



Commercial
Refrigerator
Service Manual

Mega Top Salad Unit

Model No.:	TST - 72SD - 30
	TST - 60SD - 24
	TST - 48SD - 18
	TST - 28SD - 12

TABLE OF CONTENTS

1.FEATURE CHART

1-1.FRONT VIEW

1-2.SIDE VIEW

2.WIRING DIAGRAMS

2-1.TST-72SD-30

2-2.TST-60SD-24

2-3.TST-48SD-18

2-4.TST-28SD-12

3.PART DETAILS

3-1.COMPRESSOR COMPARTMENT

3-2.DOOR

3-3.REFRIGERATION COMPARTMENT

4.MAIN COMPONENTS

5.TEMPERATURE CONTROL INSTRUCTION

5-1.HOW TO USE THE TEMPERATURE CONTROL

5-2.FUNCTION TABLE

6.PARTS LIST

7.REPLACEMENT OF MAIN COMPONENTS

7-1.REPLACING DOOR

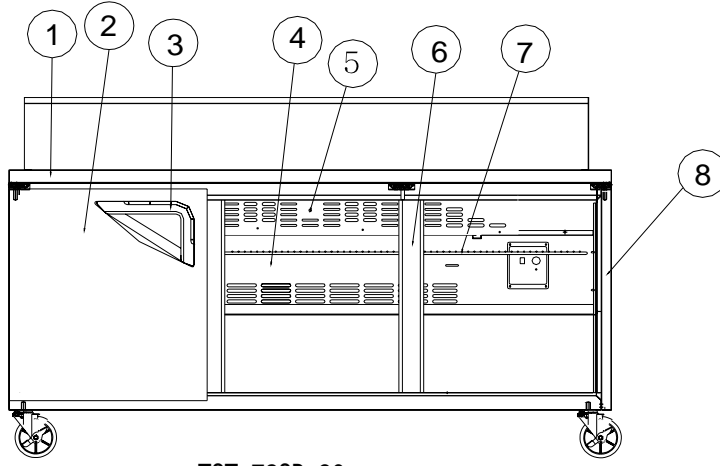
7-2.REFRIGERATION COMPARTMENT PARTS

7-3.COMPRESSOR COMPARTMENT PARTS

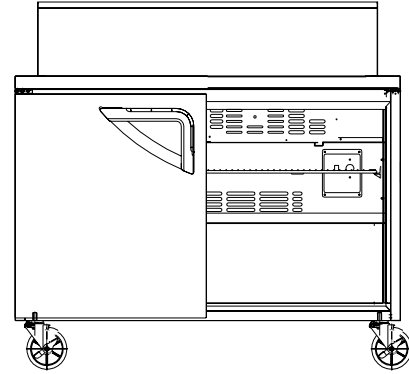
