

REFRIGERATOR MANUFACTURER
Turbo air

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REFRIGERATOR MANUFACTURER
Turbo air

**Commercial
Refrigerator
Service Manual**

**Chef Base Equipment
Model No.: TCBE-52SDR
TCBE-82SDR
TCBE-96SDR**

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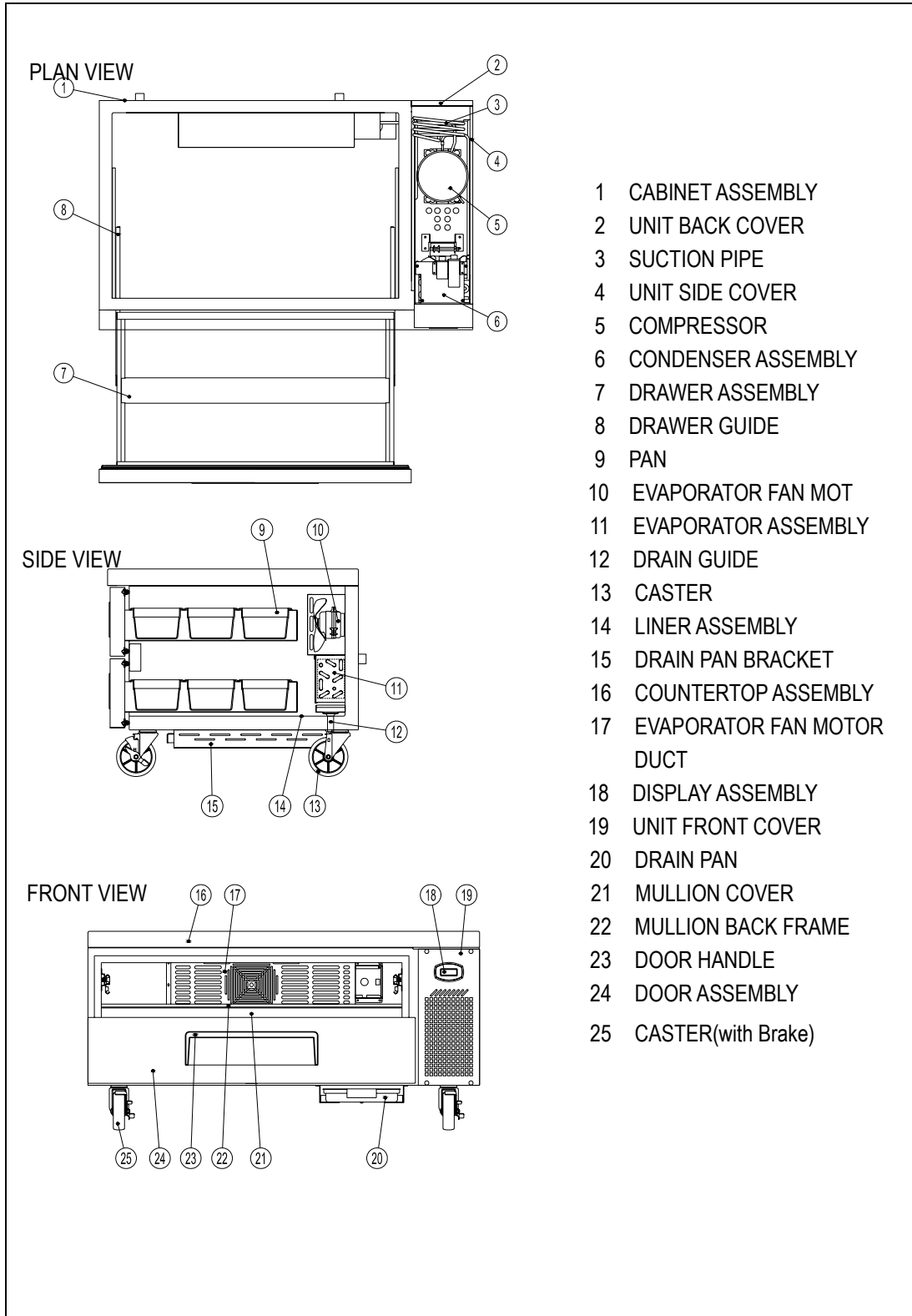
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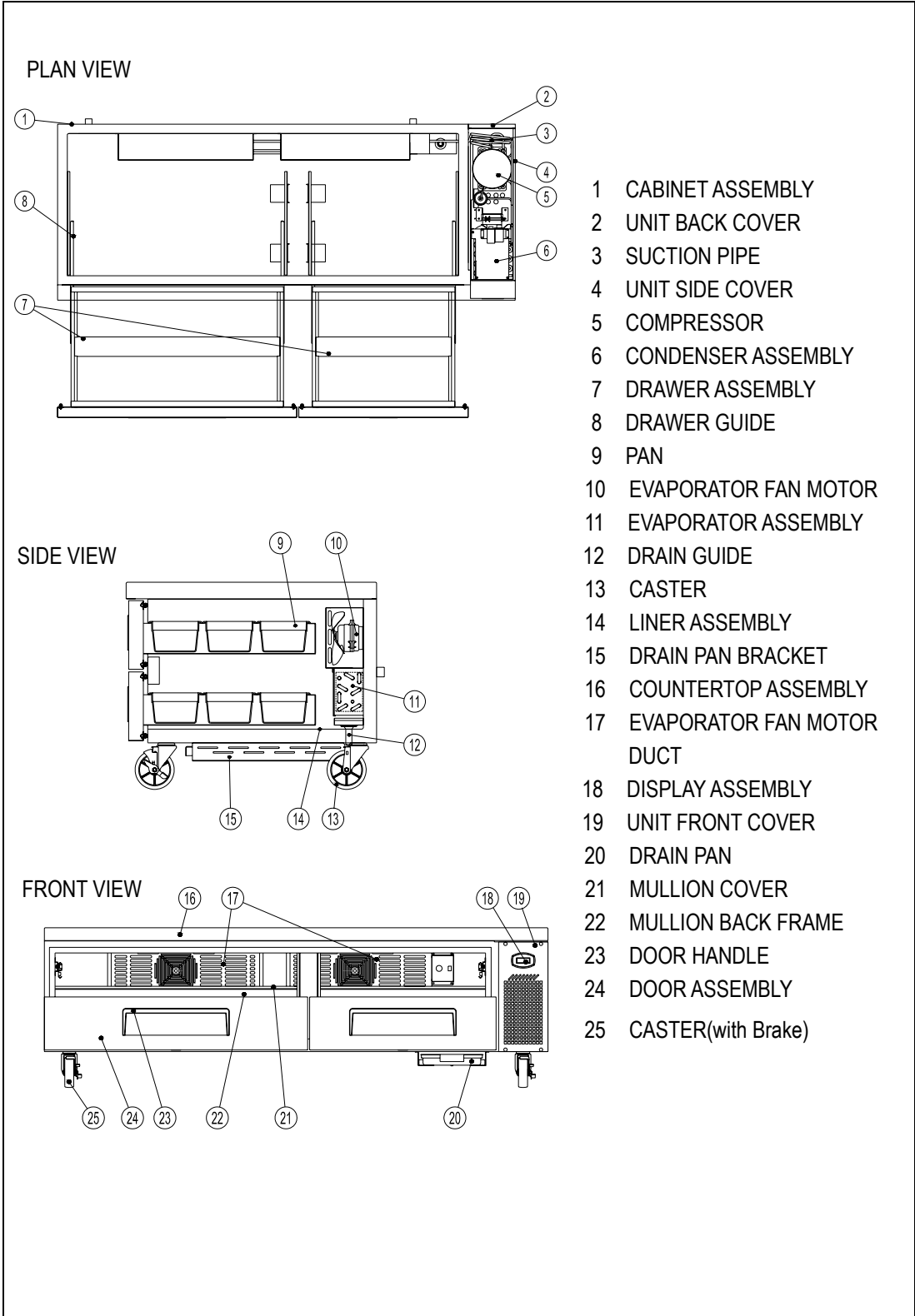
1.FEATURE CHART

