

# SERVICE MANUAL

## Multi Zone Cooler

### MODEL:

CWR461DZ, CWR262DZ, CWF340DZ, CWR1101DZ,  
CWR1551DZ, CWR1551DD, CWR1431TZ

**CAUTION: READ ALL SAFETY PRECAUTIONS IN THIS  
MANUAL BEFORE SERVICING THE UNIT**

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# SAFETY PRECAUTIONS

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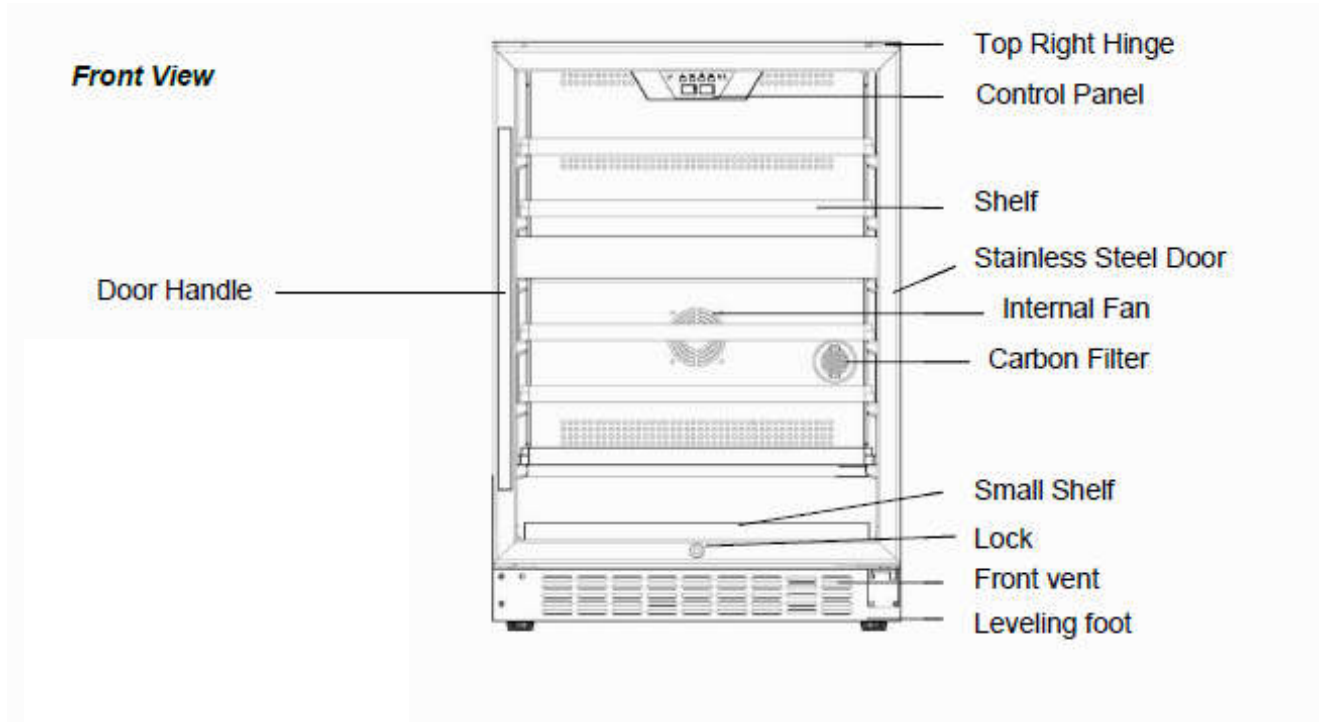
**WARNING:** This manual and the information contained herein is intended for use by certified technicians. The manufacturer or seller is not responsible for the interpretation or misuse of the information provided, nor does it assume any liability in connection with its use.

The safeguards and warnings indicated in this manual do not cover all possible conditions which may occur. Common sense, caution, and care must be exercised.