7-4.REPLACING THE EVAPORATOR & EVAPORATOR FAN MOTOR

1.FEATURE CHART

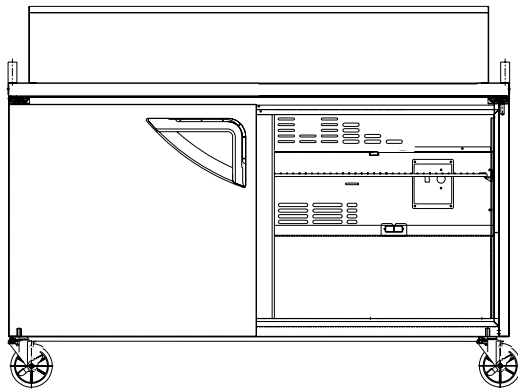
1-1.FRONT VIEW



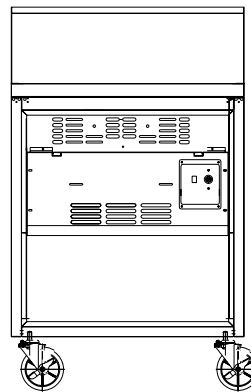
TST-72SD-30



TST-48SD-18

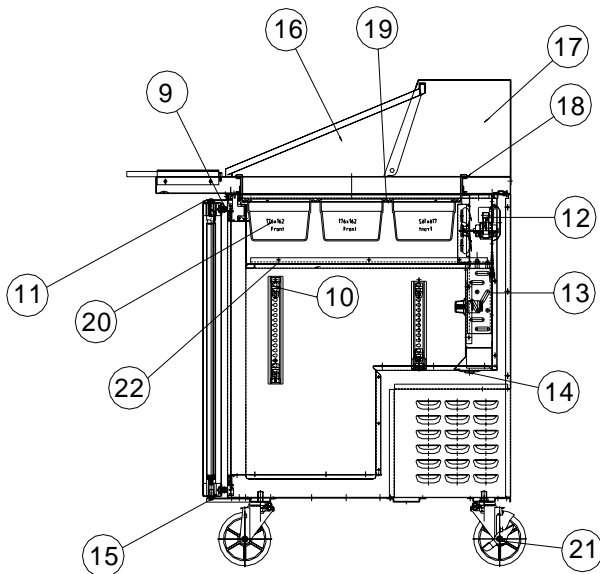


TST-60SD-24



TST-28SD-12

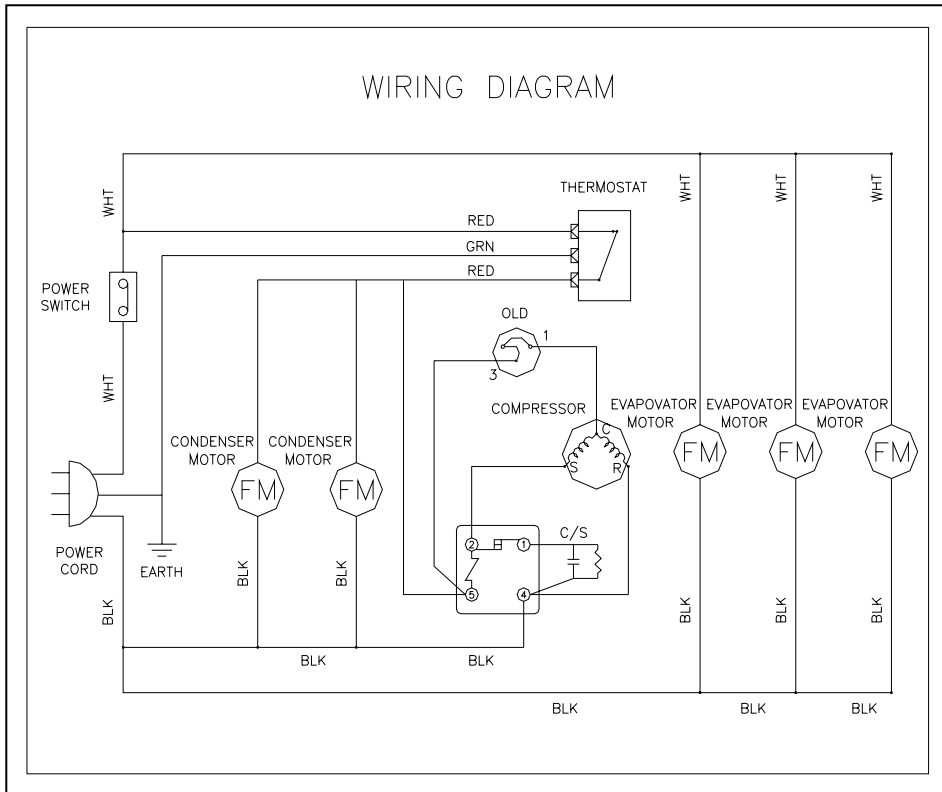
1-2.SIDE VIEW



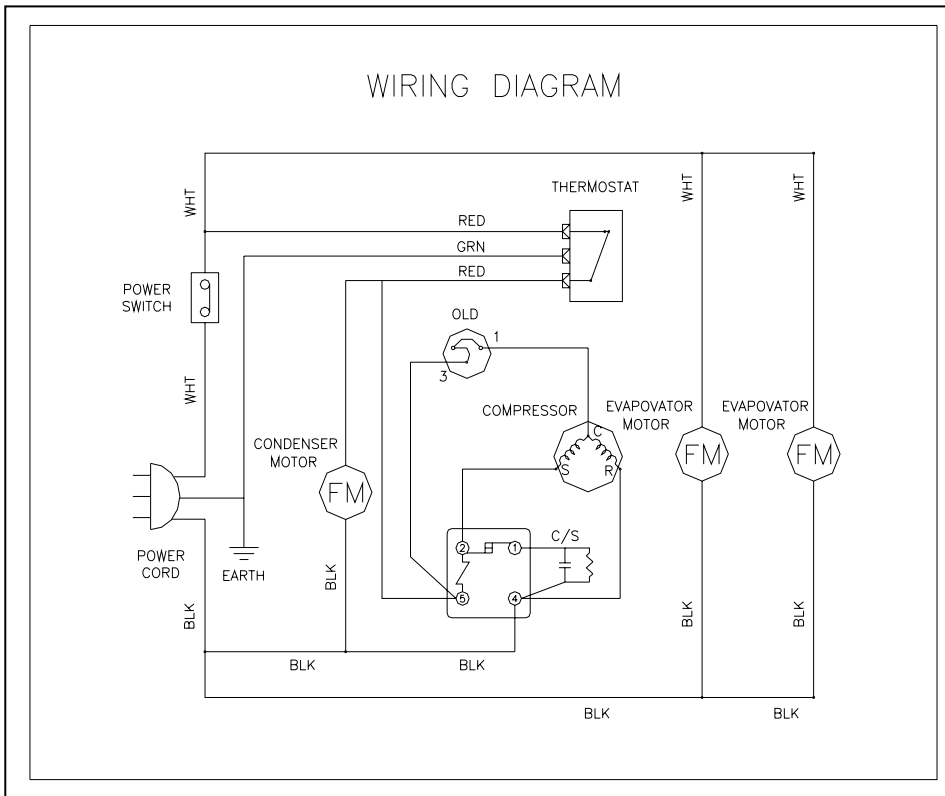
- 1 COUNTER TOP
- 2 DOOR(L)
- 3 DOOR HANDLE(L)
- 4 EVAPORATOR DUCT
- 5 LOUVER
- 6 MULLION
- 7 SHELF(R)
- 8 CABINET ASSEMBLY
- 9 DOOR GASKET
- 10 SHELF CLIP
- 11 TOP HINGE
- 12 EVAPORATOR FAN MOTOR
- 13 EVAPORATOR COIL
- 14 EVAPORATOR DRAIN
- 15 DOOR BOTTOM HINGE
- 16 HOOD LID
- 17 HOOD
- 18 PAN SUPPORTER
- 19 PAN GUIDE
- 20 PAN
- 21 CASTOR
- 22 PAN DUCT

