

REFRIGERATOR MANUFACTURER
Turbo air



Distributed by
Comcater Pty Ltd
156 Swann Drive
Derrimut VIC 3030
Phone: (03) 8369 4600
Fax: (03) 8369 4696
www.comcater.com.au

Solid Door M3
Model No.:

CM3R24-1
CM3R24-2
CM3R47-2
CM3R47-4
CM3R72-3
CM3R72-6
CM3F24-1
CM3F24-2
CM3F47-2
CM3F47-4
CM3F72-3
CM3F72-6

TABLE OF CONTENTS

1. FEATURE CHART

- 1-1.FRONT VIEW/PLAN VIEW (1DDOR):CM3R24-1 CM3R24-2 CM3F24-1 CM3F24-2
- 1-2.FRONT VIEW/PLAN VIEW (2DDOR):CM3R47-2 CM3R47-4 CM3F47-2 CM3F47-4
- 1-3.FRONT VIEW/PLAN VIEW (3DDOR):CM3R72-3 CM3R72-6 CM3F72-3 CM3F72-6

2. WIRING DIAGRAMS

- 2-1. 1DDOR: CM3R24-1 CM3R24-2 CM3F24-1 CM3F24-2
- 2-2. 2DDOR: CM3R47-2 CM3R47-4 CM3F47-2 CM3F47-4
- 2-3. 3DDOR: CM3R72-3 CM3R72-6 CM3F72-3 CM3F72-6

3. PART DETAIL

- 3-1. TOP GRILLE
- 3-2. REFRIGERATION COMPARTMENT
- 3-3.CONTROL BOX
- 3-4. DOOR
- 3-5.COOLING COMPARTMENT

4. MAIN COMPONENTS

5. ELECTRONIC CONTROLLER INSTRUCTION

- 5-1.FREEZER CONTROLLER
- 5-2.REFRIGERATOR CONTROLLER

6. PARTS LIST

7. REPLACEMENT OF MAIN COMPONENTS

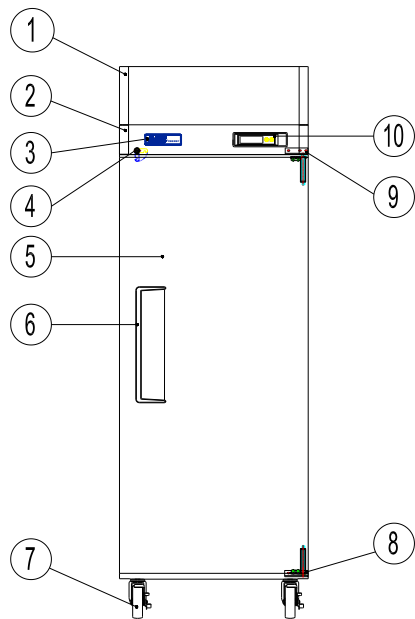
- 7-1 .TOP GRILLE PART
- 7-2. REPLACE DOOR
 - 7-2-1. REPLACE DOOR (CM3R24-1,CM3F24-1,CM3R47-2,CM3F47-2,CM3R72-3,CM3F72-3)
 - 7-2-2 . REPLACE DOOR (CM3R24-2,CM3F24-2,CM3R47-4,CM3F47-4,CM3R72-6,CM3F72-6)
- 7-3. REFRIGERATION COMPARTMENT'S PART.
 - 7-3-1. REPLACE DUCT AND LAMP
 - 7-3-2 . REPLACE T SENSOR AND D SENSOR
 - 7-3-3. REPLACE THE EVAPORATOR COIL AND F-SENSER
 - 7-3-4.REPLACE THE DEFROST HEATER (FREEZER ONLY)
 - 7-3-5. REPLACE THE EVAPORATOR FAN MOTOR AND FAN BLADE
- 7-4. CONTROL BOX PART
- 7-5. CONDENSER UNIT
- 7-6. REPLACE THE CABINET HEATER AND MULLION HEATER

1.FEATURE CHART

1-1.FRONT VIEW/PLAN VIEW (1DOOR)

MODEL: CM3R24-1 CM3F24-1

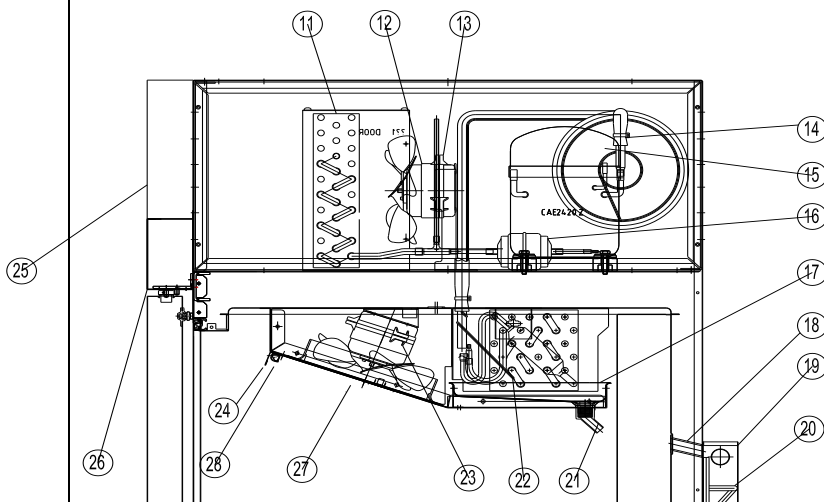
FRONT VIEW



- 1 TOP GRILLE(T)
- 2 TOP GRILLE(B)
- 3 MASCOT
- 4 KEY
- 5 ASS'Y DOOR
- 6 DOOR HANDLE
- 7 CASTER
- 8 BOTTOM HINGE
- 9 TOP HINGE
- 10 FRONT PCB CASE
- 11 CONDENSER
- 12 CONDENSER MOTOR
- 13 MOTOR BRACKET
- 14 SUCTION PIPE
- 15 COMPRESSOR

MODEL: CM3R24-1 CM3R24-2

PLAN VIEW

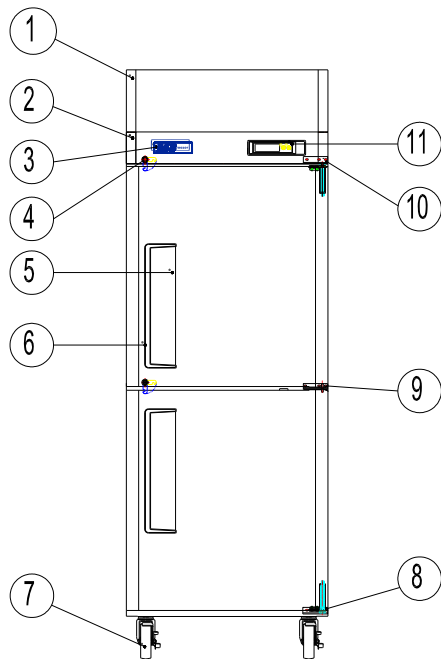


- 16 DRYER
- 17 DRAIN PAN
- 18 DRAIN GUIDE
- 19 DRAIN CASE
- 20 DRAIN PIPE
- 21 DRAIN CONNECTOR
- 22 EVAPORATOR
- 23 EVAPORATOR MOTOR
- 24 LAMP COVER
- 25 TOP GRILE T
- 26 TOP GRILE B
- 27 EVAPORATOR COVER
- 28 LAMP

FEATURE CHART

MODEL: CM3R24-2 CM3F24-2

FRONT VIEW



- 1 TOP GRILLE(T)
- 2 TOP GRILLE(B)
- 3 MASCOT
- 4 KEY
- 5 ASS'Y DOOR
- 6 DOOR HANDLE
- 7 CASTER
- 8 BOTTOM HINGE
- 9 MIDDLE HINGE
- 10 TOP HINGE
- 11 FRONT PCB CASE
- 12 CONDENSER
- 13 CONDENSER MOTOR
- 14 MOTOR BRACKET
- 15 SUCTION PIPE
- 16 COMPRESSOR

MODEL: CM3R24-1 CM3R24-2

PLAN VIEW

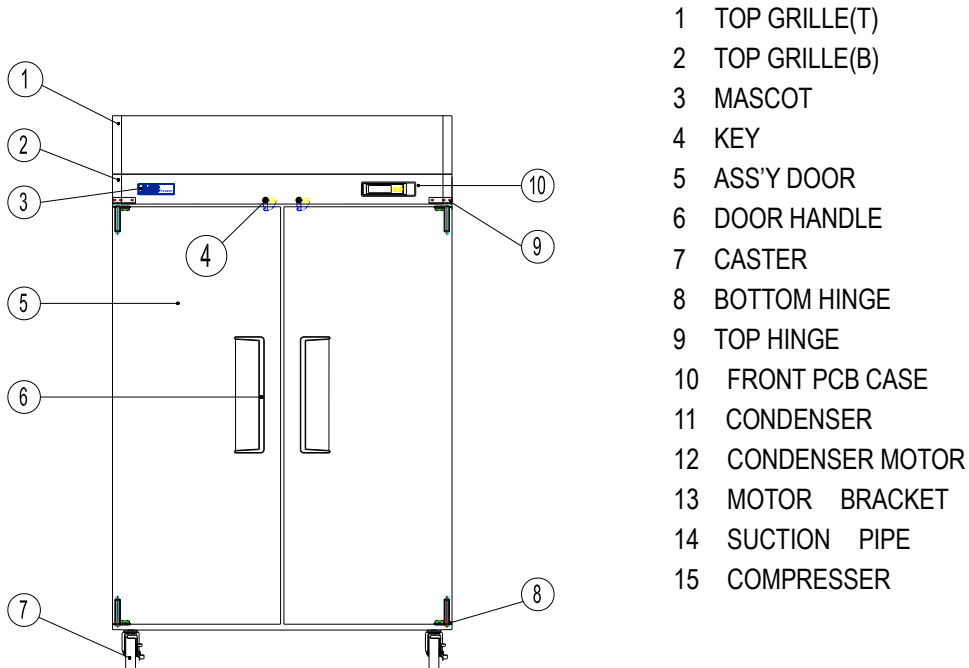
- 17 DRYER
- 18 DRAIN PAN
- 19 DRAIN GUIDE
- 20 DRAIN CASE
- 21 DRAIN PIPE
- 22 DRAIN CONNECTOR
- 23 EVAPORATOR
- 24 EVAPORATOR MOTOR
- 25 LAMP COVER
- 26 TOP GRILE T
- 27 TOP GRILE B
- 28 EVAPORATOR COVER
- 29 LAMP

