIRE JOINT are sturdy so that it is free of danger due to disclosure of core wire.**
 - Don't let it derail when certain strength is put on.
- **When repairing, take out the dust or foreign body (Housing part, wiring part, contact point part).**
 - It prevents danger of fire such as TRACKING, SHORT.
- **Check whether water has gone into the electric parts.**
 - When there are traces of water, exchange the parts or enact the TRACKING prevention device.
- **After repairing, check the assembly status of the parts.**
 - Keep the status as it was before the repairing. .
- **After checking the usage environment of the product and if the installation is unstable, change the usage location.**
 - For installations in places with moisture, water and for heat devices, prevent placing products near igniting materials etc.
- **When earthing is needed, earth it.**
 - For cases when electric leakage is concerned due to moisture or water, be sure to earth it.
- **For products that consumes power such as electric products, make sure numerous plugs are not used in a single outlet.**

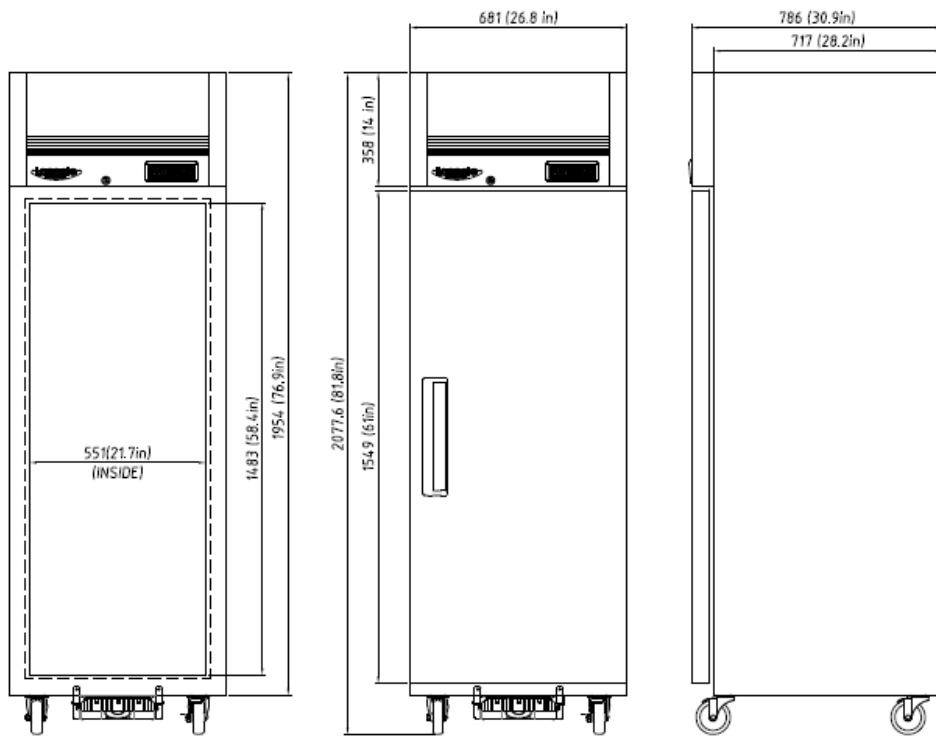
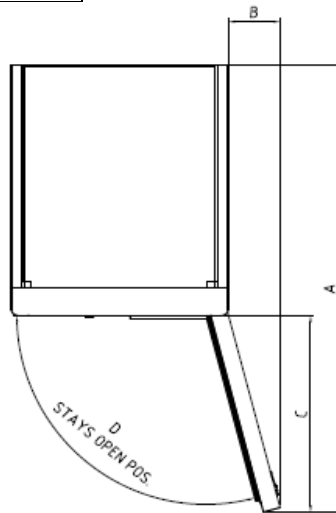
1. Specifications

A. Dimensions

1. LRT-771E, LFT-771E

mm (in)

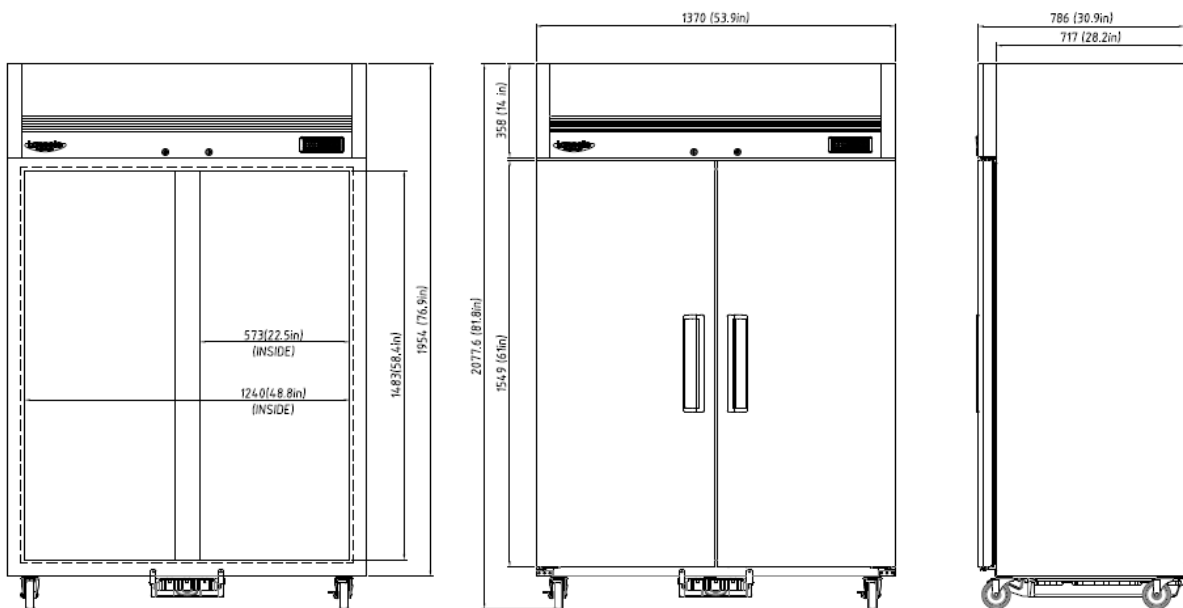
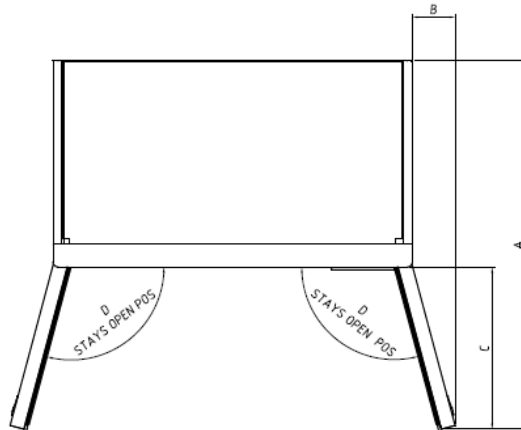
MODEL	A	B	C	D
LRT-771E	1403	163	617	105°
LFT-771E	(55.2in)	(6.4in)	(24.7in)	



2. LRT-1471E, LFT-1471E

mm (in)

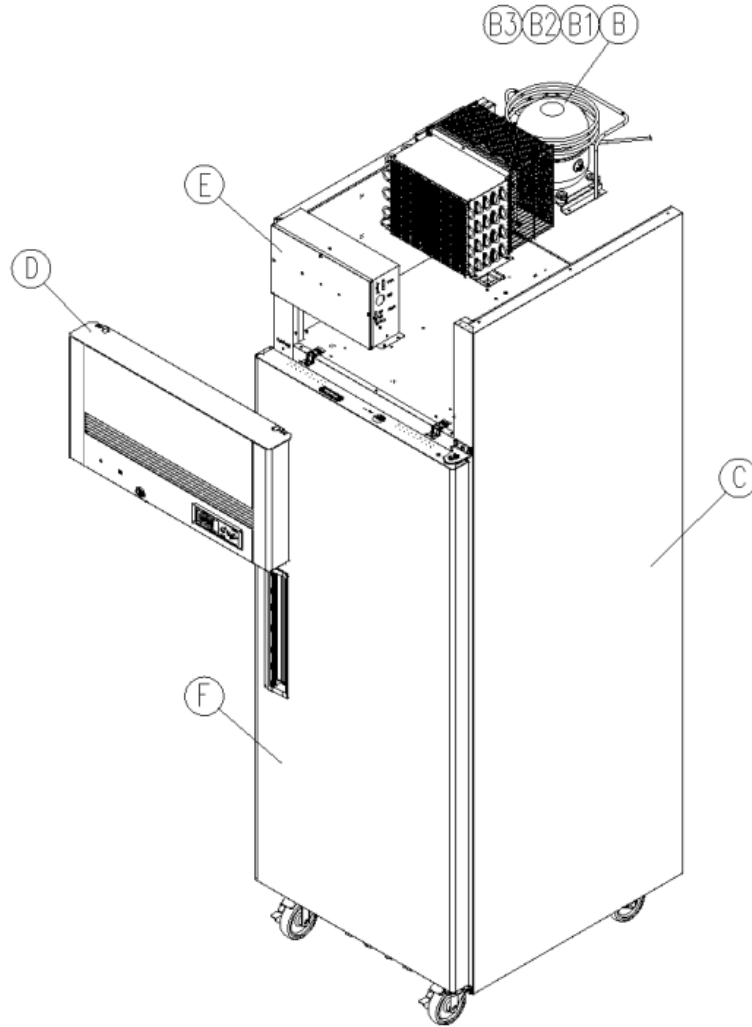
MODEL	A	B	C	D
LRT-1471E	1403	163	617	105°
LFT-1471E	(55.2in)	(6.4in)	(24.7in)	



2. PART

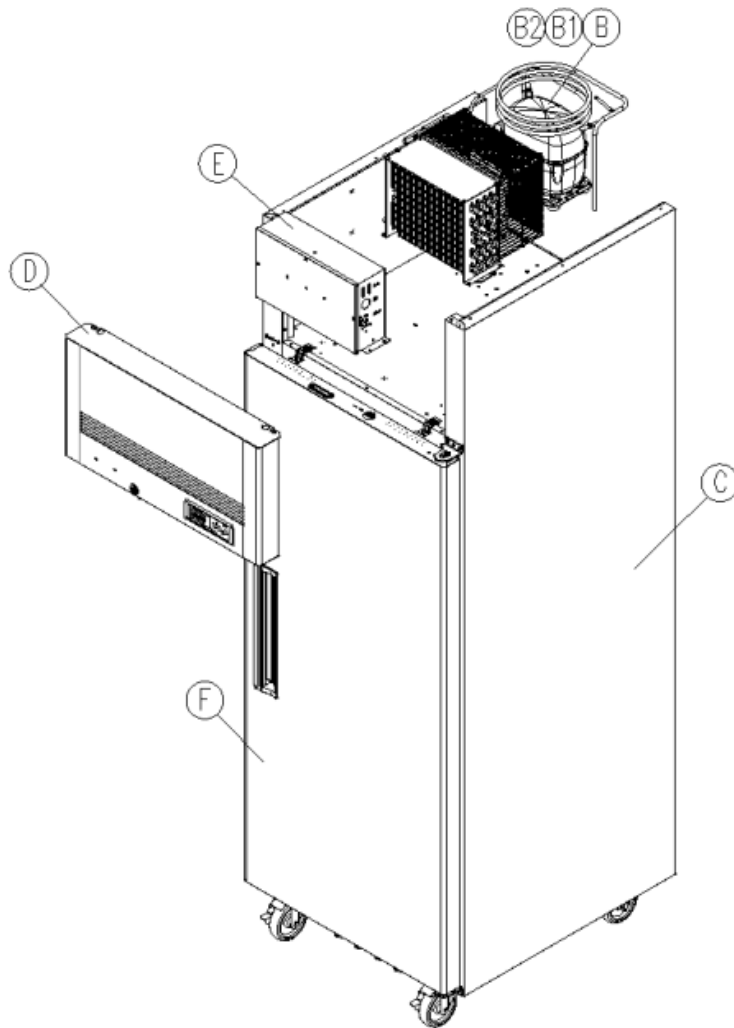
A. Main Assembly

a. LRT-771E



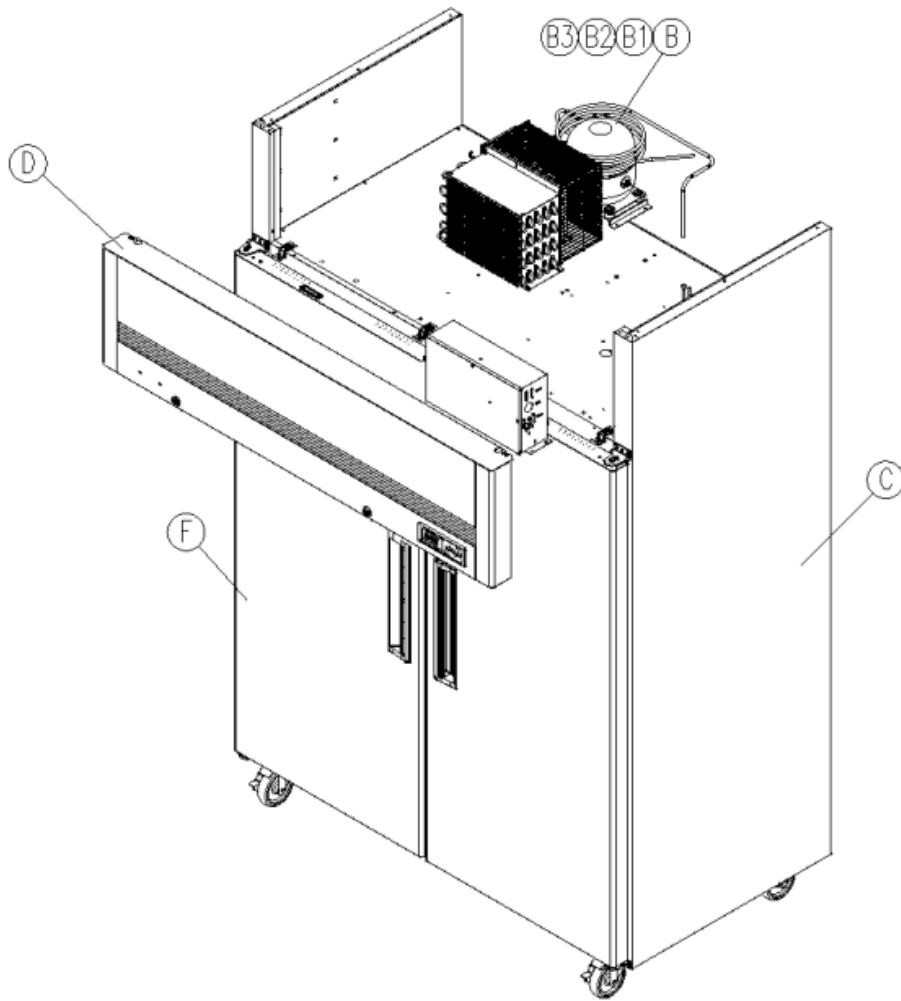
NO.	Model Code	Description	Qty	Material	Spec
B	R7439-170	Compressor	1	-	SK1A1Q-L2U, 220V 50HZ, R-134a
B1	R395A-020	Compressor Bolt	4	-	Φ10, M6x36 ZPW,
B2	R300A-020	Grommet Comp	4	EPDM	BLACK 34±3% AC COMP
B3	R3243-040	Reinf Comp	1	GI	T1.6*135*236
C	R811A-410	Assy Cabi BOX	1	-	LRT-771E(220V)
D	R818B-060	ASSY GRILL TOP_TM23	1	STS430 #4	TM 23. 220V/50,60Hz
E	R829A-330	Ass'y Control Box	1	-	TM23R °CTYPE LEDLAMP 220V/50Hz
F	R817A-050	Ass'y Door RH TM	1	STS430 #4	LFT-72T

b. LFT-771E



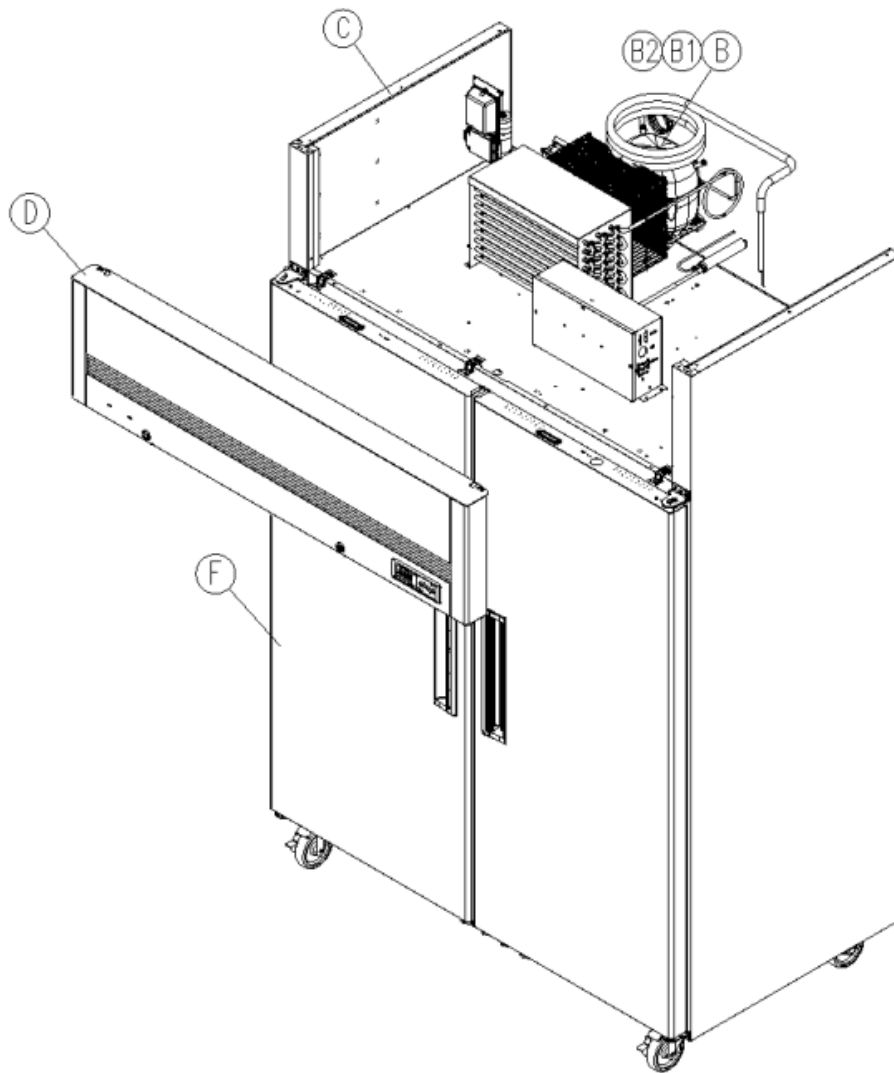
NO.	Model Code	Description	Qty	Material	Spec
B	R714A-030	Compressor	1	-	SC12CLX2 220V/50/60Hz
B1	Z394A-330	Screw Machin-Comp	4	-	M6*8 L=30 SWCH-ZN
B2	R300A-020	Grommet Comp	4	EPDM	BLACK 34±3% AC COMP
C	R811A-420	Assy Cabi BOX	1	-	LFT-771E(220V)
D	R818B-060	ASSY GRILL TOP_TM23	1	STS430 #4	TM 23. 220V/50,60Hz
E	R829A-360	Ass'y Control Box	1	-	TM23F °CTYPE LEDLAMP220V/50.60
F	R817A-050	Ass'y Door RH TM	1	STS430 #4	LFT-72T

c. LRT-1471E



NO.	Model Code	Description	Qty	Material	Spec
B	R7439-170	Compressor	1	-	SK1A1Q-L2U, 220V 50HZ, R-134a
B1	R395A-020	Compressor Bolt	4	-	Φ10, M6x36 ZPW,
B2	R300A-020	Grommet Comp	4	EPDM HS	BLACK 34±3% AC COMP
B3	R3243-040	Reinf Comp	1	GI	T1.6*135*236
C	R811A-430	Assy Cabi BOX	1	-	LRT-1471E(220V)
D	R818B-070	Assy Grill Top_TM49	1	STS430 #4	TM 49. 220V/50,60Hz
E	R829A-380	Ass'y Control Box	1	-	TM49R °CTYPE LEDLAMP 220V/50Hz
F	R817A-040	Ass'y Door LF TM	1	STS430 #4	LFT-72T
	R817A-050	Ass'y Door RH TM	1	STS430 #4	LFT-72T

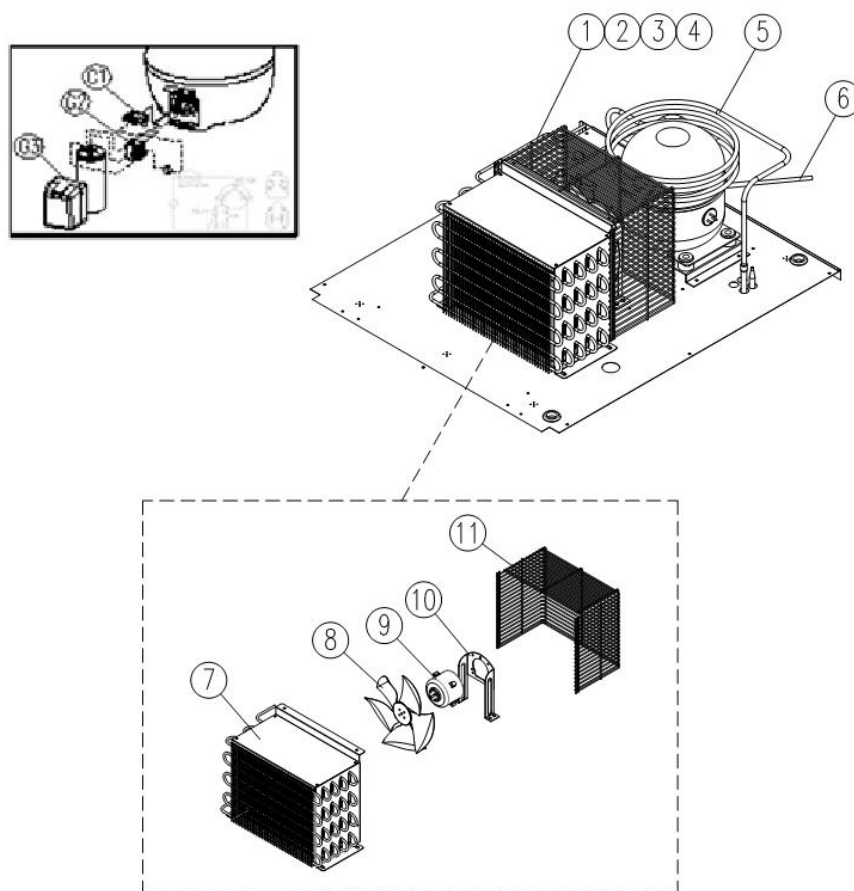
d. LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
B	R7439-530	Compressor	1	-	SC18CLX2, 220~240V 50Hz
B1	R395A-020	Compressor Bolt	4	-	Φ10, M6x36 ZPW,
B2	R300A-020	Grommet Comp	4	EPDM HS	BLACK 34±3% AC COMP
C	R811A-440	Ass'y Cabi BOX	1	-	LFT-1471E
D	R818B-070	Assy Grill Top_TM49	1	STS430 #4	TM 49. 220V/50,60Hz
E	R829A-410	Ass'y Control Box	1	-	TM49F °CTYPE LED LAMP 220V/50Hz
F	R817A-040	Ass'y Door LF TM	1	STS430 #4	LFT-72T
	R817A-050	Ass'y Door RH TM	1	STS430 #4	LFT-72T