2. WIRING DIAGRAMS

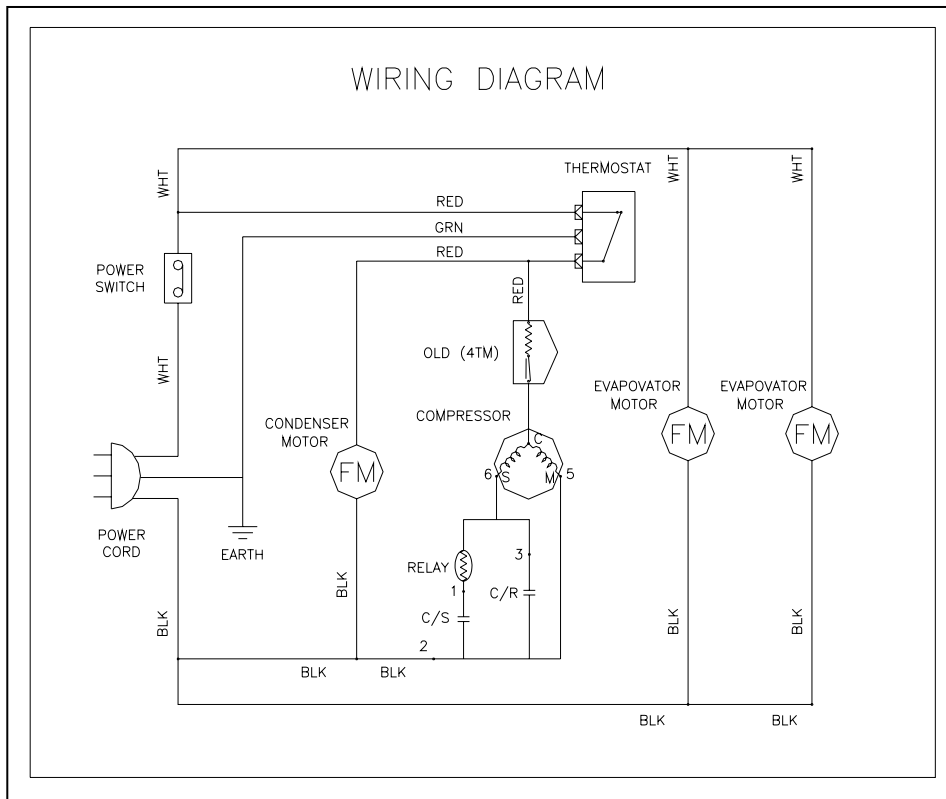
2-1. TST-72SD-30



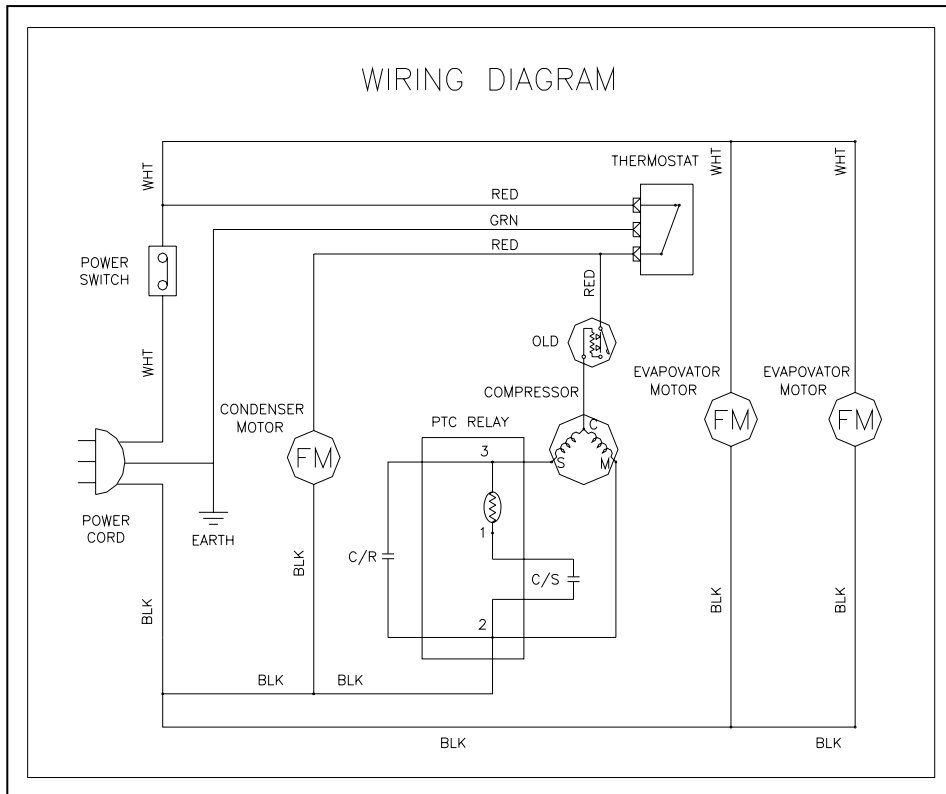
2-2. TST-60SD-24



2-3.TST-48SD-18



2-4.TST-28SD-12



3.PART DETAILS

3-1. COMPRESSOR COMPARTMENT



TST-72SD-30



TST-48SD-18



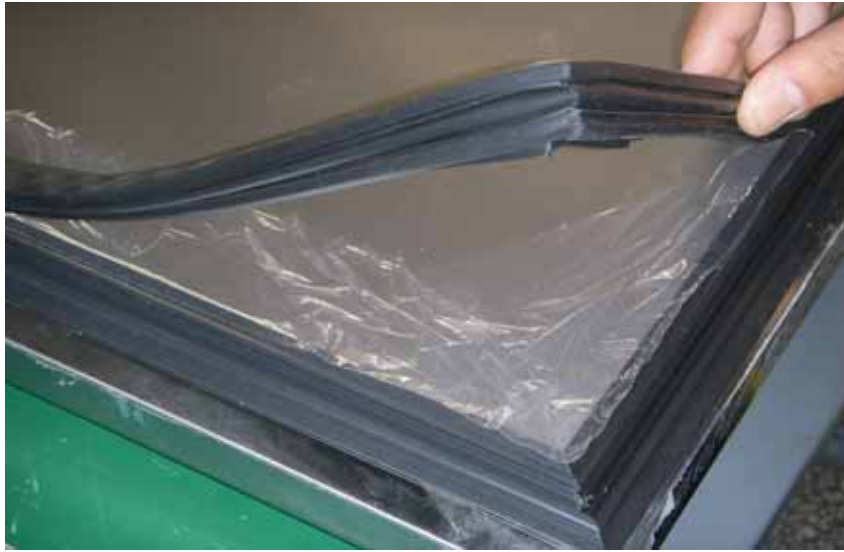
TST-60SD-24



TST-28SD-12

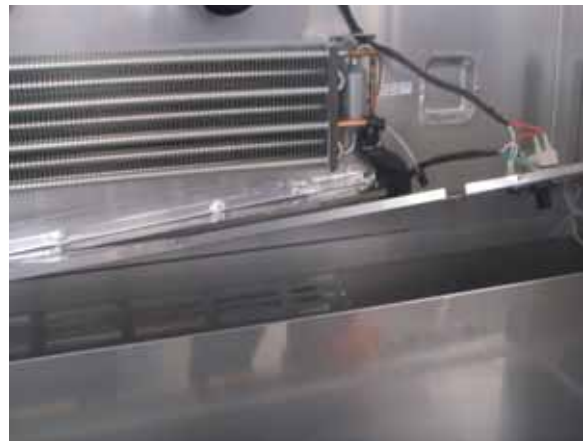
CONDENSING UNIT ASSEMBLY

3-2. DOOR



DOOR GASKET

3-3. REFRIGERATION COMPARTMENT



TEMPERATURE CONTROL & EVAPORATOR



EVAPORATOR FAN MOTOR



THERMOSTAT

4.MAIN COMPONENTS

1.COMPRESSOR

MODEL	PART NAME	PART NO.	HORSE	CAPACITY	TYPE OF	INPUT	MAKER
TST-72SD-30	CAE4456Y	M729700100	1/2HP	~	CSIR	~	~
