



Undercounter & Food Prep Tables Installation & Operation Manual

Commercial

Undercounter Service Manual

Please read this manual completely before attempting to install or operate this equipment!



IMPORTANT SAFETY INSTRUCTIONS (SAVE THESE INSTRUCTIONS)

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Service Contact

Manufacturer : DAEYEONG E&B

(BANWOL SMARTHUB 1-38)

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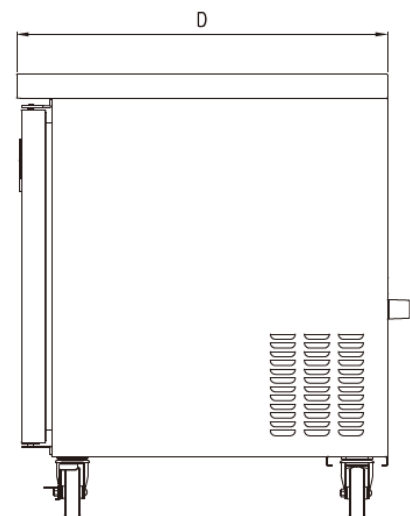
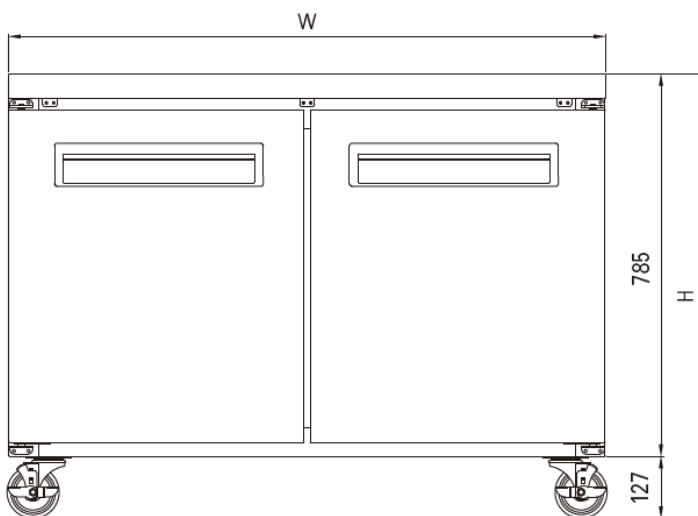
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Safety cautions during service

- ◆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.

Specifications

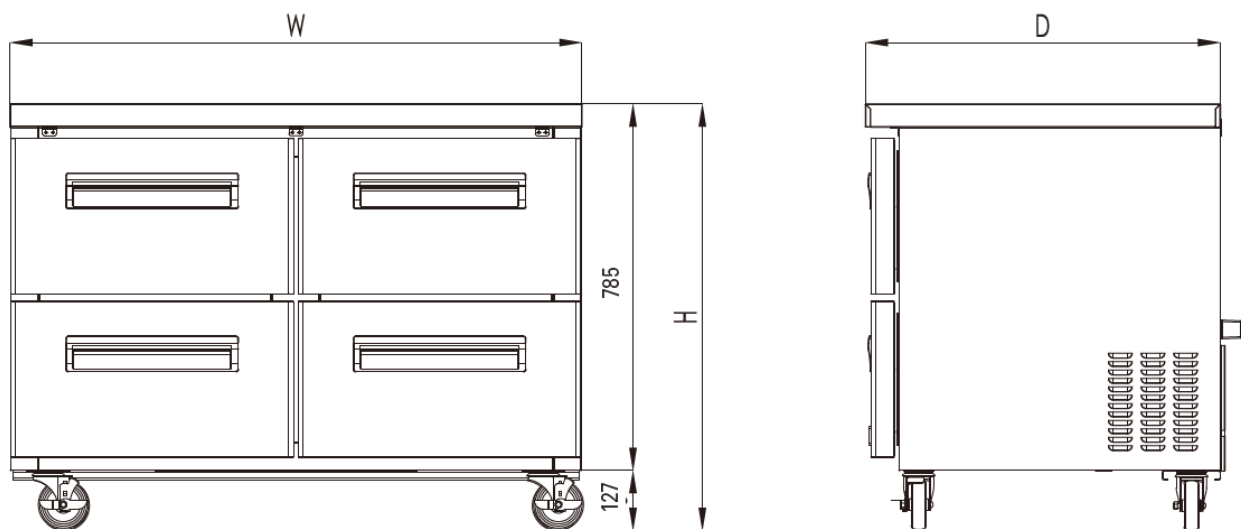
Product	Undercounter Refrigerator					
Model	LUCR27	LUCR36	LUCR48	LUCR60	LUCR72	
Capacity(Liter)	200	270	372	474	572	
Exterior Dimensions (Including 4" Casters) [mm]	W	700	923	1227	1533	1839
	D	762				
	H	912	912	912	912	912
Net Weight (kg)	61	74	87	103	120	
Type of refrigeration system	Indirect cooling (Fan blowing)					
Control	THERMOSTAT (PFA-240L)					
Shelves	2EA	4EA	4EA	4EA	6EA	
Number of Doors	1-DOOR	2-DOOR	2-DOOR	2-DOOR	3-DOOR	
Rated Voltage	220V/50Hz					
Amps	2.0	2.0	2.0	2.5	2.5	
Compressor	1/5 HP	1/5 HP	1/5 HP	1/3 HP	1/3 HP	
	MSA162H-L1A	MSA162H-L1A	MSA162H-L1A	NF21K5131FU	NF21K5131FU	
	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	
COND MOTOR / BLADE	220V 50Hz 9W CW / Φ 170					
Evap MOTOR / BLADE	220V/50Hz 3W CCW / Φ 110					
Capillary Tube	Φ 3.0* Φ 1.2*3800L					
Refrigerant (g) R-134a	110	130	140	150	150	
Range of Temperature	33°F ~ 41°F (0°C ~ 5°C)					
Climate Class	N					



- ◆ Specifications and Designs are subject to change without notice.
- ◆ The name plate (including Serial No.) is located on the upper left side of the cabinet interior.

Specifications

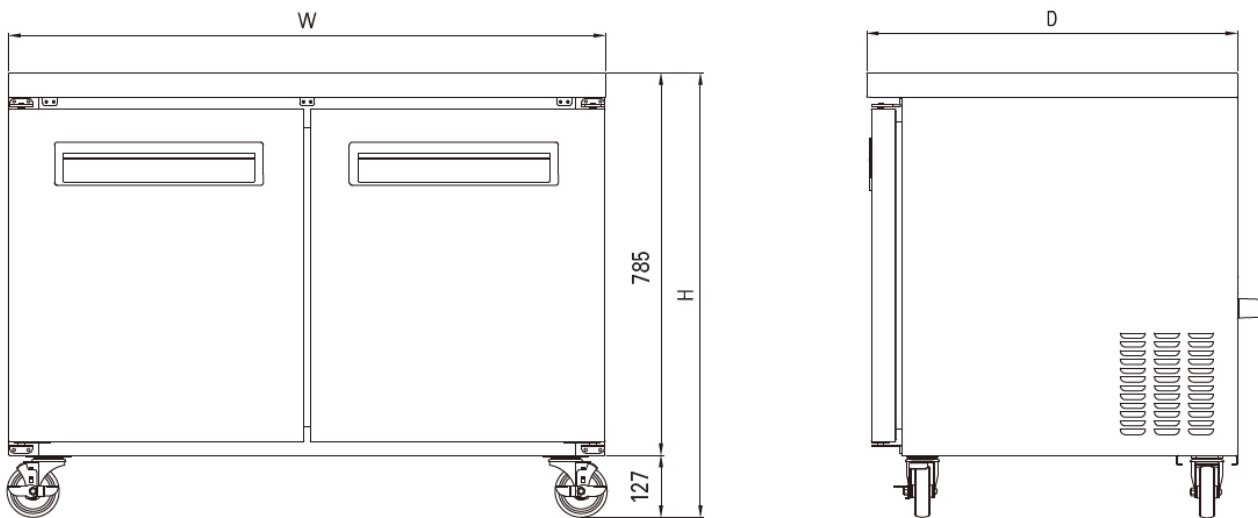
Product		Undercounter Drawer Refrigerator			
Model		LUCR27-D2	LUCR48-D4	LUCR60-D4	LUCR72-D6
Capacity(Liter)		200	372	474	572
Exterior Dimensions (Including 4" Casters) [mm]	W	700	1227	1533	1839
	D	762			
	H	912	912	912	912
Net Weight (kg)		66	107	126	150
Type of refrigeration system		Indirect cooling (Fan blowing)			
Control		THERMOSTAT (PFA-240L)			
Shelves		2EA	4EA	4EA	6EA
Number of Doors		1-DOOR	2-DOOR	2-DOOR	3-DOOR
Rated Voltage		220V/50Hz			
Amps		2.0	2.0	2.5	2.5
Compressor		1/5 HP	1/5 HP	1/3 HP	1/3 HP
		MSA162H-L1A	MSA162H-L1A	NF21K5131FU	NF21K5131FU
		SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG
COND MOTOR / BLADE		220V 50Hz 9W CW / Φ170			
Evap MOTOR / BLADE		220V/50Hz 3W CCW / Φ110			
Capillary Tube		Φ3.0*Φ1.2*3800L			
Refrigerant (g) R-134a		110	140	150	150
Range of Temperature		33°F ~ 41°F (0°C ~ 5°C)			
Climate Class		N			



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Specifications

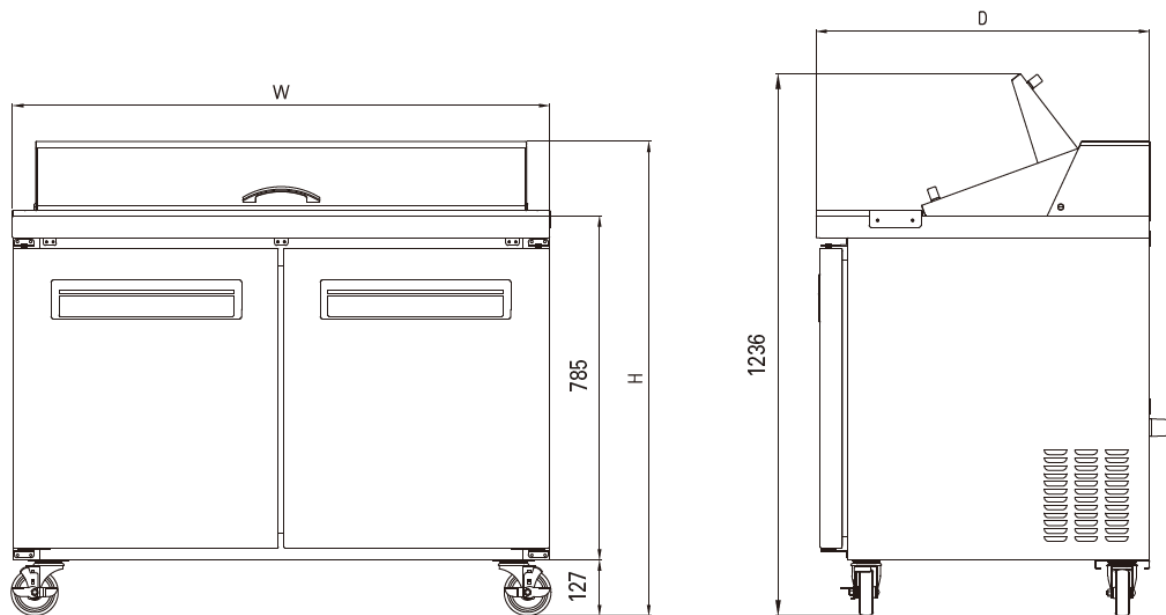
Product	Undercounter Freezer					
Model	LUCF27	LUCF36	LUCF48	LUCF60	LUCF72	
Capacity(Liter)	200	270	372	474	572	
Exterior Dimensions (Including 4" Casters) [mm]	W	700	923	1227	1533	1839
	D	762				
	H	912	912	912	912	912
Net Weight (kg)	64	78	91	108	124	
Type of refrigeration system	Indirect cooling (Fan blowing)					
Control	THERMOSTAT (PFA-240L-07)					
Shelves	2EA	4EA	4EA	4EA	6EA	
Number of Doors	1-DOOR	2-DOOR	2-DOOR	2-DOOR	3-DOOR	
Rated Voltage	220V/50Hz					
Amps	2.5	4.0	4.0	4.0	4.0	
Compressor	1/3 HP	1/2 HP	1/2 HP	1/2 HP	1/2 HP	
	NF21K5131FU	SC12CLX.2	SC12CLX.2	SC12CLX.2	SC12CLX.2	
	SAMSUNG	DANFOSS	DANFOSS	DANFOSS	DANFOSS	
COND MOTOR / BLADE	220V 50Hz 9W CW / Φ 170					
Evap MOTOR / BLADE	220V/50Hz 3W CCW / Φ 110					
Defrost HEATER	220V 300W	220V 300W	220V 500W	220V 500W	220V 740W	
Defrost Timer	TD-20CVD 12HR 2Min					
Power Relay	-	G7L-2A-TBB 100~120V 240V 25A (OMRON)				
Capillary Tube	Φ 3.0* Φ 1.0*3800L					
Refrigerant (g)	150/R-134a	150/R-404A	160/R-404A	350/R-404A	400/R-404A	
Range of Temperature	-10°F ~ -5°F (-23°C ~ -15°C)					
Climate Class	N					