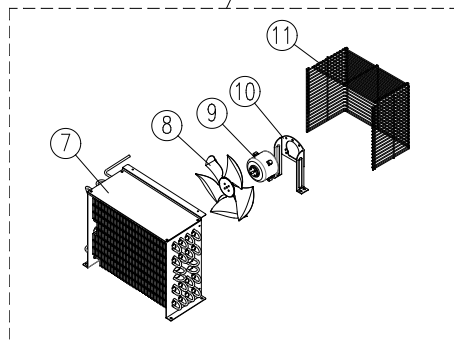
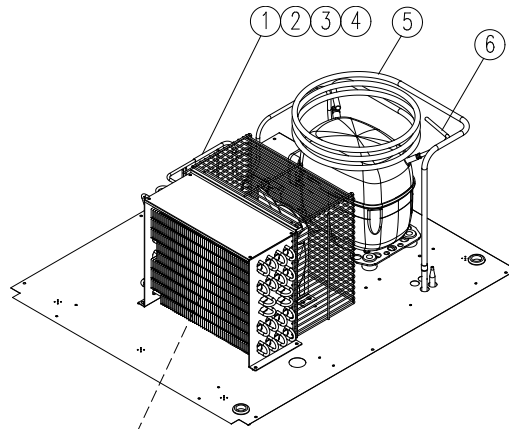
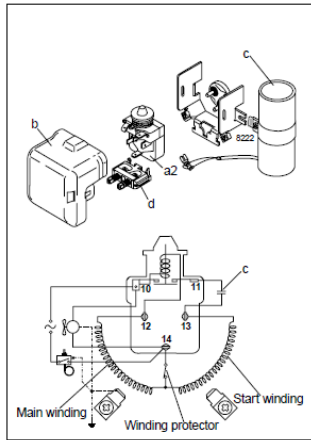
B. Assembly Unit

a. LRT-771E



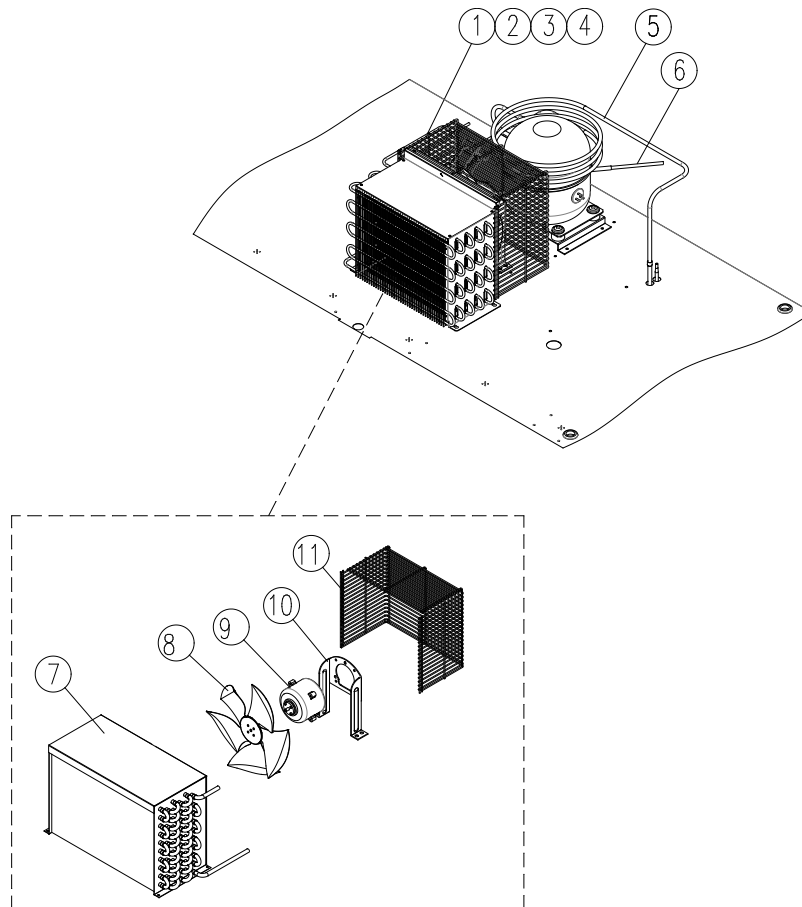
NO.	Model Code	Description	Qty	Material	Spec
1	R2113-992	Pipe Discharge	1	Cu	Φ6.35*T0.7*L650
2	R2113-981	Pipe Connect Dryer	1	Cu	Φ4.76*T0.7*L220
3	R2183-032	Dryer Ass'y	1	Cu	R-134a, 36G
4	R2104-981	Pipe Dryer	1	Cu	-
5	R8603-833	Ass'y Suction Pipe	1	Cu	Φ3.0*ID1.4*3100
6	R2104-610	Tube Vaccum	1	Cu	Φ6.35*T0.6*120
7	R8633-010	Condenser AS	1	-	LRT-49D
8	R3723-070	Condenser Fan Blade	1	AL	220V FAN MOTOR AL 9" CCW
9	R7423-063	Condenser Fan Motor	1	-	220V 50~60Hz.9W.CCW
10	R315A-050	Bracket C-Fan Motor	1	GI	T2.0
11	R3813-791	Condenser Fan Cover wire	1	MSWR10	φ2.5
G1	R7519-070	Overload Protector	1	-	4TM795tfb-53
G2	R7543-110	PTC Relay	1	-	220M
G3	R3813-900	Cover Relay	1	-	-

b. LFT-771E



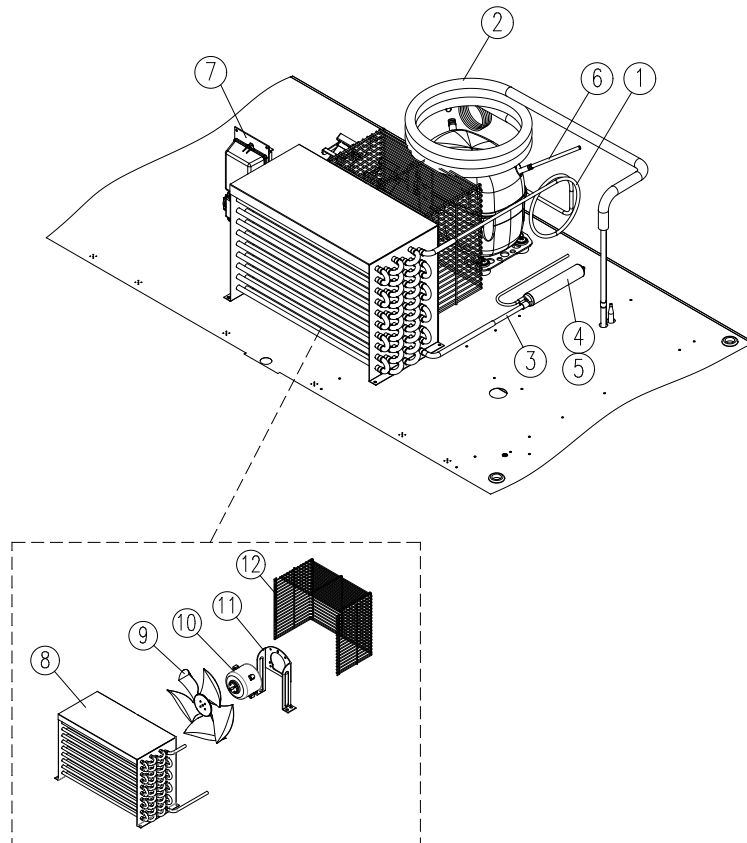
NO.	Model Code	Description	Qty	Material	Spec
1	R2113-992	Pipe Discharge T23F	1	Cu	Φ6.35*T0.7*L650
2	R2113-981	Pipe Connect Dryer	1	Cu	Φ4.76*T0.7*L220
3	R2183-032	Dryer Ass'y	1	Cu	R-134a, 36G
4	R2104-981	Pipe Dryer	1	Cu	-
5	R8603-824	PIPE SUCTION T23F	1	Cu	CAPI OD3.0XID1.4X4800
6	R2104-610	Tube Vaccum	1	Cu	Φ6.35*T0.6*120
7	R8633-010	Condensrer AS	1	-	-
9	R3723-070	Condenser Fan Blade	1	AL	220V FAN MOTOR AL 9" CCW
10	R7423-063	Condenser Fan Motor	1	-	220V 50~60Hz.9W.CCW
11	R315A-050	Bracket C-Fan Motor	1	GI	T2.0
12	R3813-791	Condenser Fan Cover wire	1	MSWR10	φ2.5
a2	R730A-010	Starting Relay	1	-	SC12CLX2. 117U6020
b		Cover	1	-	103N2008
c		Starting Capacitor 240uF	1	-	117U5023
d		Cord Relief	1		103N1004

c. LRT-1471E



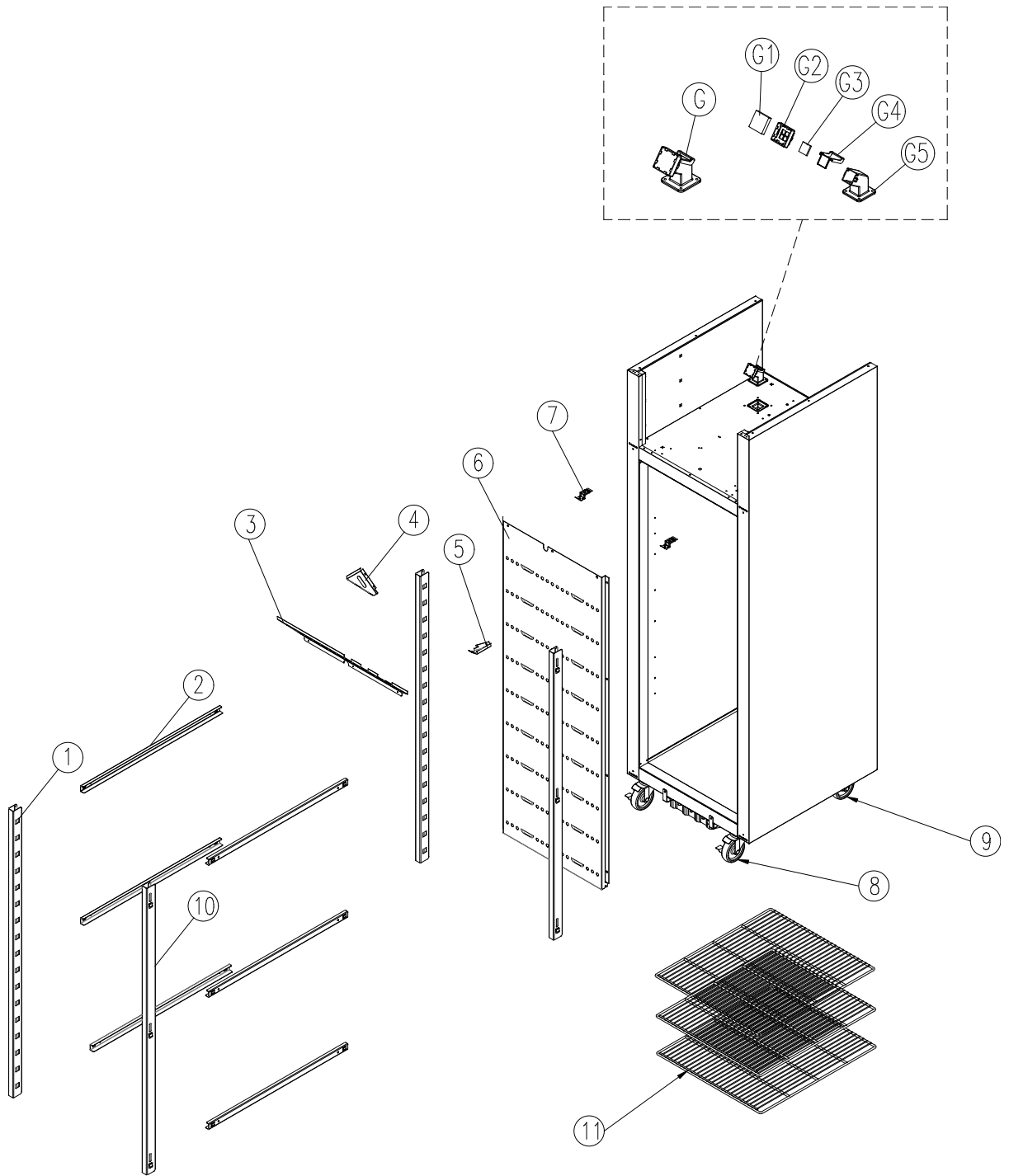
NO.	Model Code	Description	Qty	Material	Spec
1	R319A-240	Pipe Discharge	1	Cu, CT-1220	Φ4.7*T0.7
2	R2113-981	Pipe Connect Dryer	1	Cu	Φ4.76*T0.7*220
3	R2183-032	Dryer Ass'y	1	Cu	R-134a, 36G
4	R319A-580	PIPE CONDENSER DRYER	1	Cu	Φ4.76*T0.7*412
5	R845A-050	Ass'y Suction Pipe T49F	1	Cu	OD φ 3.0XID1.4XL4800 LFT-1471E
6	R2104-610	Tube Vaccum	1	Cu	Φ6.35*T0.6*120
7	R2183-032	Condenser COIL	1	SWST+MSWR10	SWST φ 4.76*13190
8	R3723-070	Condenser Fan Blade	1	AL	220V FAN MOTOR AL 9" CCW
9	R7423-063	Condenser Fan Motor	1	-	220V 50~60Hz.9W.CCW
10	R315A-050	Bracket C-Fan Motor	1	GI	T2.0
11	R3813-791	Condenser Fan Cover wire	1	MSWR10	φ2.5

d. LFT-1471E



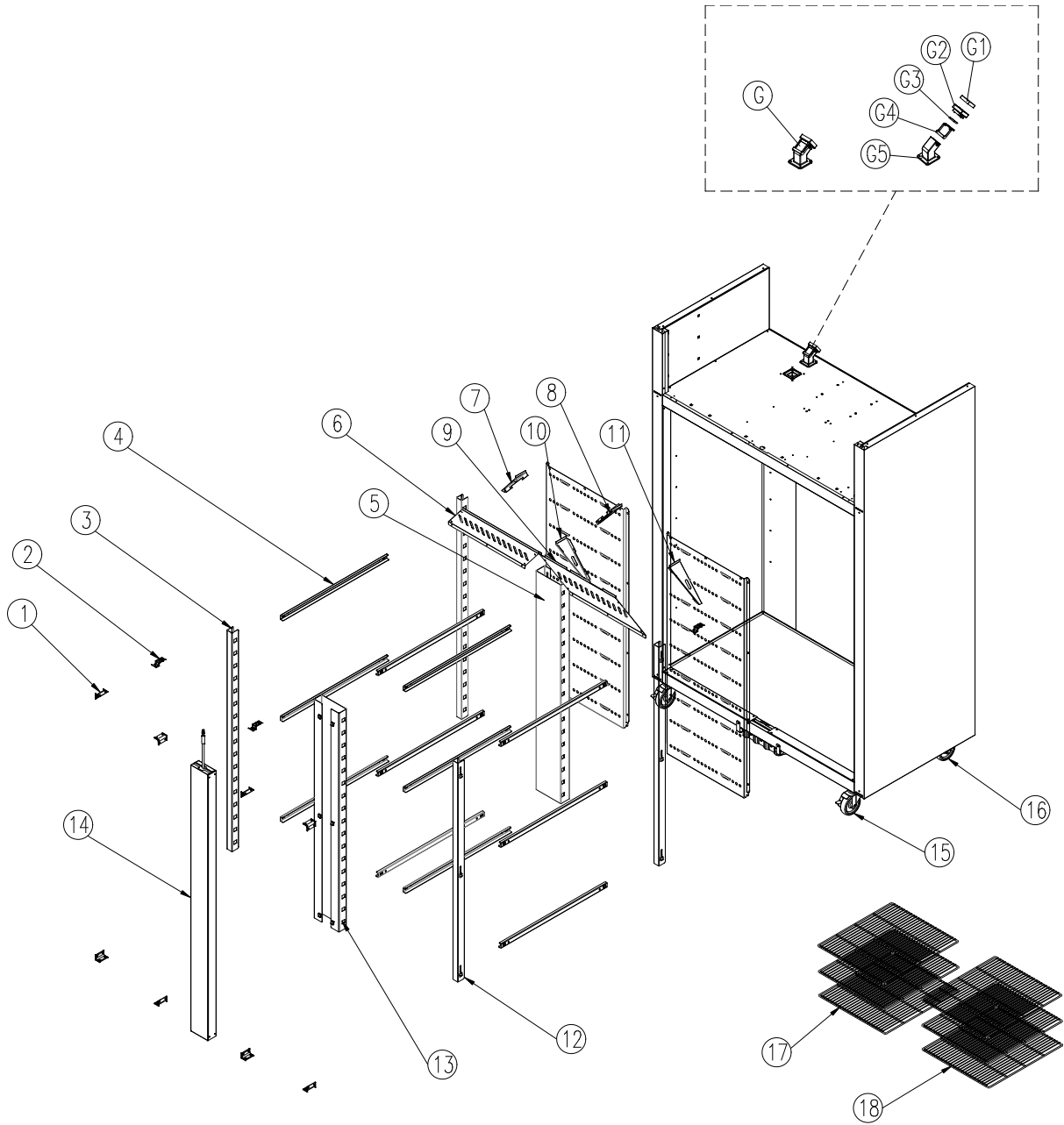
NO.	Model Code	Description	Qty	Material	Spec
1	R2113-570	Discharge Connector	1	CU	Φ6.35*T0.7*1215
2	R845A-050	Ass'y Suction Pipe T49F	1	Cu	OD ϕ 3.0XID1.4XL4800 LFT-1471E
3	R319A-580	Pipe Condenser Dryer	1	Cu	Φ4.76*T0.7*482.8
4	R2183-200	Dryer Ass'y	1	Cu	R404A, Φ25.7*169
5	R2104-982	Pipe Dryer	1	Cu	Φ4.76*T0.7*506.5
6	R2114-321	Comp Charging Pipe	1	Cu	Φ6.35*T0.7
7	R876A-010	Ass'y Relay Box	1	-	Code No : 117-7045
	R7549-300	Running CAPACITOR		-	220V/125 μF 220V/50HZ
8	R2272-013	Condenser COIL	1	CU	370*184, MSF-49NM
9	R3723-070	Condenser Fan Blade	1	AL	220V FAN MOTOR AL 9" CCW
10	R7423-063	Condenser Fan Motor	1	-	220V 50~60HZ.9W.CCW
11	R315A-050	Bracket C-Fan Motor	1	GI	T2.0
12	R3813-781	Condenser Fan Cover wire	1	MSWR10	φ2.5