TST-60SD-24	CAE4456Y	M729700100	1/2HP	~	CSIR	~	~
TST-48SD-18	SK1A1C-L2W	M609700100	1/3HP	~	CSR	~	SAMSUNG
TST-28SD-12	HBL-27YE-1	M369700100	1/4HP	~	CSR	~	DAEWOO

2.COMPRESSOR RELAY ,OVERLOAD

MODEL	RELAY	PART NO.	OVERLOAD	PART NO.	MAKER	NOTE
TST-72SD-30	3ARR12	~	MST16AGZ-3240D5AP	~	~	~
TST-60SD-24	3ARR12	~	MST16AGZ-3240D5AP	~	~	~
TST-48SD-18	J531Q34E220M3503	~	4TM795TFBZZ-53	~	SAMSUNG	~
TST-28SD-12	GSR SO68 BO8 08	~	4TM795TFBZZ-52	~	DAEWOO	~

3.COMPRESSOR CAPACITOR

MODEL	STARTING	PART NO.	RUNNING	PART NO.	MAKER	NOTE
TST-72SD-30	160V/315uF	~	~	~	~	~
TST-60SD-24	160V/315uF	~	~	~	~	~
TST-48SD-18	125V/125uF	~	250V/12uF	~	~	~
TST-28SD-12	200V/100uF	~	230V/10uF	~	~	~

