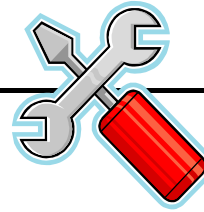


MAXX COLD

Service Manual For

MCR27S, MCR48S, MCR72S, MCR27U, MCR48U, MCR72U
MCF27U, MCF48U, MCF72U



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1. SPECIFICATIONS

PRODUCT		SANDWICH PREP.		
Model		MCR27S	MCR48S	MCR72S
Capacity (Liter)		198 ℓ	368 ℓ	566 ℓ
Exterior Dimension (m (excluding caster 152))	W	700	1230	1840
	D	762	762	762
	H	1080	1080	1080
Net Weight (Kg)		91	129	168
Power Voltage		220~240V/50Hz		
Amps.		1.5A	1.6A	3.7A
Compressor		1/5HP	1/4HP	3/8HP
Refrigerant		R-134a		
Range of Operating Temperature		0~4.5 °C		
Shelving		1	2	3
Vessel		1/6"x6+1/9"x2(8PC)	1/6"x12(12PC)	1/6"x12(18PC)
Swing Door		1	2	3

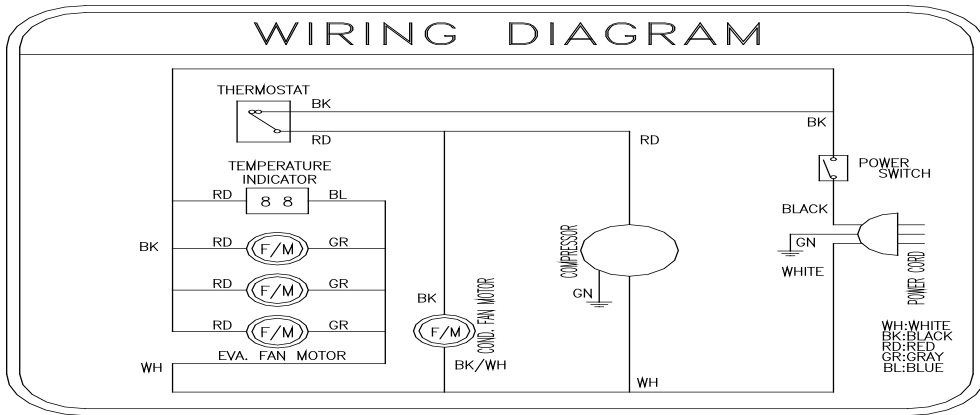
PRODUCT		UNDER COUNTER					
		Refrigerator			Freezer		
Model		MCR27U	MCR48U	MCR72U	MCF27U	MCF48U	MCF72U
Capacity (Liter)		198 ℓ	368 ℓ	566 ℓ	198 ℓ	368 ℓ	566 ℓ
Exterior Dimension (m (excluding caster 152))	W	700	1230	1840	700	1230	1840
	D	762	762	762	762	762	762
	H	910	910	910	910	910	910
Net Weight (Kg)		84	120	159	88.5	127	166
Power Voltage		220~240V/50Hz					
Amps.		1.5A	1.6A	2.7A	2.7A	4.4A	4.6A
Compressor		1/5HP	1/5HP	1/4HP	1/4HP	1/2HP	1/2HP
Refrigerant		R-134a			R-134a	R-404a	
Range of Operating Temperature		0~4.5 °C			Below -20 °C		
Shelving		2	4	6	2	4	6
Swing Door		1	2	3	1	2	3

* Above specifications are subject to change without prior notice for quality improvement.

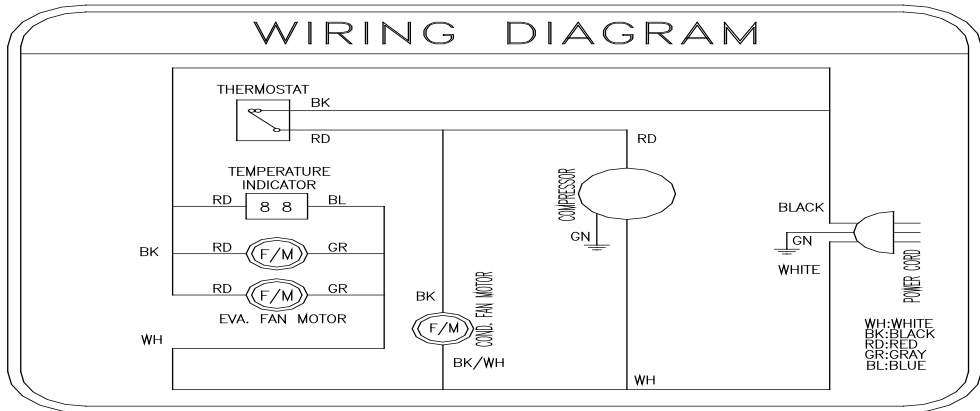
* The nameplate (include Serial Number) is located on the upper left of the cabinet interior.