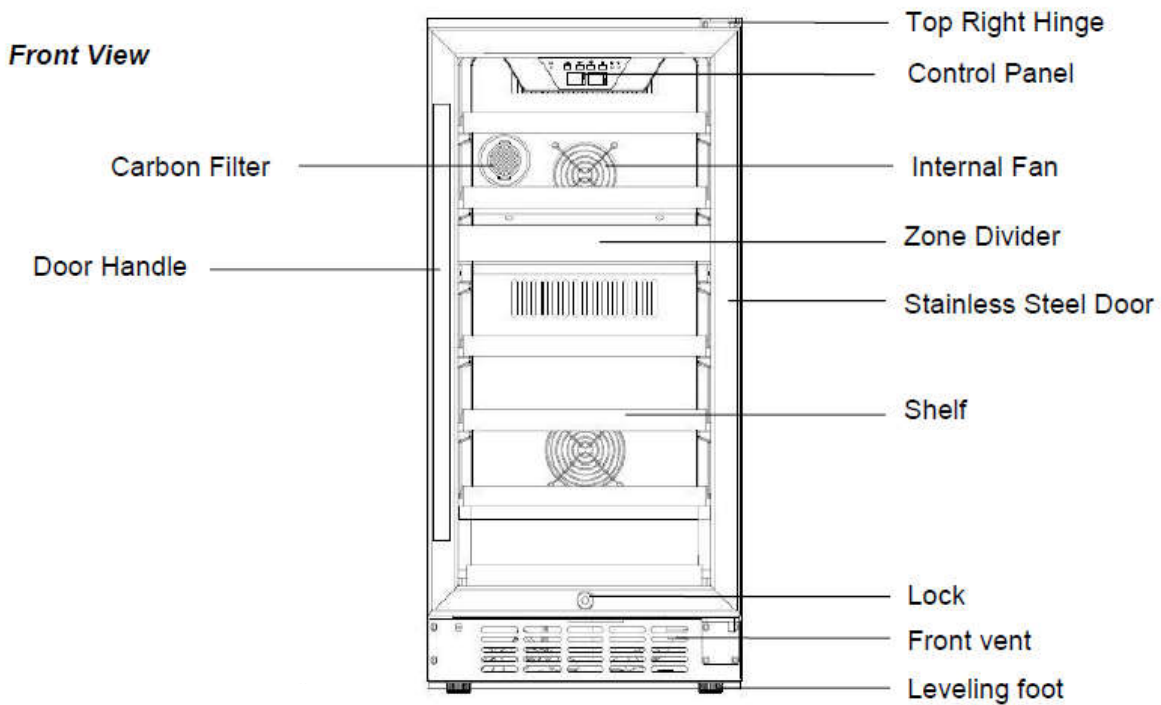
- To prevent electric shock, always unplug an appliance from the power supply before attempting any service.
- Disconnect the power cord by grasping the plug, not the cord.
- Do not bypass, cut, or remove the grounding plug.
- Prevent water from spilling onto electric elements or the machine parts.
- Always refer to the rating label on the appliance for rated current and voltage.
- Always check line voltage and amperage.
- Always use exact replacement parts.
- Any attempt to repair a major appliance may result in personal injury and property damage.