1-1. PLAN VIEW/SIDE VIEW/FRONT VIEW(TCBE-52SDR)



- 1 CABINET ASSEMBLY
- 2 UNIT BACK COVER
- 3 SUCTION PIPE
- 4 UNIT SIDE COVER
- 5 COMPRESSOR
- 6 CONDENSER ASSEMBLY
- 7 DRAWER ASSEMBLY
- 8 DRAWER GUIDE
- 9 PAN
- 10 EVAPORATOR FAN MOT
- 11 EVAPORATOR ASSEMBLY
- 12 DRAIN GUIDE
- 13 CASTER
- 14 LINER ASSEMBLY
- 15 DRAIN PAN BRACKET
- 16 COUNTERTOP ASSEMBLY
- 17 EVAPORATOR FAN MOTOR DUCT
- 18 DISPLAY ASSEMBLY
- 19 UNIT FRONT COVER
- 20 DRAIN PAN
- 21 MULLION COVER
- 22 MULLION BACK FRAME
- 23 DOOR HANDLE
- 24 DOOR ASSEMBLY
- 25 CASTER(with Brake)

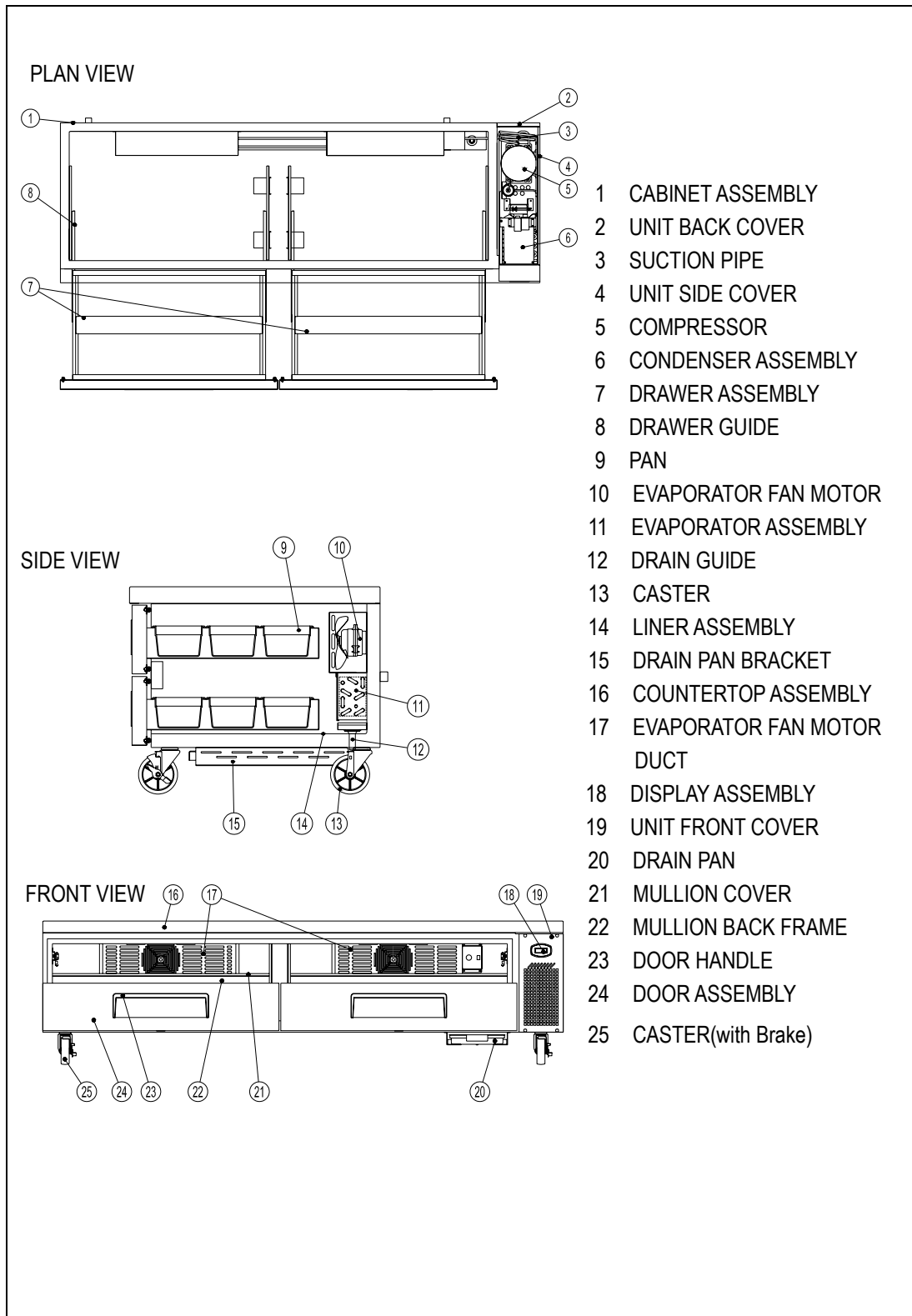
1-2. PLAN VIEW/SIDE VIEW/FRONT VIEW(TCBE-82SDR)



- 1 CABINET ASSEMBLY
- 2 UNIT BACK COVER
- 3 SUCTION PIPE
- 4 UNIT SIDE COVER
- 5 COMPRESSOR
- 6 CONDENSER ASSEMBLY
- 7 DRAWER ASSEMBLY
- 8 DRAWER GUIDE
- 9 PAN
- 10 EVAPORATOR FAN MOTOR
- 11 EVAPORATOR ASSEMBLY
- 12 DRAIN GUIDE
- 13 CASTER
- 14 LINER ASSEMBLY
- 15 DRAIN PAN BRACKET
- 16 COUNTERTOP ASSEMBLY
- 17 EVAPORATOR FAN MOTOR DUCT
- 18 DISPLAY ASSEMBLY
- 19 UNIT FRONT COVER
- 20 DRAIN PAN
- 21 MULLION COVER
- 22 MULLION BACK FRAME
- 23 DOOR HANDLE
- 24 DOOR ASSEMBLY
- 25 CASTER(with Brake)