C. Body Assembly
a. LRT-771E, LFT-771E



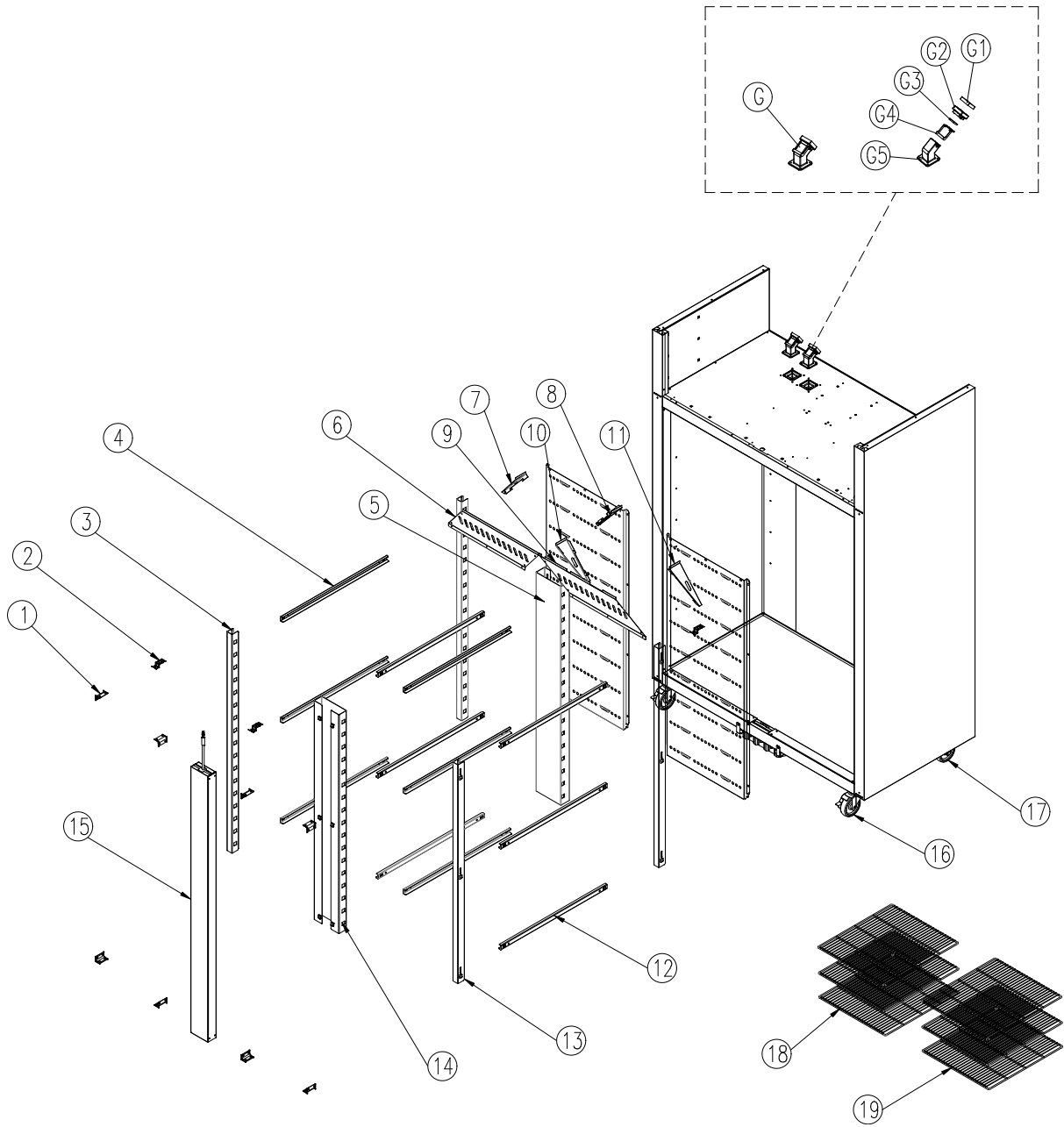
NO.	Model Code	Description	Qty	Material	Spec
1	R376A-030	SUPPOTER RAIL A LF	2	STS443CT-2B	T1*110.6*1041
2	R364A-010	RAIL GASTRONORM	6	STS443CT-2B	T1.0*44*587
3	R332A-170	DUCT TOP A T23	1	STS443CT-2B	T0.5*918*545.3
4	R332A-110	DUCT A LF T23	1	STS443CT-2B	T0.5*93.9*74.4
5	R332A-120	DUCT A RH T23	1	STS443CT-2B	T0.5*93.9*74.4
6	R332A-200	DUCT MAIN	1	STS443CT-2B	T0.5*471.7*1145
7	R3314-602	U-COVER BRACKET A	2	GI	1.2T*81.61*20
8	R3323-200	CASTER	2	-	4"MOVING/STOPING
9	R3323-190	CASTER	2	-	4"MOVING
10	R346A-040	SUPPOTER RAIL A RH	2	STS443CT-2B	T1*110.6*1041
11	R371A-030	SHELF -GN23,49	3	MSWR10	W523*D580 GN-TYPE
G	R8173-130	CHEAK VALVE AS	2	-	-
G1	R3253-050	FILTER CHECK VALVE	1	FILTER FOME	#10. T10. BLK
G2	R3253-041	CAP CHECK VALVE	1	ABS	45.5*45.5*23.5
G3	R3253-061	PACKING FALP	1	PE	T4. WHITE
G4	R3253-030	FLAP CHECK VALVE	1	ABS	40.5*45*36
G5	R3253-020	BODY CHECK VALVE	1	ABS	60*60*75.05

b. LRT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R325A-030	Cover Corner	8	ABS	28.5*28.5*53
2	R3314-601	U-COVER BRACKET A	3	GI	T1.2*61*20
3	R376A-050	SUPPOTER RAIL B LF	6	STS443CT-2B	T1*118.1*1041
4	R364A-010	RAIL GASTRONORM	12	STS443CT-2B	T1*44*587
5	R376A-070	SUPPORTER RAIL,C	1	STS443CT-2B	T1*302.6*1041
6	R332A-070	DUCT TOP, A49F	1	STS443CT-2B	T0.5*540.5*172.3
7	R332A-130	DUCT TOP A LF T49	1	STS443CT-2B	T0.5*93.9*74.4
8	R332A-140	DUCT TOP A RH T49	1	STS443CT-2B	T0.5*195.4*82.9
9	R332A-080	DUCT TOP, B49F	1	STS443CT-2B	T0.5*540.5*172.3
10	R332A-150	DUCT TOP, B LF T49	1	STS443CT-2B	T0.5*195.4*82.9
11	R332A-160	DUCT TOP, B RH T49	1	STS443CT-2B	T0.5*93.9*74.4
12	R376A-060	SUPPOTER RAIL B RH	6	STS443CT-2B	T1.0*118.1*1041
13	R376A-080	SUPPOTER RAIL, D	1	STS443CT-2B	T1.0*290.6*1041
14	R816A-310	ASSU CROSS BAR 49F	1	-	LFT-1471E
15	R3323-200	CASTER	2	-	4"MOVING/STOPING
16	R3323-190	CASTER	2	-	4"MOVING
17	R371A-030	SHELF -GN23,49	3	MSWR10	W523*D580 GN-TYPE
18	R371A-030	SHELF -GN23,49	3	MSWR10	W523*D580 GN-TYPE
G	R8173-130	Check Valve As	1	ABS	-
G1	R3253-050	Filter Check Valve	1	Filter Foam	#10, T10, Black
G2	R3253-041	Cap Check Valve	1	ABS	45.5*45.5*23.5
G3	R3253-061	Packing Flap	1	PE	T=4, White
G4	R3253-030	Flap Check Valve	1	ABS	40.5*45*36
G5	R3253-020	Body Check Valve	1	ABS	60*60*75.05

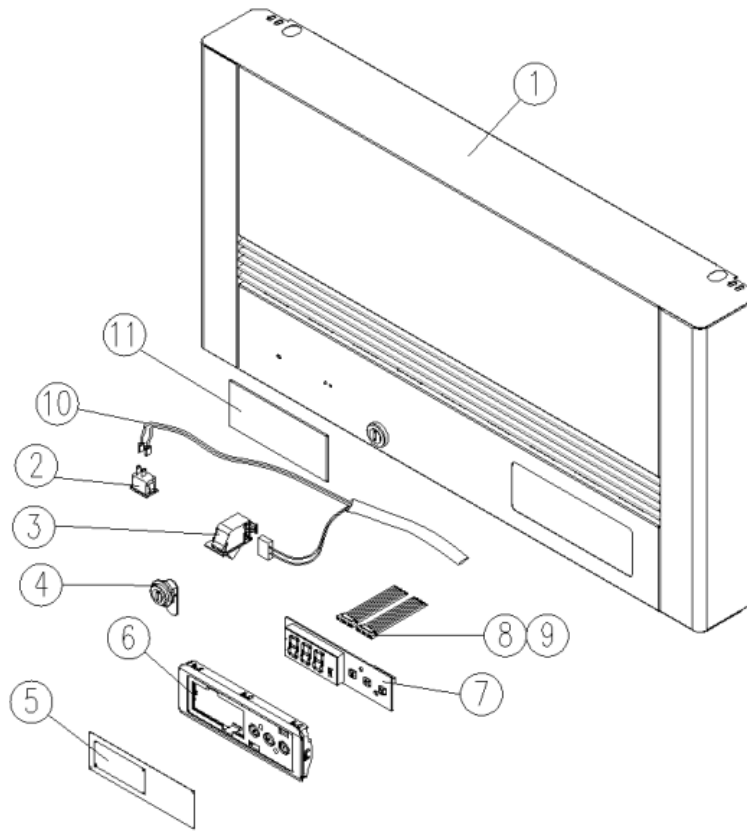
c. LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R325A-030	Cover Corner	8	ABS	28.5*28.5*53
2	R3314-601	U-COVER BRACKET A	3	GI	T1.2*61*20
3	R376A-050	SUPPOTER RAIL B LF	6	STS443CT-2B	T1*118.1*1041
4	R364A-010	RAIL GASTRONORM	12	STS443CT-2B	T1*44*587
5	R376A-070	SUPPORTER RAIL,C	1	STS443CT-2B	T1*302.6*1041
6	R332A-070	DUCT TOP, A49F	1	STS443CT-2B	T0.5*540.5*172.3
7	R332A-130	DUCT TOP A LF T49	1	STS443CT-2B	T0.5*93.9*74.4
8	R332A-140	DUCT TOP A RH T49	1	STS443CT-2B	T0.5*195.4*82.9
9	R332A-080	DUCT TOP, B49F	1	STS443CT-2B	T0.5*540.5*172.3
10	R332A-150	DUCT TOP, B LF T49	1	STS443CT-2B	T0.5*195.4*82.9
11	R332A-160	DUCT TOP, B RH T49	1	STS443CT-2B	T0.5*93.9*74.4
12	R376A-060	SUPPOTER RAIL B RH	6	STS443CT-2B	T1.0*118.1*1041
13	R376A-080	SUPPOTER RAIL, D	1	STS443CT-2B	T1.0*290.6*1041
14	R816A-310	ASSU CROSS BAR 49F	1	-	LFT-1471E
15	R3323-230	CASTER	2	4" MOVE	-
16	R3323-240	CASTER	2	4" STOP	-
17	R371A-030	SHELF -GN23,49	3	MSWR10	W523*D580 GN-TYPE
18	R371A-030	SHELF -GN23,49	3	MSWR10	W523*D580 GN-TYPE
G	R8173-130	Check Valve As	2	ABS	-
G1	R3253-050	Filter Check Valve	2	Filter Foam	#10, T10, Black
G2	R3253-041	Cap Check Valve	2	ABS	45.5*45.5*23.5
G3	R3253-061	Packing Flap	2	PE	T=4, White
G4	R3253-030	Flap Check Valve	2	ABS	40.5*45*36
G5	R3253-020	Body Check Valve	2	ABS	60*60*75.05

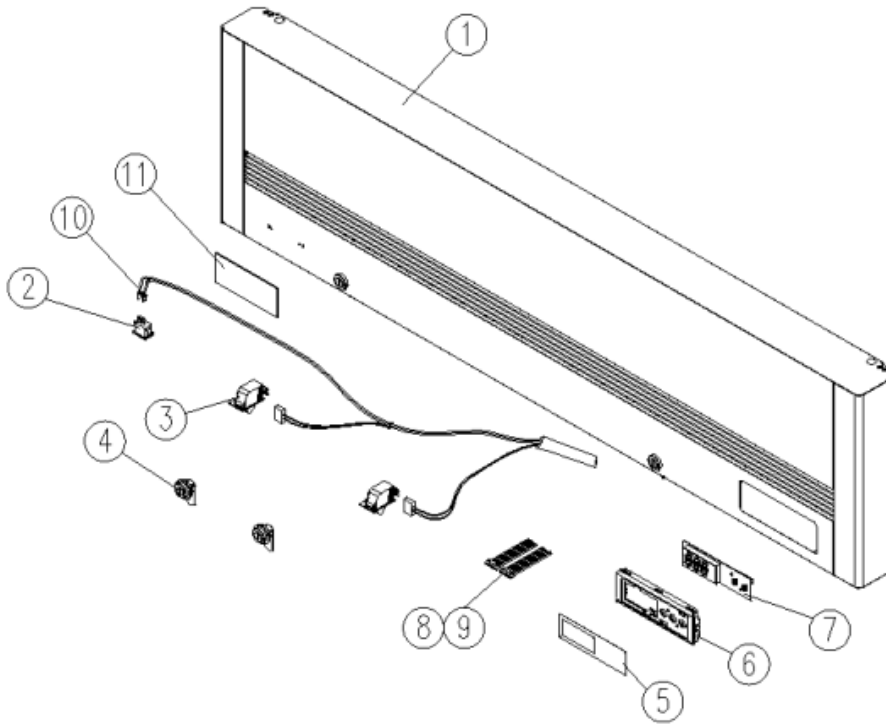
D. Top Grill Assembly

a. LRT-771E, LFT-771E



NO.	Model Code	Description	Qty	Material	Spec
1	R818B-060	Assy Grill Top_TM23	1	STS430 #4	TM 23. 220V/50,60Hz
2	R7204-070	Power Switch	1	-	LIGHT COUNTRY(R19A) 10A/115V
3	R7203-010	Switch Puch	1	-	SP201-7D 125VAC1.5A
4	R3734-030	Door Locking Ass'y	1	-	ZDC, ZCR
5	R511A-540	Inlay Control	1	-	수출 2 BUTTON 141.8*43.5
6	R321A-920	Case Control Panel	1	ABS	ABS GRAY 380G / 166.5*60.5
7	R725C-220	PCB Panel	1	FR1	144*39 WHITE 내수수출 R/F 고급형 SIDETABLE
8	R7613-860	Harness F-PCB 8P B	1	-	AGW24, 8P, L450
9	R7613-880	Harness F-PCB 10P B	1	-	AGW24, 10P, L450
10	R7523-261	Harness Switch T23	2	-	UL AWG18
11	R5133-160	MASCOT	1	AL	LASSELE 157.7*40

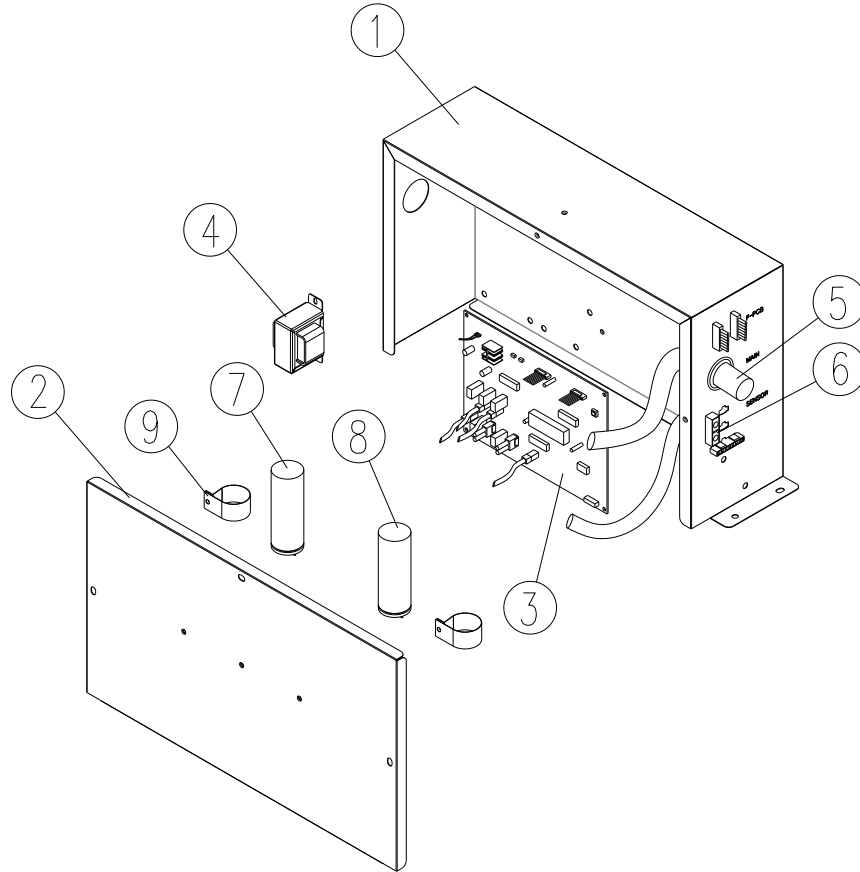
b. LRT-1471E, LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R818B-070	Assy Grill Top_TM49	1	STS430 #4	TM 49. 220V/50,60Hz
2	R7204-070	Power Switch	1	-	SL112A. 125V 15A
3	R7203-010	Switch Puch	2	-	SP201-7D, 125VAC 1.5A
4	R3734-030	Door Locking Ass'y	2	-	ZDC. ZCR
5	R511A-540	Inlay Control	1	-	수출 2 BUTTON 141.8*43.5
6	R321A-920	Case Control Panel	1	ABS	ABS GRAY 380G / 166.5*60.5
7	R725C-220	PCB Panel	1	FR1	144*39 WHITE 내수수출 R/F 고급형 SIDETABLE
8	R7613-860	Harness F-PCB 8P B	1	-	AGW24, 8P, L450
9	R7613-880	Harness F-PCB 10P B	1	-	AGW24, 10P, L450
10	R7523-270	Harness Switch T49	2	-	UL AWG18
11	R5133-160	MASCOT	1	AL	LASSELE 157.7*40

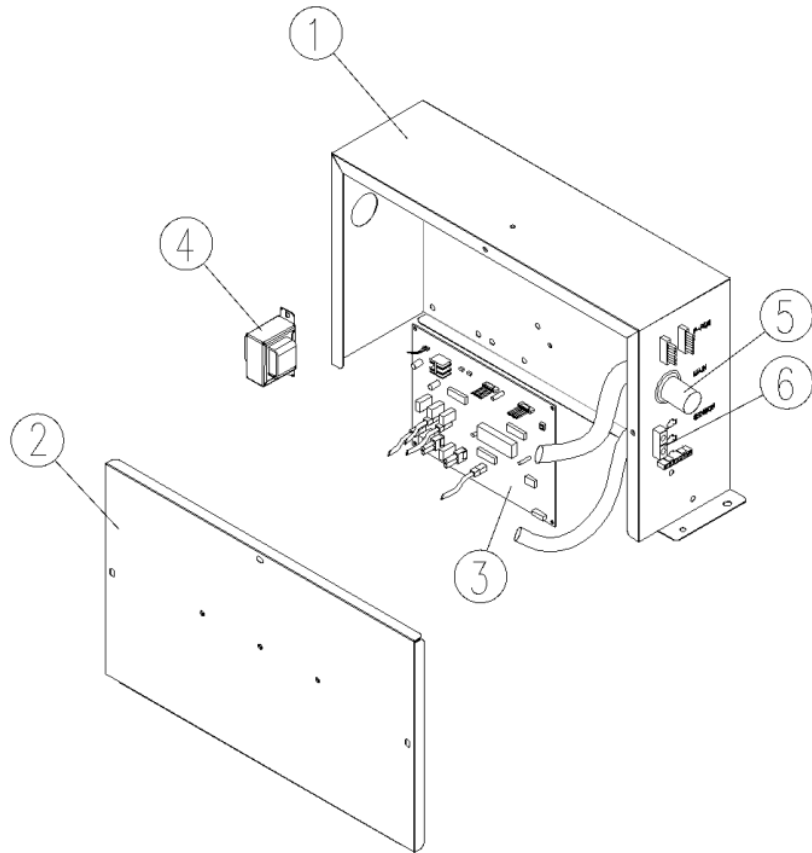
E. Main PCB Box

a. LRT-771E



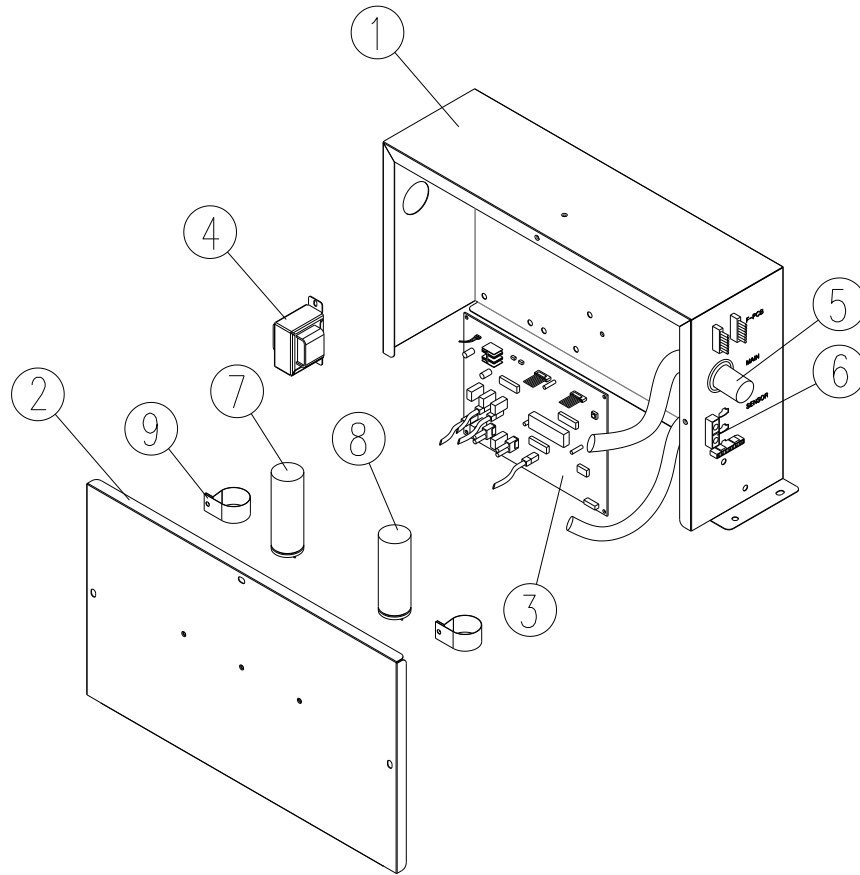
NO.	Model Code	Description	Qty	Material	Spec
1	R7119-876	Box Main PCB	1	GI	T0.5*559*331.1
2	R7119-882	Cover Main PCB BOX	1	GI	T0.5*357.07*218.97
3	R725A-413	Main PCB	1	FR1	TM 220V °C, REF TMR220C-05
4	R7503-070	POWER TRANS (220V)	1	-	220V 50/60HZ, DT-1213K
5	R719A-550	HARNESS MAIN AC-A T23R	1	-	115V NEW LED LAMP
	R719A-800	HARNESS MAIN AC-B	1	-	T23R 220~240V/50Hz
6	R7613-893	Harness Main DC TM-R	1	-	Ass'y UL
7	-	-	-	-	-
8	R7549-140	Running Capacitor	1	-	350V AC 8 μ F, 2P
9	R3834-130	Cable Clamp	2	Nylon-66	DA-18N