2. WIRING DIAGRAMS

1. MCR27S, MCR48S, MCR27U, MCR48U

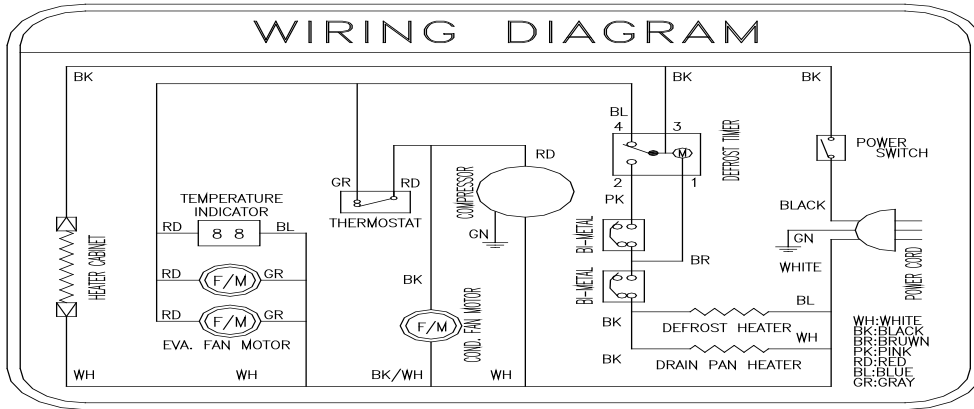


2. MCR72S, MCR72U

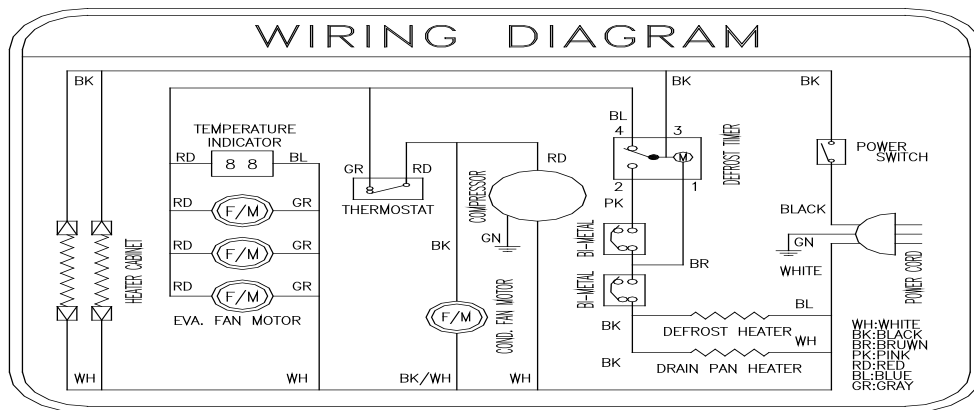


WIRING DIAGRAMS

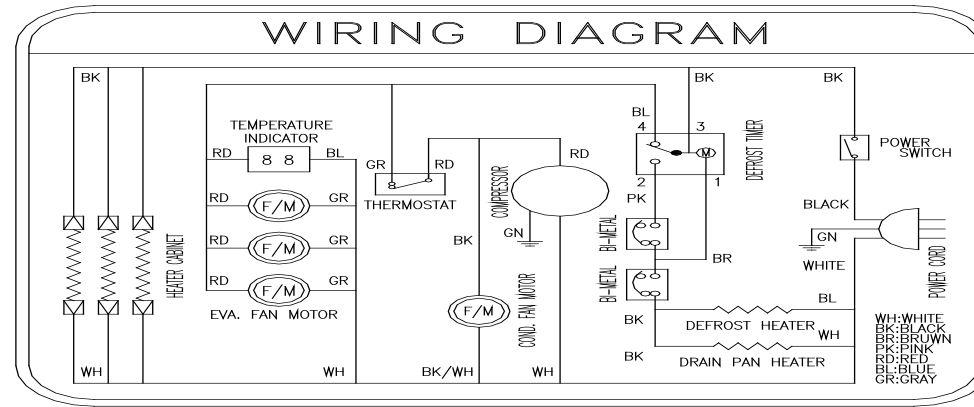
4. MDF27U



5. MDF48U

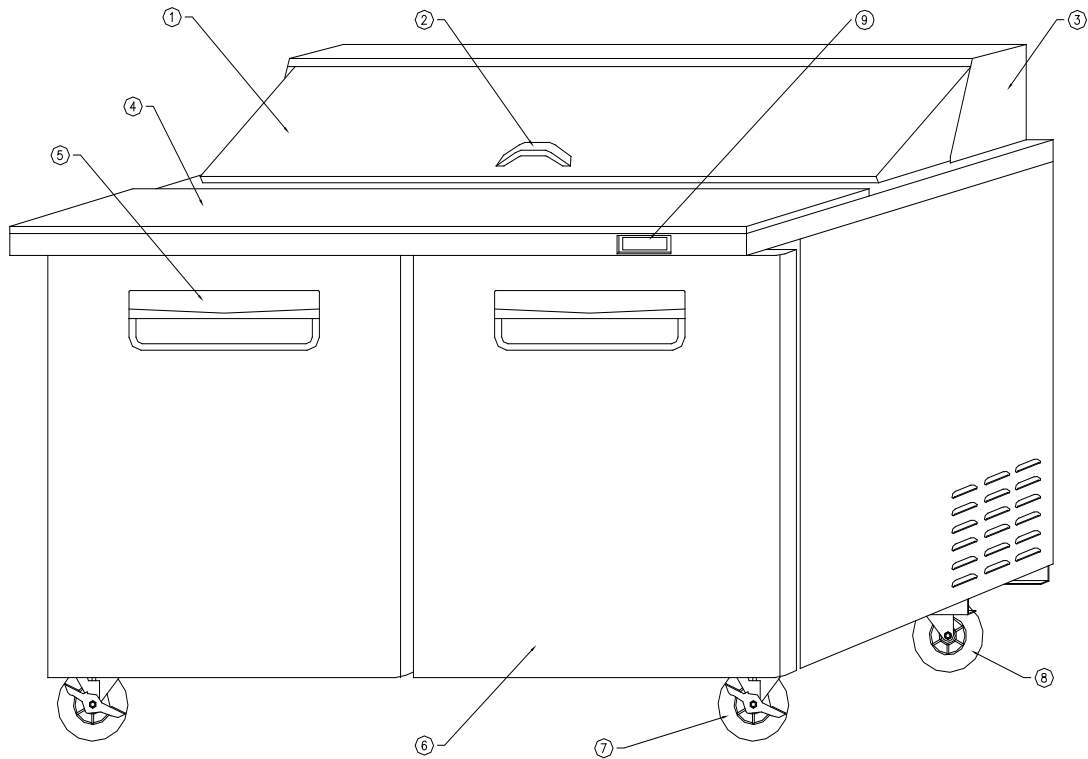