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Specifications

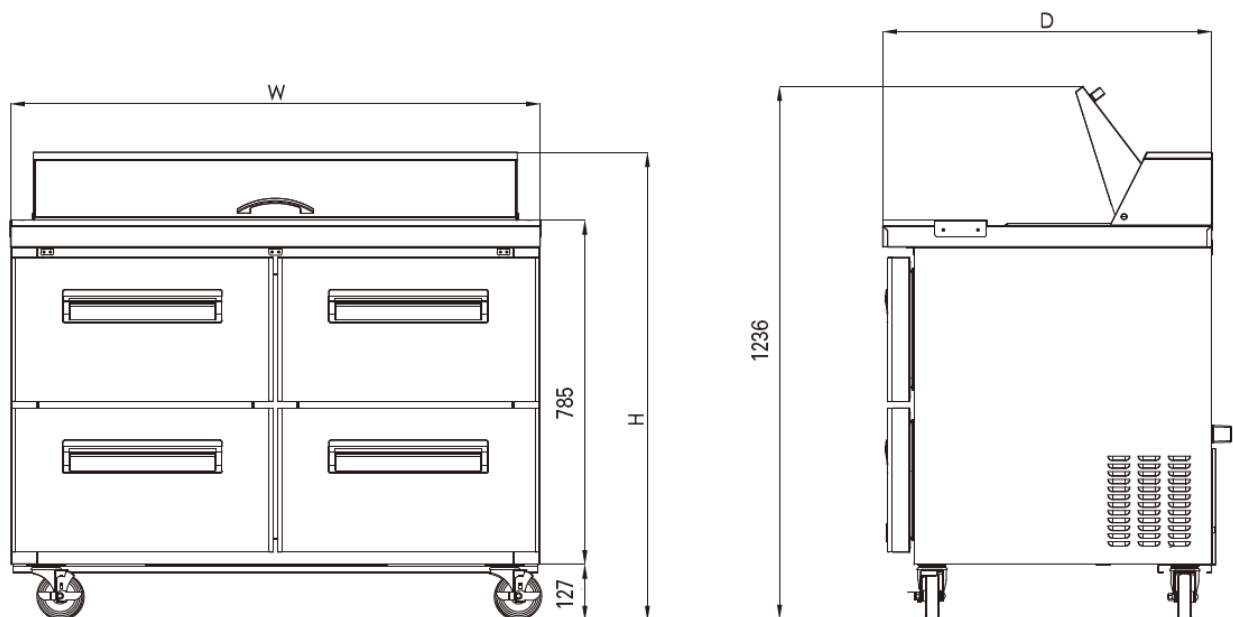
Product	Salad Table unit					
Model	LST27	LST36	LST48	LST60	LST72	
Capacity(Liter)	200	270	372	474	572	
Exterior Dimensions (Including 5" Casters) [mm]	W	700	923	1227	1533	1839
	D	762				
	H	1082				
Net Weight (kg)	67	82	100	112	129	
Type of refrigeration system	Indirect cooling (Fan blowing)					
Control	THERMOSTAT (PFA-240L)					
Shelves	1EA	2EA	2EA	2EA	3EA	
Max No of Pans	6(1/6") 2(1/9")	10(1/6")	12(1/6")	16(1/6")	20(1/6")	
Number of Doors	1-DOOR	2-DOOR	2-DOOR	2-DOOR	3-DOOR	
Rated Voltage	220V/50Hz					
Amps	2.0	2.0	2.5	2.5	2.5	
Compressor	1/5 HP	1/5 HP	1/3 HP	1/3 HP	1/3 HP	
	MSA162H-L1A	MSA162H-L1A	NF21K5131FU	NF21K5131FU	NF21K5131FU	
	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	
COND MOTOR / BLADE	220V 50Hz 9W CW / Φ 170					
Evap MOTOR / BLADE	220V/50Hz 3W CCW / Φ 110					
Capillary Tube	Φ 3.0* Φ 1.2*3800L					
Refrigerant (g) R-134a	120	140	150	160	180	
Range of Temperature	33°F ~ 41°F (0°C ~ 5°C)					
Climate Class	N					



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Specifications

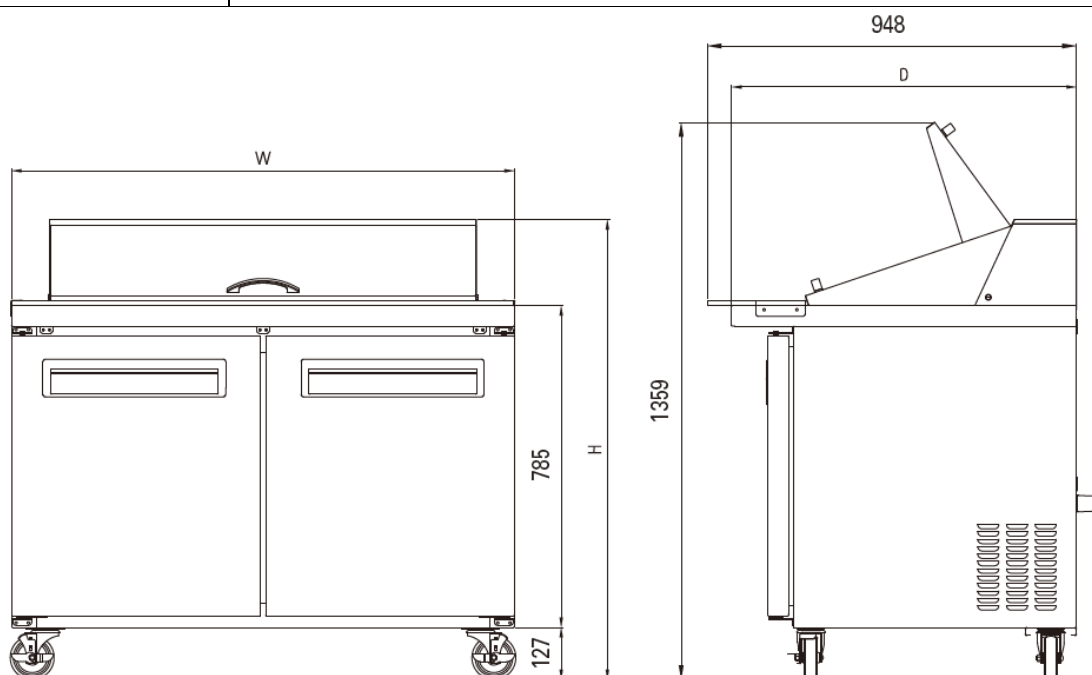
Product	Salad Drawer Table unit			
Model	LST27-D2	LST48-D4	LST60-D4	LST72-D6
Capacity(Liter)	200	372	474	572
Exterior Dimensions (Including 5" Casters) [mm]	W	700	1227	1533
	D	762		
	H	1082		
Net Weight (kg)	72	121	135	160
Type of refrigeration system	Indirect cooling (Fan blowing)			
Control	THERMOSTAT (PFA-240L)			
Shelves	1EA	2EA	2EA	3EA
Max No of Pans	6(1/6") 2(1/9")	12(1/6")	16(1/6")	20(1/6")
Number of Doors	1-DOOR	2-DOOR	2-DOOR	3-DOOR
Rated Voltage	220V/50Hz			
Amps	2.0	2.5	2.5	2.5
Compressor	1/5 HP	1/3 HP	1/3 HP	1/3 HP
	MSA162H-L1A	NF21K5131FU	NF21K5131FU	NF21K5131FU
	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG
COND MOTOR / BLADE	220V 50Hz 9W CW / Φ 170			
Evap MOTOR / BLADE	220V/50Hz 3W CCW / Φ 110			
Capillary Tube	Φ 3.0* Φ 1.2*3800L			
Refrigerant (g) R-134a	120	150	160	180
Range of Temperature	33°F ~ 41°F (0°C ~ 5°C)			
Climate Class	N			



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Specifications

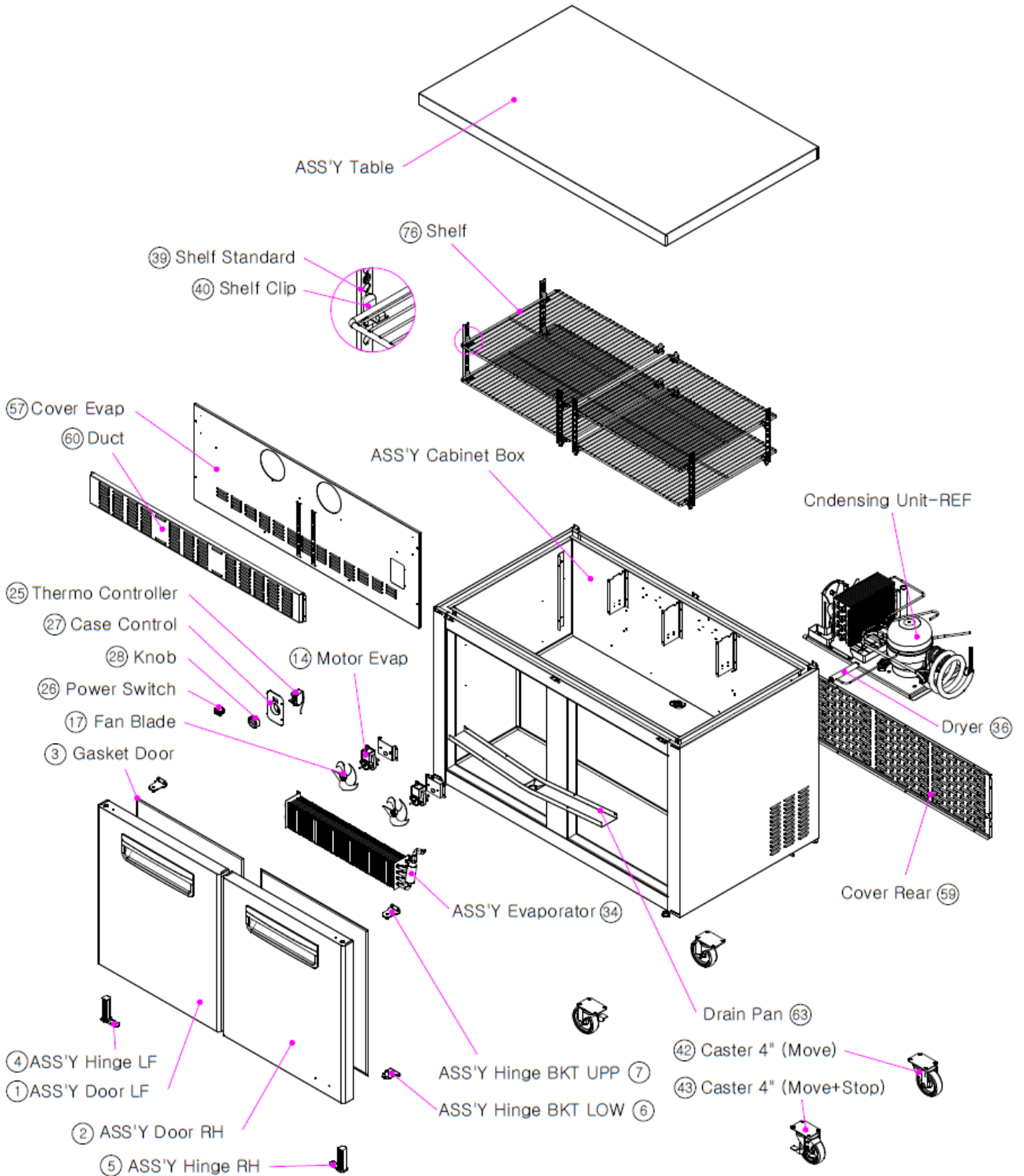
Product	Mega Top Table unit					
Model	LMT27	LMT36	LMT48	LMT60	LMT72	
Capacity(Liter)	200	270	372	474	572	
Exterior Dimensions (Including 5" Casters) [mm]	W	700	923	1227	1533	1839
	D	842 (cutting board 901)				
	H	1122				
Net Weight (kg)	76	92	110	123	141	
Type of refrigeration system	Indirect cooling (Fan blowing)					
Control	THERMOSTAT (PFA-240L)					
Shelves	1EA	2EA	2EA	2EA	3EA	
Max No of Pans	9(1/6"), 3(1/9")	15(1/6")	18(1/6")	24(1/6")	30(1/6")	
Number of Doors	1-DOOR	2-DOOR	2-DOOR	2-DOOR	3-DOOR	
Rated Voltage	220V/50Hz					
Amps	2.0	2.0	2.5	2.5	2.5	
Compressor	1/5 HP	1/5 HP	1/3 HP	1/3 HP	1/3 HP	
	MSA162H-L1A	MSA162H-L1A	NF21K5131FU	NF21K5131FU	NF21K5131FU	
	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	SAMSUNG	
COND MOTOR / BLADE	220V 50Hz 9W CW / Φ 170					
Evap MOTOR / BLADE	220V/50Hz 3W CCW / Φ 110					
Capillary Tube	Φ 3.0* Φ 1.2*3800L					
Refrigerant (g) R-134a	120	140	150	160	180	
Range of Temperature	33°F ~ 41°F (0°C ~ 5°C)					
Climate Class	N					