FEATURE CHAR

1-2.FRONT VIEW/PLAN VIEW (2DOOR)

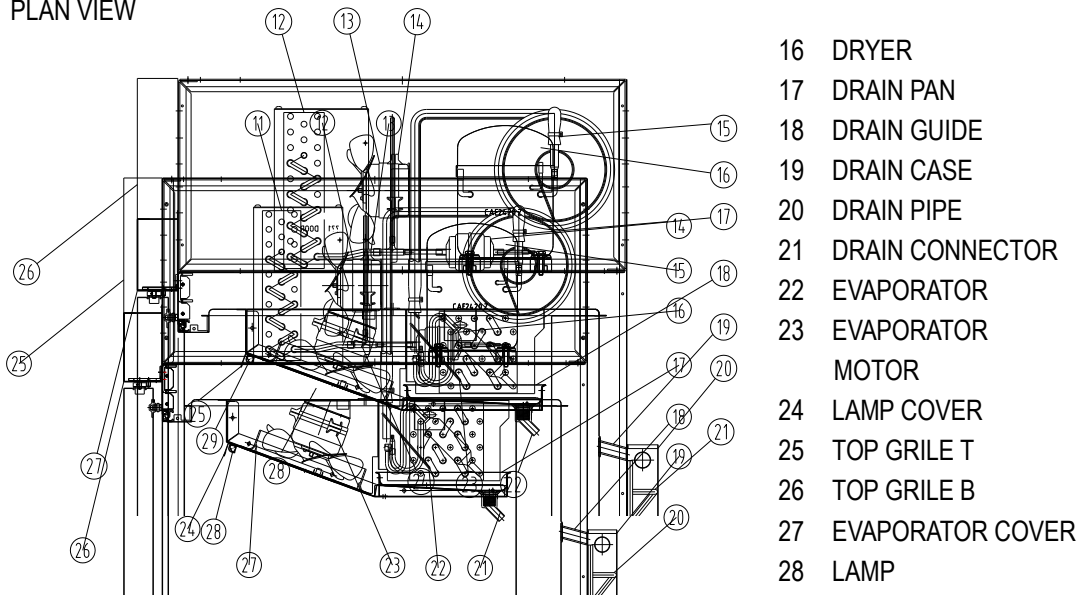
MODEL: CM3R47-2 CM3F47-2

FRONT VIEW



MODEL: CM3R47-2 CM3R47-4

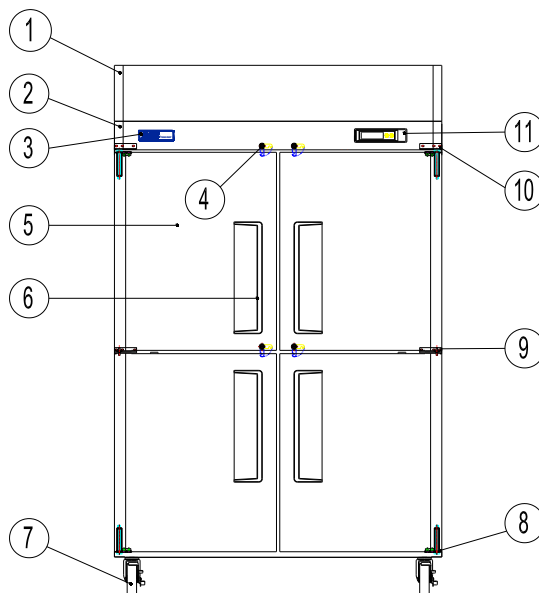
PLAN VIEW



FEATURE CHART

MODEL: CM3R47-4 CM3F47-4

FRONT VIEW



- 1 TOP GRILLE(T)
- 2 TOP GRILLE(B)
- 3 MASCOT
- 4 KEY
- 5 ASS'Y DOOR
- 6 DOOR HANDLE
- 7 CASTER
- 8 BOTTOM HINGE
- 9 MIDDLE HINGE
- 10 TOP HINGE
- 11 FRONT PCB CASE
- 12 CONDENSER
- 13 CONDENSER MOTOR
- 14 MOTOR BRACKET
- 15 SUCTION PIPE
- 16 COMPRESSOR

MODEL: CM3F47-2 CM3F47-4

PLAN VIEW

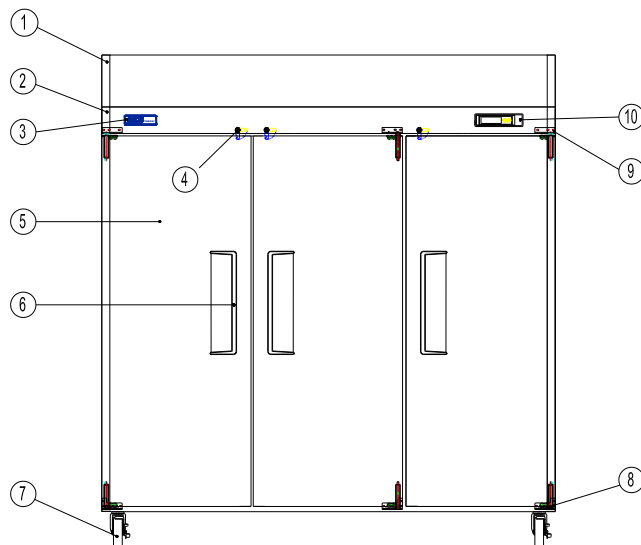
- 17 DRYER
- 18 DRAIN PAN
- 19 DRAIN GUIDE
- 20 DRAIN CASE
- 21 DRAIN PIPE
- 22 DRAIN CONNECTOR
- 23 EVAPORATOR
- 24 EVAPORATOR MOTOR
- 25 LAMP COVER
- 26 TOP GRILE T
- 27 TOP GRILE B
- 28 EVAPORATOR COVER
- 29 LAMP

FEATURE CHAR

1-3.FRONT VIEW/PLAN VIEW (3DOOR)

MODEL: CM3R72-3 CM3F72-3

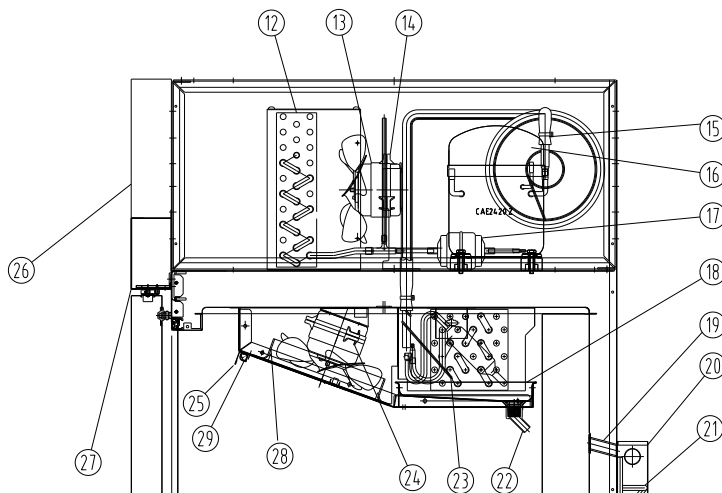
FRONT VIEW



- 1 TOP GRILLE(T)
- 2 TOP GRILLE(B)
- 3 MASCOT
- 4 KEY
- 5 ASS'Y DOOR
- 6 DOOR HANDLE
- 7 CASTER
- 8 BOTTOM HINGE
- 9 TOP HINGE
- 10 FRONT PCB CASE
- 11 CONDENSER
- 12 CONDENSER MOTOR
- 13 MOTOR BRACKET
- 14 SUCTION PIPE
- 15 COMPRESSOR

MODEL: CM3R72-3 CM3R72-6

PLAN VIEW

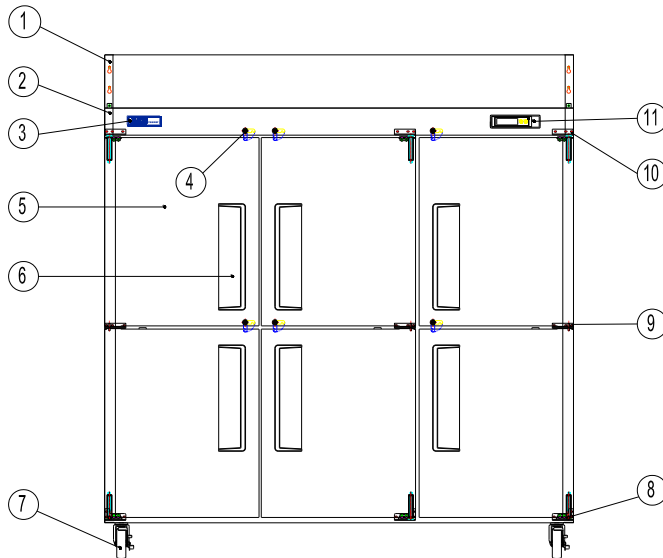


- 16 DRYER
- 17 DRAIN PAN
- 18 DRAIN GUIDE
- 19 DRAIN CASE
- 20 DRAIN PIPE
- 21 DRAIN CONNECTOR
- 22 EVAPORATOR
- 23 EVAPORATOR
- 24 LAMP COVER
- 25 TOP GRILE T
- 26 TOP GRILE B
- 27 EVAPORATOR COVER
- 28 LAMP

FEATURE CHART

MODEL: CM3R72-6 CM3F72-6

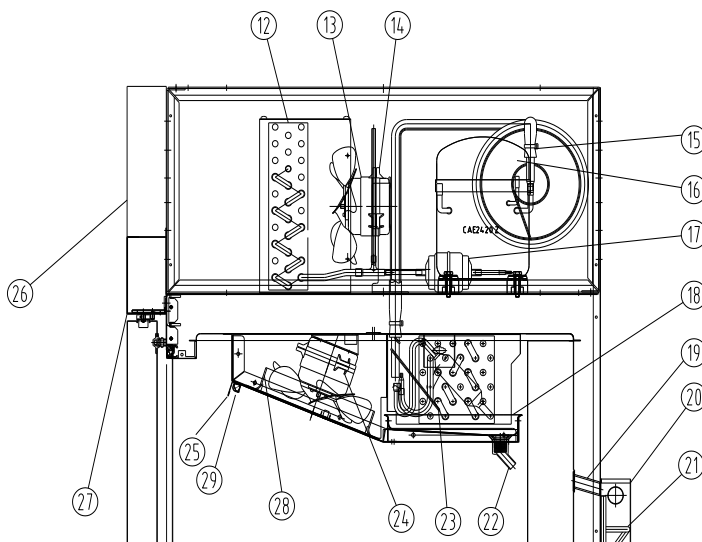
FRONT VIEW



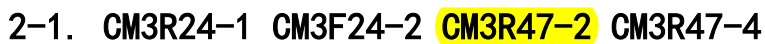
- 1 TOP GRILLE(T)
- 2 TOP GRILLE(B)
- 3 MASCOT
- 4 KEY
- 5 ASS'Y DOOR
- 6 DOOR HANDLE
- 7 CASTER
- 8 BOTTOM HINGE
- 9 MIDDLE HINGE
- 10 TOP HINGE
- 11 FRONT PCB CASE
- 12 CONDENSER
- 13 CONDENSER MOTOR
- 14 MOTOR BRACKET
- 15 SUCTION PIPE
- 16 COMPRESSOR