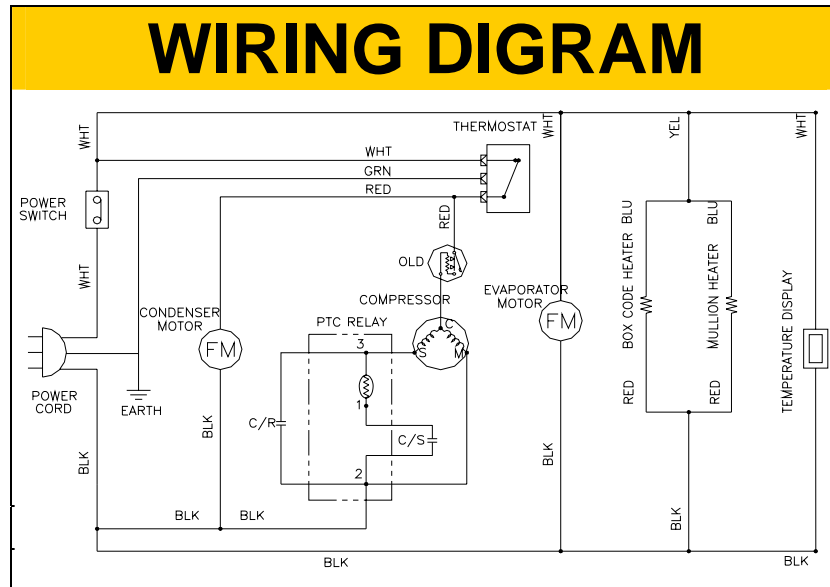
FEATURE CHART

1-3. PLAN VIEW/SIDE VIEW/FRONT VIEW(TCBE-96SDR)