6. MDF72U



3. FEATURE CHART

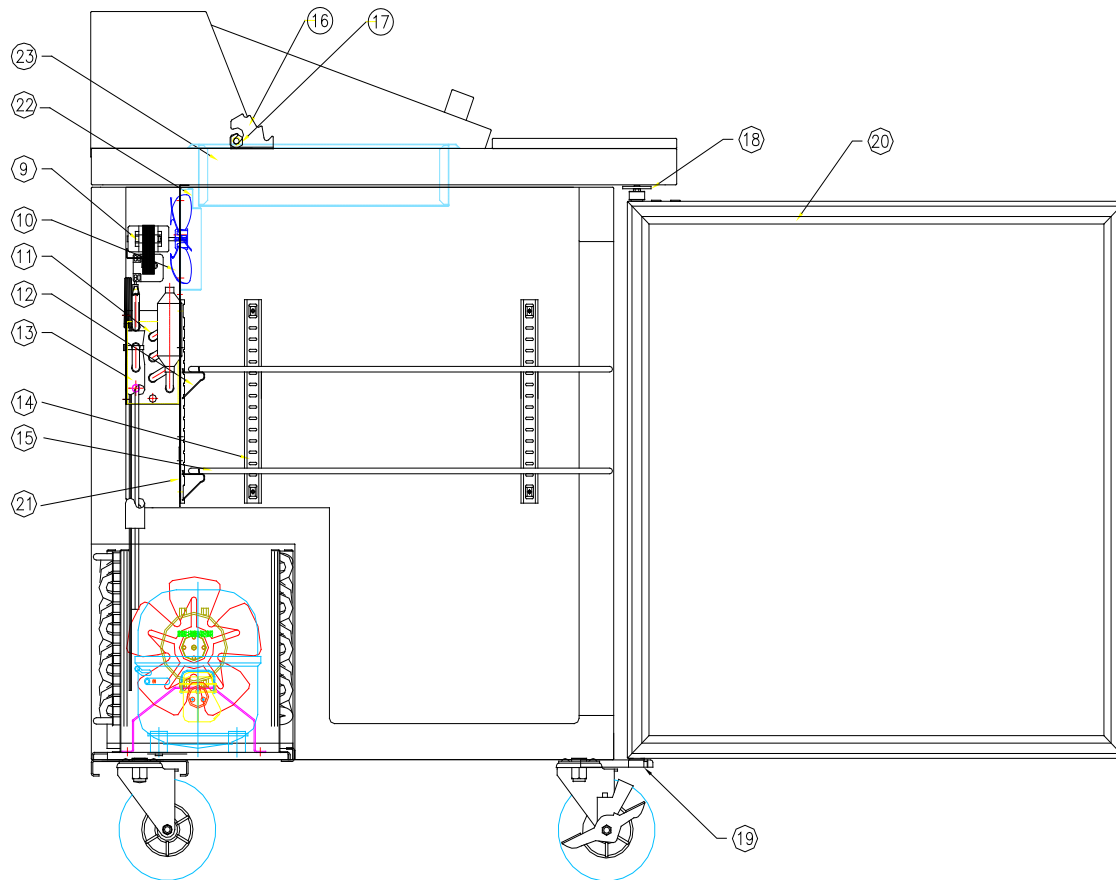
1. FRONT VIEW



- 1. TOP COVER FRONT
- 2. TOP COVER HANDLE
- 3. TOP COVER BACK
- 4. CUTTING BOARD
- 5. DOOR HANDLE
- 6. DOOR ASSEMBLY
- 7. CASTER WITH BRAKE
- 8. CASTER
- 9. TEMPERATURE INDICATOR