MODEL: CM3F47-2 CM3F47-4

PLAN VIEW

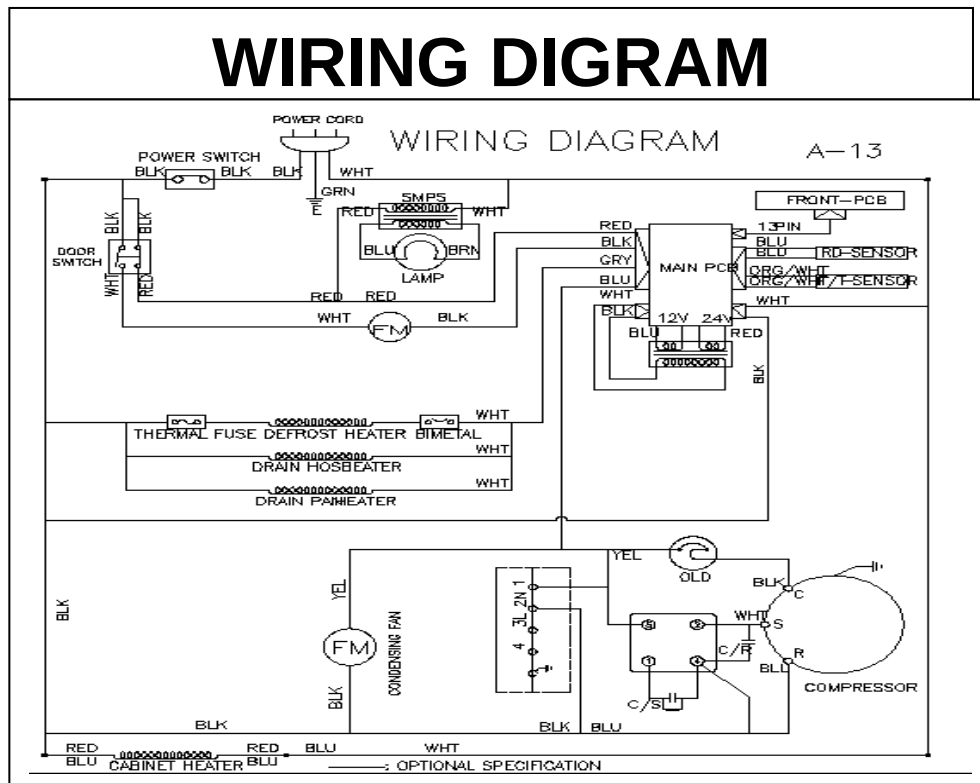


- 17 DRYER
- 18 DRAIN PAN
- 19 DRAIN GUIDE
- 20 DRAIN CASE
- 21 DRAIN PIPE
- 22 DRAIN CONNECTOR
- 23 EVAPORATOR
- 24 EVAPORATOR MOTOR
- 25 LAMP COVER
- 26 TOP GRILE T
- 27 TOP GRILE B
- 28 EVAPORATOR COVER
- 29 LAMP

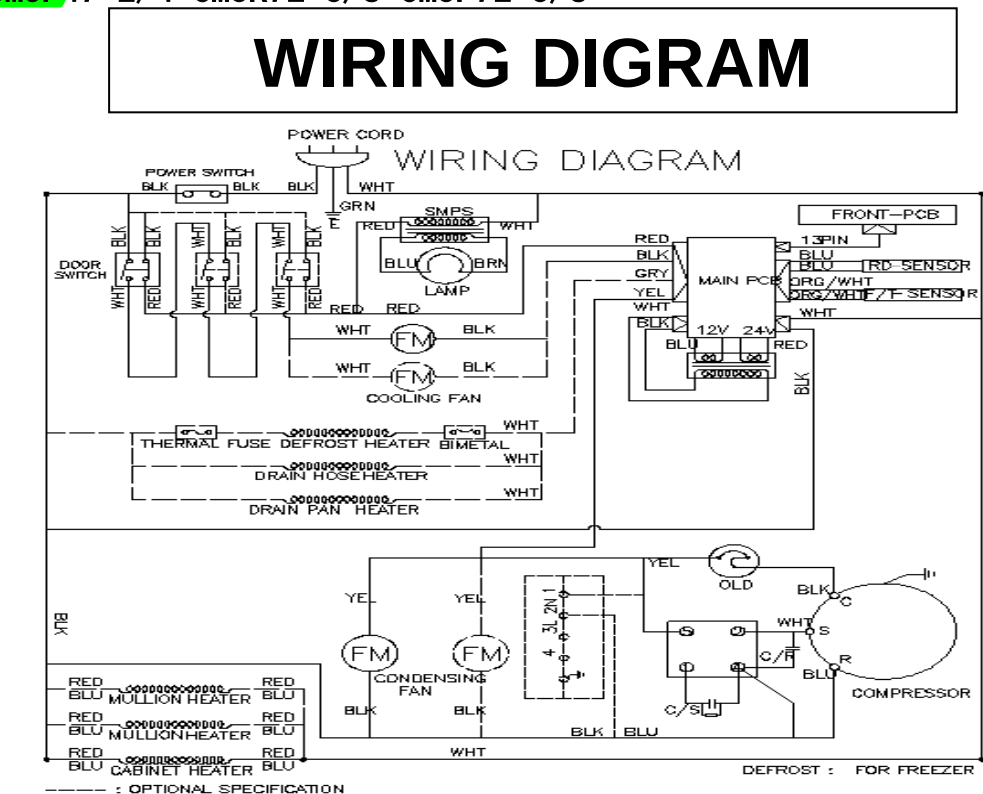


WIRINGDIAGRAMS

2-3. CM3F24-1



2-4. CM3F47-2/4 CM3R72-3/6 CM3F72-3/6



3.PART DETAIL

3-1.TOP GRILLE

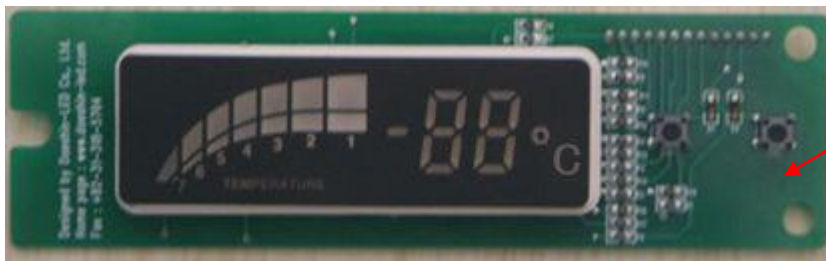
TOP GRILLE (T), TOP GRILLE (B)

TOP GRILLE (T)