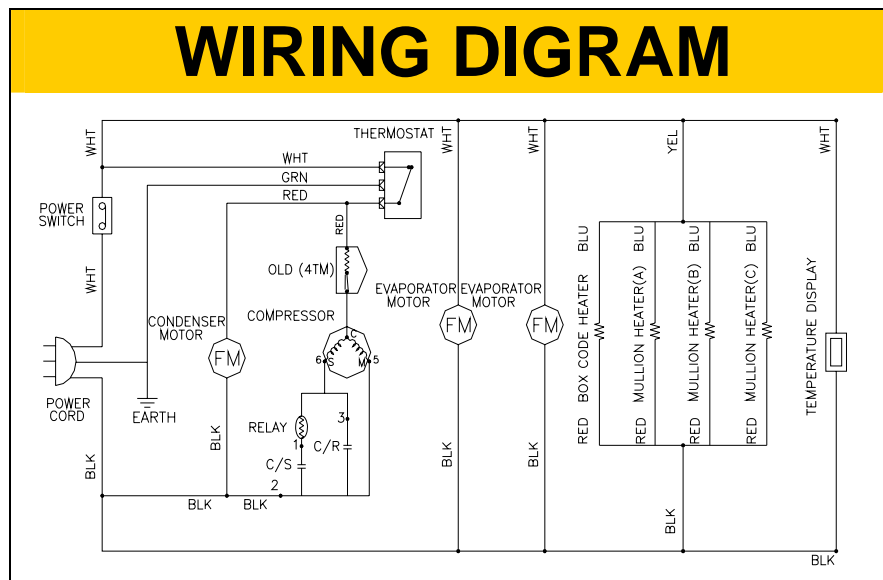


2. WIRING DIAGRAMS

2-1.TCBE-52SDR



2-1.TCBE-82/96SDR



3.PART DETAIL

3-1. COMPRESSOR COMPARTMENT



**CONDENSING UNIT ASSEMBLY
TCBE-52SDR**



**CONDENSING UNIT ASSEMBLY
TCBE-82SDR/TCBE-96SDR**

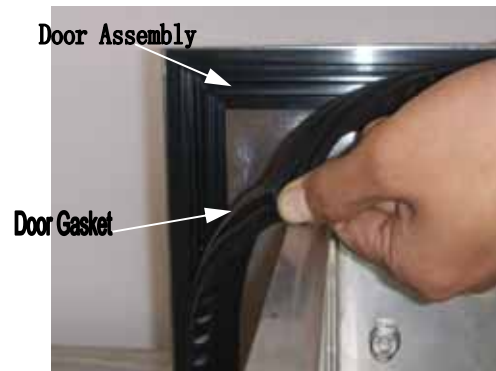


**CONDENSER FAN MOTOR ASSEMBLY
TCBE-52SDR**

**CONDENSER FAN MOTOR ASSEMBLY
TCBE-82SDR/TCBE-96SDR**

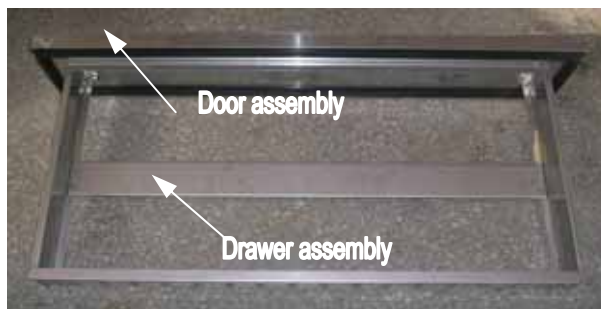
PART DETAILS

3-2. DOOR

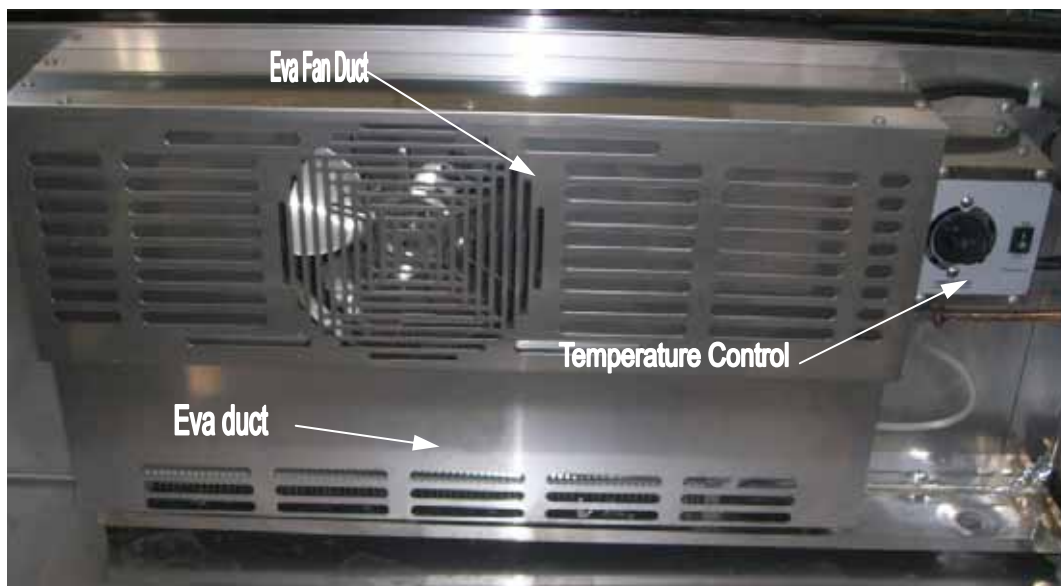


DOOR GASKET

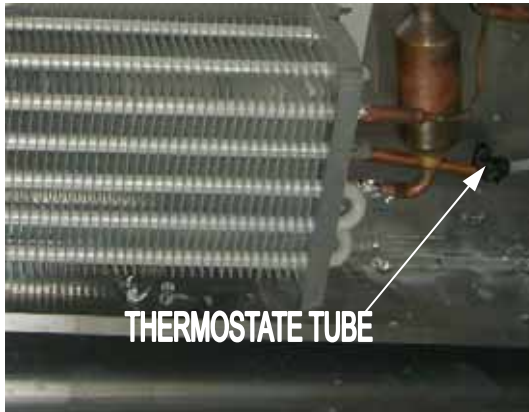
3-3. DRAWER



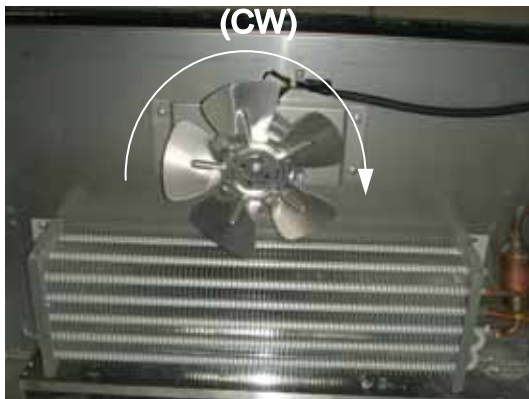
3-4. REFRIGERATION COMPARTMENT



EVA FAN DUCT



EVAPORATOR COIL



**EVAPORATOR FAN MOTOR
(TCBE-52SDR)**



THERMOSTATE

4.MAIN COMPONENTS

1.COMPRESSOR

MODEL	PART NAME	PART NO.	HORSE POWER	CAPACITY	TYPE OF MOTOR	INPUT	MAKER
TCBE-52SDR	HBL27YE-1	M369700100	1/4HP	~	CSR	~	DAEWOO
TCBE-82SDR	SK1A1C-L2W	M609700100	1/3HP	~	CSR	~	SAMSUNG
TCBE-96SDR	SK1A1C-L2W	M609700100	1/3HP	~	CSR	~	SAMSUNG