FEATURE CHART

2. SIDE VIEW

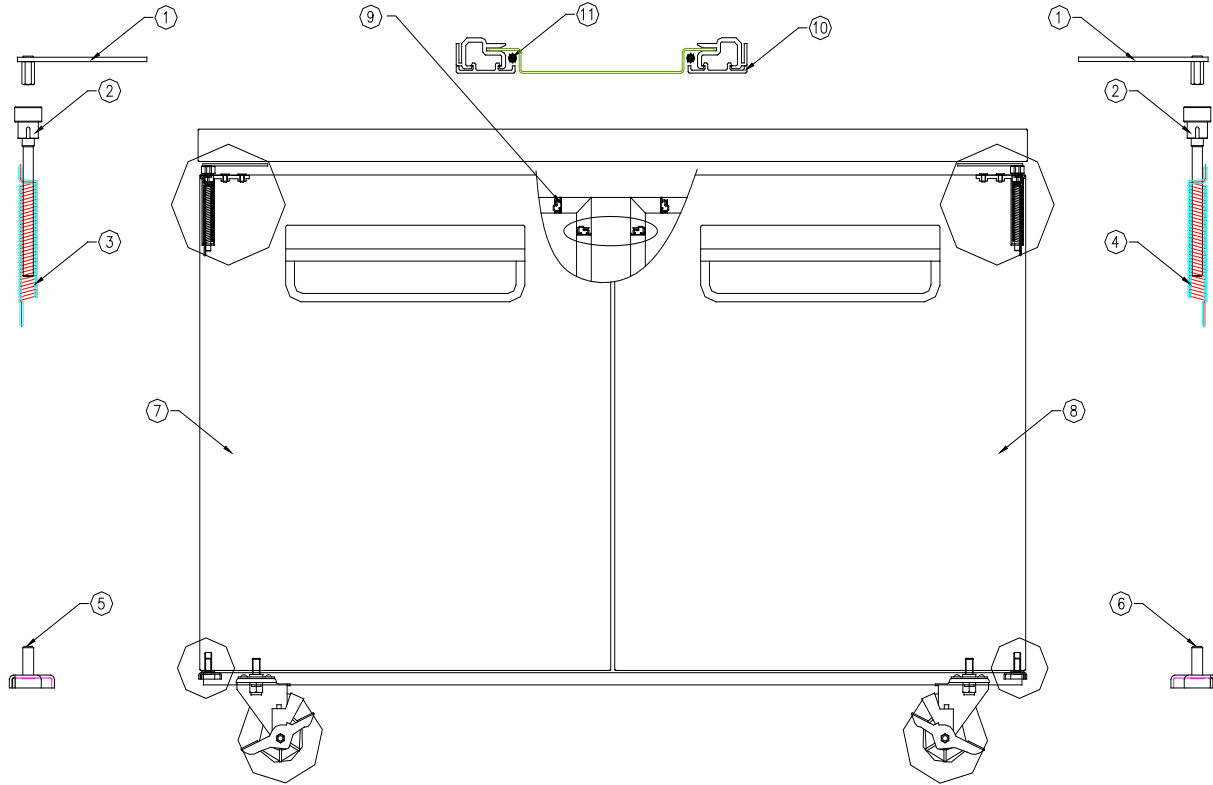


- 9. EVAPORATOR FAN MOTOR
- 10. EVAPORATOR FAN
- 11. EVAPORATOR
- 12. SHELF CLIP
- 13. SUCTION PIPE
- 14. SHELF PILASTER
- 15. SHELF
- 16. TOP COVER HINGE

- 17. TOP COVER HINGE SHAFT
- 18. DOOR HINGE TOP ASSEMBLY
- 19. DOOR HINGE BOTTOM ASSEMBLY
- 20. DOOR GASKET
- 21. DUCT
- 22. LOUVER
- 23. FRAME VESSEL

4. PART LIST

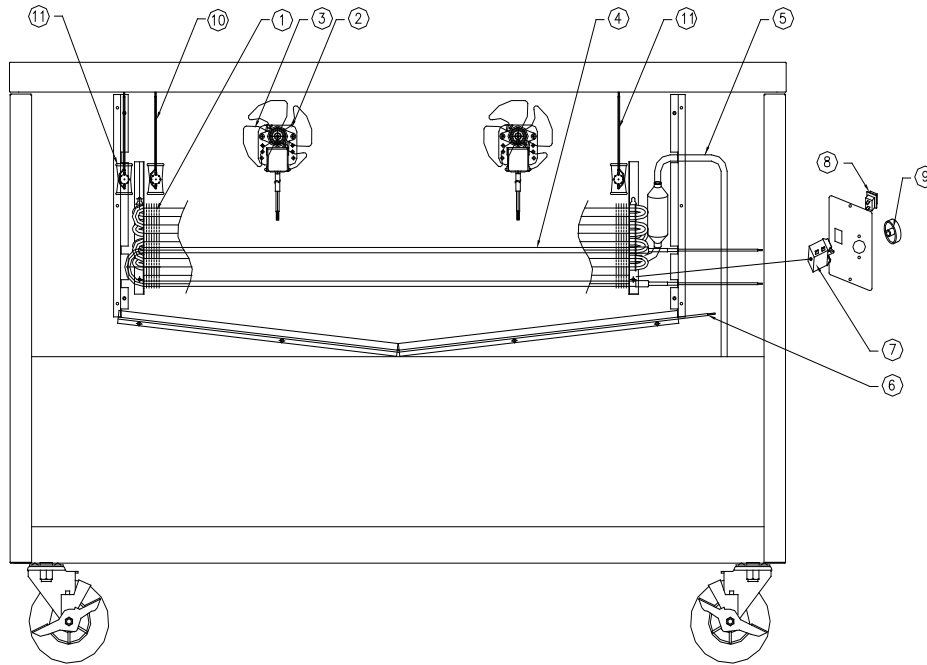
1. FRONT & DOOR PART



No	Part Name	Description	Part Number	Quantity								
				LST			LUC			LUC		
				200R	350R	650R	200R	350R	650R	200F	350F	650F
1	HINGE TOP ASSEMBLY	STS304	F0131C030	1	2	3	1	2	3	1	2	3
2	HINGE SHAFT	ZNDC2(Cr)	F0155C010	1	2	3	1	2	3	1	2	3
3	SPRING (LEFT)	PW2+ZN	F0158C010	N/A	1	2	N/A	1	2	N/A	1	2
4	SPRING (RIGHT)	PW2+ZN	F0158C020	1	1	1	1	1	1	1	1	1
5	HINGE BOTTOM (LEFT)	STS304	F0131C010	N/A	1	2	N/A	1	2	N/A	1	2
6	HINGE BOTTOM (RIGHT)	STS304	F0131C020	1	1	1	1	1	1	1	1	1
7	DOOR ASSEMBLY (LEFT)	STS430 URT	F0100C030	N/A	1	2	N/A	1	2	N/A	1	2
8	DOOR ASSEMBLY (RIGHT)	STS430 URT	F0100C020	N/A	1	1	N/A	1	1	N/A	1	1
			F0100C010	1	N/A	N/A	1	N/A	N/A	1	N/A	N/A
9	FRAME COVER (TOP, UNDER)	ABS, L584	F0123C130	1	N/A	N/A	1	N/A	N/A	1	N/A	N/A
		ABS, L502.5	F0123C120	N/A	4	6	N/A	4	6	N/A	4	6
10	FRAME COVER (LEFT, RIGHT)	ABS, L581	F0123C110	2	4	6	2	4	6	2	4	6
11	HEATER CAB	PVC 2540	F0130C090	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A
		PVC 2380	F0130C100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	3