b. LFT-771E



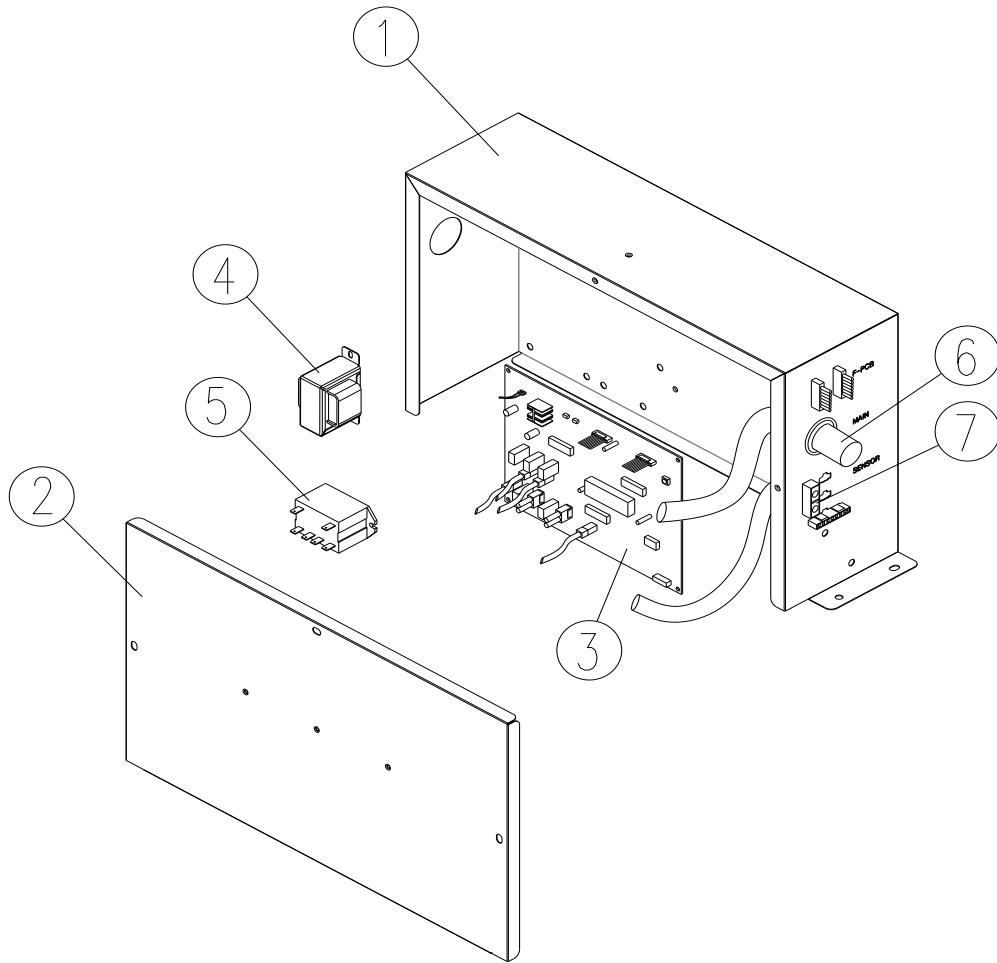
NO.	Model Code	Description	Qty	Material	Spec
1	R7119-876	Box Main PCB	1	GI	T0.5*559*331.1
2	R7119-882	COVER MAIN PCB BOX	1	GI	T0.5*357.07*218.97
3	R725B-050	Main PCB	1	FR1	FR1. 165*115(220V °C)냉동-7338
4	R7504-060	Power Trans	1	-	120V60Hz, DT-1213
5	R719A-560	Harness Main AC-A 23F	1	-	115V NEW LED LAMP
	R719A-810	Harness Main AC-B 23F	1	-	T23F 220~240V/50Hz 220V/60Hz
6	R7613-903	Harness Main DC TM-F	1	-	Ass'y UL

c. LRT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R7119-876	Box Main PCB	1	GI	T0.5*559*331.1
2	R7119-882	Cover Main PCB BOX	1	GI	T0.5*357.07*218.97
3	R725A-413	Main PCB	1	FR1	FR1 TM 220V °C REF TMR220C-05
4	R7504-060	Power Trans	1	-	120V/60Hz, DT-1213
5	R719A-570	Harness Main AC-A 49R	1	-	Ass'y UL, LED LAMP
	R719A-820	Harness Main AC-B 49R	1	-	Ass'y UL, LED LAMP
6	R7613-893	Harness Main DC TM-R	1	-	Ass'y UL
7	-	-	-	-	-
8	R7549-140	Running Capacitor	1	-	350V AC 8 μ F, 2P
9	R3834-130	Cable Clamp	2	Nylon-66	DA-18N

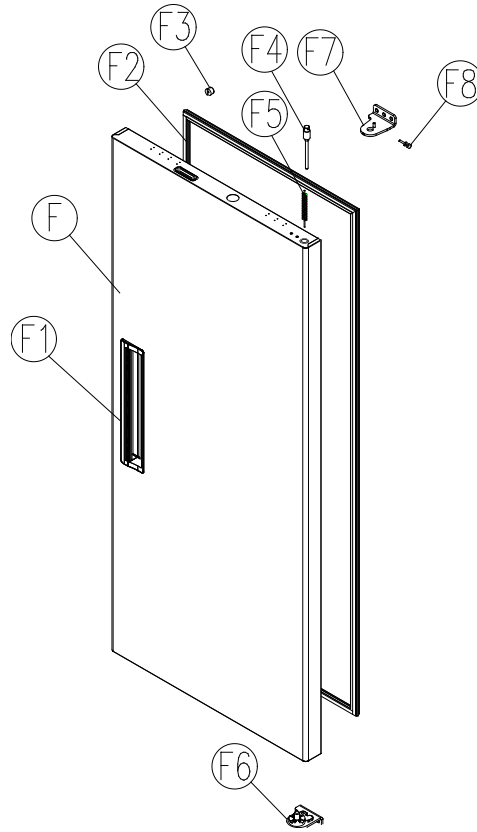
d. LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R7119-876	Box Main PCB	1	GI	T0.5*559*331.1
2	R7119-882	M-PCB Box Cover	1	GI	T0.5*357.07*218.97
3	R725B-423	Main PCB	1	FR1	FR1 TM 220V °C 냉동 TMF220C-05
4	R7504-060	Power Trans	1	-	120V/60Hz, DT-1213
5	R748A-020	Power Relay	1	-	PANASONIC HE1AN-Q- DC12V 30A
6	R719A-581	Harness Main AC-A 49F	1	-	Ass'y UL
7	R719B-910	Harness Main AC-B 49F	1	-	Ass'y UL

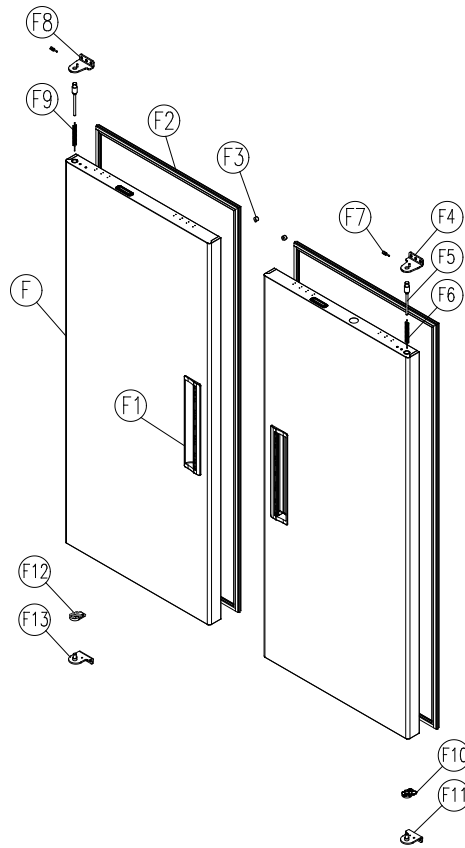
F. Door Assembly

a. LRT-771E, LFT-771E



NO.	Model Code	Description	Qty	Material	Spec
F	R817A-050	Ass'y Door RH TM	1	-	-
F1	R4122-272 R4122-263	HANDLE BODY HANDLE GUARD	1	UL94-HB	-
F2	R338A-010	GASKET DOOR TM	1	RD-PVC	1512*610
F3	R1254-052	DOOR RUBBER LEG	2	SILICON	Ø16*12
F4	R858A-410	SHAFT TOP HINGE AS	1	SUM24L	-
F5	R374A-022	SPRING DOOR RH	1	SW-C	-
F6	R828A-022	HINGE BOTTOM RH AS	1	STS304	T4.0
F7	R828A-065	HINGE TOP RH AS	1	STS304	T4.0
F8	R412A-021	PIN TENSION	1	SUM24L	Ø8*25

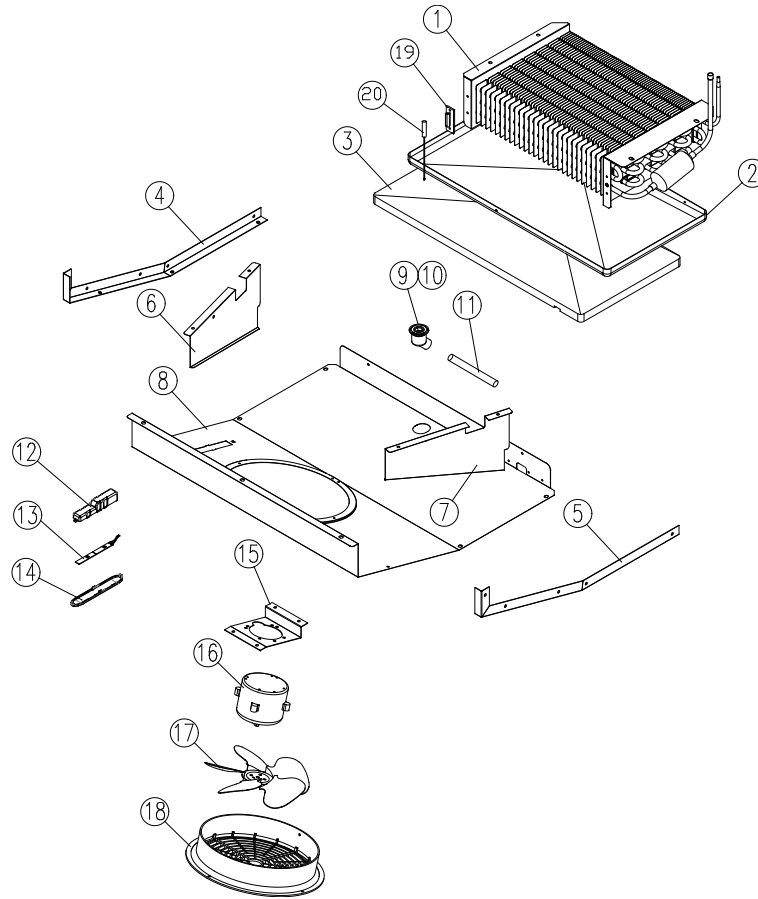
b. LRT-1471E, LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
F	R817A-050	Ass'y Door RH TM	1	-	-
	R817A-040	Ass'y Door LF TM	1	-	-
F1	R4122-272	HANDLE BODY	2	UL94-HB	-
	R4122-263	HANDLE GUARD			
F2	R338A-010	GASKET DOOR TM	1	RD-PVC	1512*610
F3	R1254-052	DOOR RUBBER LEG	2	SILICON	Ø16*12
F4	R828A-065	HINGE TOP RH AS	1	STS304	T4.0
F5	R858A-410	SHAFT TOP HINGE AS	2	-	-
F6	R374A-022	SPRING DOOR RH	1	SW-C	-
F7	R412A-021	PIN TENSION	2	SUM24L	Ø8*25
F8	R828A-0555	ASSY HINGE TOP LF	1	STS304	T4.0
F9	R374A-012	SPRING DOOR LF	1	SW-C	Ø2.3
F10	R375A-010	STOPPER HINGE RH	1	POM(FW700S)	45.5*31*8
F11	R828A-022	HINGE BOTTOM RH AS	1	STS304	T4.0
F12	R375A-021	STOPPER HINGE LF	1	POM(FW700S)	45.5*31*8
F13	R828A-032	HINGE BOTTOM LF AS	1	STS304	T4.0

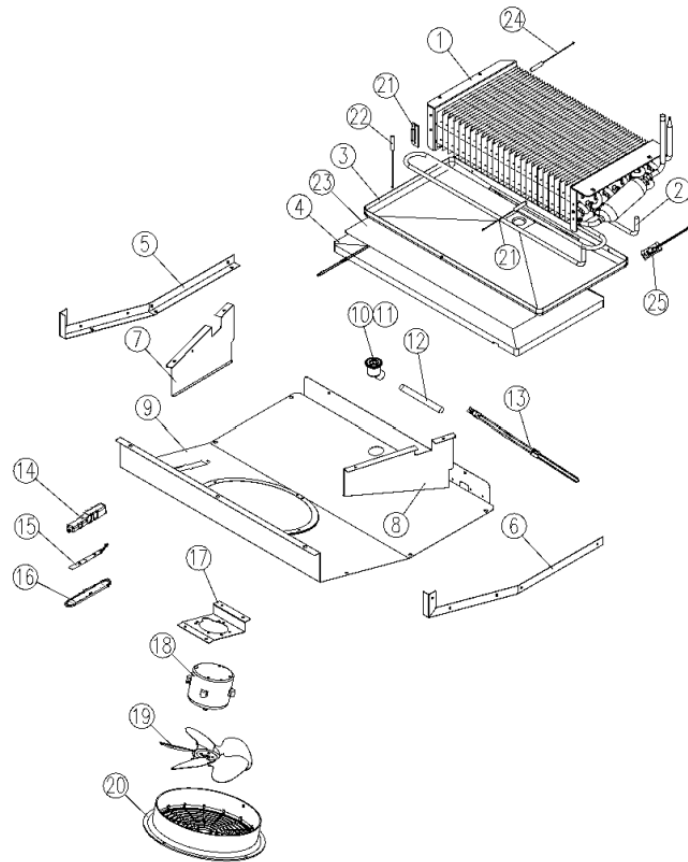
G. Evaporator Assembly

a. LRT-771E



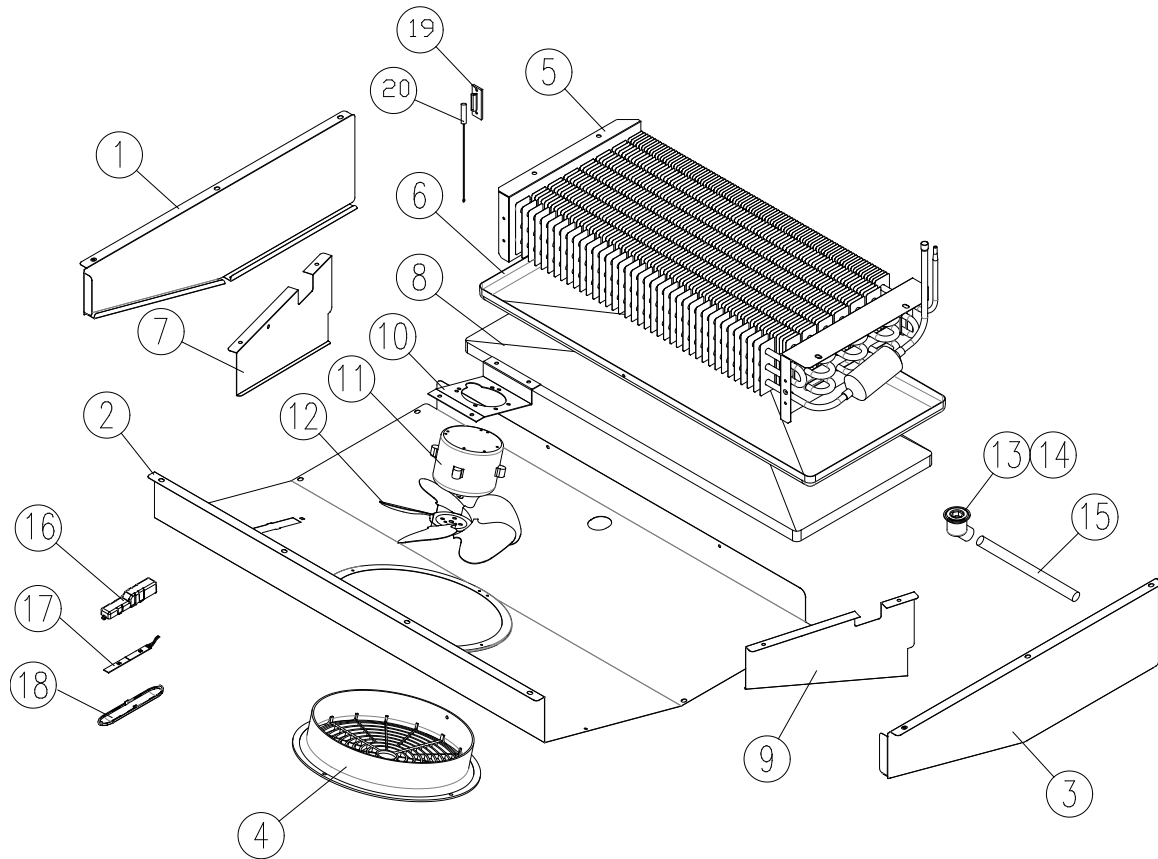
NO.	Model Code	Description	Qty	Material	Spec
1	R2263-074	Evaporator Assy	1	AL	W330*D246*H105 TM23R
2	R3743-051	Evap Drain Pan Small	1	AL+COATING	
3	R1143-202	Evap Drain Insul-S	1	Foam-PS	T=17*256*530
4	R3853-051	Evap Air Guide Left	1	AL	T=0.5*255.3*155.6
5	R3853-041	Evap Air Guide Right	1	AL	T=0.5*255.3*155.6
6	R3813-812	Evap Cover Bracket LF	1	STS430-2B	T=1.0*565*34.8
7	R3813-802	Evap Cover Bracket RH	1	STS340-2B	T=1.0*565*34.8
8	R325A-200	Eva Cover T23	1	STS443CT	T=0.5*654.2*573
9	R3744-091	Evap Drain Elbow-Upp	1	PP	White
10	R3744-101	Evap Drain Elbow-Low	1	PP	White
11	R2124-021	Evaporator Drain Hose-A	1	Silicon	Φ16*12, L=213
12	R313A-050	BODY LAMP	1	HIPS	60HRI,112*20.7*21
13	R723A-040	ASSY LED LAMP	1	FR1	DC 12V, LED LAMP 4P
14	R325A-141	COVER LAMP	1	PC	MILKI WHITE
15	R3203-482	Motor Fix Bracket	1	STS430-2B	T=1.0*90*146
16	R7423-053	Evaporator Fan Motor	1	CCW	220V 50~60Hz.9W.CCW
17	R3729-010	Evap Fan Blade	1	AL	8" CCW
18	R3812-141	Evaporator Fan Motor Guard	1	HIPS	VH-1800EX, White
19	R3314-192	Sensor Bracket	1	PP	White
20	R7213-412	Temp Display Sensor	1	-	AT25°C, 10.75KΩ±1% -25~25

b. LFT-771E



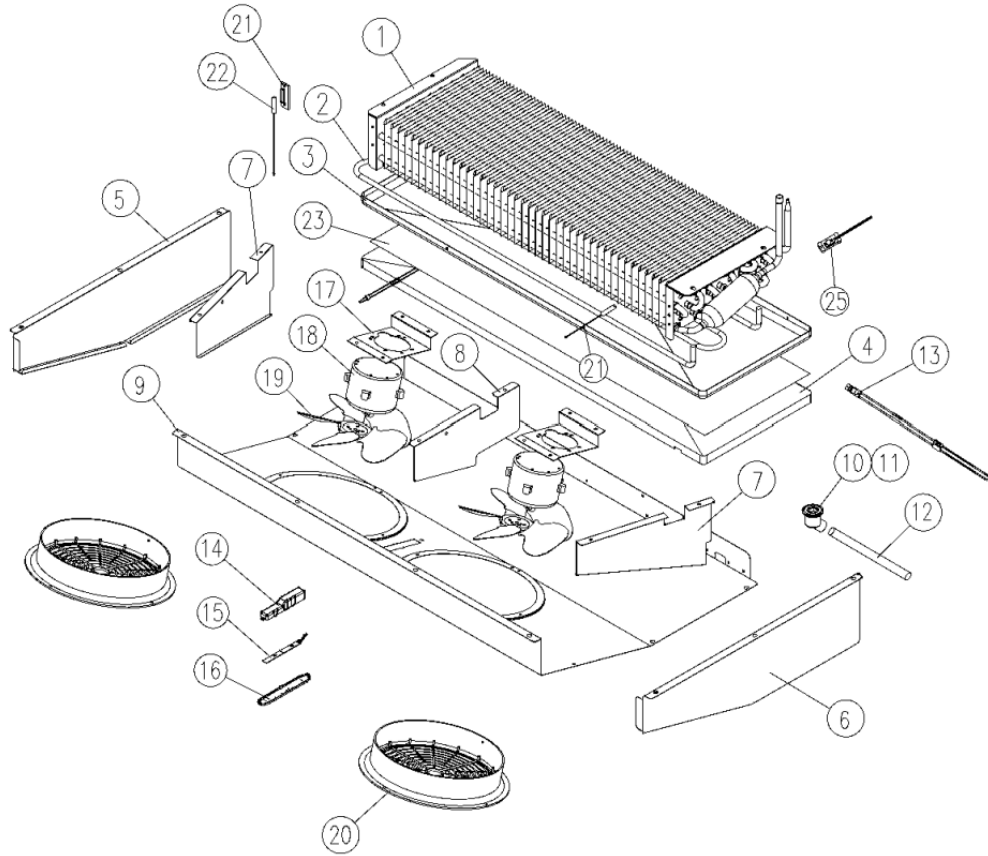
NO.	Model Code	Description	Qty	Material	Spec
1	R2263-051	Evaporator Assy	1	CU+AL	TM 23F
2	R7313-420	Defrost Heater	1	-	220V/445W . WHITE
3	R3743-051	Evap Drain Pan Small	1	AL	
4	R1143-202	Evap Drain Insul-S	1	Foam-PS	T=17*256*530
5	R3813-812	Evap Cover Bracket LF	1	STS430-2B	T=1.0*565*34.8
6	R3813-802	Evap Cover Bracket RH	1	STS304-2B	T=1.0*565*34.8
7	R3853-051	Evap Air Guide Left	1	AL	T=0.5*255.3*155.6
8	R3853-041	Evap Air Guide Right	1	AL	T=0.5*255.3*155.6
9	R325A-200	Eva Cover T23	1	STS443CT	T=0.5*654.2*573
10	R3744-091	Evap Drain Elbow-Upp	1	PP	White
11	R3744-101	Evap Drain Elbow-Low	1	PP	White
12	R2124-021	Evaporator Drain Hose-A	1	Silicon	Φ16x12, L=213
13	R7313-690	HEATER CORD DRAIN HOSE (LS-610FN)	1	-	220V 10W
14	R313A-050	BODY LAMP	1	HIPS	60HRI,112*20.7*21
15	R723A-040	ASSY LED LAMP	1	FR1	DC 12V, LED LAMP 4P
16	R325A-141	COVER LAMP	1	PC	MILKI WHITE
17	R3203-482	Motor Fix Bracket	1	STS430-2B	T=1.0*90*146
18	R7423-053	Evaporator Fan Motor	1	CCW	220V 50~60Hz.9W.CCW
19	R3729-010	Evap Fan Blade	1	AL	8" CCW
20	R3812-141	Evaporator Fan Motor Guard	1	HIPS	VH-1800EX, White
21	R3314-192	Sensor Bracket	1	PP	White
22	R7213-412	Temp Display Sensor	1	-	AT25°C, 10.75KΩ±1%. -25~25
23	R720A-100	Heater Drain Pan	1	-	220V 90W
24	R7213-422	Sensor Def(Evap)	1	-	AT25°C, 10.75KΩ±1%. -25~25
25	R7253-052	Evaporator Thermal Fuse	1	-	Max, 72±5°C

c. LRT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R2263-084	Evaporator Assy	1	AL	W506*D246*H105 TM49R
2	R3743-041	Evap Drain Pan Mid	1	AL	-
3	R1143-222	Evap Drain Insul-M	1	Foam-PS	T=17*256*622
4	R3853-800	Evap Cover Support LF	1	STS443CT	T=0.5*519.4*176.7
5	R3853-790	Evap Cover Support RH	1	STS443CT	T=0.5*519.4*176.7
6	R3853-051	Evap Air Guide Left	1	AL	T=0.5*255.3*155.6
7	R3853-051	Evap Air Guide Left/Right	1	AL	T=0.5*255.3*155.6
8	R325A-210	Eva Cover T49	1	STS443CT	T=0.5*272*653.5
9	R3744-091	Evap Drain Elbow-Upp	1	PP	White
10	R3744-101	Evap Drain Elbow-Low	1	PP	White
11	R2124-021	Evaporator Drain Hose-A	1	Silicon	Φ16x12, L=213
12	R313A-050	BODY LAMP	1	HIPS	60HRI,112*20.7*21
13	R723A-040	ASSY LED LAMP	1	FR1	DC 12V, LED LAMP 4P
14	R325A-141	COVER LAMP	1	PC	MILKI WHITE
15	R3203-482	Motor Fix Bracket	1	STS430-2B	T=1.0*90*146
16	R7423-053	Evaporator Fan Motor	1	CCW	220V 50~60HZ.9W.CCW
17	R3729-010	Evap Fan Blade	1	AL	8" CCW
18	R3812-141	Evaporator Fan Motor Guard	1	HIPS	VH-1800EX, White
19	R3314-192	Sensor Bracket	1	PP	White
20	R7213-412	Temp Display Sensor	1	-	AT25°C, 10.75KΩ±1%. -25~25