2.COMPRESSOR RELAY,OVERLOAD

MODEL	RELAY	PART NO.	OVER LOAD	PART NO.	MAKER	NOTE
TCBE-52SDR	GSR SO68 BO8 08	~	4TM795TFBZZ-52	~	DAEWOO	~
TCBE-82SDR	J531Q34E220M3503	~	4TM795TFBZZ-53	~	SAMSUNG	~
TCBE-96SDR	J531Q34E220M3503	~	4TM795TFBZZ-53	~	SAMSUNG	~

3.COMPRESSOR CAPACITOR

MODEL	STARTING	PART NO.	RUNING	PART NO.	MAKER	NOTE
TCBE-52SDR	200V/100 μ F	~	230V/10 μ F	~	~	~
TCBE-82SDR	125V/125 μ F	~	250V/12 μ F	~	~	~
TCBE-96SDR	125V/125 μ F	~	250V/12 μ F	~	~	~

4.CONDENSER FAN MOTOR

MODEL	PART NAME	PART NO.	POLE	INPUT	TYPE	BLADE (NUMBER)	MAKER
TCBE-52SDR	IS-4420DWSN-2A	3963328120	4P	47W	Shaded Pole Induction	AL5	SUNGSHIN
TCBE-82SDR							
TCBE-96SDR							

5.EVAPORATOR FAN MOTOR

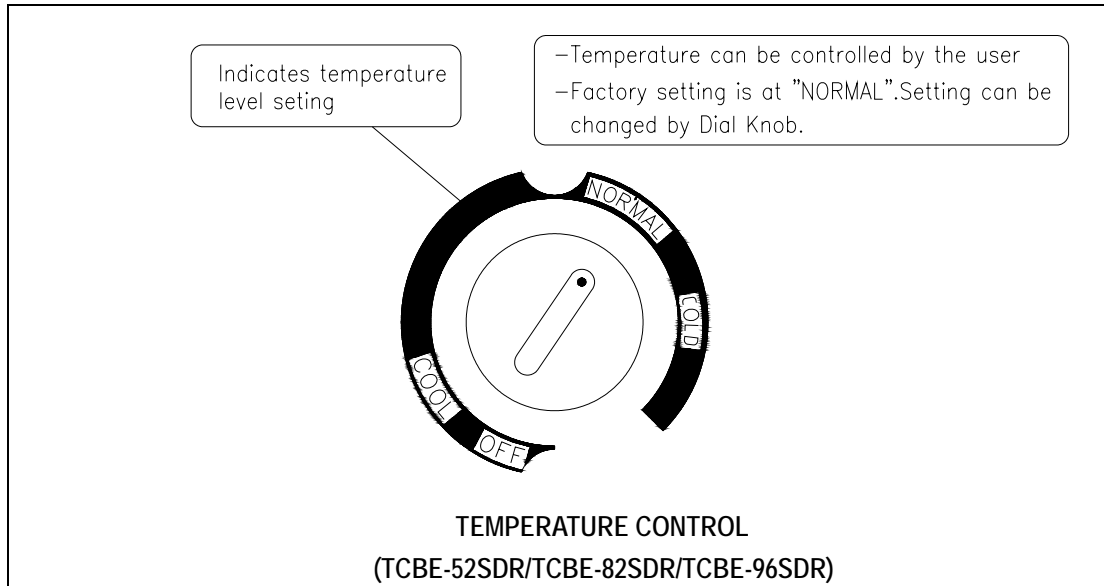
MODEL	PART NAME	PART NO.	POLE	INPUT	TYPE	BLADE (NUMBER)	MAKER
TCBE-52SDR	IS-4420DWSN-2A	3963328120	4P	47W	Shaded Pole Induction	AL5	SUNGSHIN
TCBE-82SDR							
TCBE-96SDR							

6.SWITCH

PART NAME	PART NO.	RATING	MAKER	NOTE
POWER SWITCH(ROCKER SWITCH)	30281Q0100	125V/15A	SKT	
THERMOSTATE		K55-Q5608		

5. TEMPERATURE CONTROL INSTRUCTION

5-1. HOW TO USE THE TEMPERATURE CONTROL



5-2. FUNCTION TABLE

Function	Controlled Part	Description												
Temperature Control (K55-Q5607) Model: TCBE-52SDR TCBE-82SDR TCBE-96SDR	Compressor Evap. Fan Motor Cond. Fan Motor	1 . The temperature can be changed by turning the dial knob 2 . Compressor is automatically turned on and off by thermostat ■ Cut in and out temperature chart. <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>No</th> <th>Cool</th> <th>Normal</th> <th><i>cold</i></th> </tr> </thead> <tbody> <tr> <td><i>Cut in</i></td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td><i>Cut out</i></td> <td></td> <td>21.2</td> <td>17.1</td> </tr> </tbody> </table>	No	Cool	Normal	<i>cold</i>	<i>Cut in</i>	40.1±2.7	40.1±2.7	40.1±2.7	<i>Cut out</i>		21.2	17.1
No	Cool	Normal	<i>cold</i>											
<i>Cut in</i>	40.1±2.7	40.1±2.7	40.1±2.7											
<i>Cut out</i>		21.2	17.1											