PART LIST

2. EVAPORATOR PART

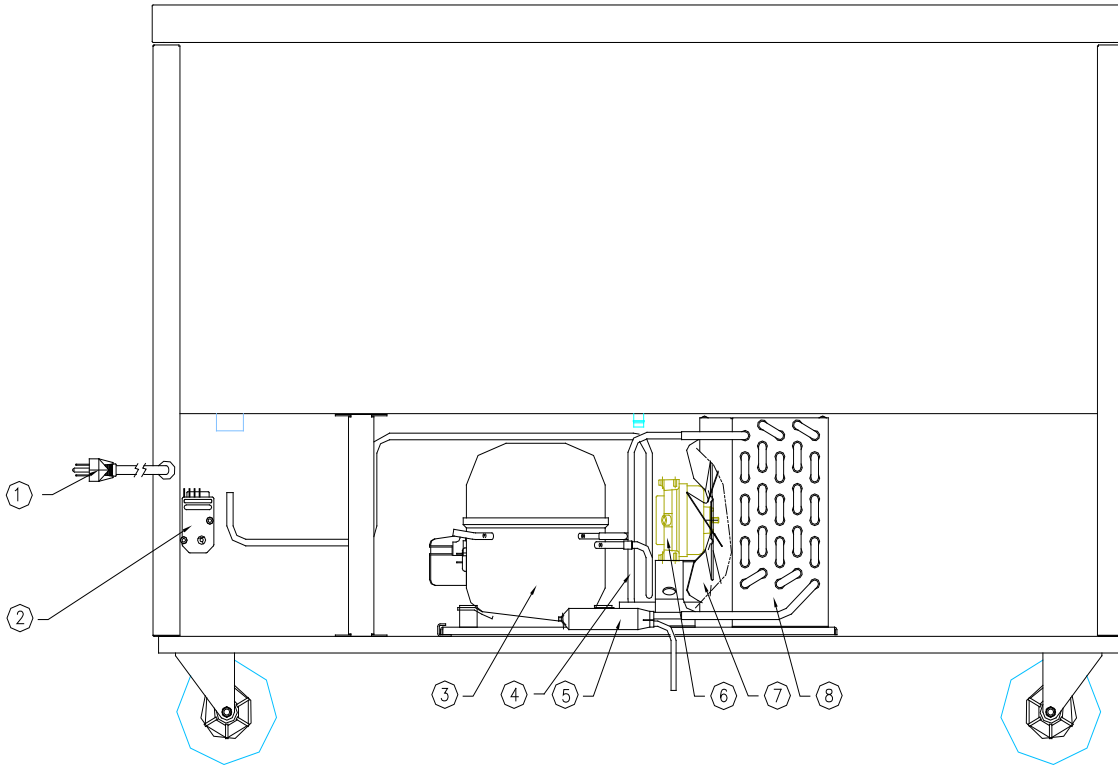


No	Part Name	Description	Part Number	Quantity								
				LST			LUC			LUC		
				200R	350R	650R	200R	350R	650R	200F	350F	650F
1	EVAPORATOR	4S*3R, 9.52	F0119C010	1	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A
			F0119C020	N/A	1	N/A	N/A	1	N/A	N/A	N/A	N/A
			F0119C030	N/A	N/A	1	N/A	N/A	1	N/A	N/A	N/A
			F0119C040	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A
			F0119C050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A
			F0119C060	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
2	EVAPORATOR FAN MOTOR	3W	F0140C020	2	2	3	2	2	3	2	3	3
3	EVAPORATOR FAN	ABS, 4"	F0120C020	2	2	3	2	2	3	2	3	3
4	DEFROST HEATER	230V/300W	F0130C140	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A
		230V/500W	F0130C150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A
		230V/700W	F0130C160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
5	SUCTION PIPE AS (EVA.)	OD 7.94	F0100C090	1	1	1	1	1	1	1	1	1
6	DRAIN HEATER	230V/16W	F0130C110	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A
		230V/30W	F0130C120	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A
		230V/43W	F0130C130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
7	THERMOSTAT CONTROL	GNA-240L	F0163A020	1	1	1	1	1	1	N/A	N/A	N/A
		GNA-240-5	F0163C010	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1
8	POWER SWITCH	250V/10A	F0161A030	N/A	N/A	1	N/A	N/A	1	1	1	1
9	KNOB	ABS	F0167A010	1	1	1	1	1	1	1	1	1
10	PL-METAL	PB308	F0170C010	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1

11	DI METAL	PST-3A	F0170C020	N/A	N/A	N/A	N/A	N/A	N/A	2	2	2
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PART LIST