4.CONDENSER FAN MOTOR

MODEL	PART NAME	PART NO.	POLE	INPUT	TYPE	BLADE	MAKER
TST-72SD-30	IS-4420DWSN-2A	M729900100	4P	47W	SHADED POLE INDUCTION	AL 5	SAMSUNG
TST-60SD-24	IS-4420DWSN-2A	M729900100					
TST-48SD-18	IS-4420DWSN-2A	M729900100					
TST-28SD-12	IS-4420DWSN-2A	M729900100					

5.EVAPORATOR FAN MOTOR

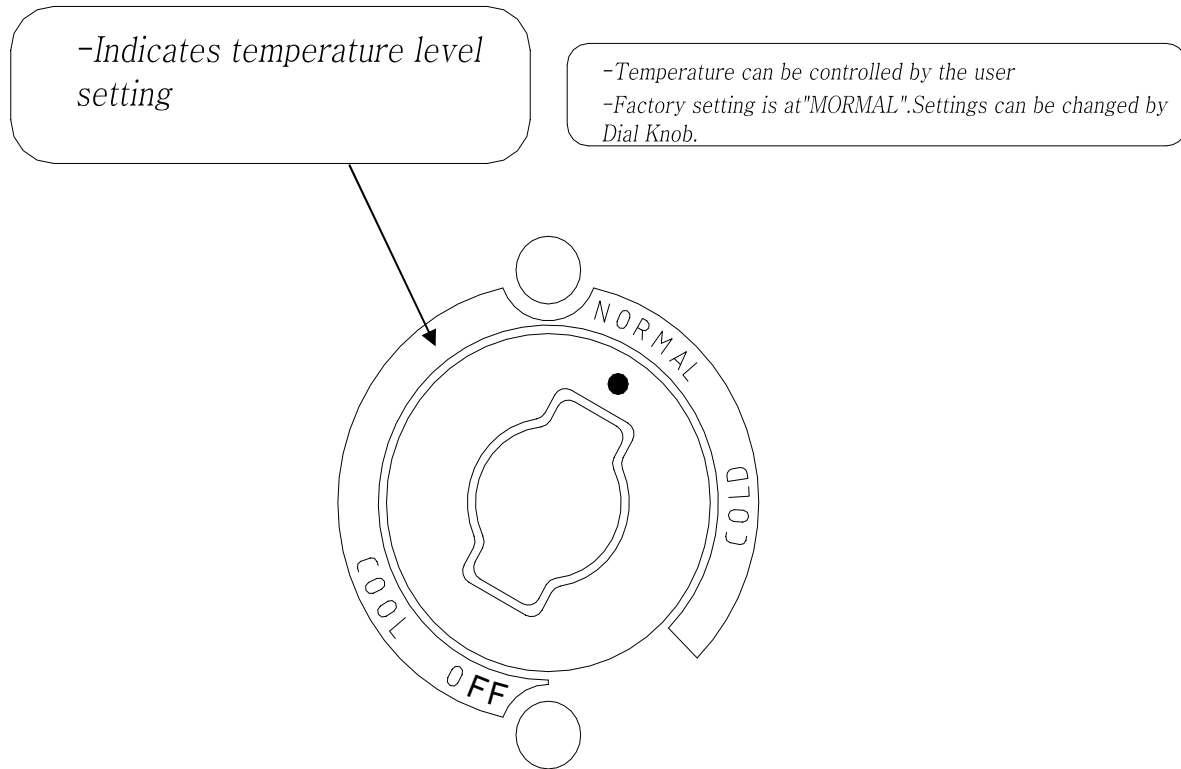
MODEL	PART NAME	PART NO.	POLE	INPUT	TYPE	BLADE (NUMBER)	MAKER
TST-72SD-30	DAI-615DEUA	DAI-6152DEUA	2P	225W	SHADED POLE INDUCTION	NA-66 4	DEYOUNG
TST-60SD-24	DAI-615DEUA		2P	225W			
TST-48SD-18	DAI-615DEUA		2P	225W			
TST-28SD-12	DAI-615DEUA		2P	225W			

6.SWITCH

PART NAME	PART NO.	RATING	MAKER
POWER SWITCH(ROCKER SWITCH)	30281Q0100	125V/15A	SKT
THERMOSTAT	30283L0100	K55Q-5608,16A	RANCO
		TST48SD-18,TST-60SD-24	
THERMOSTAT	30283M0300	K55Q-5607,16A	RANCO
		TST-28SD-12,TST-72SD-30	