DOOR LOCK

DISPLAY P.C.B

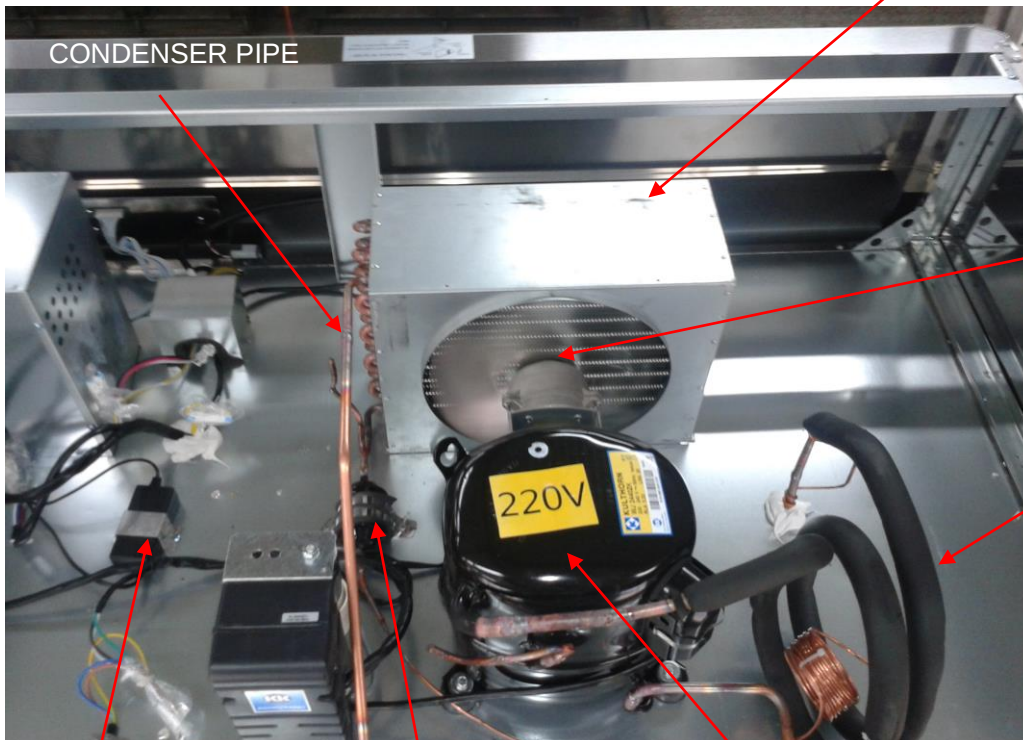


DISPLAY P.C.B

3-2.Refrigeration Compartment

Cycle Assembly

CONDENSER COIL



CONDENSER FAN
MOTOR ASSEMBLY

SUCTION PIPE

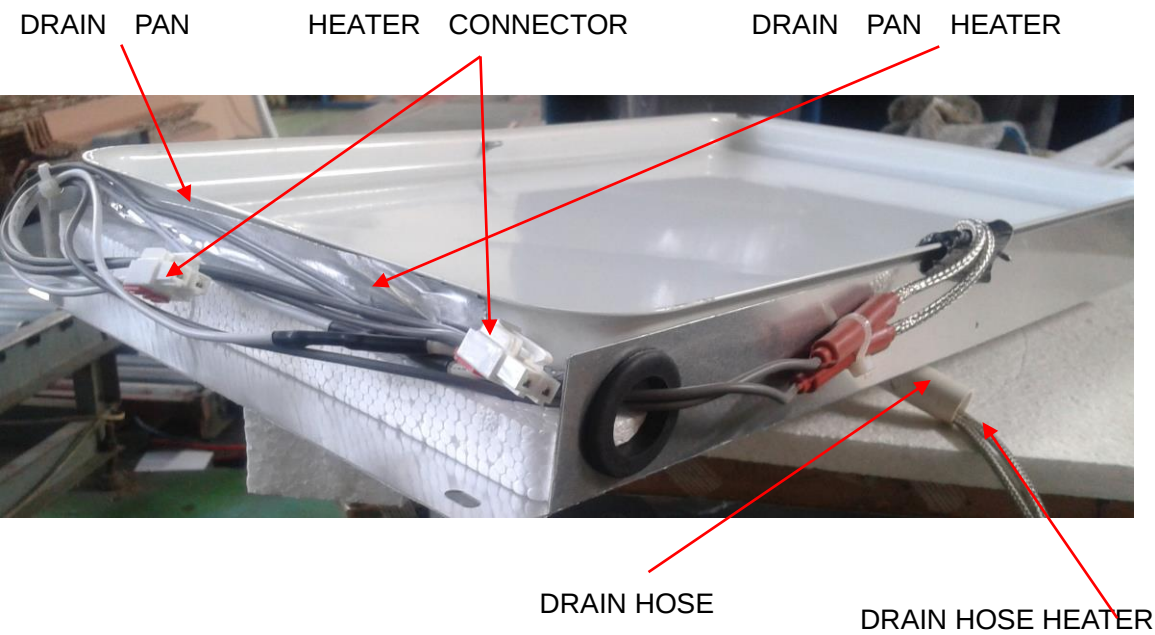
COMPRESSOR

CONDENSER DRYER

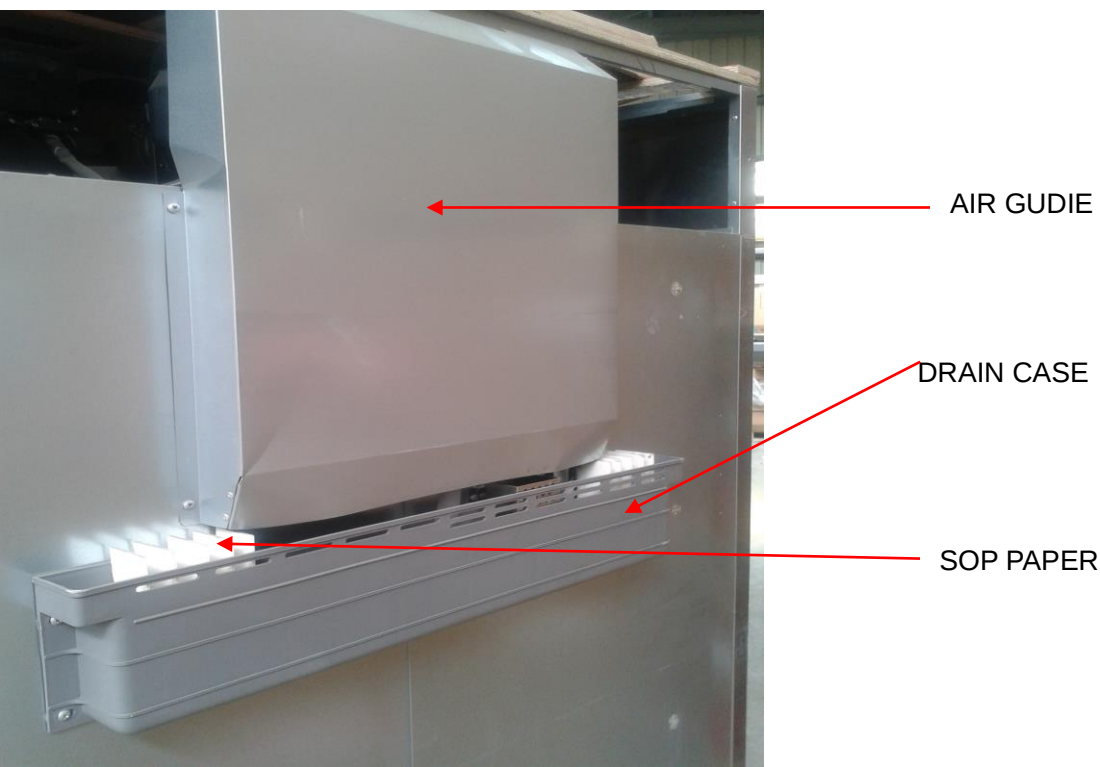
LED LAMP SMPS

PART DETAIL

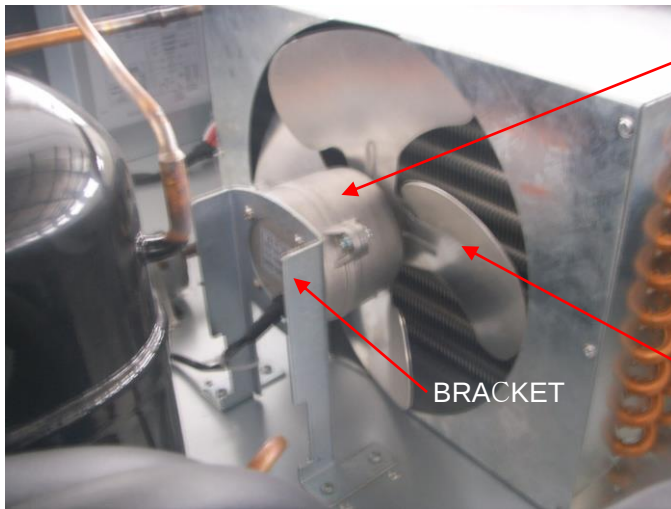
Drain Pan Assembly



Drain Case Assembly



Condenser Fan Motor Assembly



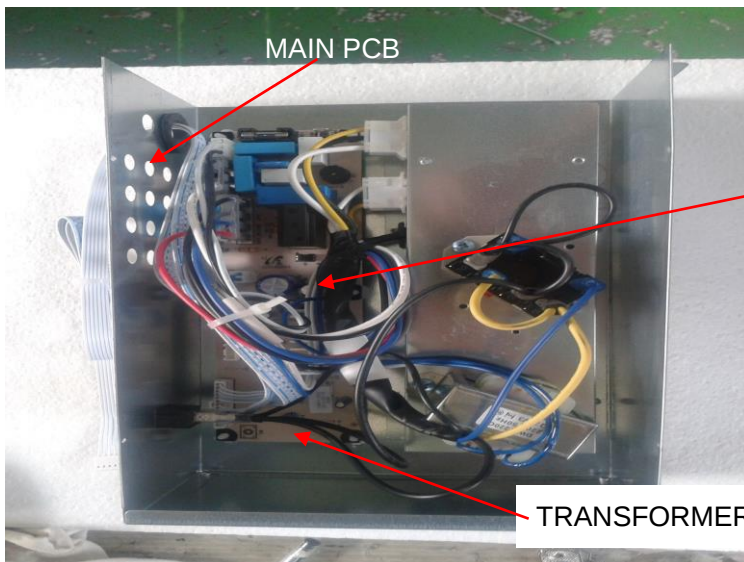
CONDENSER FAN MOTOR

BRACKET

CONDENSER FAN MOTOR BLADE

PART DETAIL

3-3.CONTROL BOX



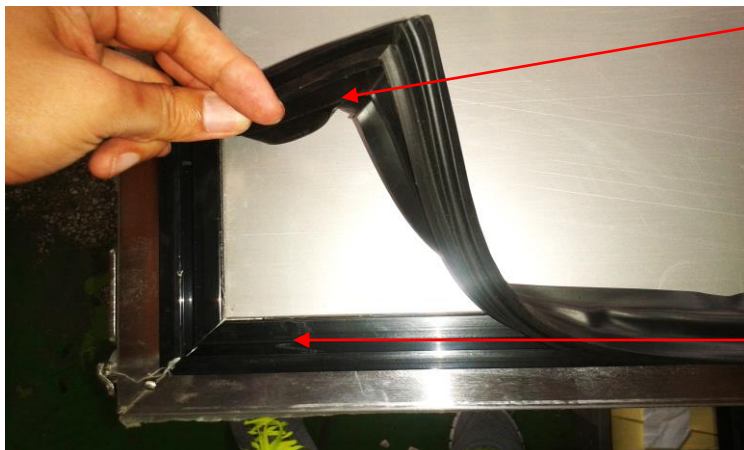
MAIN PCB

POWER RELAY

TRANSFORMER

3-4.Door

Gasket

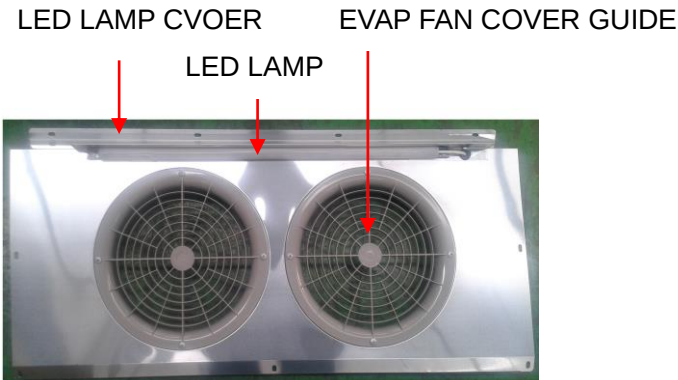
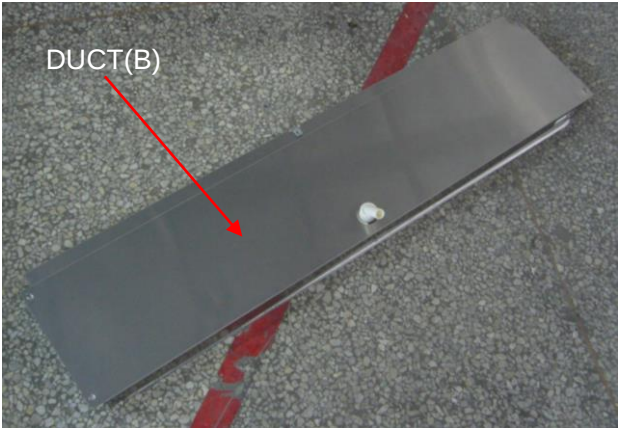