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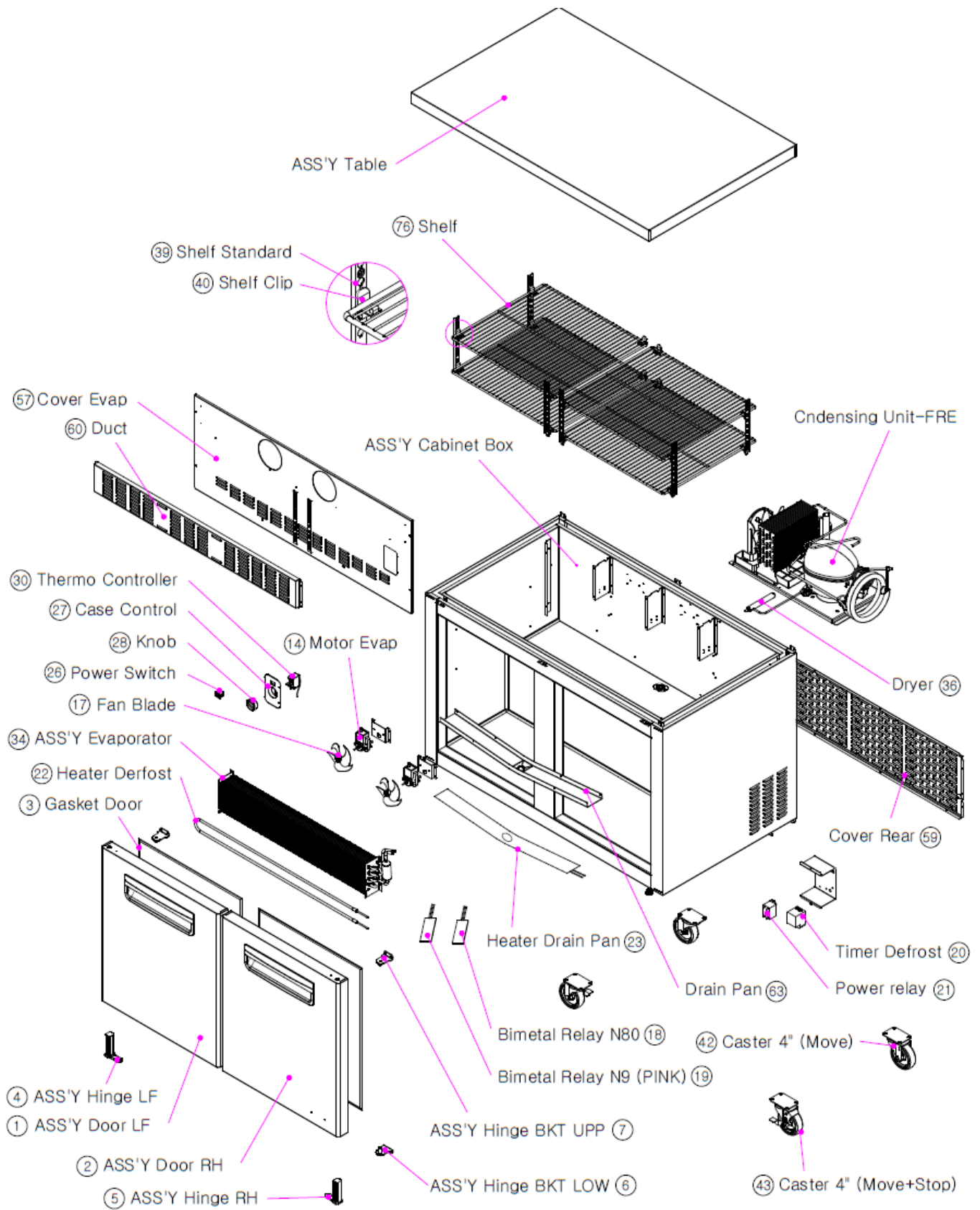
Structure