5. TEMPERATURE CONTROL INSTRUCTION

5-1.HOW TO USE THE TEMPERATURE CONTROL



5-2.FUNCTION TABLE

No	Function	Controlled	Description												
1	Tempressor Control Model: TST-28SD-12 TST-72SD-30 (K55Q-5607)	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. ° F												
			<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>23.9</td> <td>21.2</td> <td>17.6</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	23.9	21.2	17.6
			NO.	Cool	Normal	Cold									
			Cut in	40.1±2.7	40.1±2.7	40.1±2.7									
Cut Out	23.9	21.2	17.6												
<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4			
NO.	Cool	Normal	Cold												
Cut in	40.1±2.7	40.1±2.7	40.1±2.7												
Cut Out	21.2	17.1	10.4												
<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4			
NO.	Cool	Normal	Cold												
Cut in	40.1±2.7	40.1±2.7	40.1±2.7												
Cut Out	21.2	17.1	10.4												
2	Model: TST-48SD-18 TST-60SD-24 (K55Q-5608)		<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4
			NO.	Cool	Normal	Cold									
			Cut in	40.1±2.7	40.1±2.7	40.1±2.7									
			Cut Out	21.2	17.1	10.4									
<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4			
NO.	Cool	Normal	Cold												
Cut in	40.1±2.7	40.1±2.7	40.1±2.7												
Cut Out	21.2	17.1	10.4												
<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4			
NO.	Cool	Normal	Cold												
Cut in	40.1±2.7	40.1±2.7	40.1±2.7												
Cut Out	21.2	17.1	10.4												
<table border="1"> <thead> <tr> <th>NO.</th> <th>Cool</th> <th>Normal</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>Cut in</td> <td>40.1±2.7</td> <td>40.1±2.7</td> <td>40.1±2.7</td> </tr> <tr> <td>Cut Out</td> <td>21.2</td> <td>17.1</td> <td>10.4</td> </tr> </tbody> </table>	NO.	Cool	Normal	Cold	Cut in	40.1±2.7	40.1±2.7	40.1±2.7	Cut Out	21.2	17.1	10.4			
NO.	Cool	Normal	Cold												
Cut in	40.1±2.7	40.1±2.7	40.1±2.7												
Cut Out	21.2	17.1	10.4												

6.PARTS LIST FOR MEGA TOP

Part name	Part code	Description	Model				Remark
			72	60	48	28	
Cabinet							
CABINET Assembly	M279500200					1	
CABINET Assembly	M489500200				1		
CABINET Assembly	M609500200			1			
CABINET Assembly	M729500200		1				
CASTER	M726500100	5INCH MOVING	2	2	2	2	SAME AS BEFORE
CASTER	M726500200	5INCH MOVING STOPPING	2	2	2	2	SAME AS BEFORE
DOOR							
TOP HINGE (R)	M722900100	STS304,SM45C	2	1	1	1	
TOP HINGE (L)	M722900200	STS304,SM45C	1	1	1		
TOP HINGE SPACER	M725000100	ABS	3	2	2	1	
BOTTOM HINGE (U)(R)	30229M0400	STS304,SM45C	2	1	1	1	SAME AS BEFORE
BOTTOM HINGE (U)(L)	30229M0300	STS304,SM45C	1	1	1		SAME AS BEFORE
DOOR GASKET	M272300100	PVC				1	SAME AS BEFORE
DOOR GASKET	M602300100	PVC		2			SAME AS BEFORE
DOOR GASKET	M722300100	PVC	3		2		SAME AS BEFORE
DOOR Assembly (R)	M270000900	SUS304-#4				1	SAME AS BEFORE
DOOR Assembly (R)	M600000900	SUS304-#4		1			SAME AS BEFORE
DOOR Assembly (R)	M720000900	SUS304-#4	1		1		SAME AS BEFORE
DOOR Assembly (M)	M720001000	SUS304-#4	1				SAME AS BEFORE
DOOR Assembly (L)	M600001000	SUS304-#4		1			SAME AS BEFORE
DOOR Assembly (L)	M720001100	SUS304-#4	1		1		SAME AS BEFORE
COMPRESSOR COMPARTMENT							
COMPRESSOR	M369700100	HBL-27YE-1 (1/4HP)				1	SAME AS BEFORE
COMPRESSOR	M609700100	SK1A1C-L2W (1/3HP)			1		SAME AS BEFORE
COMPRESSOR	M729700100	CAE4456Y (1/2HP)	1	1			
SUCTION PIPE (B)	M364400200	OD9.52X0.6T L=1550				1	
SUCTION PIPE (B)	M604400200	OD9.52X0.6T L=2218			1		
SUCTION PIPE (B)	M604400800	OD9.52X0.6T L=1936		1			
SUCTION PIPE (B)	M724400200	OD9.52X0.6T L=2066	1				
SUCTION PIPE (A)	M604400400	OD9.52XT0.6			1	1	
SUCTION PIPE (A)	M724400100	OD9.52XT0.6	1	1			
COMP BASE	M270300100	SBHG0.078"(Thickness)				1	
COMP BASE	M600300100	SBHG0.078"(Thickness)			1		
COMP BASE	M600300300	SBHG0.078"(Thickness)		1			
COMP BASE	M720300100	SBHG0.078"(Thickness)	1				