DOOR GASKET

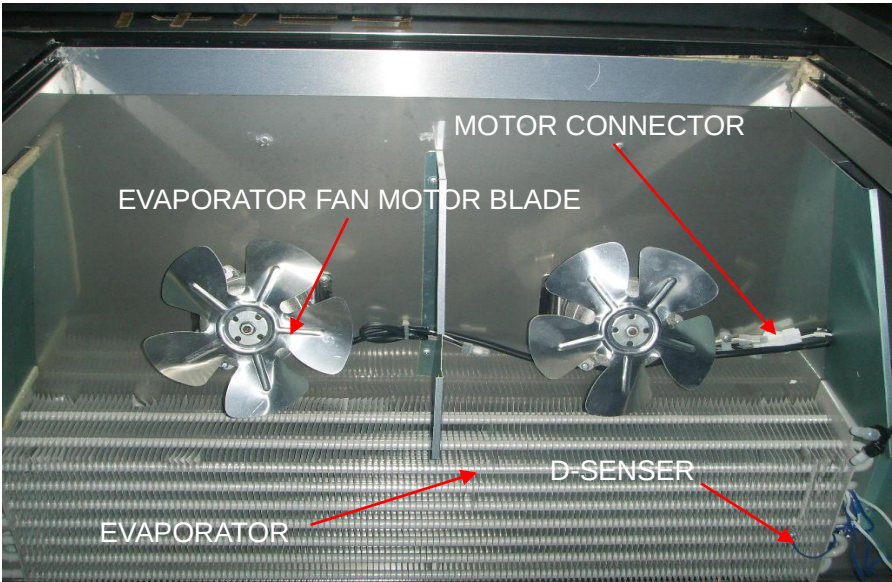
FRAME DOOR

3-5.Cooling Area

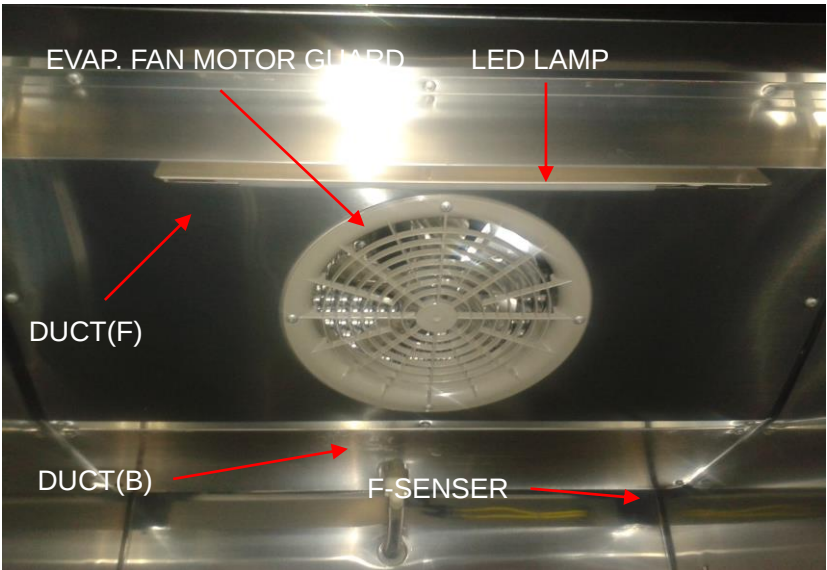
Freezer Duct & Refrigerator Duct (CM3R72-3/6,CM3F72-3/6,CM3R47-2/4,CM3F47-2/4)



Freezer EVAP.,Fan(CM3R47-2/4,CM3F47-2/4)

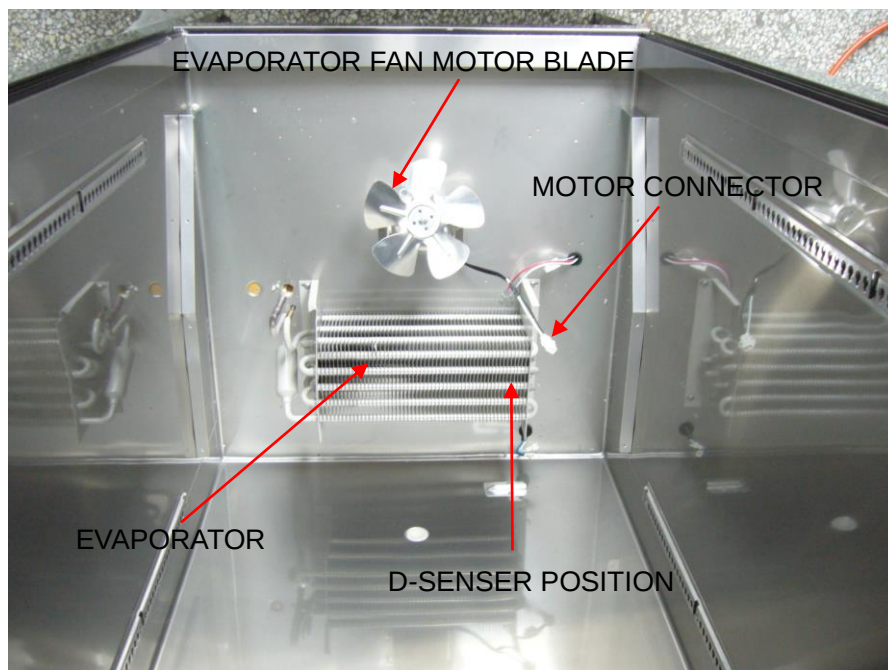


Freezer Duct & Refrigerator Duct (CM3R24-1/2,CM3F24-1/2)



PART DETAIL

Freezer EVAP.,Fan(CM3R24-1/2,CM3F24-1/2)



MAIN COMPONENTS

4-1.COMPRESSOR

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Refrigerant	R-134a	R-404a	R-134a	R-404a	R-134a	R-404a
Voltage	220V	220V	220V	220V	220V	220V
Comp. model	LX110LAJM	AE2428ZK-SR	LX125LAJM	WJ2440ZK	WJ9450YK	WJ2455ZK
Part code	C011430100	C031430200	C011430200	C031430300	C031430600	C031430400
Starting Type	RSCR	CSR	RSCR	CSR	CSIR	CSR

4-2.COMPRESSOR RELAY

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage						
Relay Model	P470MD, 47±20%/O-Ryung	3ARR3*6AU*	P470MD, 47±20%/O-Ryung	3ARR3*6AU*	3ARR18A98B	3ARR3*4AA*

4-3.CONDENSER DRYER

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Refrigerant	R-134a	R-404a	R-134a	R-404a	R-134a	R-404a
Spec.	C-052-5	C-052-5	C-052-5	C-052-5	C-052-5	C-052-5
Part code	M726800100					

4-4.CAPACITOR

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage						
Running	400V/4 μ F	400V/15 μ F	400V/5 μ F	400V/15 μ F		400V/20 μ F
Part code						
Starting		330V/64 μ F		330V/88 μ F	330V/64 μ F	330V/88 μ F
Part code						

4-5.EVA FAN MOTOR

Model	CM3R24-1 CM3R24-2	CM3R47-2 CM3R47-4	CM3F24-1 CM3F24-2	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	220V/ 50Hz					
Motor Model.	IS-4420QDBD(CW)					
Part code	G8F2700500					

MAIN COMPONENTS

4-6.CONDENSOR FAN MOTOR

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	220V/ 50Hz				220V/60Hz	
Motor Model.	IS-4420QTBC(CCW)				IS4420DWSQ-1	
Part code	G8F500200				G8F6600200	

4-7.EVA DEFROST HEATER

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	X	220	X	220	X	220
Spec..	X	445W	X	600W	X	900W
Part code	X	T2F5300600	X	T5F5300600	X	T8F5300700

4-8.LED LAMP

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	220V					
Spec..	1.7W		3.4W		5W	
Part code	P996300200		P996300300		P996300400	

4-9.TRANSFORMER/SMPS

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	220V/50Hz					
Spec..						
Part code	SMPS 8W(K3F6000700)					
	TRANSFORMER(G8F6000100)					

4-10.MAIN PCB

Model	CM3R24-1 CM3R24-2	CM3F24-1 CM3F24-2	CM3R47-2 CM3R47-4	CM3F47-2 CM3F47-4	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage	220V/50Hz					
Spec..						
Part code	G8R5400200	G8F5400300	G8R5400200	G8F5400300	G8R5400200	G8F5400300

5. ELECTRONIC CONTROLLER INSTRUCTION

5-1.FREEZER CONTROLLER

HOW TO USE THE PANEL

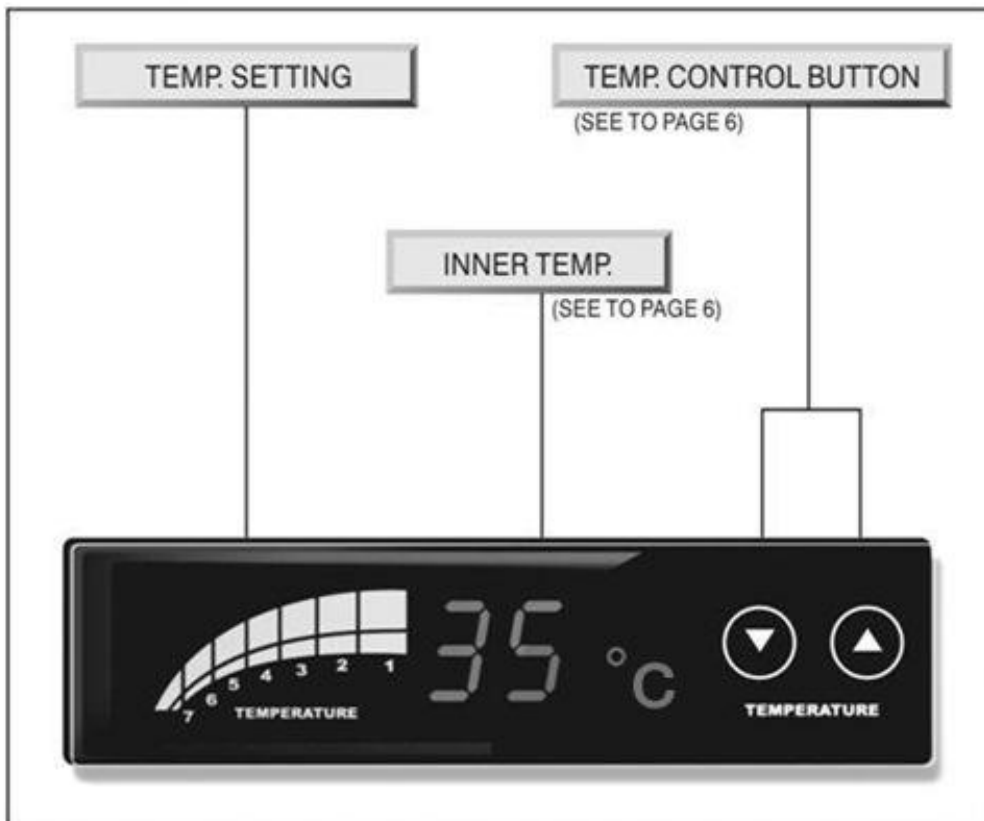
BASIC OPERATION

CM3R24-1 CM3R24-2
CM3R47-2 CM3R47-4
CM3R72-3 CM3R72-6

REFRIGERATORS

1. Plug in and turn on the power switch located on the control box .
The Display panel will be lighted and make a beep sound. The compressor will begin to run.
2. The default temperature setting is No. "4" .
3. The compressor is automatically cycled by the electronic controller (PCB, RD-Sensor).
4. The Defrost cycle is automatically controlled by the PCB.
5. Set level toward "1" for higher temperature and toward "7" for lower temperature.
6. The interior light is activated by the rocker switch at the bottom of the grille when the door is opened.
7. Evaporator fan motor(s) will run after all doors are completely closed.