1. Undercounter Refrigerator



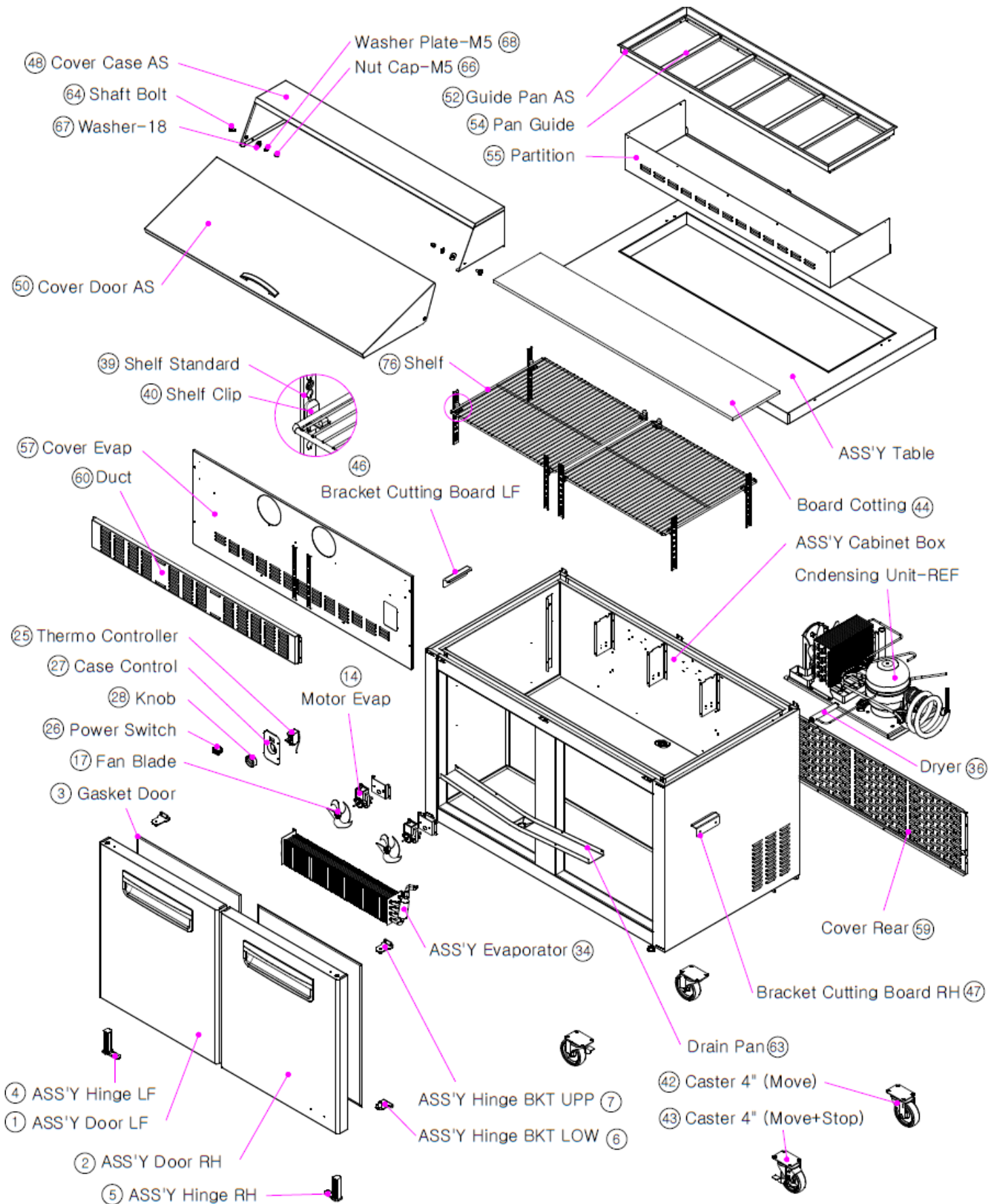
Structure

2. UndercounterFreezer



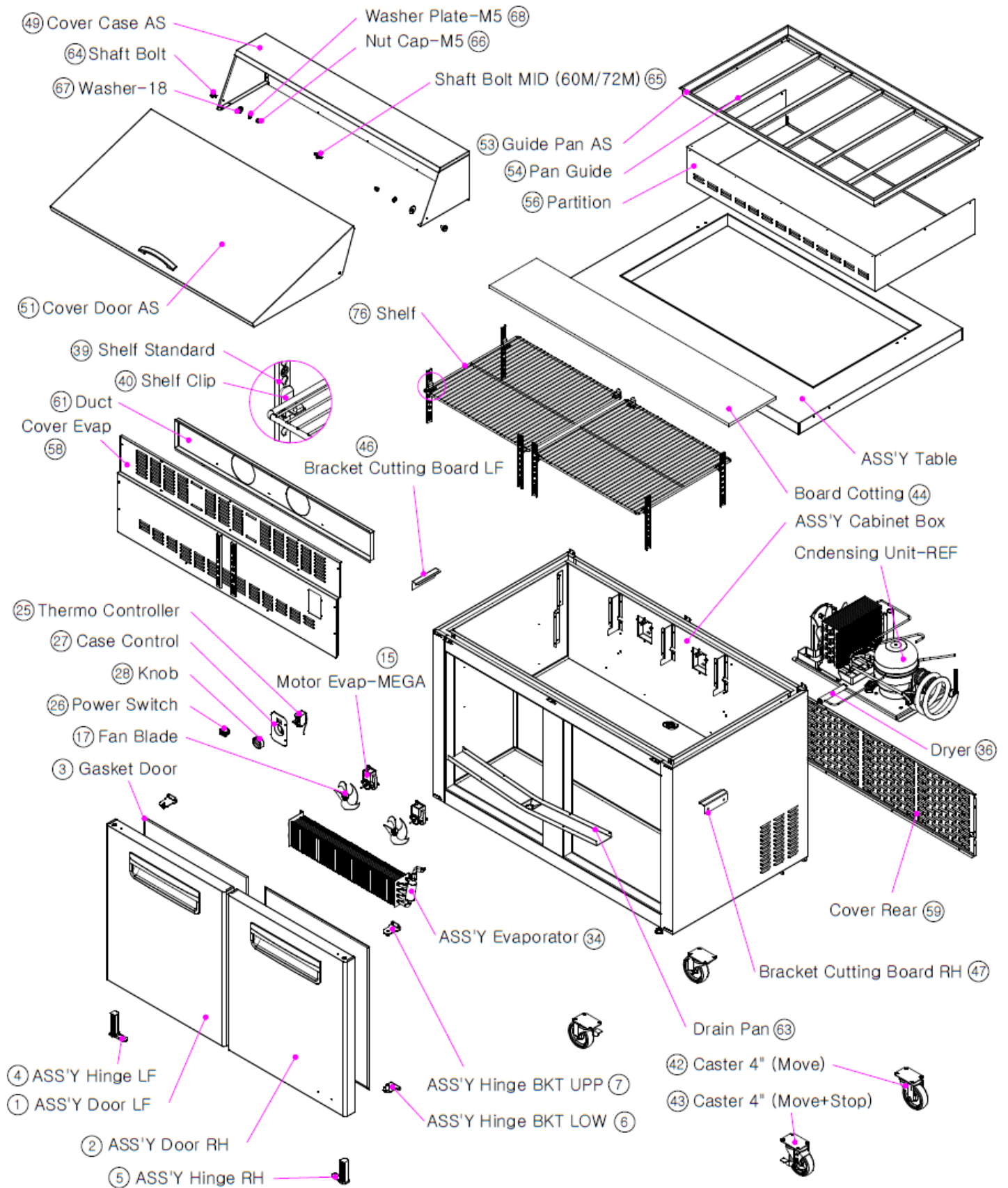
Structure

3. Salad Table Unit



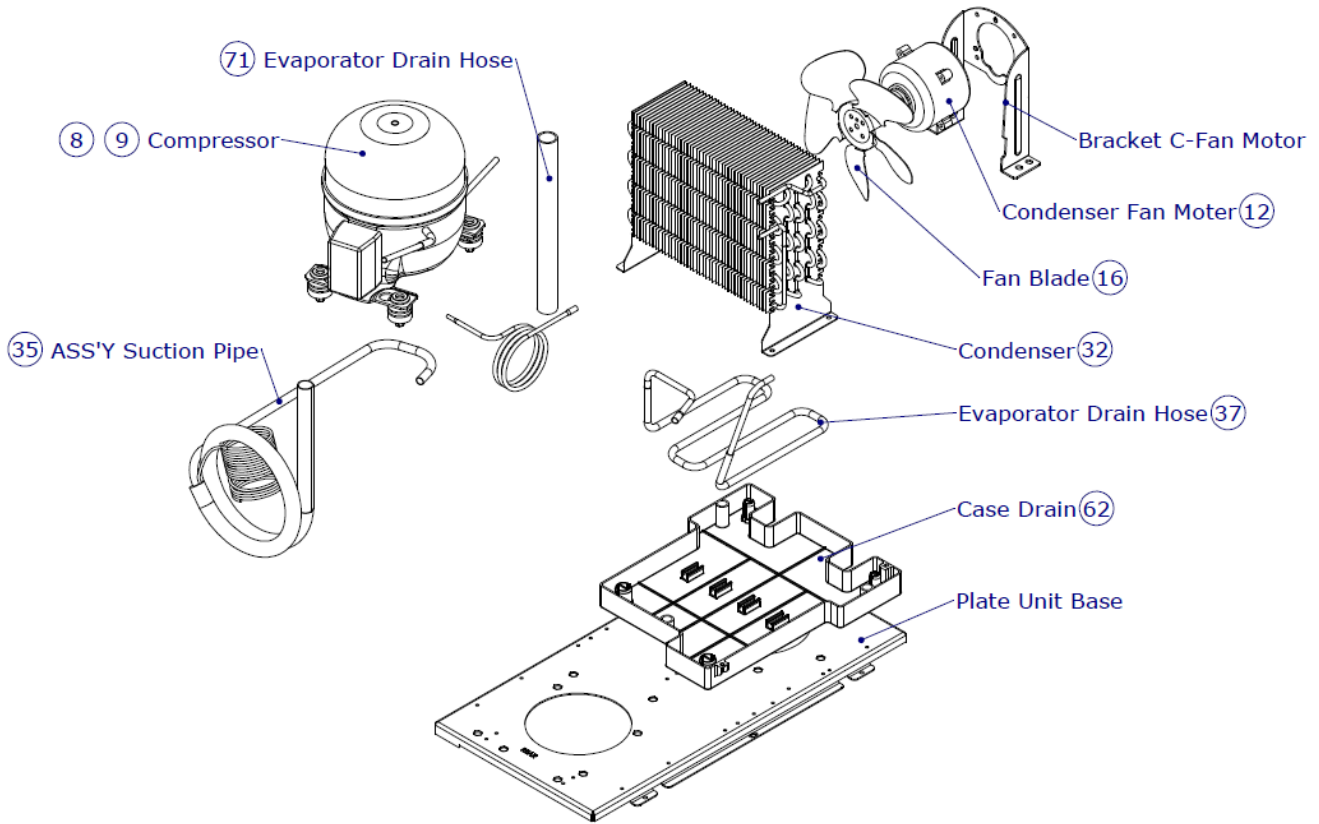
Structure

4. Mega TOP Table Unit

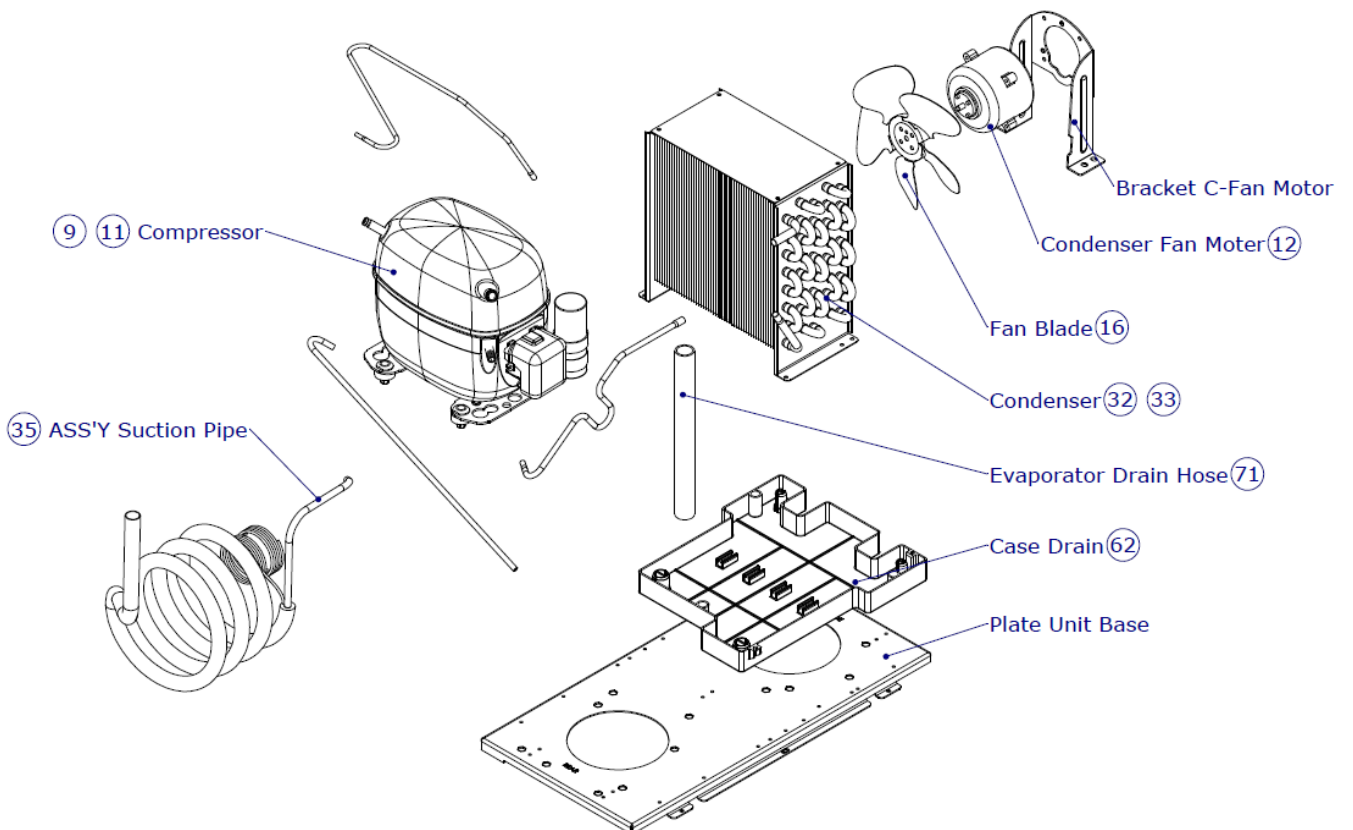


Structure

5. Condensing Unit _Refrigerator



6. Condensing Unit _Freezer



Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
1	R817C-470	ASSY DOOR LF-36_ASBURY	SOLID DOOR R10 _ASBURY		36R, 36F, 36S, 36M
	R817C-490	ASSY DOOR LF-48_ASBURY	SOLID DOOR R10 _ASBURY		48R, 72R, 48F, 72F 48S, 72S, 48M, 72M
	R817C-510	ASSY DOOR LF-60_ASBURY	SOLID DOOR R10 _ASBURY		60R, 60F, 60S, 60M
2	R817C-450	ASSY DOOR RH-27_ASBURY	SOLID DOOR R10 _ASBURY		27R, 27F, 27S, 27M
	R817C-460	ASSY DOOR RH-36_ASBURY	SOLID DOOR R10 _ASBURY	36R, 36F, 36S, 36M	
	R817C-480	ASSY DOOR RH-48_ASBURY	SOLID DOOR R10 _ASBURY	48R, 72R, 48F, 72F 48S, 72S, 48M, 72M	
	R817C-500	ASSY DOOR RH-60_ASBURY	SOLID DOOR R10 _ASBURY	60R, 60F, 60S, 60M	
3	R338A-140	GASKET DOOR-27	RD-PVC(P-1000) 644.5*652		27R, 27F, 27S, 27M
	R338A-150	GASKET DOOR-36	RD-PVC(P-1000) 402.5*652		36R, 36F, 36S, 36M
	R338A-160	GASKET DOOR-48	RD-PVC(P-1000) 553.5*652		48R, 72R, 48F, 72F 48S, 72S, 48M, 72M
	R338A-170	GASKET DOOR-60	RD-PVC(P-1000) 707.5*652		60R, 60F, 60S, 60M
4	R828A-190	ASSY HINGE LF	LUCR48	 BLACK	36R, 48R, 60R, 72R 36F, 48F, 60F, 72F 36S, 48S, 60S, 72S 36M, 48M, 60M, 72M
5	R828A-200	ASSY HINGE RH	LUCR48	 WHITE	ALL
6	R828A-170	ASSY HINGE BKT LOW	STS304 T3.0		ALL
7	R828A-180	ASSY HINGE BKT UPP	STS304 T3.0		ALL

(LUCR27=27R , LUCR36=36R , LUCR48U=48R, LUCR60=60R, LUCR72=72R)

(LUCF27=27F , LUCF36=36F , LUCF48=48F, LUCF60=60F, LUCF72=72F)

(LST27=27S, LST36=36S, LST48=48S, LST60=60S, LST72=72S)

(LMT27=27M, LMT36=36M, LMT48=48M, LMT60=60M, LMT72=72M)

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
8	R714A-530	COMPRESSOR	MSA162H-L 1A 220V/50HZ		27R, 36R, 48R 27S, 36S, 27M, 36M
		O/L PROTECTOR	4TM265RHBYY-53 GCB7AB		27R, 36R, 48R 27S, 36S, 27M, 36M
		PTC RELAY	300MG1		27R, 36R, 48R 27S, 36S, 27M, 36M
9	R714A-540	COMPRESSOR	NF21K5131FU 220V/50Hz		60R, 72R, 27F 48S, 60S, 72S 48M, 60M, 72M
		O/L PROTECTOR	4TM293SHBYY-53 BAR6AB		60R, 72R, 27F 48S, 60S, 72S 48M, 60M, 72M
		PTC RELAY	330MD2 KZ429		60R, 72R, 27F 48S, 60S, 72S 48M, 60M, 72M
	R747A-030	RUNNING CAPACITOR (1A1C)	400VAC / 8 μF 220V		60R, 72R, 27F 48S, 60S, 72S 48M, 60M, 72M
11	R714A-030	COMPRESSOR	SC12CLX2. 220V 50HZ		36F, 48F, 60F, 72F

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
11		PTC RELAY	117U6019		36F, 48F, 60F, 72F
		STARTING CAPACITOR	117U5017 80 μ F		36F, 48F, 60F, 72F
12	R726A-080	CONDENSER FAN MOTOR (220V)	115V60HZ DA1-8204DYA-4 CW		27R, 36R, 48R, 60R, 72R 27F, 36F, 48F, 60F, 72F, 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
14	R726A-090	MOTOR EVAP	DA1-6122DYMA-1 220V 50HZ		27R, 36R, 48R, 60R, 72R 27F, 36F, 48F, 60F, 72F 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
16	R333A-010	FAN BLADE	ϕ 175 , 5WINGS		ALL
17	R3723-081	FAN BLADE	ϕ 110, 4WINGS, CRF-114BD		ALL
18	R711A-020	BIMETAL RELAY N80	Automatic reset(N80)		27F, 36F, 48F, 60F, 72F
19	R711A-030	BIMETAL RELAY N9	Automatic reset(N9)		27F, 36F, 48F, 60F, 72F

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
20	R737A-020	TIMER DEFROST	AC220V 50HZ 12H /2M (TD-20CVD)		27F, 36F, 48F, 60F, 72F
21	R748A-050	POWER RELAY	100~120V 240V 25A (OMRON)		36F, 48F, 60F, 72F
22	R720A-840	HEATER DEFROST	220V 300W		27F, 36F
	R720A-850	HEATER DEFROST	220V 500W		48F, 60F
	R720A-860	HEATER DEFROST	220V 740W		72F
23	R720A-870	HEATER DRAIN PAN	PVC + AL 220V 14W		27F, 36F
	R720A-880	HEATER DRAIN PAN	PVC + AL 220V 25W		48F, 60F
	R720A-890	HEATER DRAIN PAN	PVC + AL 220V 30W		72F
24	R858D-450	THERMO CONTROLLER- REF AS	REFRIGERATOR		27R, 36R, 48R, 60R, 72R 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
25	R736A-020	THERMO CONTROLLER - REF	32 ° F ~ 40 ° F(PFA-240L)		27R, 36R, 48R, 60R, 72R 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
26	R7204-070	POWER SWITCH	LIGHT COUNTRY(R19A) 10A/115V		ALL
27	R321A-890	CASE CONTROL FRE	ABS(WHITE)		ALL

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
28	R350A-030	KNOB	ABS(WHITE) Φ43*H23.5		ALL
29	R858D-460	THERMO CONTROLLER - FRE AS	FREEZER		27F, 36F, 48F, 60F, 72F
30	R736A-030	THERMO CONTROLLER -FRE	BELOW 0 ° F (PFA-240L-07)		27F, 36F, 48F, 60F, 72F
31	R7363-220	POWER CORD	220V 16A/UL		ALL
32	R212A-120	CONDENSER WIRE	STEEL PIPE 0D4.76*0.7		27R, 36R, 48R, 60R, 72R 27F, 36F, 48F 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
33	R865A-160	ASSY CONDENSER	CU PIPE 0D9.52		60F, 72F
34	R840A-330	ASSY EVA -36R	3 Line* 3Level P4 L=342		27R, 36R, 27S, 36S 27M, 36M
	R840A-320	ASSY EVA -48R	3 Line* 3Level P4 L=538		48R, 60R, 48S, 60S, 48M
	R840A-360	ASSY EVA -72R	3 Line* 3Level P4 L=1113		72R, 72S, 72M
	R840A-380	ASSY EVA -36F	4 Line* 3Level P4 L=342		27F, 36F
	R840A-340	ASSY EVA -48F	4 Line* 3Level P4 L=752		48F, 60F
	R840A-350	ASSY EVA -72F	4 Line* 3Level P4 L=1113		72F
	R840A-370	ASSY EVA -60M	3 Line* 3Level P4 L=700		60M









■ The part codes inside the () are for the models before 08.24.2016.