PARTS LIST FOR MEGA TOP

Part name	Part code	Description	Model				Remark
			72	60	48	28	
HARNESS CAPACITOR (STARTING)	M602700300				1	1	
HARNESS CAPACITOR (RUNNING)	M602700600				1		
HARNESS CAPACITOR (RUNNING)	M482700300					1	
CONDENSER FAN MOTOR	3963328120	IS4420DWSN-2A	2	1	1	1	SAME AS BEFORE
POWER CORD	M721300100	KKP-30(9.85FT)	1	1	1	1	SAME AS BEFORE
POWER SWITCH	30281Q0100	125V,15A R19A	1	1	1	1	SAME AS BEFORE
CANDENSER FAN AIR GUIDE	M722500900	SBHG0.019"(Thickness)	1				
DRAIN HOSE	M273200100	PVC L=270				1	SAME AS BEFORE
DRAIN HOSE	M723200100	PVC L=180	1	1	1		SAME AS BEFORE
DRAIN PAN	30211A0202	PP				1	SAME AS BEFORE
DRAIN PAN	M729300100	PP	1	1	1		
HARNESS RELAY	M272700300					1	
HARNESS RELAY	M602700500				1		
HARNESS RELAY	M602700700			1			
HARNESS RELAY	M722700300		1				
DRAIN PIPE	M724400500	STS304/OD 6.35X0.5T	1	1	1	1	
CONDENSER CONNETCOR PIPE (A)	M604400300	OD 7.94X0.5T			1		
CONDENSER CONNETCOR PIPE (A)	M724400400	OD 7.94X0.5T	1	1			
CONDENSER CONNETCOR PIPE	M274400100	OD 7.94X0.5T				1	
CONDENSER CONNETCOR PIPE (B)	M724400300	OD 7.94X0.5T	1	1	1		
CONDENSER MOTOR BRACKET	3020602202	SBHG ,0.09(Thickness)	2	1	1	1	SAME AS BEFORE
CONDENSER FAN BLADE	M729800100	AL 5	1	1	1	1	SAME AS BEFORE
REFRIGERATION COMPARTMENT							
PAN SUPPORT ASS'Y	M270001200	SUS304-#4				1	
PAN SUPPORT ASS'Y	M480001100	SUS304-#4			1		
PAN SUPPORT ASS'Y	M600001300	SUS304-#4		1			
PAN SUPPORT ASS'Y	M720002500	SUS304-#4	1				
EVAP FAN MOTOR	M729900200	DAI-6152DEUA	3	2	2	2	SAME AS BEFORE
KITCHEN BOARD	M279400100	MIPS				1	
KITCHEN BOARD	M489400100	MIPS			1		
KITCHEN BOARD	M609400100	MIPS		1			
KITCHEN BOARD	M729400100	MIPS	1				
DRYER FIXTURE	M722000500		1	1	1	1	
PAN DUCT MID	M276900500	SUS304-2B/0.023"(Thickness)				1	
PAN DUCT MID	M606900500	SUS304-2B/0.023"(Thickness)		1	1		
PAN DUCT MID	M726900500	SUS304-2B/0.023"(Thickness)	1				
PAN DUCT SIDE(L)	M276900100	SUS304-2B/0.023"(Thickness)				1	
PAN DUCT SIDE(L)	M486900100	SUS304-2B/0.023"(Thickness)			1		
PAN DUCT SIDE(L)	M726900100	SUS304-2B/0.023"(Thickness)	1	1			
PAN DUCT SIDE(R)	M276900400	SUS304-2B/0.023"(Thickness)				1	
PAN DUCT SIDE(R)	M486900400	SUS304-2B/0.023"(Thickness)			1		
PAN DUCT SIDE(R)	M726900400	SUS304-2B/0.023"(Thickness)	1	1			
PAN DUCT FRONT	M276900600	SUS304-2B/0.023"(Thickness)				1	
PAN DUCT FRONT	M486900600	SUS304-2B/0.023"(Thickness)			1		
PAN DUCT FRONT	M606900600	SUS304-2B/0.023"(Thickness)		1			
PAN DUCT FRONT	M726900600	SUS304-2B/0.023"(Thickness)	1				