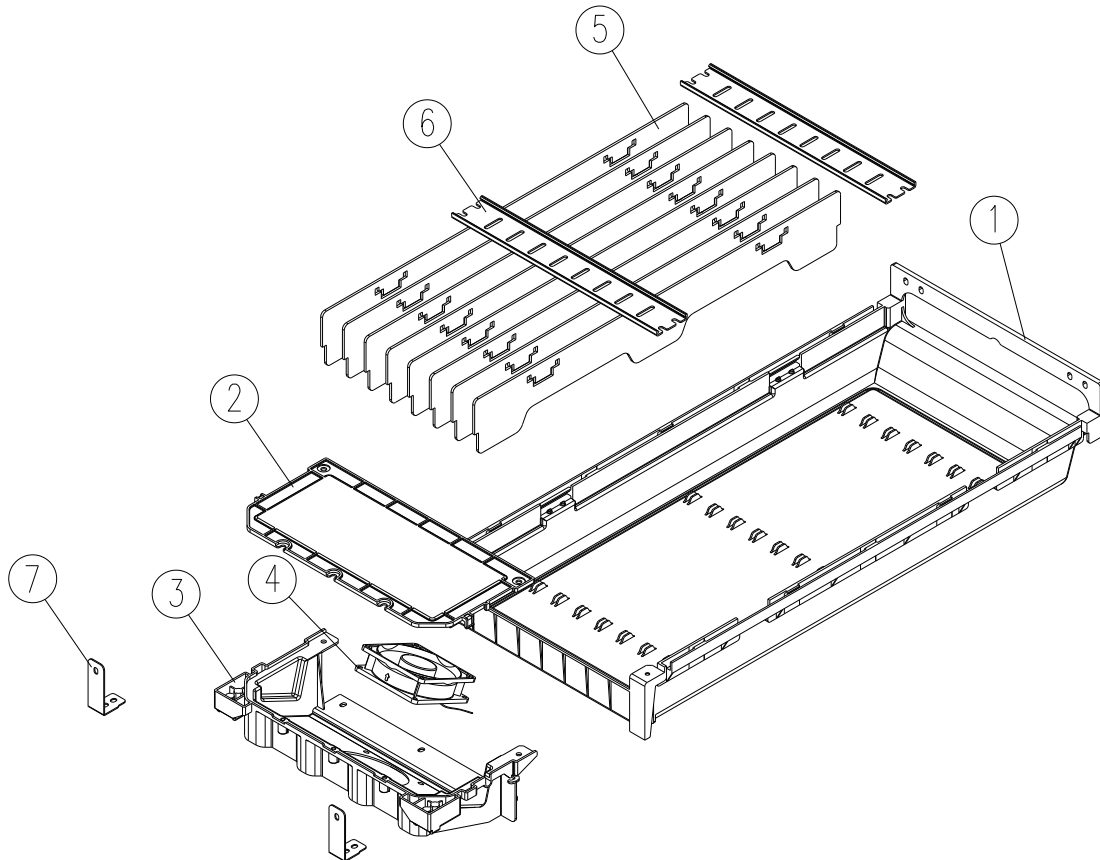
d. LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
1	R2263-062	Evaporator Assy	1	CU+AL	TM 49F
2	R7303-961	Defrost Heater (F49)	1	-	UL 220V 600W
3	R3743-031	Evap Drain Pan Large	1	AL	
4	R1143-212	Evap Drain Insul-L	1	Foam-PS	T=17*256*800
5	R3853-800	Evap Cover Support LF	1	STS443CT	T=0.5*519.4*176.7
6	R3853-790	Evap Cover Support RH	1	STS443CT	T=0.5*519.4*176.7
7	R3853-051	Evap Air Guide Left	2	AL	T=0.5*255.3*155.6
8	R3853-061	Evap Air Guide Mid	1	AL	T=0.5*245*127
9	R325A-221	Eva Cover T49F	1	STS443CT	T=0.5*845*653.5
10	R3744-091	Evap Drain Elbow-Upp	1	PP	White
11	R3744-101	Evap Drain Elbow-Low	1	PP	White
12	R2124-021	Evaporator Drain Hose-A	1	Silicon	Φ16*12, L=213
13	R7313-700	HEATER CORD DRAIN HOSE (LS-1300FN)	1	-	220V 10W
14	R313A-050	BODY LAMP	1	HIPS	60HRI,112*20.7*21
15	R723A-040	ASSY LED LAMP	1	FR1	DC 12V, LED LAMP 4P
16	R325A-141	COVER LAMP	1	PC	MILKI WHITE
17	R3203-482	Motor Fix Bracket	2	STS430-2B	T=1.0*90*146
18	R7423-053	Evaporator Fan Motor	2	CCW	220V 50~60HZ.9W.CCW
19	R3729-010	Evap Fan Blade	2	AL	8" CCW
20	R3812-141	Evaporator Fan Motor Guard	2	HIPS	VH-1800EX, White
21	R3314-192	Sensor Bracket	1	PP	White
22	R7213-412	Temp Display Sensor	1	-	AT25°C, 10.75KΩ±1%. -25~25
23	R720A-120	Heater Drain Pan	1	-	220V 140W
24	R7213-422	Sensor Def(Evap)	1	-	AT25°C, 10.75KΩ±1%. -25~25
25	R7253-052	Evaporator Thermal Fuse	1	-	Max, 72±5°C

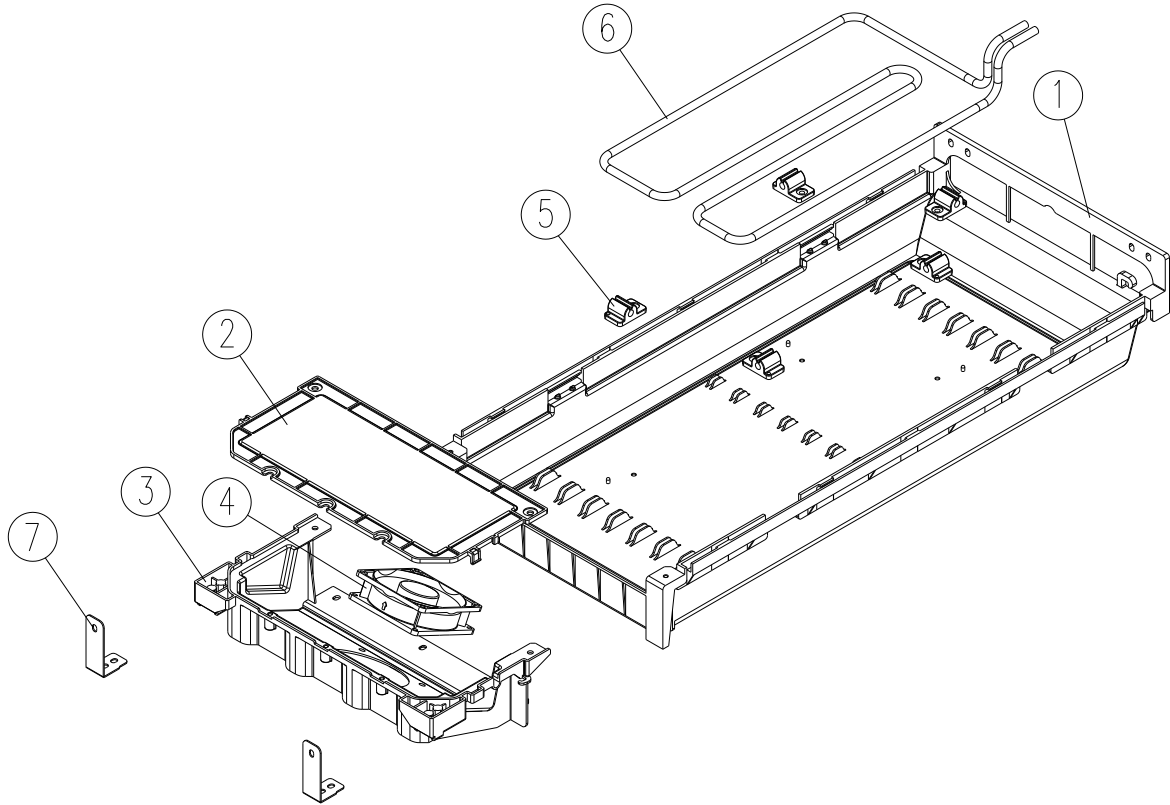
H. Vapori Assembly

a. LRT-771E, LFT-771E, LFT-1471E



NO.	Model Code	Description	Qty	Material	Spec
0	R8522-010	Vapori AS TM	1	-	ABS+DC FAN
1	R3422-012	Case Vapori	1	ABS	602.5*275*106.5
2	R3422-050	Cover DC Motor T49	1	ABS	280.5*131*11.5
3	R3422-030	Case DC Motor T49	1	ABS	283*143.5*69.5
4	R831A-030	Ass'y DC Motor Vapori	1	-	DC12V, DA08025B12MF
5	R1154-090	Wicking Drain Water	8	-	2.5T*480*63.5
6	R3853-780	Guide Wicking	2	PP	T=1.5*269*40
7	R3313-730	Bracket Case Vapori Front	2	STS304	T=1.2*85.5*20.5

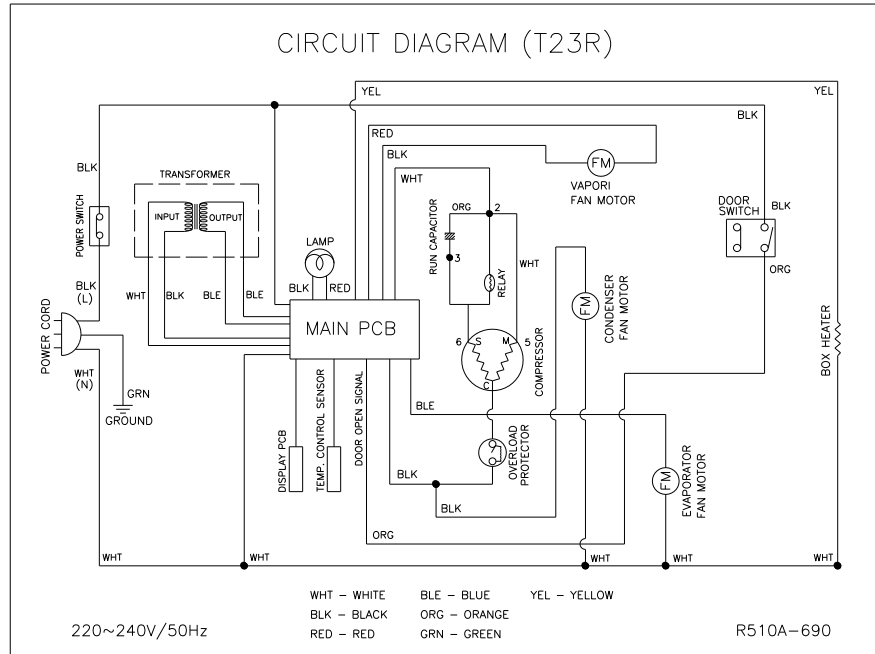
b. LRT-1471E



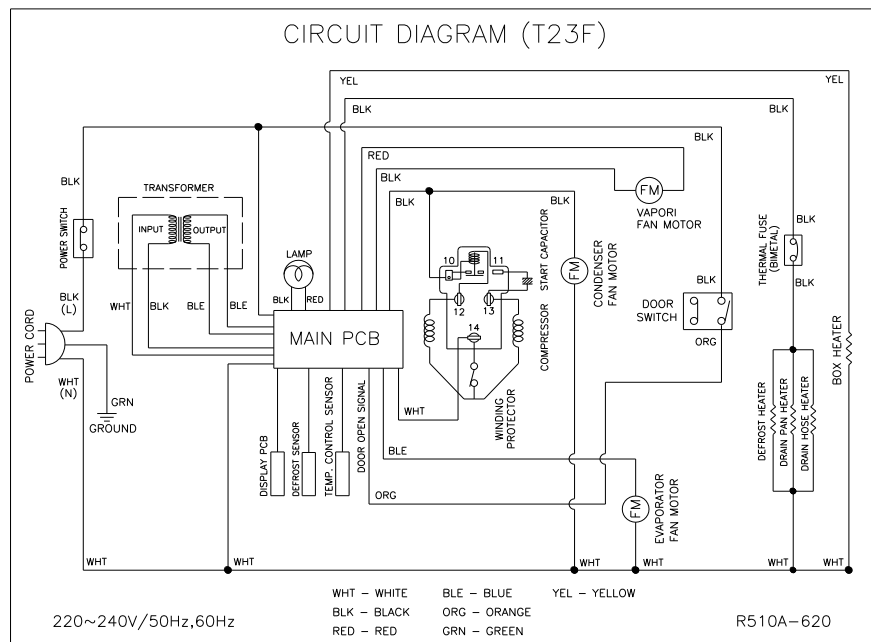
NO.	Model Code	Description	Qty	Material	Spec
0	R8522-040	Vapori AS TM	1	-	ABS+DC FAN+HEATER
1	R3422-012	Case Vapori	1	ABS	602.5*275*106.5
2	R3422-050	Cover DC Motor T49	1	ABS	280.5*131*11.5
3	R3422-030	Case DC Motor T49	1	ABS	283*143.5*69.5
4	R831A-030	Ass'y DC Motor Vapori	1	-	DC12V, DA08025B12MF
5	R3743-400	Holder Vapori Heater	5	Silicon	33*20*13.5
6	R720A-080	Heater Vaporizer	1	-	220V 50W 968Ω SHEATH HEATER
7	R3313-730	Bracket Case Vapori Front	2	STS304	T=1.2*85.5x20.5

3. WIRING DIAGRAM

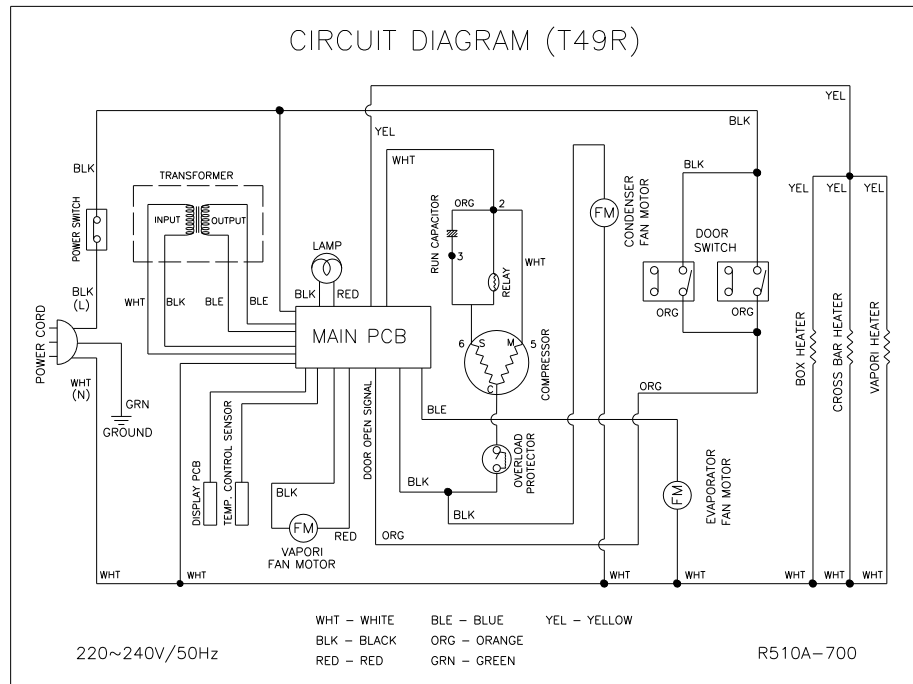
◇ T23R



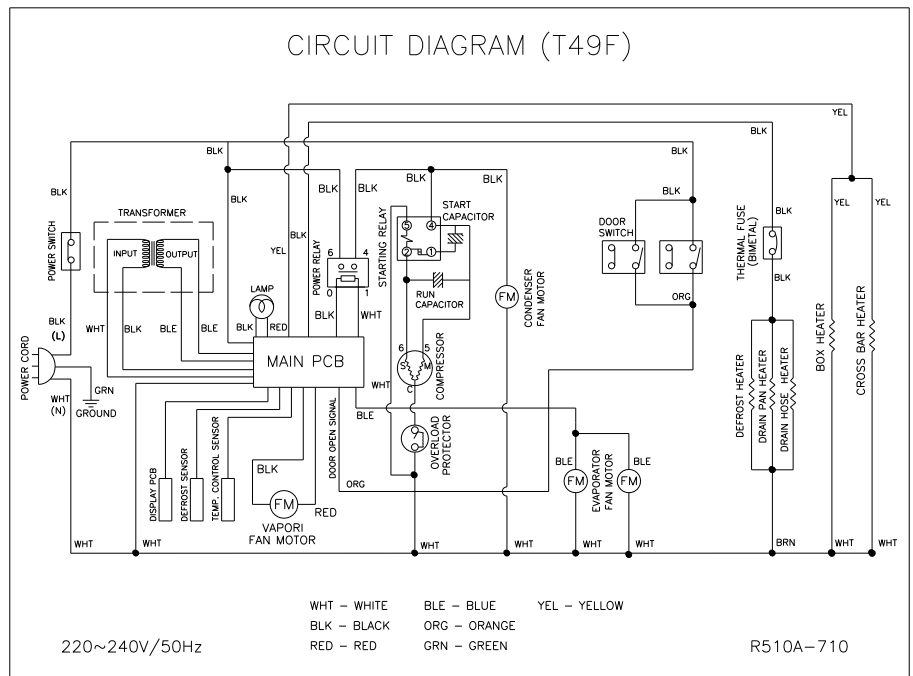
◇ T23F



◇ T49R






◇ T49F

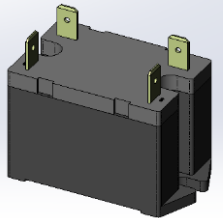


4. MAIN COMPONENTS

4-1.COMPRESSOR

MODEL		LRT-771E LRT-1471E	LFT-771E	LFT-1471E
Refrigerant		R-134a	R-404A	R-404A
Voltage		220V		
Comp. Model		SK1A1Q-L2U	SC12CLX2	SC18CLX2
Part code	(DY)	R7439-170	R714A-030	R7439-530
Image				


4-2.POWER-RELAY(COMP. RELAY)

MODEL		LFT-1471E
Voltage		220V / 50Hz
Relay Model		OMRON G7L-2A-TUB 220~240VAC
Part code	(DY)	R748A-010
Image		



4-3. STARTING CAPACITOR

MODEL		LFT-1471E
Spec		220V/125 μ F 220V/50Hz
Part code	(DY)	R7549-300
Image		Assy Relay Box 11-7053 72F



4-4. RUNNING CAPACITOR

MODEL	LRT-771E, LRT-1471E		
Spec	350V AC 8 μ F, 2P		
Part code	(DY)	R7549-140	
Image			

4-5.CONDENSER DRYER

MODEL	LRT-771E	LRT-1471E	LFT-771E	LFT-1471E
Refrigerant	R-134a			R-404A
Spec	36G			24G
Part code	(DY)	R2183-032		R2183-200
Image				

4-6.CONDENSER COIL

MODEL	LRT-771E, LFT-771E,LFT-1471E		LRT-1471E
Spec	SWST ϕ 4.76*13190		SWST ϕ 4.76*13190
Part code	(DY)	R2183-032	R2183-032
Image			

4-7. CONDENSER FAN MOTOR BLADE

MODEL	ALL	
Spec	220V FAN MOTOR AL 9" CCW	
Part code	(DY)	R3723-070
Image		

4-8. CONDENSER FAN MOTOR

MODEL	ALL	
Voltage	220V 50~60Hz.9W.CCW	
Motor Model	DAI-8204DYCA	
Part code	(DY)	R7423-070
Image		