Service Part List

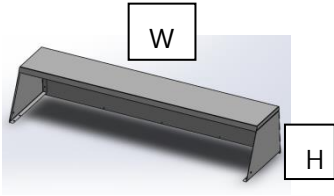
NO	Part Code	Name	Specification	Photo	Applied Model
35	R845A-530	ASSY SUCTION PIPE -27R	OD 9.52*0.7 OD 3.0*ID 1.2*3800L		27R, 27S, 27M
	R845A-490	ASSY SUCTION PIPE -36R	OD 9.52*0.7 OD 3.0*ID 1.2*3800L		36R, 48R, 36S, 48M
	R845A-510	ASSY SUCTION PIPE -60R	OD 9.52*0.7 OD 3.0*ID 1.2*3800L		60R, 48S, 60S, 48M, 60M
	R845A-540	ASSY SUCTION PIPE -72R	OD 9.52*0.7 OD 3.0*ID 1.2*3800L		72R, 72S, 72M
	R845A-500	ASSY SUCTION PIPE -27F	OD 9.52*0.7 OD 3.0*ID 1.0*3800L		27F
	R845A-580	ASSY SUCTION PIPE -36F_220V	OD 7.94*0.7 OD 3.0*ID 1.0*3800L		36F, 48F
	R845A-520	ASSY SUCTION PIPE -60F	OD 9.52*0.7 OD 3.0*ID 1.0*3800L		60F, 72F
36	R2183-161	DRYER (R-134A)	XH-9.18GR. φ 3.4.		ALL
37	R319C-060	PIPE DRAIN HEATER	0D6.35*T0.7		27R, 36R, 48R, 60R, 72R 27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
38	R371A-630	SHELF -27	φ 7.0*565*484		27R, 72R, 27F, 72F 27S, 72S, 27M, 72M
	R371A-640	SHELF -36	φ 7.0*388*484		36R, 36F, 36S, 36M
	R371A-650	SHELF -48	φ 7.0*540*484		48R, 48F, 48S, 48M
	R371A-660	SHELF -60	φ 7.0*693*484		60R, 60F, 60S, 60M
39	R371A-620	SHELF STANDARD	AL6063S L230		ALL
40	R835A-100	ASSY SHELF CLIP(6EA)	POM 27S/27M		27S, 27M
	R835A-110	ASSY SHELF CLIP(10EA)	POM 27R/27F 36S/48S/60S/36M/48M/60M		27R, 27F, 36S, 48S, 60S 36M, 48M, 60M
	R835A-120	ASSY SHELF CLIP(14EA)	POM 72S/72M		72S, 72M
	R835A-130	ASSY SHELF CLIP(18EA)	POM 36R/48R/60R 36F/48F/60F		36R, 48R, 60R 36F, 48F, 60F
	R835A-150	ASSY SHELF CLIP(26EA)	POM 72R/72F		72R, 72F

■ The part codes inside the () are for the models before 08.24.2016.

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
41	R834F-200	ASSY PACKING CASTER BOX 4"	4" MOVE 2EA 4" MOVE+STOP 2EA		ALL
42	R322A-020	CASTER 4"	4" MOVE		ALL
43	R322A-030	CASTER 4"	4" MOVE + STOP		ALL
44	R382A-030	BOARD CUTTING 27	T12*240*696		27S, 27M
	R382A-040	BOARD CUTTING 36	T12*240*920		36S, 36M
	R382A-050	BOARD CUTTING 48	T12*240*1224		48S, 48M
	R382A-060	BOARD CUTTING 60	T12*240*1530		60S, 60M
	R382A-070	BOARD CUTTING 72	T12*240*1835		72S, 72M
45	R140A-010	PAN POLYCARBONATE	PC 1/6*100H (Transparent)		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
	R140A-020	PAN POLYCARBONATE	PC 1/9*100H (Transparent)		27S, 27M
46	R315A-880	BRACKET CUTTING BOARD LF	STS443CT 2B T1.0		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
47	R315A-890	BRACKET CUTTING BOARD RH	STS443CT 2B T1.0		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
48	R858D-820	COVER CASE AS 27S	STS430 #4 T0.6*699*170	 A perspective view of a long, narrow, L-shaped metal cover case. A white box labeled 'W' is positioned above the main body, and another white box labeled 'H' is positioned at the right end, indicating width and height dimensions.	27S
	R858D-950	COVER CASE AS 36S	STS430 #4 T0.6*923*170		36S
	R858D-960	COVER CASE AS 48S	STS430 #4 T0.6*1121*170		48S
	R858D-970	COVER CASE AS 60S	STS430 #4 T0.6*1473*170		60S
	R858D-980	COVER CASE AS 72S	STS430 #4 T0.6*1647*170		72S
49	R858D-730	COVER CASE AS 27M	STS430 #4 T0.6*699*210	 A perspective view of a long, narrow, L-shaped metal cover case, similar to the S series but with a different height. A white box labeled 'W' is positioned above the main body, and another white box labeled 'H' is positioned at the right end, indicating width and height dimensions.	27M
	R858D-920	COVER CASE AS 36M	STS430 #4 T0.6*923*210		36M
	R858D-930	COVER CASE AS 48M	STS430 #4 T0.6*1041*210		48M
	R858D-760	COVER CASE AS 60M	STS430 #4 T0.6*1434*210		60M
	R858D-940	COVER CASE AS 72M	STS430 #4 T0.6*1758*210		72M
50	R858D-810	COVER D00R AS 27S	STS430 #4 T0.6*694*394	 A perspective view of a rectangular metal cover door with a handle on the front edge. A white box labeled 'D' is positioned at the top left corner, and another white box labeled 'W' is positioned above the main body, indicating depth and width dimensions.	27S
	R858E-230	COVER D00R AS 36S	STS430 #4 T0.6*918*394		36S
	R858E-240	COVER D00R AS 48S	STS430 #4 T0.6*1116*394		48S
	R858E-250	COVER D00R AS 60S	STS430 #4 T0.6*1468*394		60S
	R858E-260	COVER D00R AS 72S	STS430 #4 T0.6*1642*394		72S
51	R858D-740	COVER D00R AS 27M	STS430 #4 T0.6*694*545	 A perspective view of a rectangular metal cover door with a handle on the front edge, similar to the S series but with a different depth. A white box labeled 'D' is positioned at the top left corner, and another white box labeled 'W' is positioned above the main body, indicating depth and width dimensions.	27M
	R858E-210	COVER D00R AS 36M	STS430 #4 T0.6*918*545		36M
	R858E-220	COVER D00R AS 48M	STS430 #4 T0.6*1036*545		48M, 72M
	R858D-780	COVER D00R AS 60M	STS430 #4 T0.6*712*545		60M, 72M
52	R858D-830	GUIDE PAN AS 27S	STS443CT 2B T1.0*602*365	 A perspective view of a rectangular metal guide pan. A white box labeled 'D' is positioned at the top left corner, and another white box labeled 'W' is positioned above the main body, indicating depth and width dimensions.	27S
	R858E-050	GUIDE PAN AS 36S	STS443CT 2B T1.0*817*365		36S
	R858E-020	GUIDE PAN AS 48S	STS443CT 2B T1.0*1063*337		48S
	R858E-030	GUIDE PAN AS 60S	STS443CT 2B T1.0*1415*337		60S
	R858E-040	GUIDE PAN AS 72S	STS443CT 2B T1.0*1591*337		72S

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
53	R858D-800	GUIDE PAN AS 27M	STS443CT 2B T1.0*602*541		27M
	R858D-990	GUIDE PAN AS 36M	STS443CT 2B T1.0*817*541		36M
	R858E-010	GUIDE PAN AS 48M	STS443CT 2B T1.0*979*541		48M, 72M
	R858D-790	GUIDE PAN AS 60M	STS443CT 2B T1.0*655*541		60M, 72M
54	R341A-120	GUIDE PAN A	STS443CT 2B T0.8B (524L)		27M, 36M, 48M, 60M, 72M
	R341A-170	GUIDE PAN B	STS443CT 2B T0.8 (348L)		27S, 36S
	R341A-310	GUIDE PAN C	STS443CT 2B T0.8 (320L)		48S, 60S, 72S
55	R358A-120	PARTITION-27S	STS443CT 2B T0.5*587*335		27S
	R358A-130	PARTITION-36S	STS443CT 2B T0.5*802*335		36S
	R358A-140	PARTITION-48S	STS443CT 2B T0.5*1049*309		48S
	R358A-150	PARTITION-60S	STS443CT 2B T0.5*1400*309		60S
	R358A-160	PARTITION-72S	STS443CT 2B T0.5*1576*309		72S
56	R358A-030	PARTITION-27M	STS443CT 2B T0.5*587*511		27M
	R358A-040	PARTITION-36M	STS443CT 2B T0.5*802*511		36M
	R358A-050	PARTITION-48M	STS443CT 2B T0.5*965*511		48M, 72M
	R358A-060	PARTITION-60M	STS443CT 2B T0.5*640*511		60M, 72M
57	R325A-730	COVER EVAP-27	STS443CT 2B T0.5		27R
	R325A-740	COVER EVAP-36	STS443CT 2B T0.5		36R, 36F, 36S
	R325A-750	COVER EVAP-48	STS443CT 2B T0.5		48R, 48S
	R325A-760	COVER EVAP-60	STS443CT 2B T0.5		60R, 60S
	R325A-770	COVER EVAP-72	STS443CT 2B T0.5		72R, 72F, 72S
	R325A-780	COVER EVAP-27F	STS443CT 2B T0.5		27F, 27S
	R325A-800	COVER EVAP-48F	STS443CT 2B T0.5		48F
	R325A-810	COVER EVAP-60F	STS443CT 2B T0.5		60F
58	R325B-430	COVER EVAP-27M	STS443CT 2B T0.5		27M
	R325B-440	COVER EVAP-36M	STS443CT 2B T0.5		36M
	R325B-450	COVER EVAP-48M	STS443CT 2B T0.5		48M
	R325B-460	COVER EVAP-60M	STS443CT 2B T0.5		60M
	R325B-470	COVER EVAP-72M	STS443CT 2B T0.5		72M

Service Part List

NO	Part Code	Name	Specification	Photo	Applied Model
59	R325A-820	COVER REAR-27	GI T0.4		27R, 27F, 27S, 27M
	R325A-830	COVER REAR-36	GI T0.4		36R, 36F, 36S, 36M
	R325A-840	COVER REAR-48	GI T0.4		48R, 48F, 48S, 48M
	R325A-850	COVER REAR-60	GI T0.4		60R, 60F, 60S, 60M
	R325A-860	COVER REAR-72	GI T0.4		72R, 72F, 72S, 72M
60	R332A-240	DUCT -27R	STS443CT 2B T0.5		27R
	R332A-250	DUCT -36	STS443CT 2B T0.5		36R, 36F, 36S
	R332A-260	DUCT -48	STS443CT 2B T0.5		48R, 48S
	R332A-270	DUCT -60R	STS443CT 2B T0.5		60R, 60S
	R332A-280	DUCT -72	STS443CT 2B T0.5		72R, 72F, 72S
	R332A-290	DUCT -27	STS443CT 2B T0.5		27F, 27S,
	R332A-310	DUCT -48F	STS443CT 2B T0.5		48F
	R332A-320	DUCT -60F	STS443CT 2B T0.5		60F
61	R332A-400	DUCT -27M	STS443CT 2B T0.5		27M
	R332A-410	DUCT -36M	STS443CT 2B T0.5		36M
	R332A-420	DUCT -48M	STS443CT 2B T0.5		48M
	R332A-430	DUCT -60M	STS443CT 2B T0.5		60M
	R332A-440	DUCT -72M	STS443CT 2B T0.5		72M
62	R321A-810	CASE DRAIN	ABS(BLACK) T1.5		ALL
63	R331A-040	DRAIN PAN-36	AL+COATING T0.5		27R, 36R, 27F, 36F 27S, 36S, 27M, 36M
	R331A-050	DRAIN PAN-48	AL+COATING T0.5		48R, 60R, 48S, 60S
	R331A-060	DRAIN PAN-60	AL+COATING T0.5		48F, 60F, 60M
	R331A-070	DRAIN PAN-72	AL+COATING T0.5		72R, 72F, 72S, 72M

Service Part List

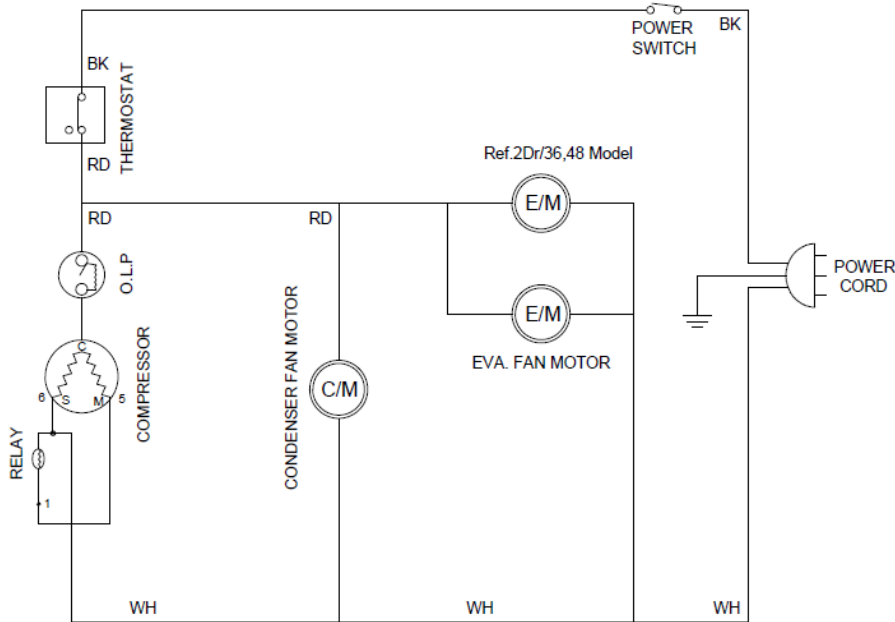
NO	Part Code	Name	Specification	Photo	Applied Model
64	R370A-120	SHAFT BOLT	STS304 \varnothing 14*14.5		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
65	R370A-130	SHAFT BOLT-MID	STS304 \varnothing 14*17.4		60M, 72M
66	R396A-040	NUT CAP-M5	SUS M5		27S, 36S, 48S, 60S, 72S 7M, 36M, 48M, 60M, 72M
67	R397A-030	WASHER -18	STS304 T4.0* \varnothing 18		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
68	R397A-040	WASHER PLATE-M5	STS304 T1.0* \varnothing 5.2* \varnothing 15		27S, 36S, 48S, 60S, 72S 27M, 36M, 48M, 60M, 72M
69	R317B-870	CABINET STOPPER	PP BLACK		ALL
70	R320A-190	CAP HINGE	SILICON GRAY \varnothing 21*7		27R, 27F, 27S, 27M
71	R214A-100	EVAPORATOR DRAIN HOSE	\varnothing 16*12 L=235 SILICON Transparent		ALL