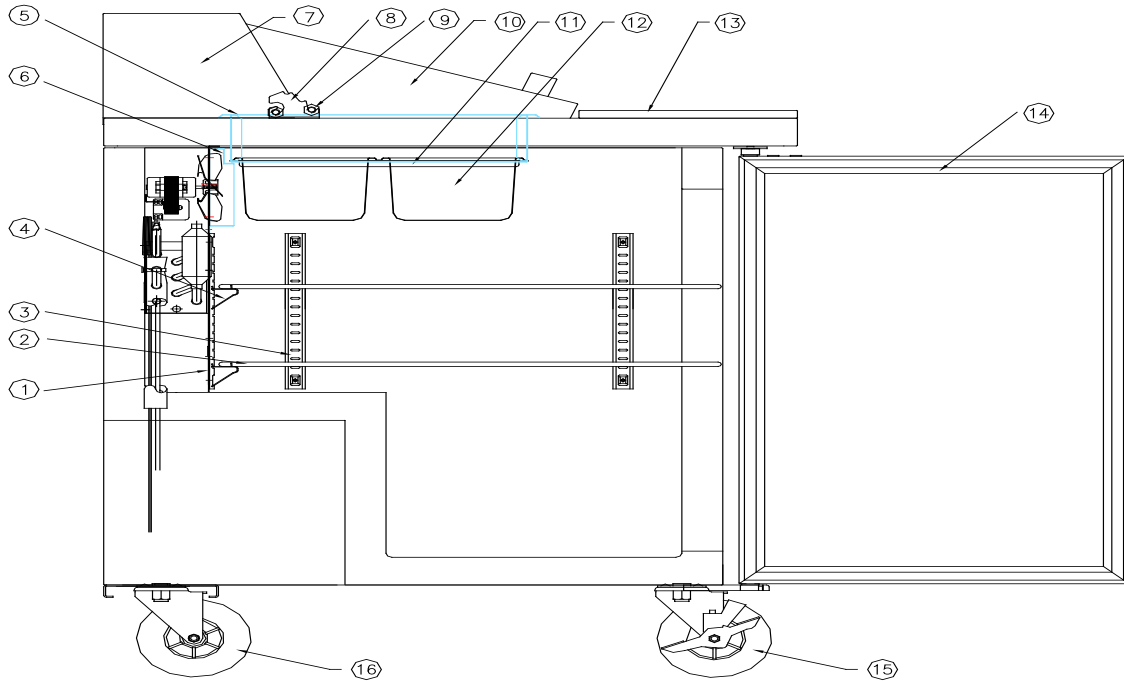
3. CONDENSING UNIT PART



No	Part Name	Description	Part Number	Quantity									
				LST			LUC			LUC			
				200R	350R	650R	200R	350R	650R	200F	350F	650F	
1	MAIN POWER CORD	250V/10A	F0111C030	1	1	1	1	1	1	1	1	1	
2	RELAY	UZ2A 110BT	F0151C010								1	1	1
3	TIMER	TD-20NT	F0151C020								1	1	1
5	COMPRESSOR	SD162H-L2U	F0140C080	1			1	1					
		SK1A1Q-L2U	F0140C100	N/A	1	N/A	N/A	N/A	1	1	N/A	N/A	
		SK6A3Q-2U	F0140C110	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	
		CAE2420Z	F0140C120	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	
	HARNESS COMP.	AWM1015	F0129C040	1	1	1	1	1	1	1	N/A	N/A	
			F0129C050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	
6	HOT PIPE	OD 7.94	F0147C110	1	1	N/A	1	1	1	N/A	N/A	N/A	
			F0147C120	N/A	N/A	1	N/A	N/A	N/A	1	1	N/A	
			F0147C130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	
7	DRYER	XH-9,20g	F0116C020	1	1	N/A	1	1	1	1	N/A	N/A	
		XH-9,30g	F0116C010	N/A	N/A	1	N/A	N/A	N/A	N/A	1	1	
8	CONDENSER FAN MOTOR	DAI-8204DYA-2	F0140C030	1	1	2	1	1	1	1	2	2	
9	CONDENSER FAN	AL φ200	F0120C020	1	1	2	1	1	1	1	2	2	
10	CONDENSER	10S*4R, φ4.76	F0166C100	N/A	1	N/A	N/A	1	1	1	N/A	N/A	
		8S*4R, φ4.76	F0166C110	1	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	
		8S*5R, φ9.52	F0166C030	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	

PART LIST

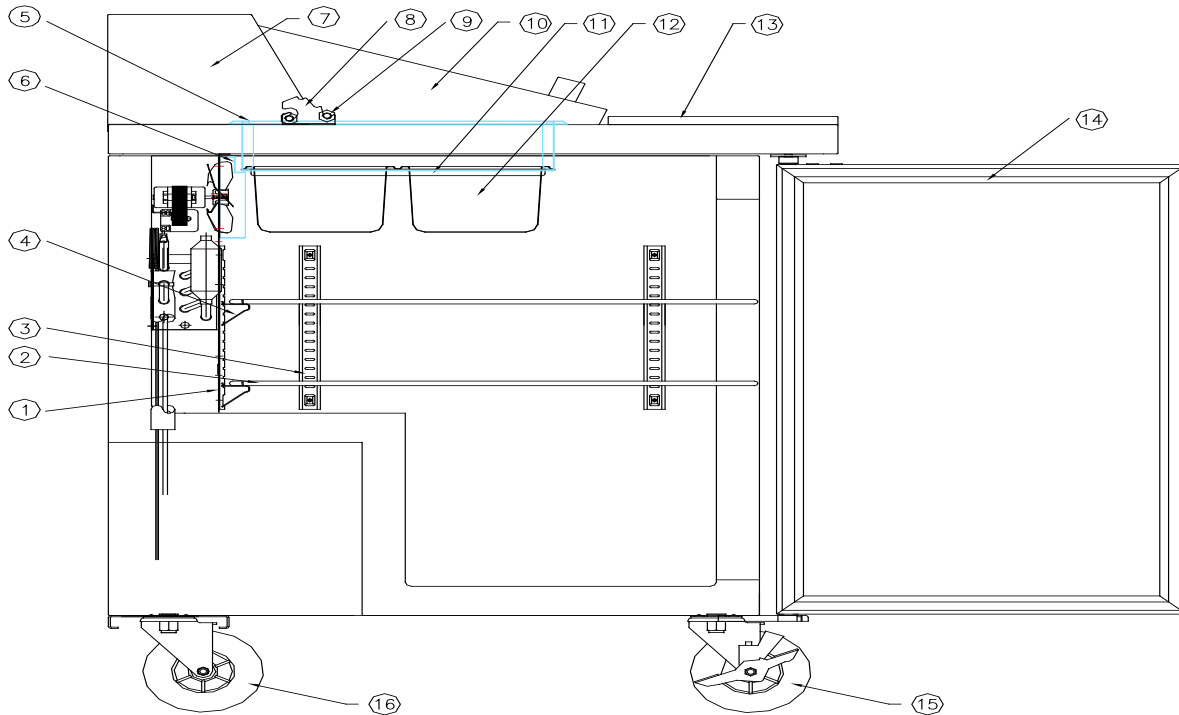
4. INNER CABINET & DUCT PART 4-1. INNER CABINET PART



No	Part Name	Description	Part Number	Quantity								
				LST			LUC			LUC		
				200R	350R	650R	200R	350R	650R	200F	350F	650F
1	DUCT	STS304	F0117C010	1	N/A	N/A	1	N/A	N/A	1	N/A	N/A
			F0117C020	N/A	1	N/A	N/A	1	N/A	N/A	N/A	N/A
			F0117C030	N/A	N/A	1	N/A	N/A	1	N/A	N/A	N/A
			F0117C040	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	N/A
			F0117C050	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
2	SHELF	SWRM-B (+PE Coating)	F0156C010	1	N/A	1	2	N/A	2	2	N/A	2
			F0156C020	N/A	2	2	N/A	4	4	N/A	4	4
3	SHELF PILASTER	STS304	F0146C010	4	8	12	4	8	12	4	8	12
4	SHELF CLIP	STS304	F0121C040	4	8	16	8	16	24	8	16	24
5	FRAME VESSEL ASSEMBLY	STS304	F0160C200	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0160C210	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0160C220	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A
6	LOUVER	STS304	F0139C011	1	N/A	N/A	1	N/A	N/A	1	N/A	N/A
			F0139C021	N/A	1	N/A	N/A	1	N/A	N/A	1	N/A
			F0139C031	N/A	N/A	1	N/A	N/A	1	N/A	N/A	1
7	TOP COVER (BACK)	STS430	F0112C300	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0112C310	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0112C400	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A