4-9. BRACKET C-FAN MOTOR

MODEL	ALL	
Motor Model	SBHG1-0 T2	
Part code	(DY)	R315A-050
Image		

4-10. EVAPORATOR FAN MOTOR

MODEL	ALL		
Voltage	220V 50~60Hz.9W.CCW		
Motor Model	DAI-8204DYCA-1 CCW		
Part code	(DY)	R7423-053	
Image			

4-11.EVAPORATOR COIL

MODEL	LRT-771E	LRT-1471E	LFT-771E	LFT-1471E	
Spec	AL	AL	CU+AL	CU+AL	
Part code	(DY)	R2263-074	R2263-084	R2263-051	R2263-062
Image					


4-12. EVAPORATOR DEFROST HEATER

MODEL	LFT-771E		LFT-1471E
Voltage	UL 220V		
Spec	445W		600W
Part code	(DY)	R7313-420	R7603-961
Image			

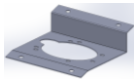
4-13. FAN BLADE

MODEL	ALL		
Spec	8". C.C.W		
Part code	(DY)	R3729-010	
Image			

4-14. EVAPORATOR FAN GUARD

MODEL	ALL		
Spec	HIPS (VH-1800EX), WHITE		
Part code	(DY)	R3812-141	
Image			

4-15. MOTOR FIX BRACKET

MODEL	ALL		
Spec	STS430-2B T1*90*146		
Part code	(DY)	R3203-482	
Image			


4-16. MAIN PCB

MODEL	LRT-771E, LRT-1471E	LFT-771E	LFT-1471E
Spec	FR1 TM 220V ℃ REF TMR220C-05	FR1. 165*115(220V ℃)냉동- 7338	FR1 TM 220V ℃ 냉동 TMF220C-05
Part code	(DY) R725A-413	R725B-050	R725A-423


4-17. FRONT PCB

MODEL	TM/BM(NEW DP 적용모델)/내수수출 R,F/고급형 SIDE MOUNT TABLE	
Spec	144*39WHITE	
Part code	R725C-220	R725C-220
Image		


4-18. INLAY CONTROL

MODEL	TM / BM(NEW DP 적용모델) / / 내수수출 R,F / 고급형 SIDE MOUNT TABLE	
Spec	수출 2 BUTTON 141.8*43.5	
Part code	R511A-540	R511A-020
Image		

4-19. POWER CORD

MODEL	LRT-771E,LFT-771E,LRT-1471E,LFT-1471E	
Spec	250V 10A	
Part code	(DY)	R7363-260
Image		

4-20. EVAPORATOR THERMAL FUSE (BIMETAL)

MODEL	LFT-771E	LFT-1471E
Spec	MAX 72±5℃	
Part code	(DY)	R7253-052
Image		



4-21. TEMP-THERMISTOR, REF/FRE

MODEL	ALL	
Spec	AT25°C, 10.75KΩ±1%, -25~25	
Part code	(DY)	R7213-412
Image		

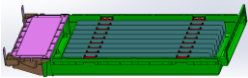
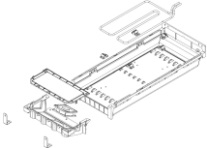
4-22. DEFROST SENSOR (D/-SENSOR, Evap-SENSOR)

MODEL	ALL	
Spec	AT25°C, 10.75KΩ±1%, -25~25	
Part code	(DY)	R7213-422
Image		


4-23. HARNESS SWITCH

MODEL	LRT-771E,LFT-771E	LRT-1471E,LFT-1471E	
Spec	UL, AWG 18		
Part code	(DY)	R7523-261	R7523-270
Image			


4-24. VAPORI AS

MODEL	LRT-771E, LFT-771E, LFT-1471E	LRT-1471E	
Spec	ABS		
Part code	(DY)	R8522-010	R858A-340
Image			


4-25. CASE VAPORI

MODEL	ALL	
Spec	ABS, 602.5*275*106.5	
Part code	(DY)	R3422-012
Image		


4-26. ASSY MOTOR DC VAPORI

MODEL	ALL	
Spec	DC 12V, 3000RPM, DA08025B12MF	
Part code	(DY)	R831A-030
Image		



4-27. HEATER VAPORI

MODEL	LRT-1471E	
Spec	220V 50W 968Ω SHEATH HEATER	
Part code	(DY)	R720A-080
Image		


4-28. WICKING DRAIN WATER

MODEL	LRT-771E, LFT-771E, LFT-1471E	
Spec	PP.T2.5*480*63.5	
Part code	(DY)	R1154-090
Image		


4-29. HEATER DRAIN PAN

MODEL		LFT-771E	LFT-1471E
Spec		220V 90W	220V 140W
Part code	(DY)	R720A-100	R720A-120
Image			


4-30. SENSOR BRACKET

MODEL		ALL
Spec		PP. WHT
Part code	(DY)	R3314-192
Image		


4-31. CASTER

MODEL		LRT-771E,LFT-771E	LRT-1471E,LFT-1471E
Spec		SPCC 4"	
Part code	(DY)	R3323-240, R3323-230	
Q'ty		2/2	2/2
Image			

4-32. DOOR SWITCH

MODEL	LRT-771E,LFT-771E	LRT-1471E,LFT-1471E
Spec	SP201-7D 125VAC1.5A	
Part code	(DY)	R7203-010
Q'ty	1	2
Image		



4-33. DOOR LOCK

MODEL	LRT-771E,LFT-771E	LRT-1471E,LFT-1471E
Spec	ZDC, ZCR	
Part code	(DY)	R3734-030
Q'ty	1	2
Image		

4-34. POWER SWITCH

MODEL	ALL	
Spec	SL112A. 125V 15A	
Part code	(DY)	R7204-070
Image		


4-35. ASSY SHELF CLIP

MODEL		LRT-771E,LFT-771E	LRT-1471E,LFT-1471E
Spec		14 SET	26 SET
Part code	(DY)	R8429-022	R8429-012
Image			

4-36. DOOR GASKET

MODEL		ALL
Spec		RD-PVC.BLK, 1517*615
Part code	(DY)	R338A-010
Image		



4-37. STOPPER HINGE/STOPPER DOOR

MODEL		ALL			
Spec		POM(FW700S)		POM(FW700S)	
Part code	(DY)	R375A-010 RH	R375A-021 LF	R375A-032RH	R375A-042LF
Image					


4-38. ASSY HINGE TOP

MODEL		ALL	
Spec		STS304 T=4.0	
Part code	(DY)	R828A-065 RH	R828A-055 LF
Image			






4-39. ASSY HINGE BOTTOM

MODEL		ALL	LRT-1471E,LFT-1471E
Spec		STS304 T=4.0	
Part code	(DY)	R828A-022 RH	R828A-032 LF
Image			


4-40. PIN TENSION

MODEL		ALL	
Spec		SUM24L, $\Phi 5 \times 22$	
Part code	(DY)	R412A-021	
Image			

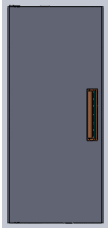

4-41. SHAFT TOP HINGE AS/SPRING DOOR

MODEL		ALL		
Spec		SUM24L, $\Phi 15 \times L114$	PW-C, $\Phi 2.3$	PW-C, $\Phi 2.3$, PINK
Part code	(DY)	R858A-410	R374A-022 RH	R374A-012 LF
Image			 	 


4-42. ASSY CROSS BAR

MODEL		LRT-1471E, LFT-1471E
Spec		220V
Part code	(DY)	R816A-300
Image		

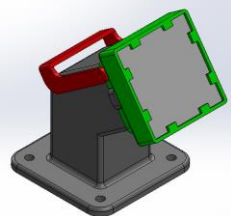
4-43. DOOR ASSY

MODEL		LRT-1471E, LFT-1471E	ALL
Spec		LF	RH
Part code	(DY)	R817A-040	R817A-050
Image			

4-44. BODY DOOR SPRING

MODEL		ALL
Spec		ZNDC2, 97*70*26
Part code	(DY)	R313A-011
Image		

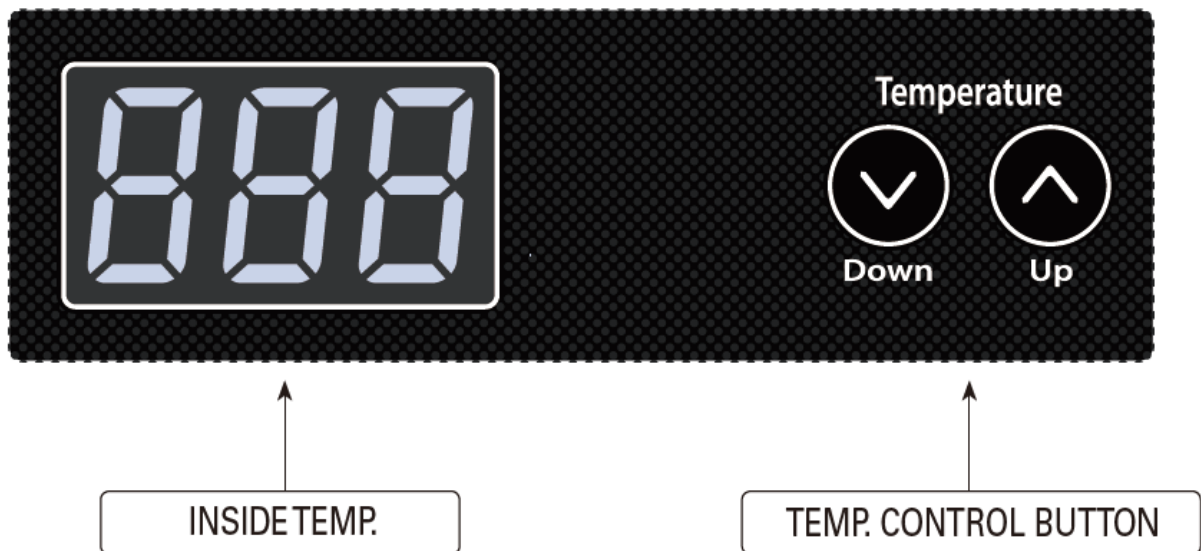
4-45. CHECK VALVE AS

MODEL		LRT-771E,LFT-771E, LRT-1471E	LFT-1471E
Spec		ABS + FILTER	
Part code	(DY)	R8173-130	
Q'ty		1	2
Image			

5. ELECTRONIC CONTROL INSTRUCTIONS

5-1. FREEZER CONTROL

5-1-1. HOW TO USE THE DISPLAY PCB PANEL



1. UP / DOWN BUTTON (Temperature control button)

- By pushing the up/down button, you can set the cabinet temperature.

2. DEFROST

- The electronic defrost controller is set at the factory to provide a defrost cycle every 8 hours.
- Once all frost is eliminated, the defrost control is changed to the freezer mode.
- The panel displays " dF" during the defrost.

3. DOOR OPENING INDICATOR

- If the door is left open for 3 minutes, the alarm will sound continuously.
- The alarm will stop immediately upon closing the door.

5. ELECTRONIC CONTROL INSTRUCTIONS

5-1-2. FUNCTION TABLE & MANUAL DEFROST

NO	Function	Content	Display
1	Power On	<ol style="list-style-type: none"> OFF for 2 sec Display current Temp. and BUZZ 1 time. Eva sensor Temp. over 41°F(5°C) : Operate under 41°F(5°C) : Operate after 5 min 	. First 2 sec Ver. °F : F8, °C : FC After 2 sec Present °C/°F
2	Front Key	<ol style="list-style-type: none"> Push ▲/▼ to change Temp. (Each time you push, 1 buzz sound.) The set-up is memorized in the EEPROM and remains even after Power Off. 	. Hit ▲/▼ 1 time - Display final set 2 times - Change set-up value
3	COMP	<ol style="list-style-type: none"> Operate by Temperature Value Operates on Comp ON/OFF Set Value If Temp. Value hits the OFF Temp. the Comp. does not operate for 5 min 	
4	FAN	<ol style="list-style-type: none"> Operate with Comp. If the door opens, the fan stops. 	
5	BOX HEATER	<ol style="list-style-type: none"> Temp Sensor over 78°F(26°C): Box Heater Relay On. Temp Sensor under 78°F(26°C). Box Heater Operates by each mode - 1. 1MODE : 10 min on/ 10 min off - 2. 2MODE : 15 min on/ 10 min off - 3. 3MODE : 20 min on/ 10 min off(Default) - 4. 4MODE : 25 min on/ 15 min off Push ▼ 5 sec to display Mode. Hit ▼ to change Mode First Cycle operates by 1 Mode 	72R
6	Lamp	<ol style="list-style-type: none"> Door Open - LED Lamp Off Door Close - LED Lamp On Maximum 2 Lamps can be Controlled. 	

7	Defrost	<ol style="list-style-type: none"> 1. If the defrost period passes defrost starts from pre-cool. 2. - 1. 5H : 5 Hr - 2. 6H : 6Hr - 3. 8H : 8 Hr(DEFAULT) 3. Push \triangle for 5 sec to display defrost period 4. Hit \triangle to get the Value desire 	
8	PRE-COOL	<ol style="list-style-type: none"> 1. Operate for 30 min, before defrost heater on 2. If Temp. goes under $-12^{\circ}\text{F}(-24.6^{\circ}\text{C})$ in 30 min defrost heater goes on mode 	. Displays Temp.
9	HEATER ON	<ol style="list-style-type: none"> 1. Operate after Pre-Cool 2. If the defrost sensor reaches 12°C defrost completes and heater goes Off 3. Heater on goes maximum 40 min 4. If fails, defrost Error Code will be saved. <p>If Temp. is over $23^{\circ}\text{F}(-5^{\circ}\text{C})$ after precool, or the sensor malfunctioned, heater will go atleast 20 min and at $28^{\circ}\text{F}(-2^{\circ}\text{C})$ it will go Off</p>	. dF
10	Resting Period	<ol style="list-style-type: none"> 1. After heater is Off there is a 5 min resting period. 	. dF
11	Forced Defrost	<ol style="list-style-type: none"> 1. Push \triangle & \blacktriangledown for 3 Sec at the same time. 2. Push \triangle & \blacktriangledown for 3 Sec at the same time during Defrost for cancel 	
12	Self Check	<ol style="list-style-type: none"> 1. Push \blacktriangledown & hit \triangle 3 times 2. Error Display D1 : D-Sensor Error F3 : Defrost Error C1 : Cycle Error 3. Return if nothing has done for 15 sec 	
13	Door Open and Alarm	<ol style="list-style-type: none"> 1. Door Open LED will blink until closer every 0.5 sec. 2. When Door is open over 3 min, Buzzer will chirp every 0.5 sec until closer. 	

14	D-Sensor Check	<p>1. Sensor Temp. Check & Set-up</p> <p>1) Push \triangle & hit \blacktriangledown 3 times.</p> <p>2) 1. dS : Displays D-Sensor \rightarrow hit \blacktriangledown</p> <p>2. D-Sensor Temp \rightarrow hit \blacktriangledown</p> <p>3. rS : Displays R-S \rightarrow hit \blacktriangledown</p> <p>4. R-Sensor Temp \rightarrow hit \blacktriangledown</p> <p>5. Return(return to last status. Displays current Temp or dF(Defrost)</p> <p>- After access return after the last procedure</p> <p>- Return after 20 min auto(D-Sensor display)</p>	<p>. dS</p> <p>. 888(D-Sensor)</p> <p>. rS</p> <p>. 888(R-Sensor)</p>
15	Condenser Alarm	<p>1. Alarms for an hour if set-up period is passed..</p> <p>2. 1) Push \triangle & hit \blacktriangledown 3 times</p> <p>2) dS : Displays D-Sensor \rightarrow hit \triangle</p> <p>- 0 : Disabled.</p> <p>- 3 : 3 months</p> <p>- 6 : 6 months(Default)</p> <p>- 9 : 9 months</p> <p>3) Hit \triangle to get the Value desire.</p> <p>4) . Alarms every 1 sec for an hour.</p> <p>5) Return</p> <p>- Power On after Off</p> <p>- Push \triangle & \blacktriangledown at the same time for 3 sec</p>	<p>."CL"</p>

5. ELECTRONIC CONTROL INSTRUCTIONS

5-1-3. ERROR CODE TABLE

Display	Condition	Temp. Display	Function
CO	R-Sensor OPEN	CO	- Comp ON : 18 MINUTES - Comp OFF: 6 MINUTES 28.4°F
CS	R-Sensor SHORT	CS	
D1	D-Sensor OPEN/SHORT	Room Temp Displayed	- If R-Sensor is above 28.4°F 20 min. after the Defrost started, terminate the Defrost.
F3	Poor Defrost (If D-Sensor lower than 53.6°F in 40 min. later)		- Terminate the Defrost 40 min. after its start.
C1	Poor Cycle (If D-Sensor is above 32°F in 30 min later.		- Normal Operation
	RT-Sensor OPEN/SHORT		- BOX HEATER 100% On (72R)

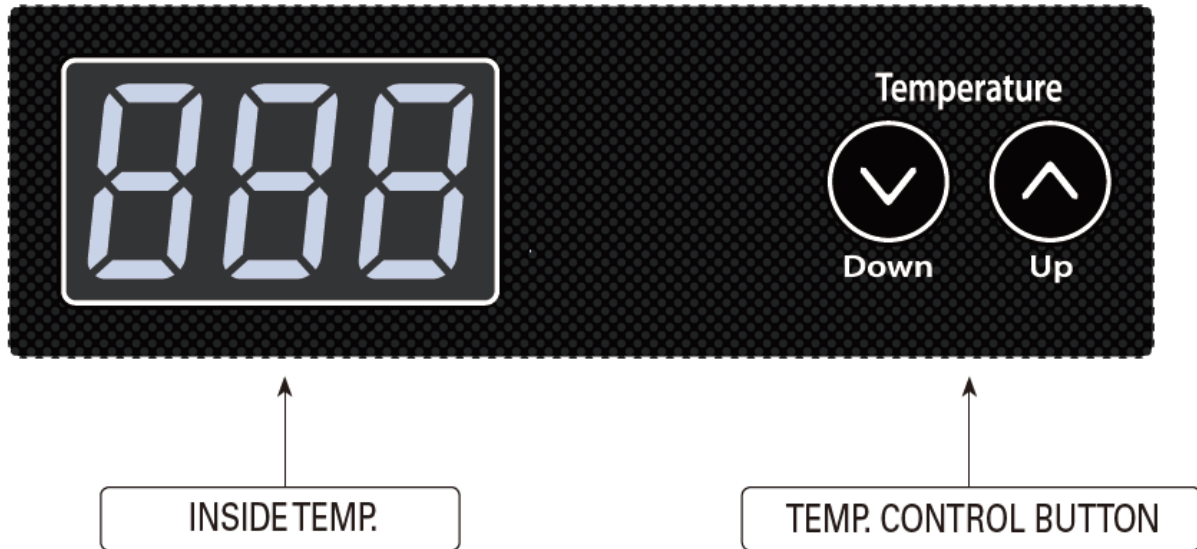
5-1-4. SENSOR DESCRIPTION

Sort	Name & Function	WAFER Color
D-sensor	. Defrost Sensor . HEATER ON/OFF CONTROL during Defrost.	WHITE
R-sensor	. Room Sensor . DISPLAY & COMP ON/OFF CONTROL	YELLOW
RT-sensor	. Room Temp Sensor . BOX HEATER Control for energy efficiency	BLUE

5. ELECTRONIC CONTROL INSTRUCTIONS

5-2. REFRIGERATOR CONTROL

5-2-1. HOW TO USE THE DISPLAY PCB PANEL



1. UP / DOWN BUTTON (Temperature control button)

- By pushing the up/down button, you can set the cabinet temperature.

2. DOOR OPENING INDICATOR

- If the door is left open for 5 minutes, the alarm will sound continuously.
- The alarm will stop immediately upon closing the door.

		Default	Temp. Range	Level
°C	REF.	2	-2~4	6
	FEZ.	-18	-23~-15	9
°F	REF.	35	28~39	12
	FEZ.	0	-9~5	15

a) How to set temperature

- △ Button : lower the temperature
- ▽ Button : Higher the temperature

b) Display

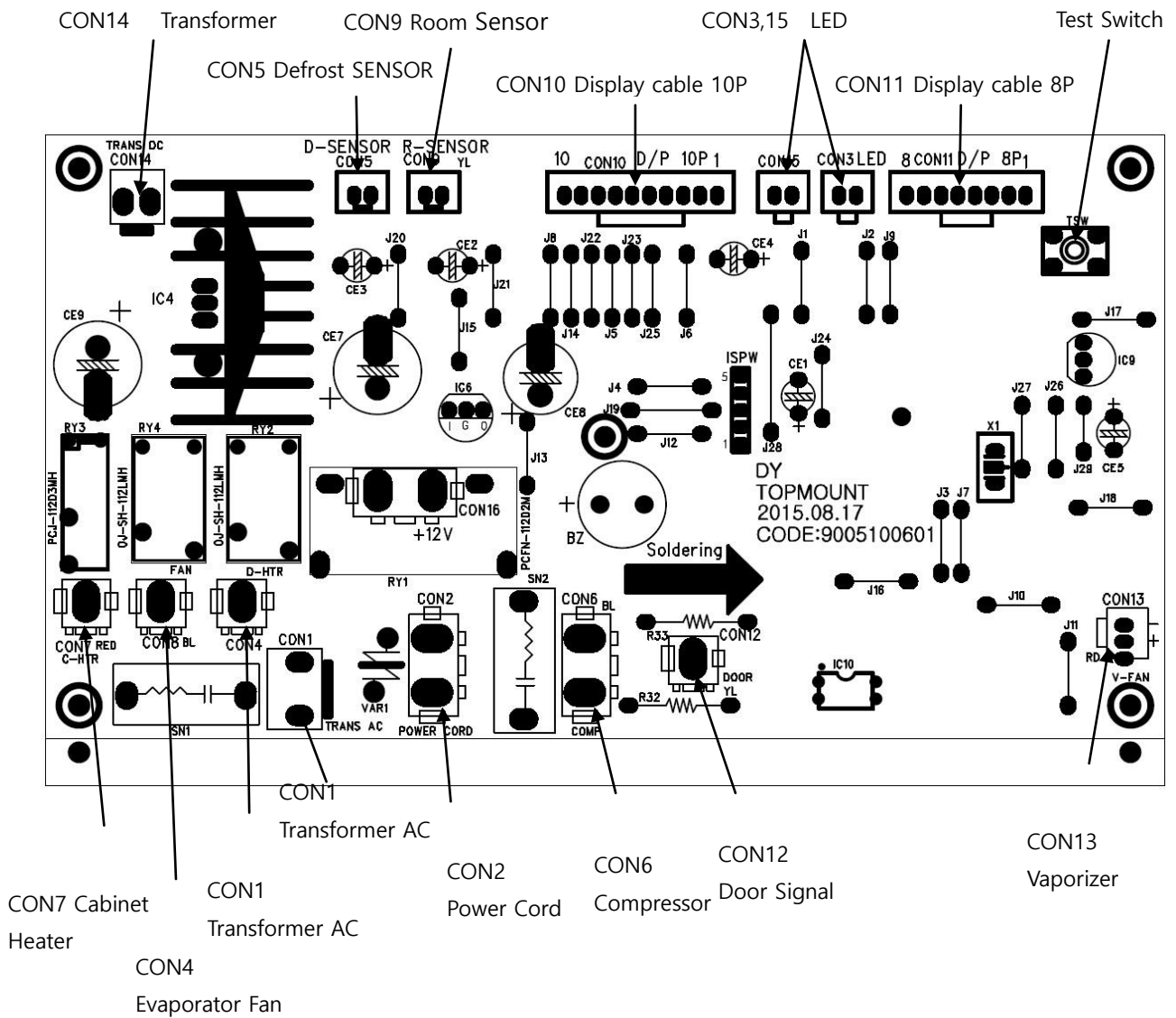
① 888 SEGMENT display

- Press the temperature setting button and the display will blink every 0.5 seconds showing the temperature setting.
- Press the ↑ ↓ button to set the temperature.
- After setting the temperature, the display will show the cabinet temperature after 5 seconds.