6.PARTS LIST FOR CHEF BASE EQUIPMENT

Part name	Part code	Description	Model			Maker
			TCBE-52SDR	TCBE-82SDR	TCBE-96SDR	
Cabinet						
CABINET ASSEMBLY	C520000100	STS430-#4	1			
CABINET ASSEMBLY	C820000100	STS430-#4		1		
CABINET ASSEMBLY	C960000100	STS430-#4			1	
CASTOR	M726500200	WITH BRAKE(5inch)	2	2	2	Same as mega top
CASTOR	M726500100	5inch	2	2	2	Same as mega top
Drawer						
DRAWER ASSEMBLY	C520000200	STS304-2B/0.059"(Thickness)	2	2	4	
DRAWER ASSEMBLY(S)	C960000200	STS304-2B/0.059"(Thickness)		2		
DOOR ASSEMBLY	C960000300	STS304-#4	2	2	4	
DOOR ASSEMBLY(S)	C820000200	STS304-#4		2		
DOOR GASKET	C962300100	PVC-S1000	2	2	4	
DOOR GASKET(S)	C822300100	PVC-S1000		2		
ROLLER ASSEMBLY	C966500100	STS304	16	32	32	
ROLLER SCREW	C960100100	STS316	16	32	32	
ROLLER NUT		STS304/M6	16	32	32	
ROLLER CUSHION	C961500100	STS304	16	32	32	
Compressor compartment						
CONDENSER ASSEMBLY	C965900101	CU		1	1	
CONDENSER ASSEMBLY	C525900101	CU	1			
COMPRESSOR BASE	C960300200	GL,T2		1	1	
COMPRESSOR BASE	C520300200	GL,T2	1			
COMPRESSOR	M369700100	HBL27YE-1	1			Same as mega top
COMPRESSOR	M609700100	SK6A1C-H2Y		1	1	Same as mega top
POWER CORD	30232M0210	PVC	1	1	1	Same as mega top
DRYER ASSEMBLY	M726800100					Same as mega top
CONDENSER FAN MOTOR	3966328120	IS-4420DWSV-2A	1	1	1	Same as mega top
CONDENSER FAN BLADE	M729800100	Alφ175	1	1	1	Same as mega top
UNIT FRONT COVER	C962400100	STS304-2B/0.024"(Thickness)	1	1	1	

PARTS LIST FOR CHEF BASE EQUIPMENT

Part name	Part code	Description	Model			maker
			TCBE-52SDR	TCBE-82SDR	TCBE-96SDR	
SUCTION PIPE	C524400200	CU	1			
SUCTION PIPE	C964400400	CU		1	1	
CAPILLARY TUBE	C524400200	CU	1			
CAPILLARY TUBE	C964400400	CU		1	1	
CONNECT PIPE	C964400600	CU	1			
COMPRESSOR AND						
CONDENSER						
CONNECT PIPE	C964400500	CU		1	1	
COMPRESSOR AND						
CONDENSER						
CONNECT PIPE	C964400200	CU	1			
COMPRESSOR AND						
DRYER						
CONNECT PIPE	C964401200	CU		1	1	
COMPRESSOR AND						
DRYER						
COMPRESSOR HARNESS		PVC	1	1	1	
ASSEMBLY						
HARNESS RELAY	C962700200	18AWG/PVC	1	1	1	
THERMOSTAT DISPLAY AS	C968200100	SF-100T	1	1	1	
Refrigeration compartment						
CABINET HEATER	C522800100	PVC	1			
CABINET HEATER	C822800200	PVC		1		
CABINET HEATER	C962800300	PVC			1	
MULLION HEATER(A)	C962800100	PVC		1	1	
MULLION HEATER(B)	C822800100	PVC		1		
MULLION HEATER(C)	C962800200	PVC	1	1	2	
MULLION PAD(A)	C964100100	EPS/0.016g/cm ³		1	1	
MULLION PAD(B)	C824100100	EPS/0.016g/cm ³		1		