PART LIST

4-2. COVER & DUCT PART



No	Part Name	Description	Part Number	Quantity								
				LST			LUC			LUC		
				200R	350R	650R	200R	350R	650R	200F	350F	650F
8	TOP COVER HINGE (LEFT)	STS430	F0131C070	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A
	TOP COVER HINGE (RIGHT)		F0131C080	1	1	1	N/A	N/A	N/A	N/A	N/A	N/A
9	TOP COVER HINGE SHAFT	STS303	F0155C010	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A
10	TOP COVER AS (FRONT)	STS430	F0100C040	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0100C050	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0100C060	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A
11	FIXTURE VESSEL	STS304	F0160C020	3	NA	NA	N/A	N/A	N/A	N/A	N/A	N/A
			F0160C030	N/A	5	8	N/A	N/A	N/A	N/A	N/A	N/A
12	VESSEL		F0109C040	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0109C030	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	CUTTING BOARD	LDPE	F0103C010	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0103C020	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			F0103C030	N/A	N/A	1	N/A	N/A	N/A	N/A	N/A	N/A
14	DOOR GASKET	PVC-S	F0124C010	1	N/A	N/A	1	N/A	N/A	1	N/A	N/A
			F0124C020	N/A	2	3	N/A	2	3	N/A	2	3
15	CASTOR	152	F0110C030	2	2	2	2	2	2	2	2	2
16	CASTOR WITH BRAKE	152	F0110C040	2	2	2	2	2	2	2	2	2

5. MAIN COMPONENTS

1. COMPRESSOR

Model	LST			LUC			LUC		
	200R	350R	650R	200R	350R	650R	200F	350F	650F
Refrigerant	R-134a						R-134a	R-404a	
Voltage	240V/50Hz								
Comp. Model	SD162H-L2U	SK1A1Q-L2U	SK6A3Q-2U	SD162H-L2U	SD162H-L2U	SK1A1Q-L2U	SK1A1Q-L2U	CAE2420Z or CAE2424Z	
Starting type	RSCR	RSCR	RSCR	RSCR	RSCR	RSCR	RSCR	RSCR	
Part code	F0140A080	F0140C100	F0140C110	F0140A080	F0140A080	F0140C100	F0140C100	F0140C120	

2. COMPRESSOR RELAY

Voltage	240V/50Hz								
Relay. Model	33Ω	22Ω	22Ω	33Ω	33Ω	22Ω	22Ω	MTRP0030-31	
OL. Model	265RHBYY-53	308PHBYY-53	757UFBYY-53	265RHBYY-53	265RHBYY-53	308PHBYY-53	308PHBYY-53	MST28AMK	

3. CONDENSER DRYER

Spec.	XH-9(20g)	XH-9(30g)	XH-9(30g)	XH-9(20g)	XH-9(20g)	XH-9(30g)	XH-9(20g)	XH-9(30g)	XH-9(30g)
Part code	F0116C020	F0116C010	F0116C010	F0116C020	F0116C020	F0116C010	F0116C010	F0116C010	F0116C010

4. CAPACITOR

Voltage	240V/50Hz								
Running	3.5μF/250VAC	8μF/350VAC	12μF/350VAC	3.5μF/250VAC	3.5μF/250VAC	8μF/350VAC	8μF/350VAC	64μF/260VAC	
Starting	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

5. EVA. FAN MOTOR

Voltage	240V/50Hz	
Motor Model	DAI-6122DYMA-1(CCW)	
Part code	F0140C020	

6. CONDENSER FAN MOTOR

Voltage	240V/50Hz	
Motor Model	DAI-8204DYA-2(CW)	
Part code	F0140C030	

7. DEFROST HEATER

Voltage	N/A		220~240V		
Spec.	N/A		300W,176Ω	500W,106Ω	700W,76Ω
Part code	N/A		F0130C140	F0130C150	F0130C160

8. EVA. FAN MOTOR

Voltage	240V/50Hz	
Motor Model	DAI-6122DYMA-1(CCW)	

Part code	F0140C020
-----------	-----------

MAIN COMPONENTS

8. FRAME HEATER

Model	LST			LUC			LUC		
	200R	350R	650R	200R	350R	650R	200F	350F	650F
Voltage	230V								
Spec.	N/A						20W	20W	
Part code	N/A						F0130C090	F0130C100	

9. DRN HEATER

Voltage	230V					
Spec.	N/A			16W	30W	43W
Part code	N/A			F0130C110	F0130C120	F0130C130