Service Part List

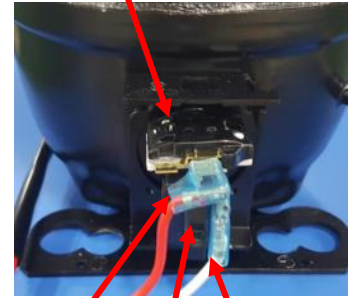
NO	Part Code	Name	Specification	Photo	Applied Model
72	R3744-091	EVAPORATOR DRAIN ELBOW-UPP	PP WHITE		ALL
73	R719C-420	HARNESS MAIN A 27R	UL1015 AWG18		27R, 36R, 27S, 36S 27M, 36M
	R719C-440	HARNESS MAIN A 48R	UL1015 AWG18		48R, 36F, 48F,
	R719C-490	HARNESS MAIN A 60R_KE225	UL1015 AWG18		60R, 72R, 48S, 60S, 72S 48M, 60M, 72M
	R719C-480	HARNESS MAIN A 27F_KE225	UL1015 AWG18		27F
	R719C-790	HARNESS MAIN A 72F	UL1015 AWG18		60F, 72F
74	R719C-890	HARNESS MAIN C 36F	UL1015 AWG18		36F, 48F, 60F, 72F
75	R719C-430	HARNESS MAIN D 36F	UL1015 AWG18		36F, 48F, 60F, 72F
76	R834G-030	ASSY PACKING SHELF LUC27	0D7*565*484 1EA		27R, 27F
	R834G-040	ASSY PACKING SHELF LUC36	0D7*388*484 4EA		36R, 36F
	R834G-050	ASSY PACKING SHELF LUC48	0D7*540*484 4EA		48R, 48F
	R834G-060	ASSY PACKING SHELF LUC60	0D7*693*484 4EA		60R, 60F
	R834G-070	ASSY PACKING SHELF LUC72	0D7*565*484 6EA		72R, 72F
	R834G-080	ASSY PACKING SHELF LMT/LST27	0D7*565*484 1EA		27S, 27M
	R834G-090	ASSY PACKING SHELF LMT/LST36	0D7*388*484 2EA		36S, 36M
	R834G-100	ASSY PACKING SHELF LMT/LST48	0D7*540*484 2EA		48S, 48M
	R834G-110	ASSY PACKING SHELF LMT/LST60	0D7*693*484 2EA		60S, 60M
	R834G-120	ASSY PACKING SHELF LMT/LST72	0D7*565*484 3EA		72S, 72M

Wiring Diagram

1. LUCR27 / 36/ 48 (Compressor : MSA162H-L1A)



OLP : 4TM265RHYY-53



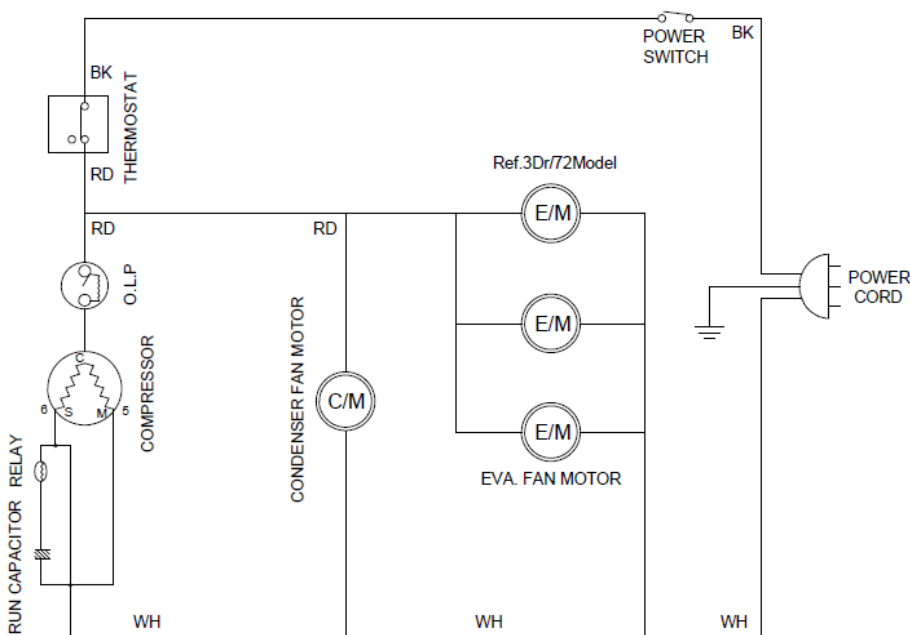
RED

WHITE

PTC RELAY :

330MGI KZ908

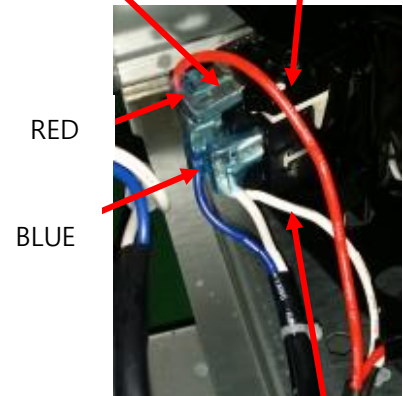
2. LUCR60 / 72 (Compressor :NF21K5131FU)



PTC RELAY :

330MD2 KZ429

OLP : 4TM293SHBY-53



RED

BLUE

WHITE

WHITE

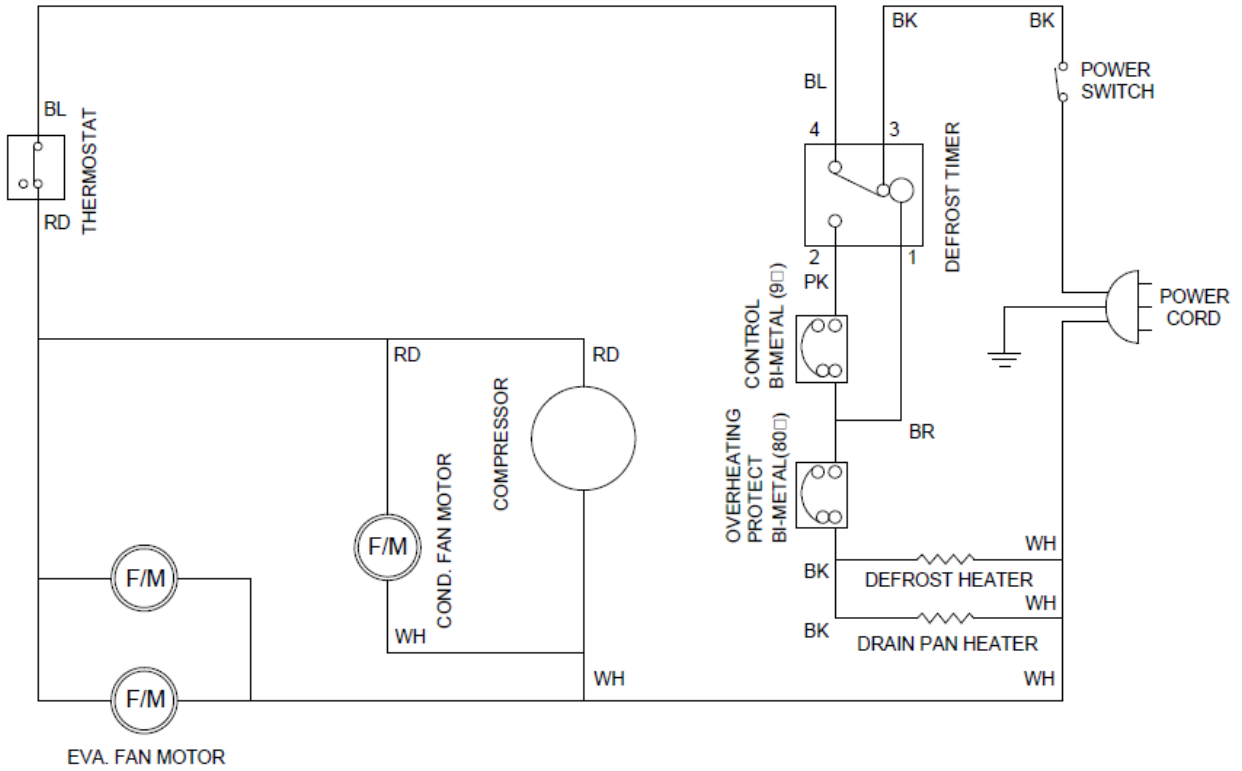
BLUE



RC :400VAC/8 μ F

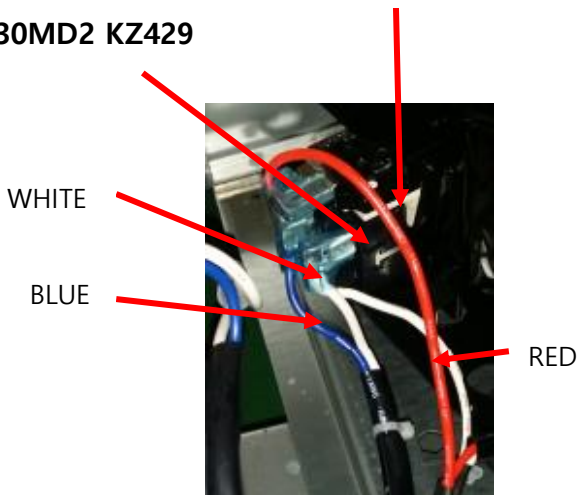
Wiring Diagram

3. LUCF27 (Compressor : NF21K5131FU)

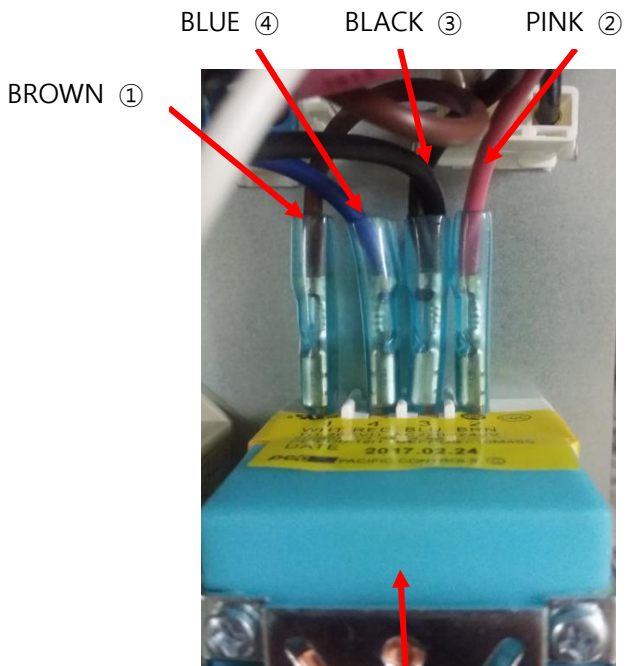


PTC RELAY
330MD2 KZ429

OLP : 4TM293SHBYY-53



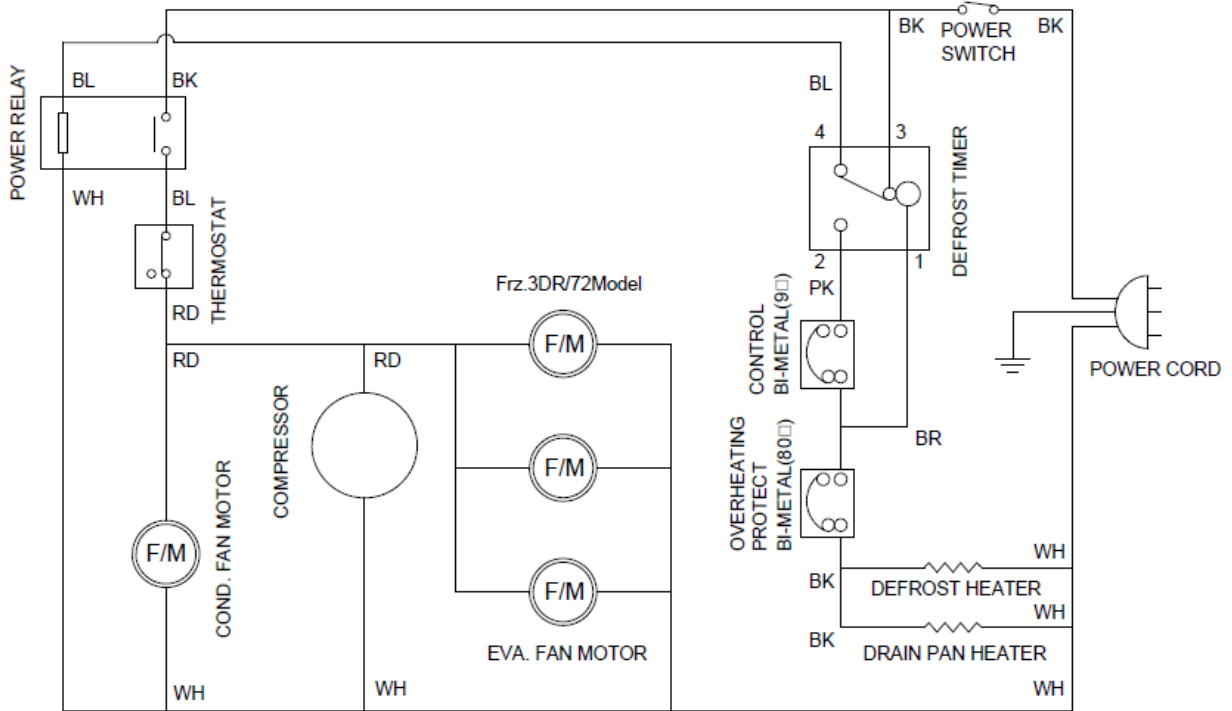
RC :400VAC/8μF



DEFROST TIMER
(TD-20CVD)