② Display information

- Normal operation : Cabinet temperature displayed
- Pre-cooling Cycle : the OFF temperature for Pre-cooling cycle displayed.
Ex) If the temperature is set on $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$, the OFF temperature will be displayed until $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$ and below will be displayed as $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$.
- Defrost Cycle : “dF” will be displayed; Defrost heater ON → rest time 5 min → FAN power off → cabinet FAN on; the “dF” will be displayed for 1 more minute after cabinet FAN is on.
*Refrigerating models will show the cabinet temperature.

• Control Board Layout



5. ELECTRONIC CONTROL INSTRUCTIONS

a) How to set temperature

- △ Button : lower the temperature
- ▽ Button : Higher the temperature

b) Display

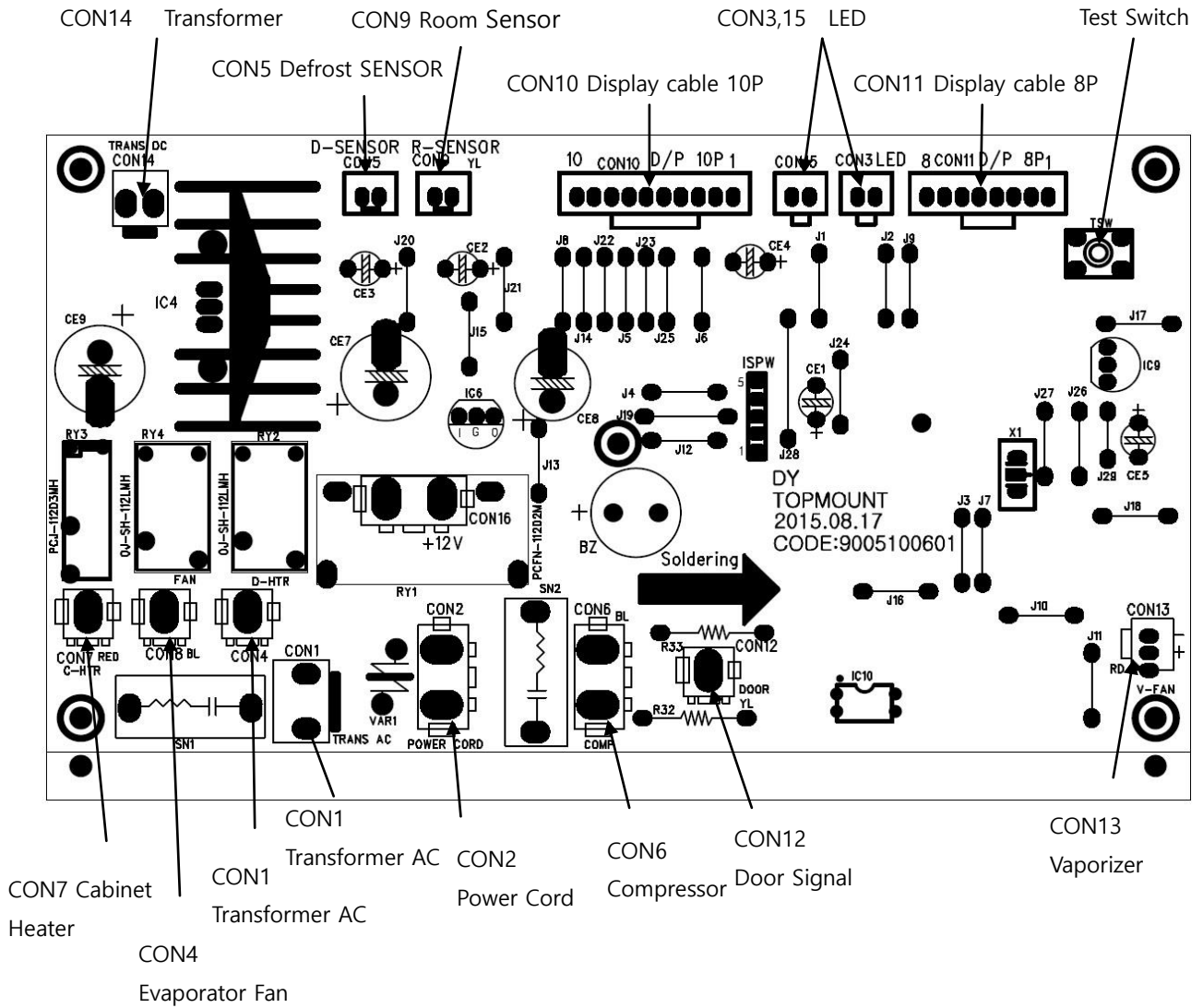
① 888 SEGMENT display

- Press the temperature setting button and the display will blink every 0.5 seconds showing the temperature setting.
- Press the ↑ ↓ button to set the temperature.
- After setting the temperature, the display will show the cabinet temperature after 5 seconds.

② Display information

- Normal operation : Cabinet temperature displayed
- Pre-cooling Cycle : the OFF temperature for Pre-cooling cycle displayed.
Ex) If the temperature is set on $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$, the OFF temperature will be displayed until $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$ and below will be displayed as $-0.4^{\circ}\text{F}(-18^{\circ}\text{C})$.
- Defrost Cycle : “dF” will be displayed; Defrost heater ON → rest time 5 min → FAN power off → cabinet FAN on; the “dF” will be displayed for 1 more minute after cabinet FAN is on.
*Refrigerating models will show the cabinet temperature.

• **Control Board Layout**



5. ELECTRONIC CONTROL INSTRUCTIONS

5-2-2. FUNCTION TABLE

NO	Function	Content
1	Power On	<ul style="list-style-type: none"> - OFF for 2 sec - First 2 sec Ver. °F : F8, °C : FC - After 2 sec Present °C/°F - Blinks Model name 5 times. - LED blinks 3 times. - Present °C/°F.
		<p>2. Defrost Check</p> <p><F Model > : LFT-23S, LFT-49D</p> <ul style="list-style-type: none"> - Defrost Sensor Operation <ul style="list-style-type: none"> 1) COMP On above 38°F(3.5°C) 2) Defrost On, under 38°F(3.5°C) ※ After 5min COMP delay pre-cool operate before defrost. <p><R Model > : LRT-23S, LRT-49D</p> <ul style="list-style-type: none"> - Room Sensor Operation. <ul style="list-style-type: none"> 1) COMP On above 41°F(5.0°C) 2) Defrost On, under 41°F(5.0°C)
2	Normal Operation	<ul style="list-style-type: none"> - COMP 5min delay (COMP OFF for 5 min) - COMP ON/OFF by Room Sensor Temp.
3	FRE. Defrost Period	<ul style="list-style-type: none"> - Defrost Period can be set to 5/6/7/8/9/10Hr - Default 8hr
4	REF Defrost Period	<ul style="list-style-type: none"> - Defrost every 5 Hr.
5	Defrost System -FRE. Defrost System 1. PRE-COOL	<ul style="list-style-type: none"> - To Lower Room Temp. before HEATER ON - When Defrost Period, PRE-COOL on before HEATER ON - HEATER ON if Temp. is under 17°F(-8°C) in 45min - Maximum PRE-COOL time is 45min
	2. HEATER ON	<ul style="list-style-type: none"> - If the defrost sensor reaches 51°F/11°C defrost completes and heater goes Off - Heater on goes maximum 50 min. - When Defrost SENSOR ERROR, HEATER is on for 20min. HEATER OFF when Temp. is 28°F(-2°C) - When Defrost Sensor / Room Sensor error HEATER is on for 20min - If HEATER ON goes maximum 50min and does not reach the Defrost Return Temp. ERROR CODE will be saved. ※ This ERROR Occurs Pre-COOL disable

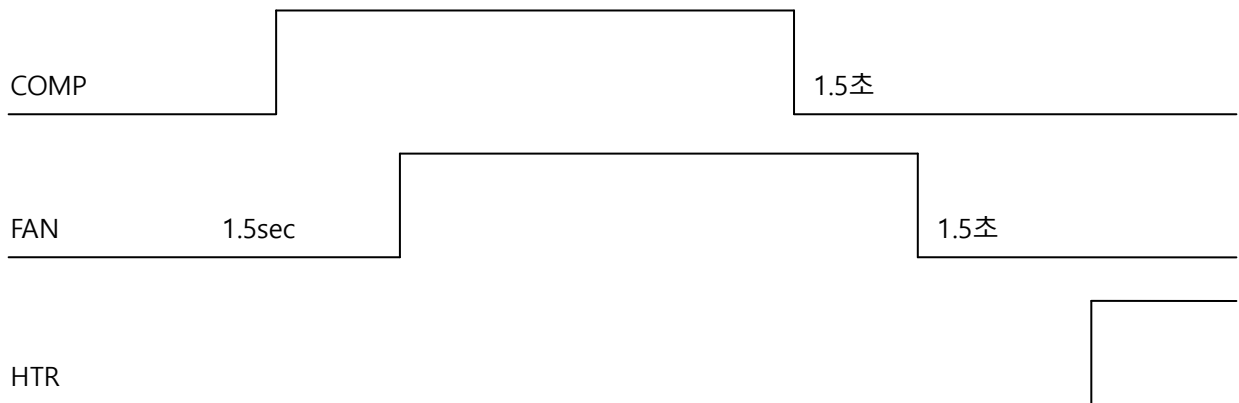
5	3. Resting Period	<ul style="list-style-type: none"> - After heater is Off there is a 5 min resting period. - HEATER, FAN, COMP ALL OFF.
	4. FAN Off	<ul style="list-style-type: none"> - After Resting Period FAN is off for Maximum 5min. - Only COMP Operates for the EVA - If Temp. is under 14°F(-10°C) before 5 min, FAN will go off and activate normal operation.
6	REF. Defrost System	<ul style="list-style-type: none"> - Operate FAN for Defrost. - If Air Sensor ERROR, Defrost for 30 min and return. - After 30min Defrost, Air Sensor displays return Temp. - When Temp. reaches the return temp. normal operation. ※When Set-up Temp. is under 30°F(-1°C), Return Temp. is 37°F(+3°C) When Set-up Temp. is above 32°F(0°C) Return Temp. is 41°F(5°C).
7	HTR Control (BOX HTR)	<ul style="list-style-type: none"> - When COMP ON POINT Temp. is higher than RT Temp. HTR goes OFF. - When RT Temp. is above 78°F(26°C) HTR is On. - When RT Temp. is between 78°F(26°C)~Comp On Temp. HTR is 10min ON 10min OFF - When RT Temp is below Comp On Temp. HTR goes OFF.
8	REF. Frost Prevent System	<ul style="list-style-type: none"> - COMP OFF → EVA FAN OFF. - To prevent REF. EVA Frost, If Room Temp. is under 32°F(0°C) FAN activates.
9	Door Open and Alarm	<ol style="list-style-type: none"> 1. Door Open LED will blink until closer every 0.5 sec. 2. When Door is open over 3 min, Buzzer will chirp every 0.5 sec until closer.
10	FAN	<ol style="list-style-type: none"> 1. Operate with Comp. 2. If the door opens, the fan stops.
11	Lamp	<ol style="list-style-type: none"> 1. Door Open - LED Lamp Off Door Close - LED Lamp On <ul style="list-style-type: none"> - Door Error : LED Lamp Off
12	Vapor Pan ERROR Display	<ul style="list-style-type: none"> - Vapor fan ERROR : beeping sounds with SEGMENT blinks Temp.(3sec) -uFn(0.5sec) repeat. - Beeping sounds goes for 5min. - Vapor Pan ERROR can be disabled or enabled by OPTION.
13	Condenser Alarm	<ul style="list-style-type: none"> - Alarms for an hour if set-up period is passed.. - Alarms goes on with SEGMENT "CL". - Alarms every 1 sec for an hour. - Return : Power On after Off, Push △ & ▼ at the same time for 3 sec

a) COMP Operation

- 1) COMP 5 min OFF (COMP disabled for 5 min)
- 2) Operate by Temperature Value.
- 3) If Temp. Value hits the OFF Temp. the Comp. does not operate for 5 min.

b) AC Load Control

- 1) Each Part does not operate together, each operate by a 1.5 sec term.



Push $\Delta/\blacktriangledown$ KEY. for 3 sec to enter control mode

888 SEGMENT

S	E	L
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NO	MODE	SW 4(Δ)	Display	Content
1	Forced Defrost	1 times	ds	Display after 2 sec (888 SEGMENT & LED OFF.)
2	Mode Control	2 times	OF	
3	Each part TEST	3 times	St	
4	Error Check	4 times	no	
5	Ver. Change	5 times	23F	
6	$^{\circ}\text{C}/^{\circ}\text{F}$ Change	6 times	F	
7	Cabinet Heater	7 times	Ht	
8	LED check & E ² PROM clear	8 times	LED blinks	

a) Forced Defrost

- 1) Display : 888SEGMENT - “ds”

- 2) Content : ① Press SW3(▽) during 1) to Force Defrost.
 ② 888 SEGMENT – "dF"

b) Mode Control

1) Display : 888 SEGMENT.

0	F
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 After 1 sec

0	0
---	---

2) Content : Press SW(△) to change mode – OFF Temp.→ DIF Change →
 Adjust Temp.gap → Defrost Time Change.

- ① 0F 1 sec 00 : 23°F(-5.0)~41°F(+5.0) – 32°F(0.5°C) change
 (32°F(0.5°C)→32(5) Display)
- ② 0d 1 sec 20 : 32(0.25) → 32(0.5) → 33(0.75) → 33(1.0) → 34(1.5) →
 35(2.0) → 37(3.0) → 39(4.0) → 41(5.0)
- ③ CA 1 sec 00 : 23°F(-5.0)~41°F(+5.0) – 33°F(1°C) change
 (Room Temp. gap adjustment)
- ④ dt 1 sec 6 : FRE. Defrost Time (0, 5 ~ 10 Hr) – 1Hr Change
 (0 : Disable)
 REF. Defrost Time (0, 5~10 Hr) – 1Hr Change

- SW(▽) button for adjustment.
- Auto-save for change in the set-up.
- 15sec auto return.

c) Each part TEST

- 1) Display : 888SEGMENT – “St”
- 2) Content : Press SW4(△) 0~3 Mode Change.
- 3) Each part TEST Cancel : 15sec auto return

단계	Function	Time	DISPLAY	Status of Unit			
0	All OFF	10sec auto return	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">S</td><td style="width: 20px; height: 20px; text-align: center;">t</td></tr></table>		S	t	
	S	t					
1	COMP ON FAN ON	∞	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px; text-align: center;">C</td><td style="width: 20px; height: 20px; text-align: center;">P</td></tr></table>		C	P	
	C	P					
2	COMP OFF FAN OFF Defrost HTR ON	∞	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px; text-align: center;">d</td><td style="width: 20px; height: 20px; text-align: center;">H</td><td style="width: 20px; height: 20px; text-align: center;">t</td></tr></table>	d	H	t	R Model does not have function
d	H	t					
3	COMP OFF FAN OFF Defrost HTR OFF Cord HTR ON	∞	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px; text-align: center;">C</td><td style="width: 20px; height: 20px; text-align: center;">H</td><td style="width: 20px; height: 20px; text-align: center;">t</td></tr></table>	C	H	t	
C	H	t					

d) Error Check

- 1) Display
 - No Error

	n	O
--	---	---

- Error

S	1	-
---	---	---

: S1-SENSOR SHORTAGE

- Press SW(△) to check the errors
- Specific errors are below.

e) Ver. Change

- 1) Press SW(▽) – "rEF" → "FrE"
 - 2) 15sec auto save.
- ※ Re-enter the power plug to confirm change.
(Ver. Change initializes set-up.)

f) °C/°F Change

- 1) Press SW(▽) - F → C
- 2) 15sec auto save.

g) Cord H/T Change

① Press SW(▽)

- "00" → "02" → "04" → ~ "30" → "40" → "100" → "00"

Display	On	Off	Display	On	Off
"00"	Cord H/T Off		"15"	15min	10min
"02"	2min	10min	"20"	20min	10min
"04"	4min	10min	"25"	25min	10min
"06"	6min	10min	"30"	30min	10min
"08"	8min	10min	"40"	40min	10min
"10"	10min	10min	"100"	Cord H/T on ∞	

- Default "10"

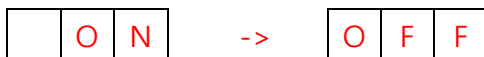
② 5sec auto save.

h) LED check & E² PROM clear

- 1) LED blinks 5 times & returns.
- 2) E²PROM Clear & reset.
(set-up °C/°F is remembered.)

i) Vapor Pan ERROR

- ① Hold ▼ & hit △ 5 times to display Vapor Pan enable or disable mode.
- ② Press ▼



③ 15sec auto save

j) Temp. Check Mode.

1) Content

Hold △ & hit ▼ 3 times to enter Mode.

- ① SEGMENT : display value
- ② Operation : Normal Operation

2) Adjustment

① Press ▼

- Display DS → D-SENSOR Temp. → RS → R-SENSOR Temp. → Return
(REF. : D-Sensor OPEN : tO
D-Sensor SHORT : tS)

3) Return

- ① Press ▼ until Return.
- ② 20min return after "DS".

k) Condenser Alarm

1) Content

Hold \triangle & hit \blacktriangledown 3 times to enter Mode.

Press \triangle To Check period..

- ① SEGMENT : display value
- ② Operation : Normal Operation

2) Adjustment

- ① Press \triangle to adjust period.
 - 0 \rightarrow 3 \rightarrow 6 \rightarrow 9 \rightarrow 0 cycle.
 - 0 : Disable
 - 3 : 3 months
 - 6 : 6 months
 - 9 : 9 months

3) Return

- ① 15sec Return.

a) S1 – Sensor Error

- 1) S1 – Sensor SHORTAGE or Temp. is over 143°F(62°C)
SEGMENT – “ESH” & Blinks.
- 2) S1 – Sensor OPEN or Temp. is under –58°F(–50°C)
SEGMENT – “ESL” & Blinks.
- 3) ERROR Mode Operation.
 - REF. S1 – Sensor ERROR : 10min On/20min Off
 - FRE. S1 – Sensor ERROR : 10min On/6min Off
- 4) If ERROR is removed – Normal Operation.

※ Types of Sensors

No.	Sensor	Description
1	S1 - Sensor	Detected cabinet temperature.
2	D1 - Sensor	Detected Evaporator Coil temperature to defrost system.
3	Rt - Sensor	Detected ambient temperature.

2. Check Error

* Errors will be displayed, if there is no error Display "nO".

NO	Code	Error code			Error explanation	Status of Unit
		DISPLAY				
1	S1-SENSOR (Room Sensor)	S	1		Disconnected Sensor or Room temp is under-58°F	Operate Error mode
		S	1	-	Shortage of Sensor or Room temp is under 149°F	
2	Rt-SENSOR (Ambient sensor)	r	t		Disconnected Sensor	Normal Operation
		r	t	-	Shortage of Sensor	
3	D1-SENSOR (Defrost - Sensor)	D	1		Disconnected Sensor or Room temp is under-58°F	Normal Operation
		D	1	-	Shortage of Sensor or Room temp is under 149°F	
4	Fail to defrost	d	F	1	If perform the defrost over 50 min	Normal Operation
5	Fail of Cooling Cycle	C	F	1	After pass 30 min from start working , Defrost sensor reached 32°F	Normal Operation
6	Hi temp Frz	E	H	F	if cabinet temp is keeping 59°F for 8 hr	Normal Operation

7	Hi temp Ref	E H r	if cabinet temp is keeping 45°F for 8 hr	Normal Operation
8	E ² PROM Error	E E P	E ² PROM cannot Read & Write	Normal Operation
9	Open Door	E D r	if Door S/W is open for 1 Hr	Operate Error mode
10	Vapor Pan Error	u F n	Vapor Fan is not connected of error	Normal Operation

When a combined temperature/amperage value is above the limit specified by the compressor manufacturer, a protector will operate independently, turning off the compressor. The compressor will restart when this protector has reset.

Note :

1. Compressor protector resets automatically.
2. If condenser fan is operating and the compressor is off, it is most likely that the protector has operated.