10. TIMER

Voltage	220V/10A	
Spec.	N/A	TD-20NT
Part code	N/A	F0151C020

11. BI-METAL

Spec.	N/A	PB308
Part code	N/A	F0170C010
Spec.	N/A	PST-3A
Part code	N/A	F0170C020

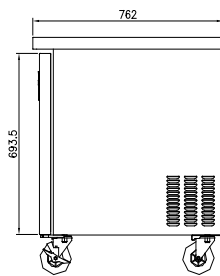
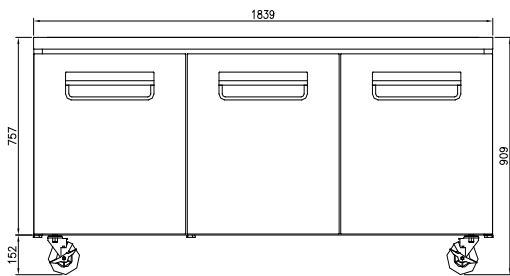
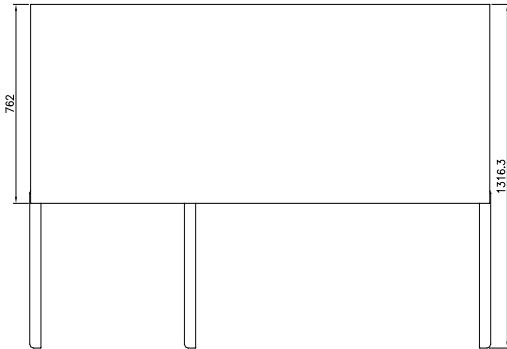
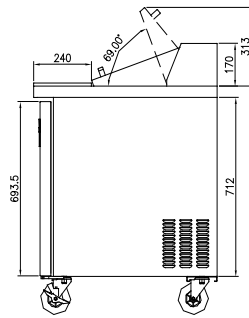
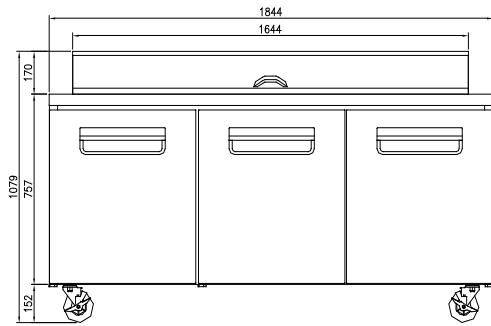
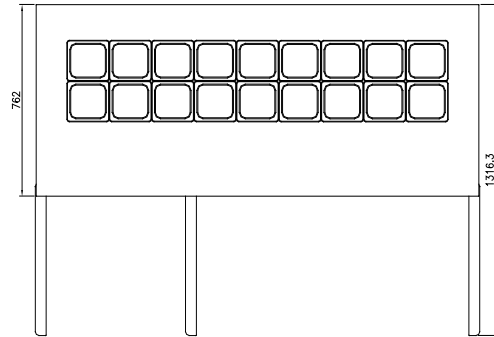
12. THERMOSTAT CONTROL

Spec.	GNA-240L	N/A
Part code	F0163A020	N/A
Spec.	N/A	GNA-240L-5
Part code	N/A	F0163C010

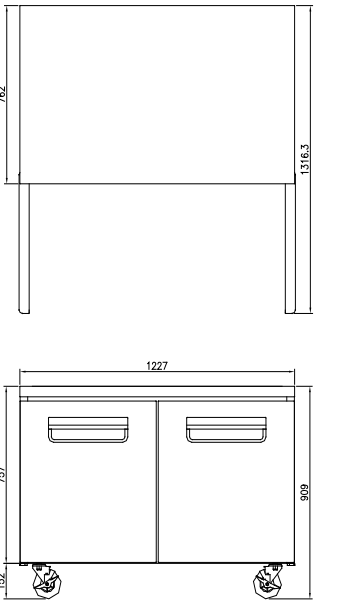
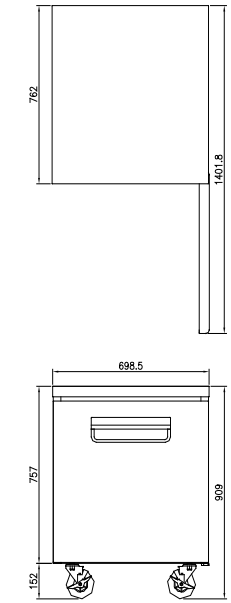
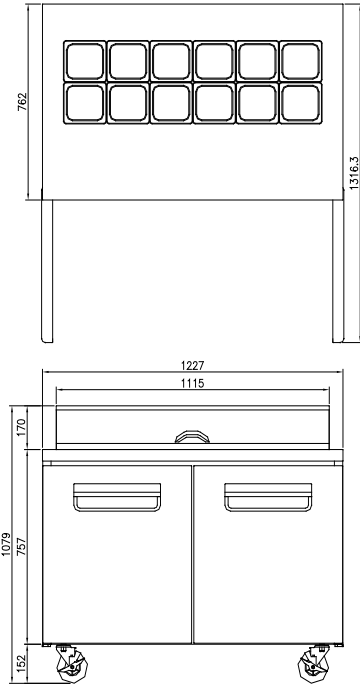
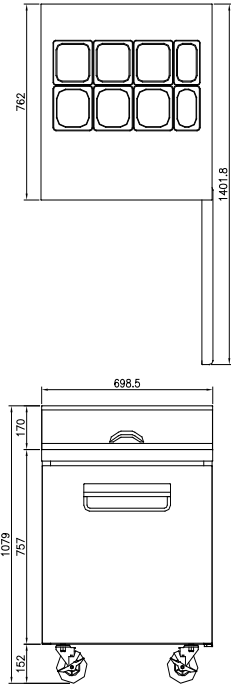
7. TROUBLESHOOTING

Problem	Possible Cause
Compressor is not starting	Power connection failure
	Power switch is 'off' position (Freezer model only)
	Thermostat is in 'off' position
	Overload protector tripped
	Improper or loose wiring
The unit is not refrigerating well	Incorrect control setting
	Inadequate air circulation
	Door not sealing
	Refrigerant leak
	Fan motor defective
	Not enough ventilation
	Condenser is clogged
Thermostat defective	
Evaporator is not defrosting completely	Not enough defrosting occurring during humid condition
	Defrost heater is defective
	Improper or loose wiring
Condensate water overflow	Poor sealing around door gasket
	Storing too many warm or moist products
	Extreme environment (i.e. rainy season etc)

Remedy
Check power cord and plug it in
Turn it to 'ON' position
Reset it
Check the reason and correct or replace O.L.P if necessary
Check wiring against diagram
Reset the thermostat
Rearrange stocked product to improve air circulation
Check the sealing condition and correct it
Check the leak part and repair / recharge
Check and replace it
Move the unit in a well ventilated place with at least 7inches of clearance on all sides
Clean it
Replace it
Replace it
Check wiring against diagram
Adjust and clean or replace it if necessary
Cover products with plastic wrap



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