DISPLAY PANEL OF REFRIGERATOR



ELECTRONIC CONTROLLER INSTRUCTION

UP/DOWN BUTTON (Temperature control button)

1. By pushing the up/down button, you can set the inside temperature level from '1' to '7'.
2. If you want lower temperature, push the Down button to be lighted higher level numbers.

INNER TEMPERATURE DISPLAY

1. It displays the inside temperature.
2. Display range is 14°F to 69 °F(-10°C ~ +20°C).
3. When the inside temperature is lower than -10°C the panel will display 'LO'.

LO

and, higher than 20°C, the panel will display 'HI'.

HI

FAN RUNNING

1. Evaporator fan motor is activated when the door (both doors for CM3R47-2, CM3R47-4, all three doors for CM3R72-3, CM3R72-6) is closed.

ELECTRONIC CONTROLLER INSTRUCTION

5-2.FREEZER CONTROLLER

HOW TO USE THE PANEL

BASIC OPERATION

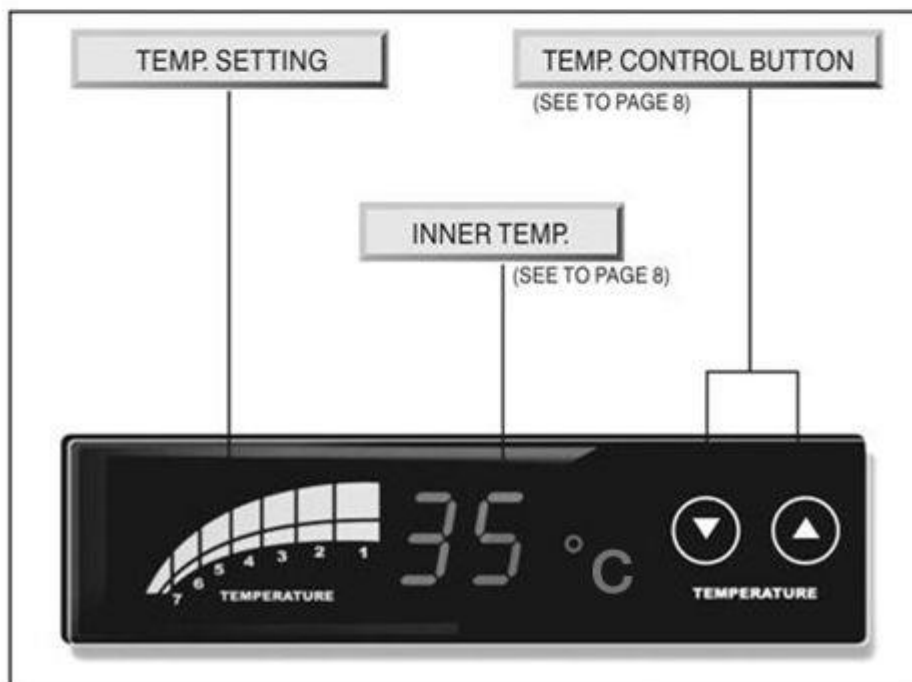
CM3F24-1 CM3F24-2
CM3F47-2 CM3F47-4
CM3F72-3 CM3F72-6

FREEZERS

1. Plug in and turn on the power switch located on the bottom of the top grille right side. The Display panel will be lighted and make a beep sound. The compressor will begin to run.
2. The default temperature setting is No. "4".
3. The compressor is automatically cycled by the electronic controller (PCB, F-Sensor).
4. The Defrost cycle is automatically controlled by the RD-sensor, and the PCB.
5. Set level toward "1" for higher temperatures and toward "7" for lower temperatures.
6. The interior light is activated by the rocker switch at the bottom of the grille when the door is opened.
7. Evaporator fan motor(s) will run after all doors are completely closed.
8. Good Air Flow in freezer unit is critical.

Be careful to load product so that it neither presses against the back wall, nor reaches within four inches from the evaporator compartment.

DISPLAY PANEL OF FREEZER



ELECTRONIC CONTROLLER INSTRUCTION

MANUAL DEFROST

1. Press the down (▼) button 5 times while pressing up (▲) button, the Defrost will start.
2. During the Manual Defrost mode, the Up/Down button for the temp. control can not make the compressor cycle ON or OFF.

UP/DOWN BUTTON (Temperature control button)

1. By pushing the up/down button, you can set the inside temperature level from '1' to '7'.
2. If you want lower temperatures, push the Down button to be lighted higher level numbers.

DEFROST

1. The electronic defrost controller is set at the factory to provide a defrost cycle every 6 hours (4 times per a day).
2. If it is necessary to change the intervals of defrost due to unusual operating conditions, it can be accomplished by adjusting the switch which is located on the inside of the top grille.
3. The panel displays "dF" during the defrost cycle.

INNER TEMPERATURE DISPLAY

1. It displays inside temperature.
2. Display range is -50°F to 50°F (-45°C ~ +10°C).
3. When inside temperature is lower than -45°C, the panel will display "LO".

LO

and, higher than +10°C, the panel will show "HI".

HI

FAN RUNNING

1. Evaporator fan motor is activated when the door (both doors for CM3F47-2, CM3F47-4, all three doors for CM3F72-3, CM3F72-6) is closed.

6.PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
Cabinet															
LINER FRAME COVER (L)(R)	P8R3100300	PVC-H		2	2	2	2	2	2	2	2	2	2	2	2
LINER FRAME COVER (T)(U)	P8R3100200	PVC-H										2	2	2	2
LINER FRAME COVER (T)(U)	P5R3100300	PVC-H						2	2	2	2				
LINER FRAME COVER (T)(U)	P2R3100500	PVC-H		2	2	2	2								
Control box															
FRONT PCB CASE	G8F3201000	ABS		1	1	1	1	1	1	1	1	1	1	1	1
HARNESS PCB	G8R5100700			1		1		1		1		1		1	
HARNESS PCB	G8F5101000				1		1		1		1		1		1
HARNESS SENSOR	G8F5100300			1	1	1	1	1	1	1	1	1	1	1	1
MAIN PCB (F)	G8F5400200				1		1		1		1		1		1
MAIN PCB (R)	P8R5400100			1		1		1		1		1		1	
MAIN PCB FIXTURE	G8F9200300	NYLON		6	6	6	6	6	6	6	6	6	6	6	6
POWER RELAY	G8F5900200			1	1	1	1	1	1	1	1	1	1	1	1
POWER SWITCH	P995200400			1	1	1	1	1	1	1	1	1	1	1	1
Door															
ASS'Y DOOR (L)	G8F0500200							1	1			1	1		
ASS'Y DOOR (M)	G8F0500300											1	1		
ASS'Y DOOR (R)	G8F0500100							1	1			1	1		
ASS'Y DOOR (R)	G2F0500100			1	1										
ASS'Y DOOR (T)(L)	G8F0500400									1	1			1	1
ASS'Y DOOR (T)(M)	G2F0500200					1	1								
ASS'Y DOOR (T)(R)	G8F0500500									1	1			1	1
ASS'Y DOOR (T)(R)	G2F0500300					1	1								
ASS'Y DOOR (U)(L)	G8F0500600									1	1			1	1
ASS'Y DOOR (U)(M)	G8F0500700													1	1
ASS'Y DOOR (U)(R)	G2F0500300					1	1								
ASS'Y DOOR (U)(R)	G8F0500900									1	1			1	1
DOOR GASKET	P8F3300100	PVC-S								1	1			1	1
DOOR GASKET	P8F3300200	PVC-S						1	1			1	1		
DOOR GASKET	P2R3300100	PVC-S				1	1								
DOOR GASKET	P2R3300200	PVC-S		1	1										
DOOR HANDLE	G993200301			1	1	2	2	2	2	4	4	3	3	6	6
KEY	P998200100			1	1	2	2	2	2	3	3	3	3	1	1

PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
Evap housing															
DRAIN GUIDE	G2F2700100	AL		1	1	1	1								
DRAIN GUIDE	G5F2700100	AL						1	1	1	1				
DRAIN GUIDE	G8F2700100	AL										1	1	1	1
DRAIN GUIDE PAD	G2F7300100	F-BS		1	1	1	1								
DRAIN GUIDE PAD	G5F7300100	F-BS						1	1	1	1				
DRAIN GUIDE PAD	G8F7300100	F-BS										1	1	1	1
DRAIN GUIDE PAD(LOW)	G8F7300200											1		1	
DEFROST HEATER	T2F5300600		220V 445W		1		1								
DEFROST HEATER	T5F5300600		220V 600W						1		1				
DEFROST HEATER	T8F5300700		220V 900W										1		1
DRAIN HOSE	G8 F3000100			1	1	1	1	1	1	1	1	1	1	1	1
DRAIN HOSE HEATER	T8F5300800	PVC	220V10W		1		1		1		1		1		1
DRAIN PAN HEATER	G2F5300200	PVC	220V61.2W		1		1								
DRAIN PAN HEATER	G5F5300200	PVC	220V90W						1		1				
DRAIN PAN HEATER	G8F5300400	PVC	220V111.1W										1		1
F SENSOR	G8F5100800				1		1		1		1		1		1
FAN BLADE	G8F2700500				1		1		1		1	1		1	
FAN BLADE	P8F2700300			1		1		1		1			2		2
FAN BLADE	P8F2700400			1	1	1	1	2	2	2	2	2	2	2	2
MOTOR	G8F5000100			1	1	1	1	2	2	2	2	2	2	2	2
MOTOR	G8F5000200			1	1	1	1	1	1	1	1	1			
TSENSOR	G8R5100400			1		1		1		1		1		1	
THERMAL FUSE	T8F6200300				1		1		1		1		1		1
Inner case															
MULLION FRAME (V)	G8F3100100	PVC						2	2			4	4		
MULLION FRAME (V)	G8F3101000	PVC								2	2			4	4
MULLION FRAME COVER (V)	G8F3100400	PVC						2	2			4	4		
MULLION HEATER (VER)	P8F5300201	PVC	L=3060						1				2		
MULLION HEATER (VER)	P8R5300201	PVC	L=3060					1				2			
SHELF STANDARD	P8F2700100	AL		4	4	4	4	8	8	8	8	12	12	12	12
SHELFSTANDARDREINFORCE	P992200100	GI		8	8	8	8	16	16	16	16	24	24	24	24
ASS'Y SHELF	G8F0800100											1	1	1	1
ASS'Y SHELF	G8F0800200							2	2	2	2	2	2	2	2
ASS'Y SHELF	G2F0800100			1	1	1	1								
LAMP	P996300200			1	1	1	1								
LAMP	P996300300							1	1	1	1				
LAMP	P996300400											1	1	1	1
SMPS	K3F6000700			1	1	1	1	1	1	1	1	1	1	1	1

LAMP COVER	G2F1700600			1	1	1	1								
LAMP COVER	G5F1700400							1	1	1	1				
LAMP COVER	G8F1700400											1	1	1	1
SENSOR GUARD	P992000300	AL		1	1	1	1	1	1	1	1	1	1	1	1

PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
SHELF	G2F1800101			3	3	3	3								
SHELF	G8F1800101							6	6	6	6	6	6	6	6
SHELF (M)	G8F1800201											3	3	3	3
SHELF CLIP	P993200800			16	16	16	16	32	32	32	32	48	48	48	48

Out case

CABINET HEATER	P2F5300400	PVC	L=4228		1		1								
CABINET HEATER	P2R5300200	PVC	L=4228	1		1									
CABINET HEATER	P5F5300300	PVC	L=5396					1		1					
CABINET HEATER	P5R5300200	PVC	L=5396					1		1					
CABINET HEATER	P8F5300400	PVC	L=6720									1		1	
CABINET HEATER	P8R5300400	PVC	L=6720									1		1	
DOOR HANDLE	G993200101	ABS		1	1	1	1	2	2	2	2	3	3	3	3
DOOR SWITCH	P995200100			1	1	1	1	2	2	2	2	3	3	3	3
SPRING BAR	G8F0501200					2	2			4	4			6	6
SPRING BAR	G8F0501000			1	1			2	2			3	3		
MASCOT	G8F3201100				1		1		1		1		1		1
MASCOT	G8R3200101			1		1		1		1		1		1	
MIDDLE HINGE (L)	P992900602	SUS304								1	1			1	1
MIDDLE HINGE (R)	P992900502	SUS304				1	1			1	1			2	2
MULLION FRAME (H)	G2F1200101	PVC				2	2								
MULLION FRAME (H)	G8F1200302	PVC								4	4			6	6
MULLION FRAME COVER	G2F3100100	PVC				2	2								
MULLION FRAME COVER	G8F3100500	PVC								2	2			2	2
MULLION FRAME COVER	G8F3100600	PVC								2	2			2	2
MULLION FRAME COVER	G8F3100700	PVC								2	2			4	4
MULLION FRAME COVER	G8F3100800	PVC								2	2			4	4
MULLION FRAME COVER	G8F3100900	PVC												2	2
MULLION HEATER (VER)	P8F5300201	PVC						1					2		
MULLION HEATER (VER)	P8R5300201	PVC						1				2			
TOP GRILLE (T) FIXTURE	P998300200	STS43		2	2	2	2	2	2	2	2	2	2	2	2
TOP HINGE (L)	P992900206	STS304						1	1	1	1	1	1	1	1
TOP HINGE (R)	P992900106	STS304		1	1	1	1	1	1	1	1	2	2	2	2
TRANS FORMER	G8F6000100			1	1	1	1	1	1	1	1	1	1	1	1

Top grille

TOP GRILLE (T3)	G8F1600100	SUS304-#4										1	1	1	1
TOP GRILLE(B) BACK COVER	G8F1600201	GI		1	1	1	1	1	1	1	1	1	1	1	1
TOP GRILLE(T2)	G5F1600100	SUS304-#4						1	1	1	1				
TOP GRILLE(T1)	G2F1600100	SUS304-#4		1	1	1	1								

PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	G47	R47-4	F47-4	R72	F72	R72-6	F72-6
TOP GRILLE (B)	G2F1100101	GI	BLACK	1	1	1	1								
HARNESS GRILLE DOOR S/W	G2F5100401			1	1	1	1								
TOP GRILLE (B)	G5F1100101	GI	BLACK					1	1	1	1				
HARNESS GRILLE DOOR S/W	G5F5100401							1	1	1	1				
TOP GRILLE (B)	G8F1100101	GI	BLACK									1	1	1	1
TOP GRILLE (B) FIXTURE	G8F1900301	GI		2	2	2	2	3	3	3	3	3	3	3	3
HARNESS GRILLE DOOR S/W	G8F5100701											1	1	1	1
TOP GRILLE (T) FIXTURE	P8F1600401	SUS304-2B		2	2	2	2	2	2	2	2	2	2	2	2

Unit

TEE	G994200100	CU		1	1	1	1	1	1	1	1	1	1	1	1
PIPE(COMP-DRAIN)	G2F4200401	CU	Φ9.52X0.6T		1		1								
PIPE(DRAIN-CON)	G2F4200501	CU	Φ9.52X0.6T		1		1								
EVAP COIL	G2F4400115				1		1								
CONDENSER COIL	G2F4500109				1		1								
PIPE(COMP-DRAIN)	G2R4200400	CU	Φ 7.94X0.6T	1		1									
PIPE(DRAIN-CON)	G2R4200301	CU	Φ9.52X0.6T	1		1									
EVAP COIL	G2R4400108			1		1									
CONDENSER COIL	G2R4500110			1		1									
PIPE(COMP-DRAIN)	G5F4200401	CU	Φ9.52X0.6T						1		1				
EVAP COIL	G5F4400110								1		1				
PIPE(DRAIN-CON)	G5R4200101		Φ9.52X0.6T					1		1					
PIPE(COMP-DRAIN)	G5R4200201		Φ 7.94X0.6T					1		1					
PIPE(DRYER-CAPI TUBE)	MEGA	CU		1		1		1		1					1
EVAP COIL	G5R4400106							1		1					
CONDENSER COIL	G5R4510100							1		1					
DRAIN PIPE	G8F4200101	CU							1		1		1		
PIPE(COMP-SUC)	G8F4200200	CU	Φ12.7X0.8T						1		1		1		
PIPE(DRAIN-CON)	G8F4200701	CU	Φ9.52X0.6T									1		1	
PIPE(COMP-DRAIN)	G8F4201000	CU	Φ9.52X0.6T		1		1		1		1				
PIPE(DRYER-CAPI TUBE)	G8F4201100	CU											1		
PIPE(COMP)	G8F4201300	CU	Φ9.52X0.75T	1	1	1	1	1	1	1	1	1	1	1	1
PIPE (CON-DRYER)	G8F4400101	CU	Φ7.94X0.6T										1		
EVAP COIL	G8F4500109												1		1
CONDENSER COIL	G8R4500109											1		1	
EVAP COIL	G8R4500109											1		1	

CONDENSER COIL	G8F4500109												1		1
PIPE(DRAIN-CON)	G8R4200300	CU	Φ9.52X0.6T									1		1	
PIPE(COMP-DRAIN)	G8R4400101	CU	Φ9.52X0.6T									1		1	
EVAP COIL	G8R4500102								1		1	1		1	
HARNESS RELAY	G2F5100100				1		1								
HARNESS RELAY	G2R5100100			1		1		1		1					

PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
HARNESS RELAY	G8F5101100												1		1
HARNESS RELAY	G8R5100100								1		1	1		1	
FILTER DRYER	P994100100			1	1	1	1	1	1	1	1	1	1	1	1
Other															
CABINET FOAM ASS'Y	G2F9100100			1	1	1	1								
CABINET FOAM ASS'Y	G5F9100100							1	1	1	1				
CABINET FOAM ASS'Y	G8F9100100											1	1	1	1
TOP HINGE SPACE	P8F2600100	ABS		2	2	4	4	4	4	8	8	6	6	12	12
DRAIN HOSE CAP	P8F9900101	RUBBER	BLACK	1	1	1	1	1	1	1	1	1	1	1	1
COMPRESSOR	C031430200		AE2428ZK-SR		1		1								
COMPRESSOR	C011430100		(LX110LAJM)	1		1									
COMPRESSOR	C031430300		WJ2440ZK						1		1				
COMPRESSOR	C011430200		(LX125LAJM)					1		1					
COMPRESSOR	C031430400		WJ2455ZK										1		1
COMPRESSOR	C031430600		WJ9450YK									1		1	

7.REPLACEMENT OF MAIN COMPONENTS

7-1. TOP GRILLE PART

A. Unscrew the screw located on both side of top grille (t) with the top grille (t) fixture.



B. Hold up the top grille (T)



C. Unscrew the screw located on both side of top grille (B).



REPLACEMENT OF MAIN COMPONENTS

D. Unscrew the screw located on the cabinet top cover.



E. Pull out the harness display pcb and harness grille door s/w located on back of top grille (B).



You can replace the door switch, mascot, key, front pcb and front pcb case, etc.

REPLACEMENT OF MAIN COMPONENTS

7-2. REPLACE DOOR

7-2-1. REPLACE DOOR (CM3R24-1,CM3F24-1,CM3R47-2,CM3F47-2,CM3R72-3,CM3F72-3)

A. Disassemble top grille (T) and top grille (B) as described section 7-1.

B. Unscrew the top hinge (R).



C. Lift the door (R) and pull it out.



D. Replace the door with the new one.

E. Screw the top hinge (L). (this process is opposite to disassemble them.)

F. Do just like above instructions in replacing the door (L).

REPLACEMENT OF MAIN COMPONENTS

7-2-2. REPLACE DOOR (CM3R24-2,CM3F24-2,CM3R47-4,CM3F47-4,CM3R72-6,CM3F72-6)

A. Disassemble top grille (t) and top grille (b) as described section 7-1.

B. Unscrew the top hinge (L).



C. Lift the door (T) (L) and pull it out.



D. Unscrew the middle hinge (L).



REPLACEMENT OF MAIN COMPONENTS

E. Lift the door (U) (L) and pull it out.



Then you can replace new doors and assemble them, those processes are opposite to disassemble them.