V. Service Diagnosis

A. Diagnosis Chart

Problem	Possible Cause		Remedy
1. Compress will not start - no current draw.	1. Power Switch	1. "OFF" position.	1. Move to "ON" position.
		2. Loose connection.	2. Tighten.
		3. Failure.	3. Call electrician.
	2. Cord and Plug	1. Defective.	1. Replace.
	3. Ground Fault Circuit interrupter	1. Tripped.	1. Check and reset.
		2. Defective.	2. Replace.
	4. Voltage	1. Too low.	1. Call electrician.
		2. Too hige.	2. Call electrician.
	5. Wiring to Control Board	1. Loose connection.	1. Tighten.
		2. Faulty.	2. Check continuity and replace.
	6. Transformer	1. Open coil winding.	1. Check continuity and replace.
	7. Control Board	1. Defective.	1. Replace control board.
8. Compressor Overload	1. Defective.	1. Replace.	
9. Compressor	1. Open windings.	1. Check continuity and replace.	
10. Relay(Compressor)	1. Bad contacts.	1. Replace.	
	2. Open coil winding.	2. Check and replace.	
2. Compressor will not run - draws current and trips on overload.	1. Voltage	1. Too low.	1. Call electrician.
	2. Start Relay	1. Bad contacts.	1. Replace.
		2. Open coil winding.	2. Replace.
	3. Compressor	1. Locked rotor.	1. Replace.
4. Start Capacitor	1. Defective.	1. Check and replace.	
3. Compressor runs intermittently and trips on overload.	1. Voltage	1. Too low.	1. Call electrician.
		2. Too hige.	2. Call electrician.
	2. Refrigerant Line or Component	1. Plugged or restricted.	1. Clean and replace filter
	3. Condenser Fan Motor	1. Failed.	1. Replace.
	4. Refrigerant	1. Overcharged.	1. Evacuate and recharge
		2. Non-condensibile in system	2. Evacuate and recharge
5. Location of Unit	1. Restricted air flow to condenser.	1. Move unit or increase ventilation.	

4. Cabinet inside temperature too high; compressor will not start	1. Compressor Relay	1. Defective. (115V to relay coil.)	1. Check and replace.
	2. Circuit Board	1. Defective. (Compressor relay coil not energized at 115V.)	1. Replace.

Problem	Possible Cause		Remedy
5. Cabinet temperature too high.	1. Setpoint	1. Incorrect.	1. Correct setpoint. Factory defaults : Freezer -0.4°F(-18°C) Refrigerator 35°F(2°C)
	2. Door	1. Not sealing, or open for long intervals.	1. Check for sealing, check for door open at time of warm cabinet temperature.
	3. Defrost	1. Not enough defrosts occurring per day. Operation in humid conditions.	1. Freezer ; See "C. 1. 5 Defrost System." 2. Refrigerator : "C. 1. 6 Defrost System." 3. Check D-Sensor position.
	4. Refrigerant	1. Leak.	1. Repair leak and recharge
	5. Fan Motor	1. Defective.	1. Check and replace.
	6. Condenser	1. Dirty.	1. Clean.
	7. S1-Sensor	1. Defective.	1. Check and replace.
	8. Control Board	1. Defective.	1. Replace.
6. Cabinet temperature display indicator does not illuminate properly.	1. Board Connection	1. Bad connection between control board and display board.	1. Check connection.
	2. Display Board	1. Defective.	1. Replace.
	3. Control Board	1. Defective.	1. Replace.
7. Cabinet inside temperature too low.	1. Sensor	1. Defective.	1. Check and Replace.
	2. Compressor Relay	1. Defective; contacts welded.	1. Replace.
	3. Circuit Board	1. Defective.	1. Replace.
8. Evaporator does	1. D-Sensor	1. Defective.	1. Check and replace.

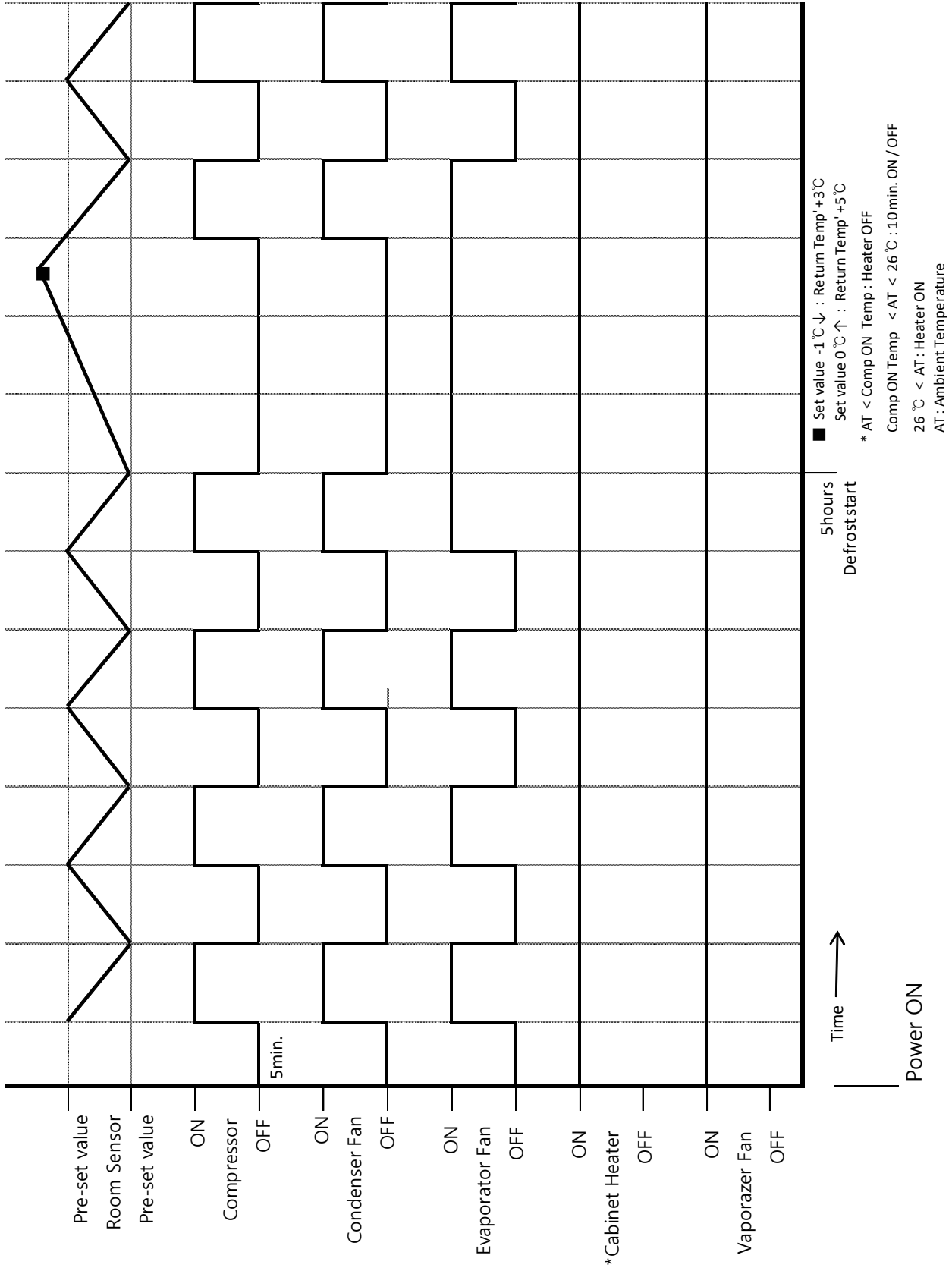
not defrost completely	2. Defrost	1. Not enough defrosts occurring per day. Operation in humid conditions.	1. Freezer ; See "C. 1. 5 Defrost System." 2. Refrigerator : "C. 1. 6 Defrost System." 3. Check D-Sensor position.
	3. Defrost Heaters	1. Defective.	1. Freezer : Replace heaters.
	4. Safety Defrost Thermostat	1. Defective, turning off heaters prematurely, or fused open.	1. Freezer : Replace safety deforst thermostat.

Problem	Possible Cause		Remedy
9. Defrost cycle lasts too long.	1. Defrost Sensor	1. Defective.	1. Replace.
	2. Control Board	1. Defective.	1. Replace.
	3. Defrost	1. Not enough defrosts occurring per day. Operation in humid conditions.	1. Freezer ; See "C. 1. 5 Defrost System." 2. Refrigerator : "C. 1. 6 Defrost System." 3. Check D-Sensor position.
	3. Defrost Heaters	1. Defective.	1. Freezer : Replace heaters.
	4. Safety Defrost Thermostat	1. Defective, turning off heaters prematurely, or fused open.	1. Freezer : Replace safety deforst thermostat.
11. Abnormal noise	1. Fasteners	1. Loose fasteners allow vibration of part.	1. Tighten fasteners.
	2. Compressor	1. Problem with mount.	1. Properly mount compressor. Replace any missing grommets.
		2. Floodback to compressor.	2. Check for signs of floodback to compre-

			ssor. Evacuate and recharge if necessary.
		3. Defective.	3. Replace.
	3. Fan	1. Fan blade loose.	1. Adjust and tighten.
		2. Defective motor.	2. Replace.
	4. Relay	1. Chattering.	1. Replace.

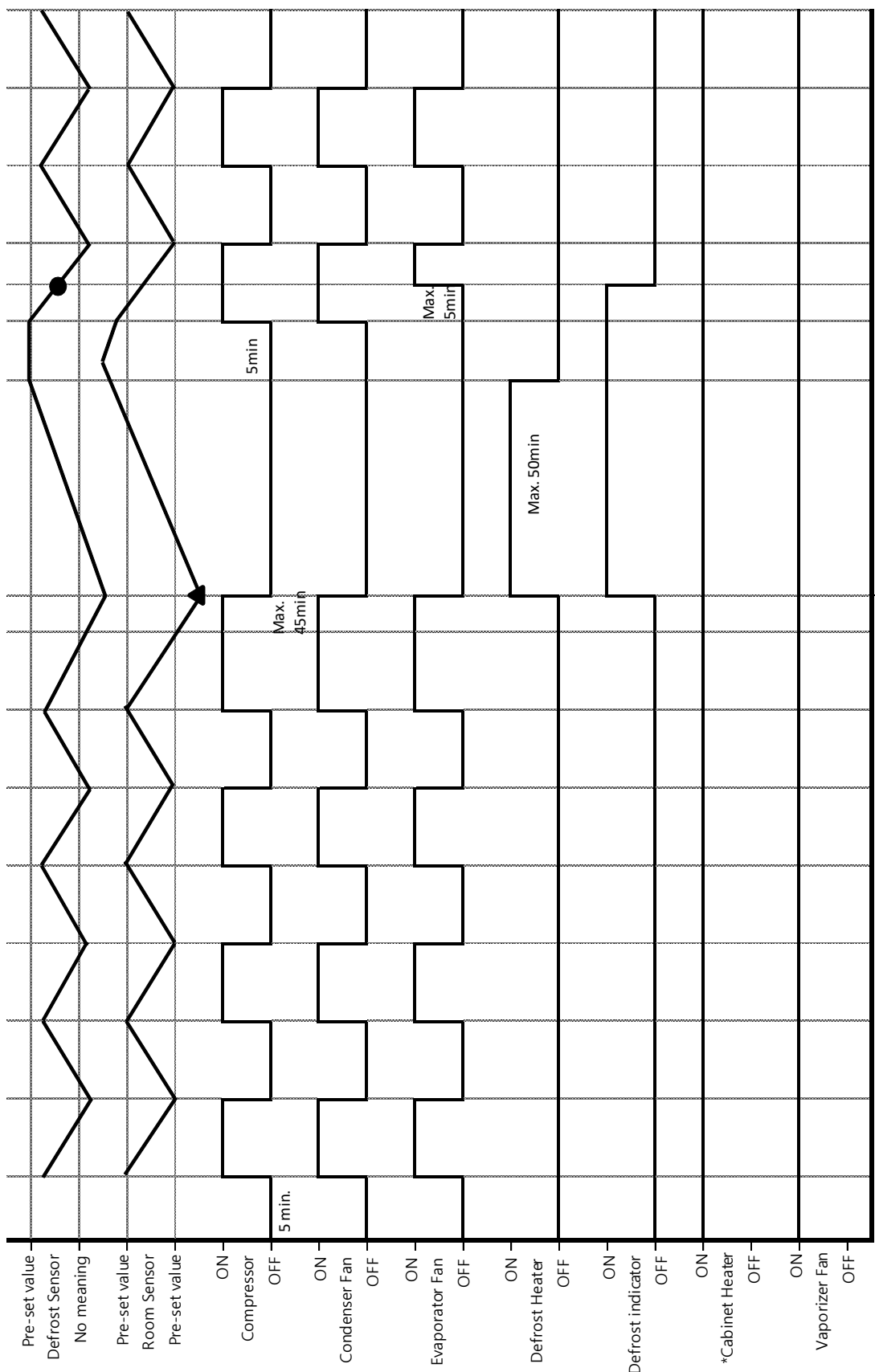
Thermistors (semiconductors) are used for the cabinet control sensor and defrost termination sensor. The resistance varies depending on temperature. No adjustment is required.

If necessary, check for resistance between thermistor leads and visually check the thermistor mounting.



Time →

Power ON



Time →

Power ON

*8 hours Defrost Start

- ▲ Set value minus 8°C
- Defrost sensor Temp -10°C
- * Default setting 8hours, adjustable

5. ELECTRONIC CONTROL INSTRUCTIONS

5-2-3. ERROR CODE

표시	감지 조건	온도 표시창	기능 동작
tO	R-Sensor OPEN	tO	- Comp ON : 6 MINUTES - Comp OFF: 11 MINUTES
ts	R-Sensor SHORT	ts	
	RT-Sensor OPEN/SHORT	고내 온도 표시	- BOX HEATER 100% 운전

6. PART-LIST

Code	Part name	Description	GN TYPE			
			R23T	F23T	R49T	F49T
COMPRESSOR						
R7439-170	COMPRESSOR	SK1A1Q-L2U	1		1	
R714A-030	COMPRESSOR	SC12CLX2		1		
R7439-530	COMPRESSOR	SC18CLX2				1
R7549-300	STARTING CAPACITOR	220V/125 μ F 220V/50Hz				1
R7549-140	RUNNING CAPACITOR	350VAC 15 μ F, 115V	1		1	
R719A-550	HARNESS MAIN AC-A T23R	115V NEW LED LAMP TYPE	1			
R719A-560	HARNESS MAIN AC-A T23F	115V NEW LED LAMP TYPE		1		
R719A-570	HARNESS MAIN AC-A T49R	115V NEW LED LAMP TYPE			1	
R719A-580	HARNESS MAIN AC-A T49F	115V LED TYPE HE1AN-Q-DC12V				1
R7363-260	POWER CORD	115V 15A	1	1	1	1
CONDENSER						
R2183-032	CONDENSER COIL	SWST ϕ 4.76*13190	1	1	1	
R2272-013	CONDENSER COIL	370*184, MSF-49NM				1
DRYER ASSY						
R2183-032	DRYER ASSY	R-134a, 36G	1	1	1	
R2183-200	DRYER ASSY	R-404A, 24G				1
CONDENSER FAN MOTOR						
R7423-063	CONDENSER FAN MOTOR	220V 50~60Hz.9W.CCW	1	1	1	1
R315A-050	BRACKET C-FAN MOTOR	GI, T2.0*185.6*194.8	1	1	1	1
R3723-070	CONDENSER FAN MOTOR BLADE	220V FAN MOTOR AL 9" CCW	1	1	1	1
VAPORI AS						
R3422-012	CASE VAPORI	ABS, 602.5*275*106.5	1	1	1	1
R3422-030	CASE DC MOTOR	ABS, 283*143.5*69.5	1	1	1	1
R831A-030	ASS'Y MOTOR DC VAPORI	DC 12V/DA08025B12MF	1	1	1	1
R720A-080	HEATER VAPORI	220V 50W 968 Ω SHEATH HEATER			1	
R1154-090	WICKING DRAIN WATER	PP, T2.5*480*63.5	8	8		8
R8522-010	VAPORI AS TM	ABS, 220V	1	1		
R858A-340	VAPORI AS TM	T49R LRT-1471E(220V)			1	
EVAPORATOR						

Code	Part name	Description	GN TYPE			
			R23T	F23T	R49T	F49T
R2263-074	ASSY EVAPORATOR	AL, W330*D246*H105 TM23R	1			
R2263-051	ASSY EVAPORATOR	CU+AL, T23F		1		
R2263-084	ASSY EVAPORATOR	AL, W506*D246*H105 TM49R			1	
R2263-062	ASSY EVAPORATOR	CU+AL, T49F				1
R7313-420	DEFROST HEATER	220V/445W . WHITE		1		
R7303-961	DEFROST HEATER	UL 220V 600W				1
R720A-100	HEATER DRAIN PAN	220V 90W		1		
R720A-120	HEATER DRAIN PAN	220V 140W				1
R3314-192	B/K SENSOR	P.P WHT	1	1	1	1
R7253-052	EVAPORATOR THERMAL FUSE	MAX 72±5℃		1		1
R7423-053	EVAPORATOR FAN MOTOR	220V 50~60Hz.9W.CCW	1	1	1	2
R3729-010	EVAP FAN BLADE	AL, 8 INCH. CCW	1	1	1	2
R3203-482	MOTOR FIX BRACKET	STS430-2B, T1.0*90*146	1	1	1	2
R3812-141	EVAPORATOR FAN MOTOR GUARD	HIPS (VH-1800EX). WHITE	1	1	1	2
R7213-412	SENSOR ROOM	AT25℃, 10.75KΩ±1%, -25~25	1	1	1	1
R7213-422	D-SENSOR(EVAP-SENSOR)	AT25℃, 10.75KΩ±1%, -25~25	1	1	1	1
R325A-141	COVER LAMP	PC, MILKI WHITE	1	1	1	1
R313A-050	BODY LAMP	HIPS 60HRI 112*20.7*21	1	1	1	1
R723A-040	LAMP LED ASSY	FR1 DC 12V LED LAMP 4P	1	1	1	1
R813A-230	ASSY EVA COVER	TM 23R LED LAMP	1			
R813A-100	ASSY EVA COVER	TM 23F LED LAMP		1		
R813A-320	ASSY EVA COVER	TM 49R LED LAMP			1	
R813A-280	ASSY EVA COVER	TM 49F LED LAMP 115V				1
GRILLE TOP						
R818B-060	ASSY GRILL TOP_TM23	TM 23. 220V/50,60Hz	1	1		
R818B-070	ASSY GRILL TOP_TM49	TM 49. 220V/50,60Hz			1	1
R5133-160	MASCOT	AAL. LASSELE 157.7*40	1	1	1	1
R725A-413	MAIN PCB	FR1 220V, ℃, TMR220C-05	1		1	
R725B-050	MAIN PCB	FR1 220V, ℃, TMF220C-05		1		
R725A-423	MAIN PCB	FR1 TM 220V ℃ 냉동 TMF220 C-05				1
R321A-920	CASE CONTROL PANEL	ABS GRAY 380G / 166.5*60.5	1	1	1	1

Code	Part name	Description	GN TYPE			
			R23T	F23T	R49T	F49T
R725C-220	PCB PANEL	144*39 WHITE	1	1	1	1
R511A-540	INLAY CONTROL	수출 2 BUTTON 141.8*43.5	1	1	1	1
C3379-240	SPACER SUPPORTS	S/S-9N(T)	4	4	4	4
R7204-070	POWER SWITCH	SL112A, 125V 15A	1	1	1	1
R748A-020	POWER RELAY	PANASONIC HE1AN Q-DC12V 30A				1
R7203-010	SWITCH PUSH	SP201-7D 125VAC1.5A	1	1	2	2
R7523-261	HARNESS SWITCH, T23	UL AWG18, T23	1	1		
R7523-270	HARNESS SWITCH, T49	UL AWG18, T49			1	1
R3734-030	DOOR LOCKING ASSY	ZDC, ZCR	1	1	2	2
DUCT						
R364A-010	RAIL GASTRONORM	STS443CT	6	6	12	12
R332A-170	DUCT TOP A T23	STS443CT	1	1		
R332A-110	DUCT A LF T23	STS443CT	1	1		
R332A-120	DUCT A RH T23	STS443CT	1	1		
R332A-200	DUCT MAIN	STS443CT	1	1		
R376A-030	SUPPOTER RAIL A LF	STS443CT	2	2		
R376A-040	SUPPOTER RAIL A RH	STS443CT	2	2		
R332A-070	DUCT TOP, A49F	STS443CT			1	1
R332A-130	DUCT TOP A LF T49	STS443CT			1	1
R332A-140	DUCT TOP A RH T49	STS443CT			1	1
R322A-080	DUCT TOP B49F	STS443CT			1	1
R332A-150	DUCT TOP B LF T49	STS443CT			1	1
R332A-160	DUCT TOP B RH T49	STS443CT			1	1
R376A-050	SUPPOTER RAIL B LF	STS443CT			6	6
R376A-060	SUPPOTER RAIL B RH	STS443CT			6	6
R376A-070	SUPPORTER RAIL C	STS443CT			1	1
R376A-080	SUPPORTER RAIL D	STS443CT			1	1
SHELF						
R371A-030	SHELF -GN 23,49	MSWR10, W545*D580	3	3	6	6
DOOR						
R817A-050	Ass'y Door RH TM	LFT-72T	1	1	1	1

Code	Part name	Description	GN TYPE			
			R23T	F23T	R49T	F49T
R817A-040	Ass'y Door LF TM	LFT-72T			1	1
R338A-010	GASKET DOOR TM	RD-PVC (LS100 LG) 1512*610	1	1	2	2
R816A-310	ASSY CROSS BAR	LFT-1471E			1	1
R828A-065	ASSY HINGE TOP RH	STS304, T=4.0	1	1	1	1
R828A-055	ASSY HINGE TOP LF	STS304, T=4.0			1	1
R858A-410	SHAFT TOP HINGE AS	SUM24L, Φ 15*123L	1	1	2	2
R412A-021	PIN TENSION	SUM24L, Φ 5*22	1	1	2	2
R828A-022	ASSY HINGE BOTTOM RH	STS304 T=4.0	1	1	1	1
R828A-032	ASSY HINGE BOTTOM LF	STS304 T=4.0			1	1
R375A-021	STOPPER HINGE LF	POM(FW700S) 45.5*31*8			1	1
R375A-010	STOPPER HINGE RH	POM(FW700S) 45.5*31*8	1	1	1	1
R375A-032	STOPPER DOOR RH	POM(FW700S)	1	1	1	1
R375A-042	STOPPER DOOR LF	POM(FW700S)			1	1
CASTOR BOX ASSY						
R3323-230	CASTOR MOVE	SPCC 4"	2	2	2	2
R3323-240	CASTOR STOP	SPCC 4"	2	2	2	2
R3074-030	SPANNER	3T, GI+ZN COATING	1	1	1	1
R397A-020	WASHER CASTER	GI T2*ID24*OD60	4	4	4	4