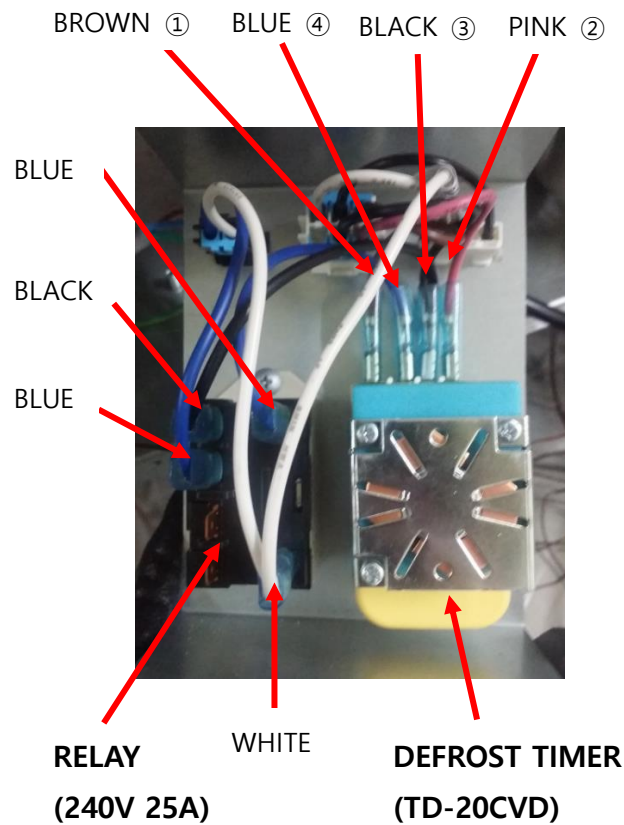
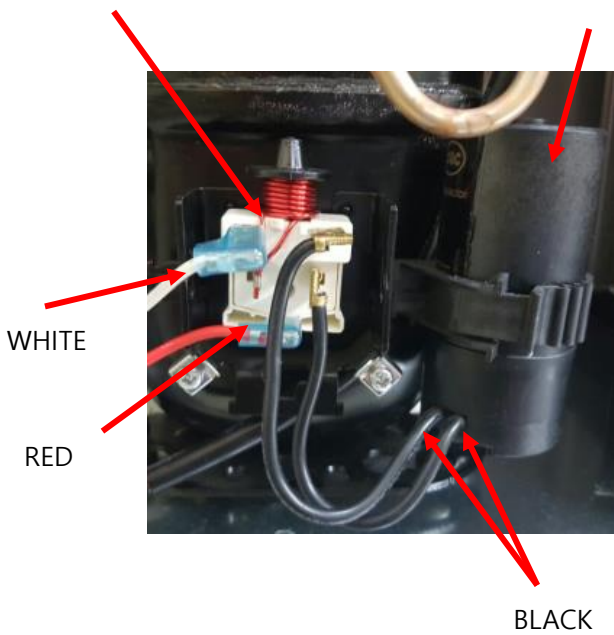
Wiring Diagram

4. LUCF36 / 48 / 60 /72 (Compressor : SC12CLX.2)



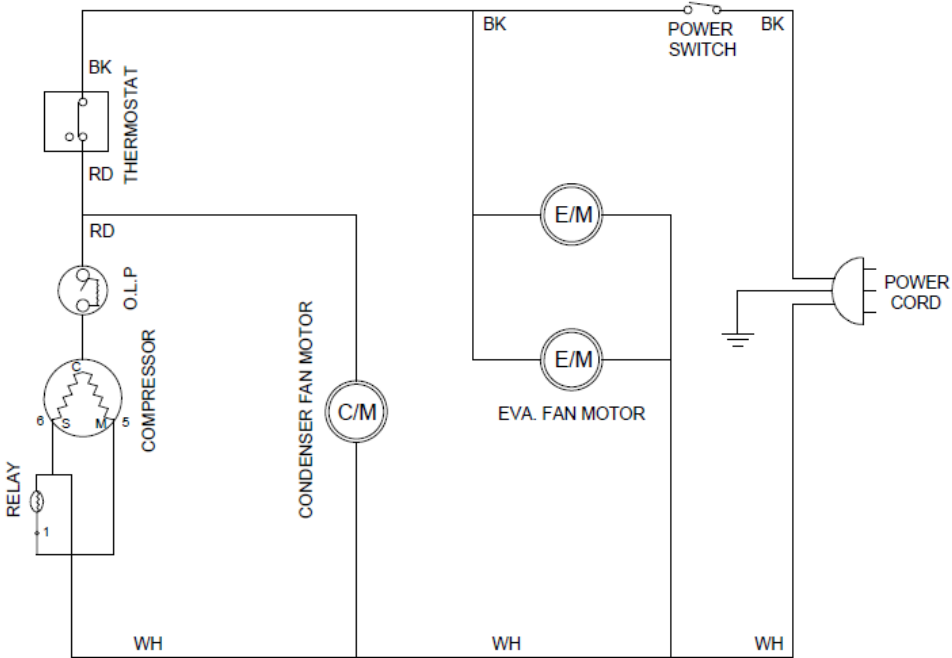
PTC RELAY
117U6019 BN133

SC
117U5017 80μF:

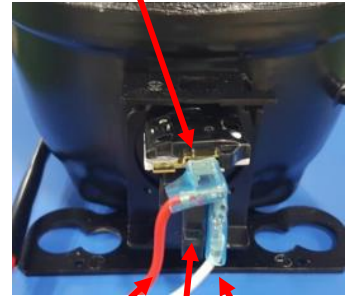


Wiring Diagram

5. LST27/36/ LMT27/36 (Compressor : MSA162H-L1A)



OLP : 4TM293SHBY-53



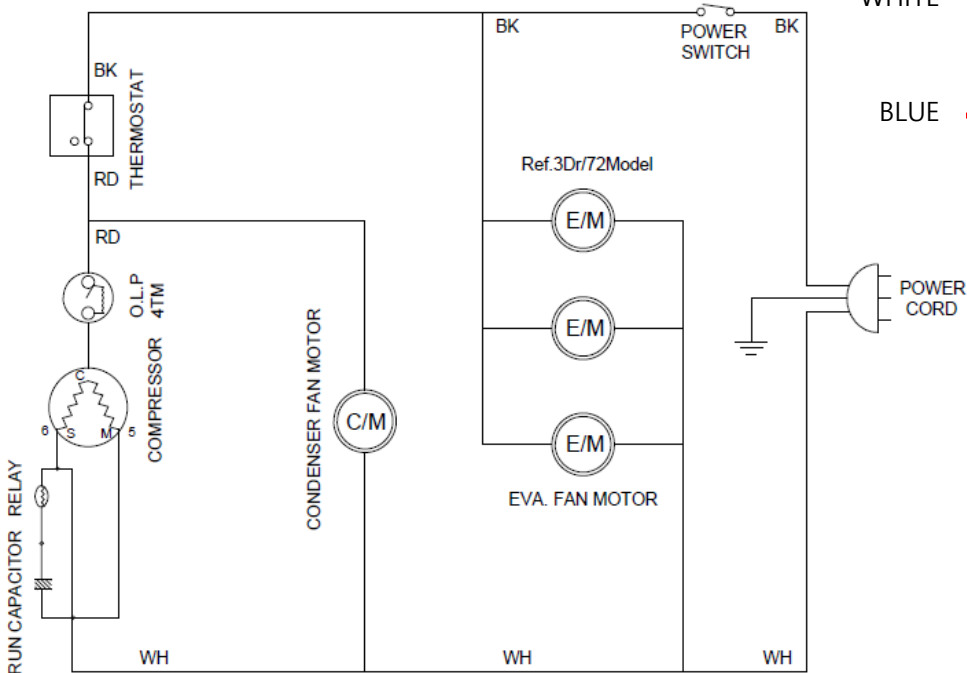
RED **WHITE**

**PTC RELAY :
330MD2 KZ429**

6. LST48/60/72/ LMT48/60/72 (Compressor : NF21K5131FU)

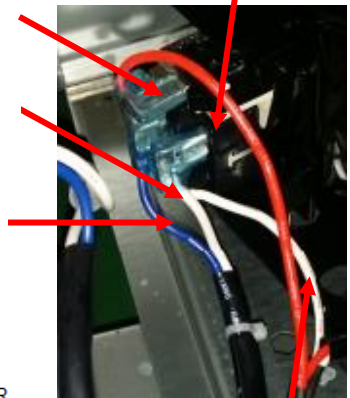
**PTC RELAY :
330MD2 KZ429**

OLP : 4TM293SHBY-53



WHITE

BLUE



RED

WHITE

BLUE

RC : 400VAC/8μF



Temperature Control & Operation

1. Normal Operation

1) Plug in the power cord and press the power switch above the thermostat controller.

2) Turn controller to the temperature in need

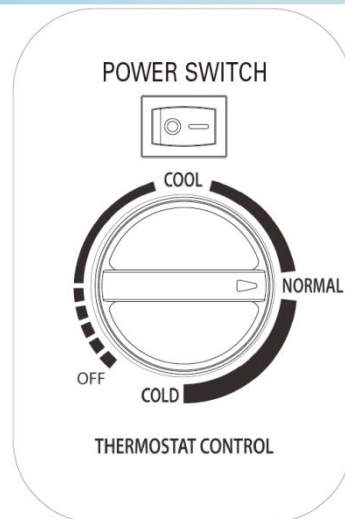
(The default is Normal)

3) Normal Temperature

■ Refrigerator :41°F (+5°C)

■ Freezer: 0°F (-18°C)

☞ When the temperature is set to "COLD" the compressor may activate rapidly which may be a cause of defect.



2. Defrost

1) Refrigerator: Compressor OFF Cycle Defrost method

2) Freezer: Heater Defrost method

■ Defrost Period and Time: 12 hour period / 10 minute rest time.

(When the temperature reaches 48°F (9°C) after the heater is on, the heater will turn off and rest 10 minutes before the compressor re-activates.)

■ Freezer model manual defrost

- Turn the lever on the rear of the defrost timer until a click sound is heard once. (Turn once more if you heard it twice.)

☞ If the temperature reaches 48°F (9°C) during manual defrost, the heater will turn off and rest 10 minutes before the compressor re-activates.

■ How to check the defrost timer

- During defrost

If terminal 1 and 3, 1 and 2 have a resistance of 3.0kΩ ±5% it is normal, if terminal 1 and 4 have a resistance of 0Ω it is normal.

- During operation

If terminal 1 and 3, 1 and 4 have a resistance of 3.0kΩ ±5% it is normal, if terminal 1 and 2 have a resistance of 0Ω it is normal.

■ Checking Defrosting Heater

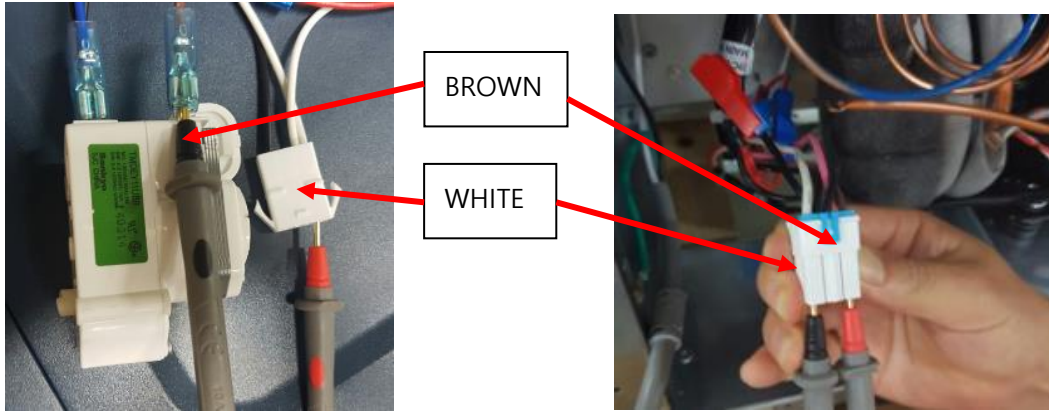
- To check if it is operational, measure COMBINED RESISTANCE of Heater Defrost and Heater Drain Pan



MODEL	LUCF27	LUCF36	LUCF48	LUCF60	LUCF72
HEATER DEFROST (A)	300W/44Ω	300W/44Ω	500W/26.5Ω	500W/26.5Ω	740W/17.9Ω
HEATER DRAIN PAN (B)	14W/945Ω	14W/945Ω	25W/529Ω	25W/529Ω	30W/441Ω
A,B (combined resistance)	42Ω	42Ω	25.2Ω	25.2Ω	17.2Ω

Temperature Control & Operation

- How to measure COMBINED RESISTANCE of Heater Defrost and Heater Drain Pan
- measure resistance value of brown line and white line as in the picture below.