PARTS LIST FOR MEGA TOP

Part name	Part code	Description	Model				Remark
			72	60	48	28	
LOUVER	M275800100	SUS304-2B/0.023"(Thickness)				1	
LOUVER	M485800100	SUS304-2B/0.023"(Thickness)			1		
LOUVER	M605800100	SUS304-2B/0.023"(Thickness)		1			
LOUVER	M725800100	SUS304-2B/0.023"(Thickness)	1				
SHELF	M607800100	STS304		1			
SHELF	M727800100	STS304	1		1		
SHELF	M277800100	STS304				1	
SHELF MID	M727800300	STS304	1				
FIXTURE SHELF CLIP	30220L0900	PA-66	12	8	8	4	SAME AS BEFORE
SHELF MID BRACKET	M720600100	SUS304-#4/ 0.039"(Thickness)	2	1	1		
SHELF STANDARD	M725300200	STS304/0.039"(Thickness)	12	8	8	4	
DRAIN PAN GUIDE	M272500100	SBHG,T 0.19				1	
DRAIN PAN GUIDE	M272500200	SBHG,T 0.19					
EVAPORATOR AS	M367000100	CU,SPG,AL	1	1			
EVAPORATOR AS	M607000100	CU,SPG,AL			1		
EVAPORATOR AS	M727000100	CU,SPG,AL				1	
THERMOSTAT	30283M0100	250V,16A K55Q -5608	1			1	SAME AS BEFORE
THERMOSTAT	30283L0100	250V,16A K55Q -5607		1	1		SAME AS BEFORE
EVAPOVATOR FAN DUCT	M276900200	STS304-2B/0.023"(Thickness)				1	
EVAPOVATOR FAN DUCT	M486900200	STS304-2B/0.023"(Thickness)			1		
EVAPOVATOR FAN DUCT	M606900200	STS304-2B/0.023"(Thickness)		1			
EVAPOVATOR FAN DUCT	M726900200	STS304-2B/0.023"(Thickness)	1				
EVAPOVATOR DUCT	M276900300	STS304-2B/0.023"(Thickness)				1	
EVAPOVATOR DUCT	M486900300	STS304-2B/0.023"(Thickness)			1		
EVAPOVATOR DUCT	M606900300	STS304-2B/0.023"(Thickness)		1			
EVAPOVATOR DUCT	M726900300	STS304-2B/0.023"(Thickness)	1				
FIXTURE EVAP DUCT BRACKET	M720601000	STS304-2b/0.039"(Thickness)	2	2	2	2	SAME AS BEFORE
HOOD LID Assembly	M270001000					1	
HOOD LID Assembly	M480000900				1		
HOOD LID Assembly	M600001100			1			
HOOD LID Assembly	M720001200		1				
MULLION FRAME	M722200100	ABS	2	1	1		SAME AS BEFORE
MULLION BACK FRAME	M722200200	STS304/0.019"(Thickness)	2	1	1		SAME AS BEFORE
MULLION FRAME INSULATION	M723300100	F-PS	2	1	1		SAME AS BEFORE
THERMOMETER	M728300200	S3511-91(MILJOCO)	1	1	1	1	SAME AS BEFORE
CONDENSER AS	M365900100	CU,SPG,AL				1	
CONDENSER AS	M605900100	CU,SPG,AL			1		
CONDENSER AS	M725900100	CU,SPG,AL	1	1			
HOOD SHAFT SPACER	M725000400	STS304	2	2	2	2	
HOOD HINGE	M724900100	STS304	2	2	2	2	
KITCHEN BOARD STOPPER	M725200100	STS304	2	2	2	2	
BRACKET BOARD KITCHEN	30206P1900	SUS-304-2B/0.062"(Thickness)	2	2	2	2	
PAN GUIDE	M722500100	SUS304-#4/0.027"(Thickness)	9	7	5	3	
BRACKET MOTOR	30220T0300	STS304-2B/0.039"(Thickness)	3	2	2	2	SAME AS BEFORE
FAN COOLING BLADE	3011802210	ABS	1	1	1	1	SAME AS BEFORE
SPACER CUSHION	M721500300	RUBBER			4	4	
PAN	M279300200	PC				3	
PAN	30211M0100	PC	30	24	18	9	SAME AS BEFORE
HARNESS MAIN	M722700100		1	1	1	1	

7.REPLACEMENT OF MAIN COMPONENTS

7-1.REPLACING DOOR

A.Unscrew the top hinge



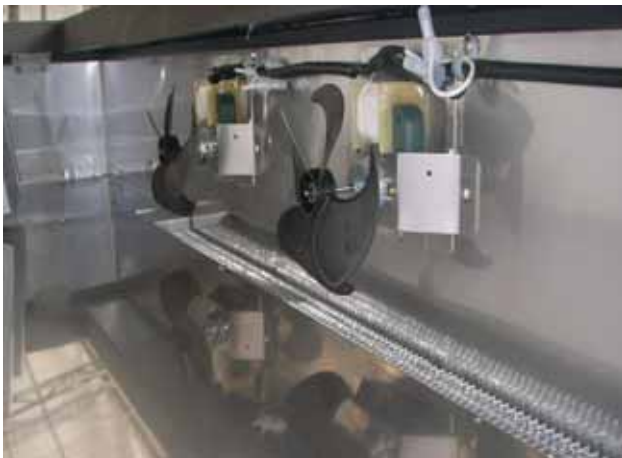
B.Lift the door



REPLACEMENT OF MAIN COMPONENTS

7-2. REFRIGERATION COMPARTMENT PARTS

A. Disassemble the evaporator fan duct assembly



B. Disassemble the evaporator fan motor



REPLACEMENT OF MAIN COMPONENTS

C. Disassemble the pan duct middle



D. Disassemble the evaporator duck



E. Remove the thermostat & sensor



REPLACEMENT OF MAIN COMPONENTS

F.Remove the evaporator coil



REPLACEMENT OF MAIN COMPONENTS

7-3.COMPRESSOR COMPARTMENT PARTS

A.Disassemble the rear grill



B.Disassemble the cable tie



REPLACEMENT OF MAIN COMPONENTS

C. Disassemble the condensing unit



Unscrew two screws as above



Pull out the condensing unit

D. Disassemble the condenser fan motor



REPLACEMENT OF MAIN COMPONENTS

7-4.REPLACING THE EVAPORATOR & EVAPORATOR FAN MOTOR.

A.Remove the pan



B.Remove the Pan support frame



REPLACEMENT OF MAIN COMPONENTS

C. Unscrew the screw located on both sides and top of the evap duct assamble fixture



D. Unscrew the screws located on top and bottom of the pan duct middle.



REPLACEMENT OF MAIN COMPONENTS

E. Take out the pan duct middle through the upper the upper hole.



F. Unscrew the screws located on left and right side of the evap duct.



REPLACEMENT OF MAIN COMPONENTS

F.And then, you can replace fan motor, evaporator coil and thermo sensor.