PARTS LIST FOR CHEF BASE EQUIPMENT

Part name	Part code	Description	Model			Maker
			TCBE-52SDR	TCBE-82SDR	TCBE-96SDR	
MULLION COVER(C)	C961400200	STS430-#4/0.024"(Thickness)	1	1	2	
EVAPORATOR FAN MOTOR	3966328120	IS-4420DWSV-2A	1	2	2	
EVAPORATOR FAN BLADE	M729800100	Alφ175	1	2	2	Same as mega top
EVAPORATOR FAN MOTOR	C961800100	GL/T2	1	2	2	
BRACKET						
EVAPORATOR FAN DUCT(L)	C526900400	STS304-2B/0.024"(Thickness)	1	1	1	
EVAPORATOR FAN DUCT(R)	C966900500	STS304-2B/0.024"(Thickness)		1	1	
EVAPORATOR DUCT INNER	C966900800	STS304-2B/0.024"(Thickness)				
COVER(L)						
EVAPORATOR DUCT INNER	C966900700	STS304-2B/0.024"(Thickness)				
COVER(R)						
EVAPORATOR DUCT(L)	C526900600	STS304-2B/0.024"(Thickness)	1	1	1	
EVAPORATOR DUCT(R)	C966900600	STS304-2B/0.024"(Thickness)		1	1	
EVAPORATOR ASSEMBLY	C527000100	CU	1	2	2	
EVAPORATOR DRAIN GUIDE	C527500100	STS304-2B/0.024"(Thickness)	1			
EVAPORATOR DRAIN GUIDE	C827500100	STS304-2B/0.024"(Thickness)		1		
EVAPORATOR DRAIN GUIDE	C967500100	STS304-2B/0.024"(Thickness)			1	
THERMOSTAT		K55-Q5608	1	1	1	
THERMOSTAT COVER	C968300100	STS304-2B/0.024"(Thickness)	1	1	1	
HARNESS MOTOR	C522700300	PVC	1			
HARNESS MOTOR	C822700300	PVC		1		
HARNESS MOTOR	C962700300	PVC			1	
HARNESS MULLION	C522700400	PVC	1			
HARNESS MULLION	C822700400	PVC		1		
DRAWER GUIDE(SB)(L)	C968601300	STS304-2B/0.079"(Thickness)	2	4	4	
DRAWER GUIDE(SB)(R)	C968601400	STS304-2B/0.079"(Thickness)	2	4	4	
Counter top assembly						
COUNTER TOP ASSEMBLY	C520000300	STS304-2B/0.059"(Thickness)	1			
COUNTER TOP ASSEMBLY	C820000300	STS304-2B/0.059"(Thickness)		1		
COUNTER TOP ASSEMBLY	C960000400	STS304-2B/0.059"(Thickness)			1	

7.REPLACEMENT OF MAIN COMPONENTS

7-1.REPLACING DRAWER

A. Pull out the drawer



B. Lift the drawer



C. Take out the draw guide



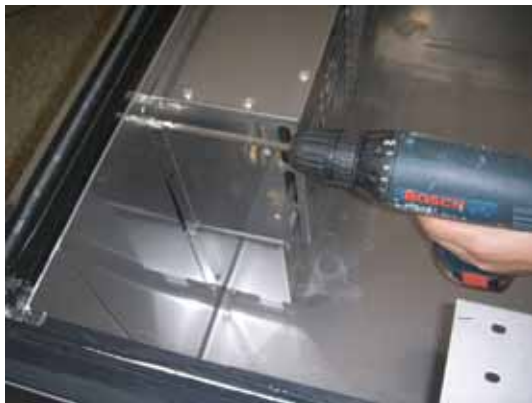
REPLACEMENT OF MAIN COMPONENTS

7-2. REFRIGERATION COMPARTMENT PARTS

A. Disassemble the temperature control cover



B. Disassemble the eva fan duct



C. Take out the eva fan duct



REPLACEMENT OF MAIN COMPONENTS

D. Disassemble the eva duct



E. Replace the thermostat & sensor



F. Remove the evaporator coil



REPLACEMENT OF MAIN COMPONENTS

G. Disassemble the evaporator fan motor



REPLACEMENT OF MAIN COMPONENTS

7-3.COMPRESSOR COMPARTMENT PARTS

A. Disassemble the unit front cover



B. Disconnect the connectors



C. Disassemble the condensing unit



REPLACEMENT OF MAIN COMPONENTS

D. Disconnect the connectors



E. Disassemble the condenser fan motor



REPLACEMENT OF MAIN COMPONENTS

7-4. Replacing the display assembly

A. Disassemble the display fixture



B. Take out the display



REPLACEMENT OF MAIN COMPONENTS

7-5. Replacing the cabinet heater

A. Disassemble the line frame cover



B. Disassemble the cabinet heater



REPLACEMENT OF MAIN COMPONENTS

7-6. Replacing the mullion heater

A. Disassemble the mullion cover



B. Disassemble the mullion heater



C. Disassemble the connectors



REPLACEMENT OF MAIN COMPONENTS

7-7. REPLACING THE PANS



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