F. Do just like above instructions in replacing the door (T)(R) and the door (U)(R).

REPLACEMENT OF MAIN COMPONENTS

7-3. REFRIGERATION COMPARTMENT'S PART

- Duct and Lamp
- T-sensor and D-sensor
- Evaporator coil and F-sensor
- Defrost heater (freezer only)
- Evaporator fan motor and fan blade

7-3-1. REPLACE DUCT AND LAMP

A. Disassemble the Duct and the led lamp connector.



B. Unscrew the screws of Led lamp .



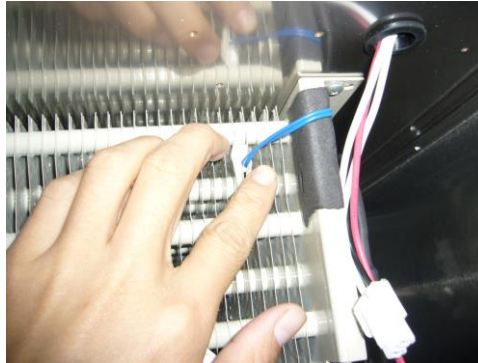
You can replace the Led lamp now.

REPLACEMENT OF MAIN COMPONENTS

7-3-2. REPLACE T SENSOR AND D SENSOR (T-SENSOR IS WHITE COLOR, F-SENSOR IS ORANGE AND D-SENSOR IS BLUE)

A. Disassemble the Duct as in 7-3-1

B. Disconnect the connector and pull out the D-sensor from the evap. replace the new one.



(D-SENSOR IS BLUE)

C. Take off the T-sensor from the evap. replace the new one.



(T-SENSOR IS WHITE COLOR)

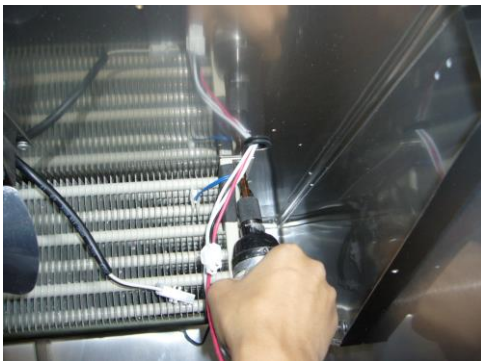
REPLACEMENT OF MAIN COMPONENTS

7-3-3. REPLACE THE EVAPORATOR COIL AND F-SENSOR

A. Welding off the connection suction pipe(A) and (B).



B. Unscrew the screw located on back side of evap. housing.

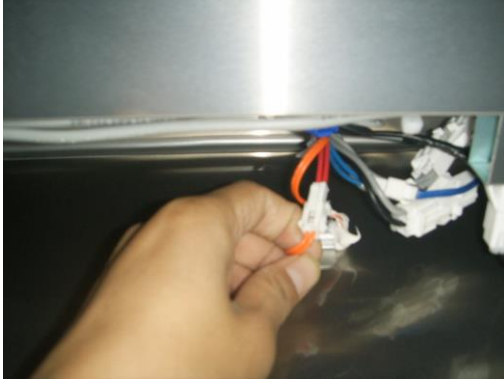


C. Take off the evaporator.



REPLACEMENT OF MAIN COMPONENTS

D. Disconnect the connector and Unscrew the screws located on sensor cover and pull out the F-sensor from the evap.sensor guide, replace the new one.



7-3-4. REPLACE THE DEFROST HEATER (FREEZER ONLY)

A. After lift the evaporator up, disconnect the connectors with harness defrost heater and disassemble the defrost fixture spring and split the hooks of the evap..



B. Replace the new defrost heater and fix it with heater fix spring. Connect the connectors.

***NOTE**

Why is always 220 voltage detected between connectors of the evaporator defrost heater in the main harness?

The SNUBBER (located Main PCB) holds two AC power lines simultaneously.

The SNUBBER prevents Main PCB malfunction from sparks occurred by other electrical component's ON/OFF. (SNUBBER =Spark killer)

Because of the SNUBBER, 220 voltage is always detected, but electrical current in this case is very little (small Amps.).So, this electrical current is not enough to operate the evaporator defrost heater.

REPLACEMENT OF MAIN COMPONENTS

How to measure the Amps. of the evaporator defrost heater

Disconnect the connectors of the evaporator defrost heater.

Then , prepare the additional Power Source(220V/50Hz) and the Amp. Meter.

Connect the connectors of the evaporator defrost heater to the additional power source and read amp. Value from the Amp. Meter.

7-3-5. REPLACE THE EVAPORATOR FAN MOTOR AND FAN BLADE

A. After lift the evaporator up, unscrew the screw which used in fixing motor fixture.



B. Disconnect the connectors of harness motor.



Then you can replace the evaporator fan motor and fan blade.

REPLACEMENT OF MAIN COMPONENTS

7-4. CONTROL BOX PART

- Power relay
- Transformer
- Main PCB

A. Disassemble top grille (t) as described section 7-1 A B.

B. Pull out all connectors connected with control box.



C. Unscrew the screws located on front of evap-housing.

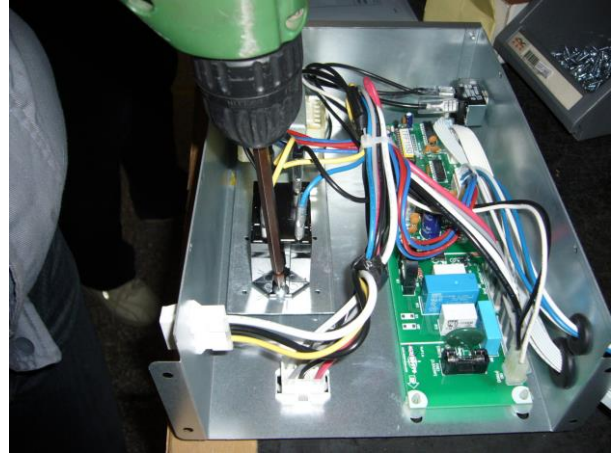


E. Pull out the harness main.



REPLACEMENT OF MAIN COMPONENTS

F. Unscrew the screws used in fixing power relay and trans former.



G. Disconnect the main PCB fixture.



Then you can replace the power relay, trans former and main pcb.

REPLACEMENT OF MAIN COMPONENTS

7-5. CONDENSER UNIT

- Compressor
- Condenser fan motor
- Dryer filter
- Pressure switch



The comp. Base is located on both side on the top of the cabinet by screw, and you can replace the Compressor ,Condenser coil Condenser fan motor, ETC. on it.

REPLACEMENT OF MAIN COMPONENTS

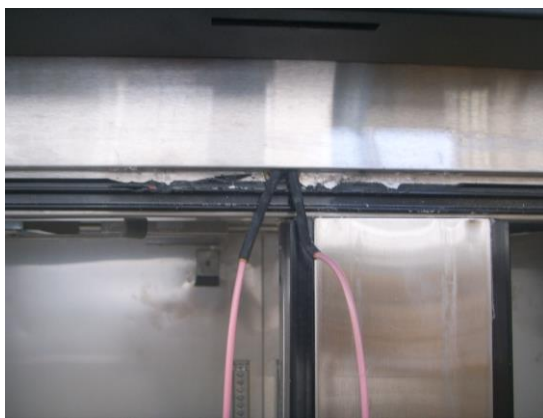
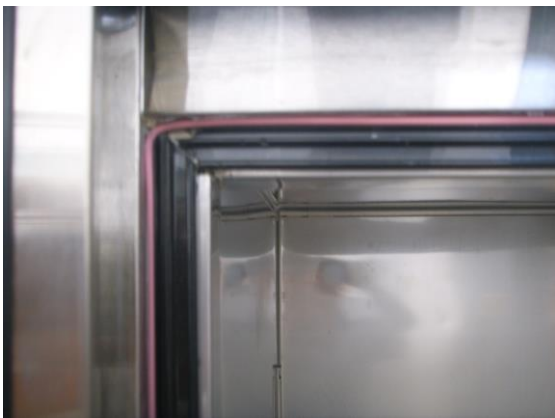
7-6. REPLACE THE CABINET HEATER AND MULLION HEATER

A. Disassemble the liner frame cover with the and edge of ‘—’type screwdriver.(left/right/top/bottom side)



B. Disconnect the cabinet heater and pull it out.

You can replace the cabinet heater with the new one.



C. Assemble the liner frame cover.(left/right/top/bottom side)



REPLACEMENT OF MAIN COMPONENTS

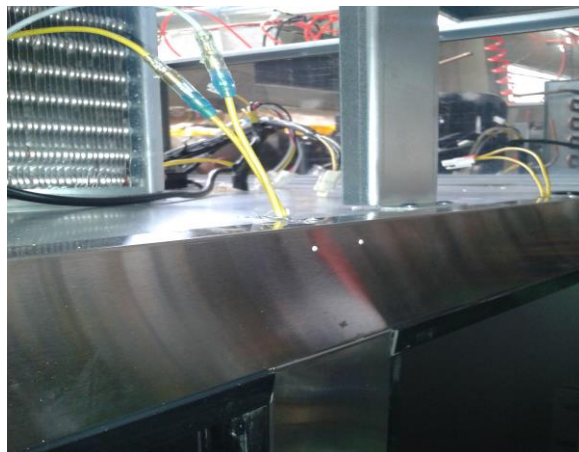
D. Disassemble the mullion frame cover(v) with the and edge of ‘—’type screwdriver.



E. Unscrew the screw located on both side of the mullion.



F. Take apart the mullion out cover(v) from the mullion, then disconnect the harness mullion heater.



REPLACEMENT OF MAIN COMPONENTS

G. Change the old mullion heater(v) and install the new one with the gap between wires 1.2 inch.



H. Insert the mullion out cover(v) into the original position, then screw it on both side of the mullion.(this process is opposite to disassemble the mullion out cover(v))

J. Assemble the mullion frame cover(v).(this process is as alike as assembling the liner frame cover)

K. Do just like above instructions in replacing mullion heater(h). (CM3R24-2,CM3F24-2 only, but before replacing mullion heater(h), doors should be disassembled.)



REPLACEMENT OF MAIN COMPONENTS