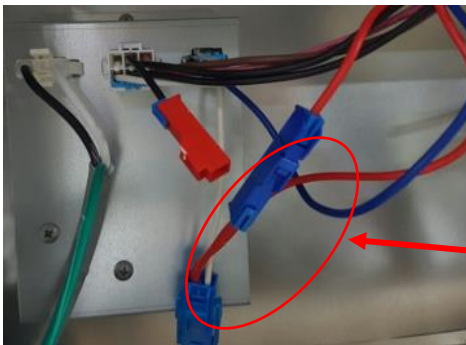


F27UF36U/F48U/F60U/F72U

3. Evaporator Fan operation

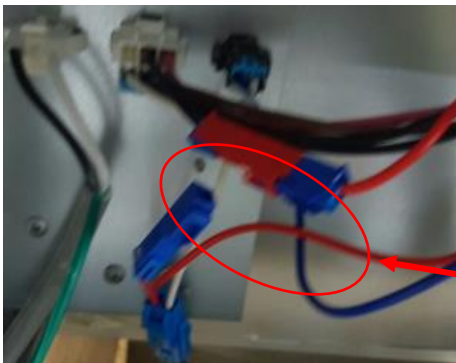
- 1) LUCR / LUCF models: Evaporator Fan and Compressor operate together.
- 2) LST / LMT models: Evaporator Fan operates rapidly.

3) How to change Evaporator operation.



Connect both blue terminals.

[Operate with Compressor (Default)]



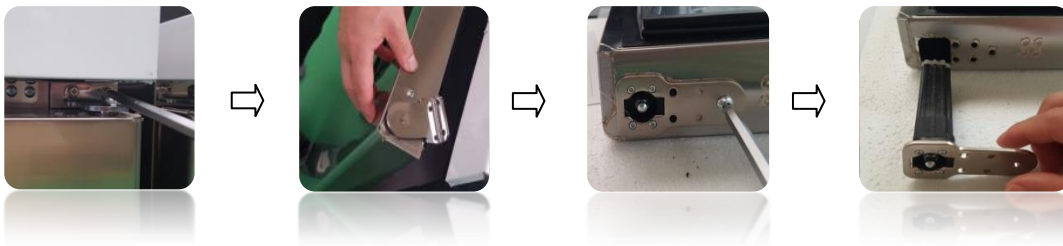
Connect blue and red terminal

[Operate rapidly.]

Removal and replacement

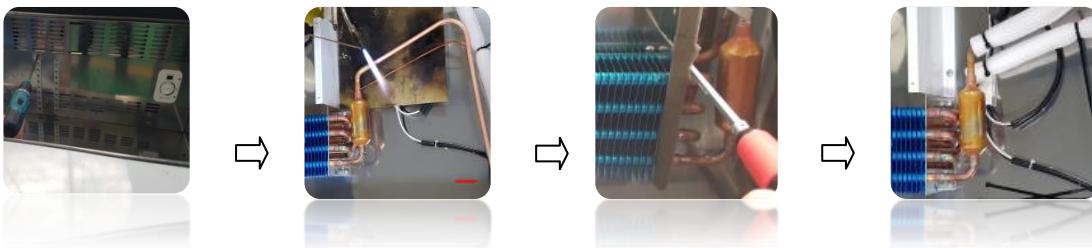
1. Door and AssyHinge

- 1) Detach the 2 screws on the upper Hinge BKT.
- 2) Lean the door to the front and detach the Upper Hinge BKT before detaching the Door.
- 3) Detach the 3 Hinge Screws from the bottom of the Door.
- 4) Replace the Assy Hinge.
(Make sure to replace the Left and Right with a different Hinge.)
- 5) Reassemble the door and hinge the opposite way you detached it.



2. Evaporator

- 1) Detach the screws on the Cover Evap and detach the Cover.
 - ♣ MCRS and MCRM models need to remove the partitions before detaching the screws.
- 2) Remove the refrigerants inside the refrigerating cycle and disassemble the Evaporator inlet and outlet.
- 3) Detach the 4 screws from the Evaporator.
 - ♣ Detach the Defrost heater first for the freezing models before detaching the screws
- 4) Replace the Evaporator and connect the inlet and outlet.
- 5) After connecting the inlet and outlet, check if there is any refrigerant leakage and seal them with insulation.
- 6) Vacuum the refrigerating cycle and insert the refrigerant.
(Insert the amount according to the refrigerant, working pressure standard table.)
- 7) Reassemble the Evaporator the opposite way you detached it.

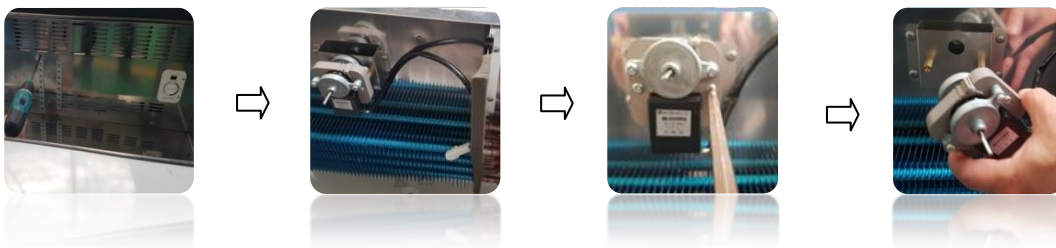


You must turn off the product and pull out the power plug before disassembling the product.

Removal and replacement

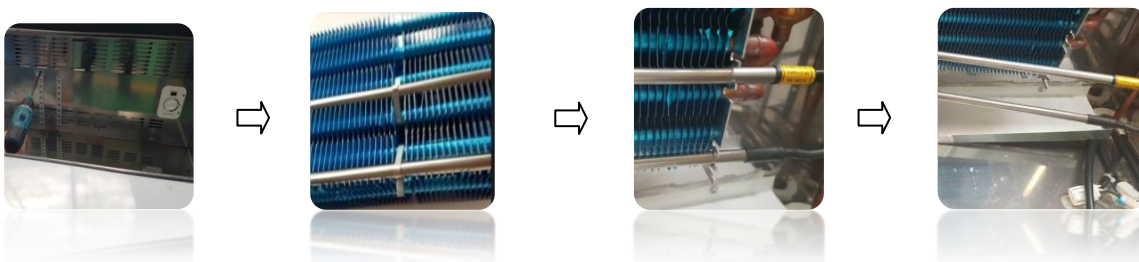
3. MotorEvaporator

- 1) Detach the screws on the Cover Evap and detach the Cover.
 - ♣ LST and LMT models need to remove the partitions before detaching the screws.
- 2) Detach the Fan Blade and Housings connected with the Motor Evap.
- 3) Detach the 2 screws from the Motor Evap.
- 4) Replace the Motor Evap.
(Replace the Motor Evap with a proper one for each model.)
- 5) Reassemble the Motor Evaporator the opposite way you detached it.



4. Defrost Heater

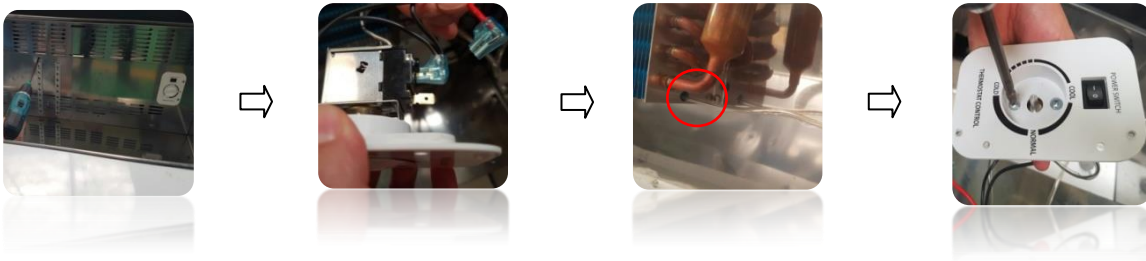
- 1) Detach the screws on the Cover Evap and detach the Cover.
 - ♣ LST and LMT models need to remove the partitions before detaching the screws.
- 2) Detach the Housings connected with the Defrost Heater.
- 3) Remove the clips which holds the Evaporator and Defrost Heater together before detaching thecoaking part from the left and right end of the Heater.
- 4) Replace the Defrost Heater
- 5) Reassemble the Defrost Heater the opposite way you detached it.



Removal and replacement

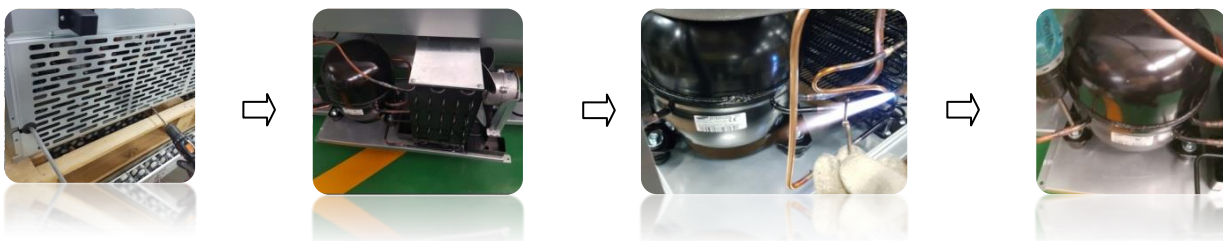
5. Thermostat

- 1) Detach the screws on the Cover Evap and detach the Cover.
♣ LST and LMT models need to remove the partitions before detaching the screws.
- 2) Detach the Terminals connected to the Thermostat.
- 3) Detach the Feeler inserted on the side of the Evaporator.
- 4) Remove the Knob and detach the 2 screws and replace the Thermostat.
(Tighten the Feeler with a Cable Tie when you insert the feeler 10 inches inside the hole.)
- 5) Reassemble the Thermostat the opposite way you detached it.



6. Compressor

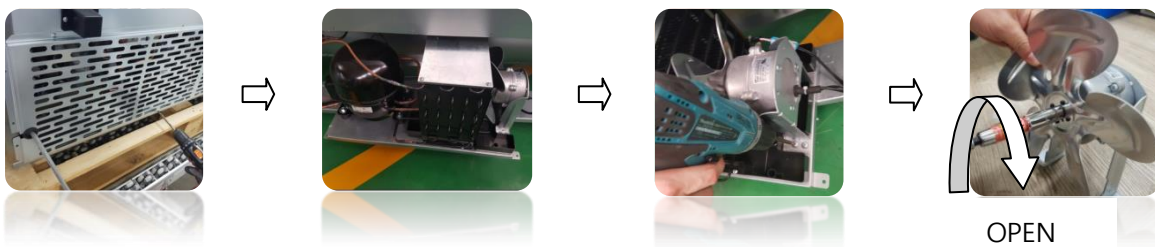
- 1) Detach the screws from the Cover Rear and remove the Cover rear.
- 2) Detach the 2 screws from the Assy Unit and pull out the Assy unit.
- 3) Detach the Cover Relay and disassemble the PTC Relay and O/L Protector.
- 4) Remove the refrigerant inside the refrigerating cycle and detach the inlet and outlet from the connecting pipes.
- 5) Detach the 4 screws on the Compressor and replace the Compressor and reconnect the inlet and outlet with the connecting pipes.
- 6) Vacuum the refrigerating cycle and insert the refrigerant.
(Vacuum the refrigerating cycle and insert the refrigerant)
- 7) Reassemble the compressor the opposite way you detached it.



Removal and replacement

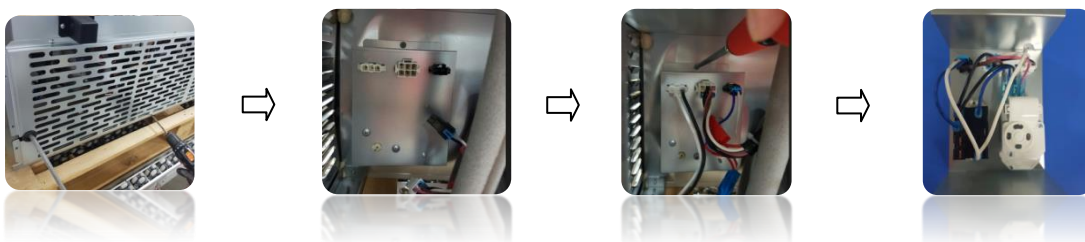
7. Condensing Motor

- 1) Detach the screws from the Cover Rear and remove the Cover rear.
- 2) Detach the 2 screws from the Assy Unit and pull out the Assy unit.
- 3) Detach the housings connected to the Condenser Fan Motor.
- 4) Detach the 4 screws from the AssyCondensor Motor and detach the Assy Condenser Motor.
- 5) Detach the Fan motor and remove the 3 screws from the rear of the Motor and replace the Motor.
- 6) Reassemble the Condensing Motor the opposite way you detached it.



8. Timer and Power Relay

- 1) Detach the screws from the Cover Rear and remove the Cover rear.
- 2) Detach the power housings connected to the Relay Assy.
- 3) Detach the screws from the Relay Assy and detach the Relay Assy.
- 4) Remove the Terminals connected to the Relay or Timer.
- 5) Detach the screws from the Relay or Timer and replace the Relay or Timer.
- 6) Reassemble the Relay or Timer the opposite way you detached it.



- END -