## 2. PARTS IDENTIFICATION

Model: CWR461DZ



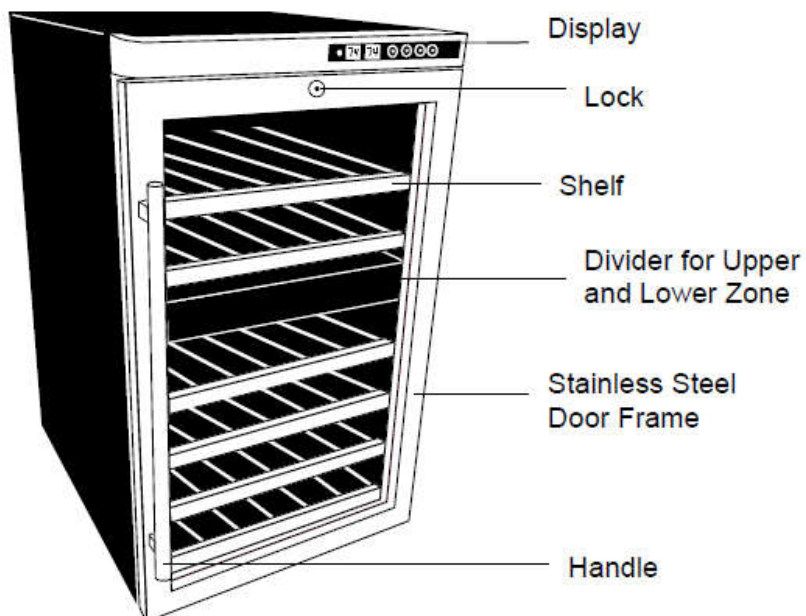
Models: CWR262DZ



## 2. PARTS IDENTIFICATION

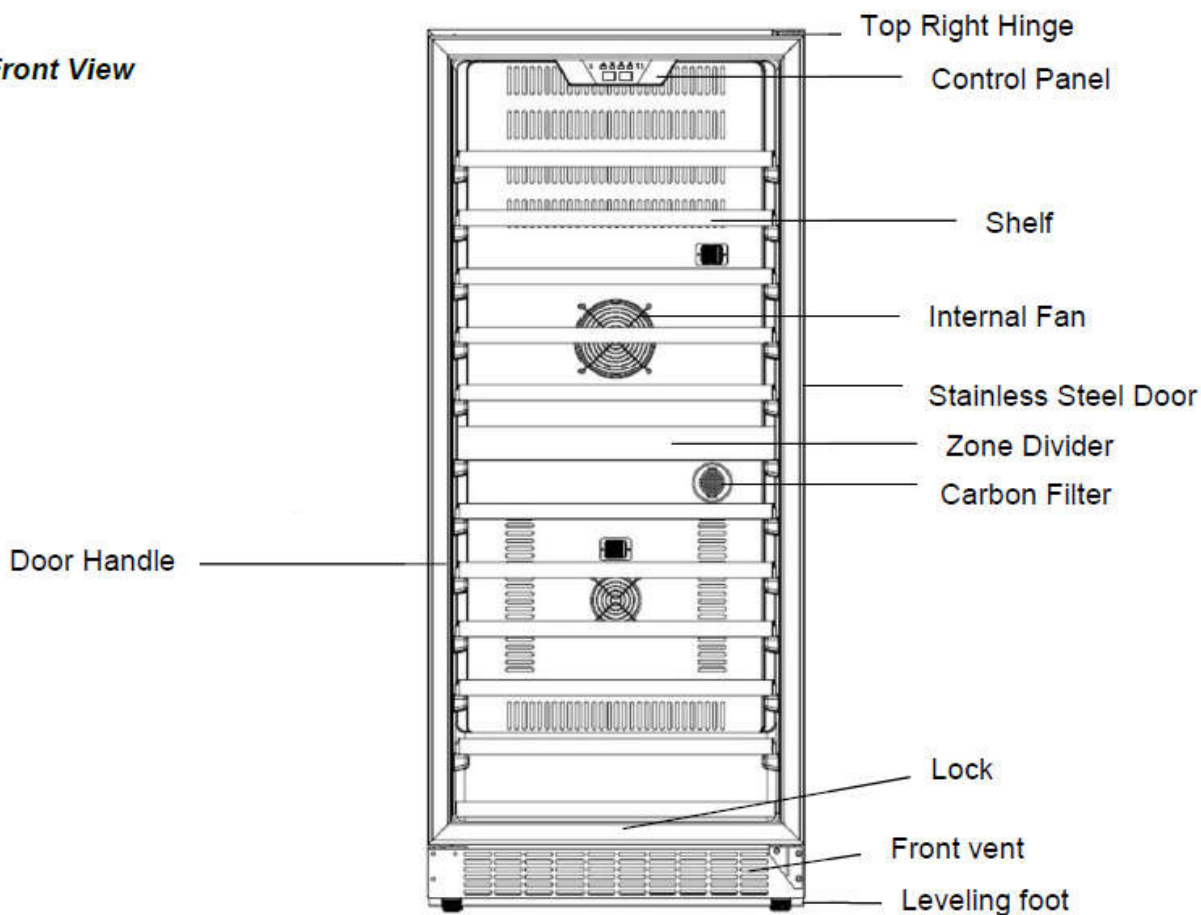
Models: CWF340DZ

*Front View*



Models: CWR1101DZ

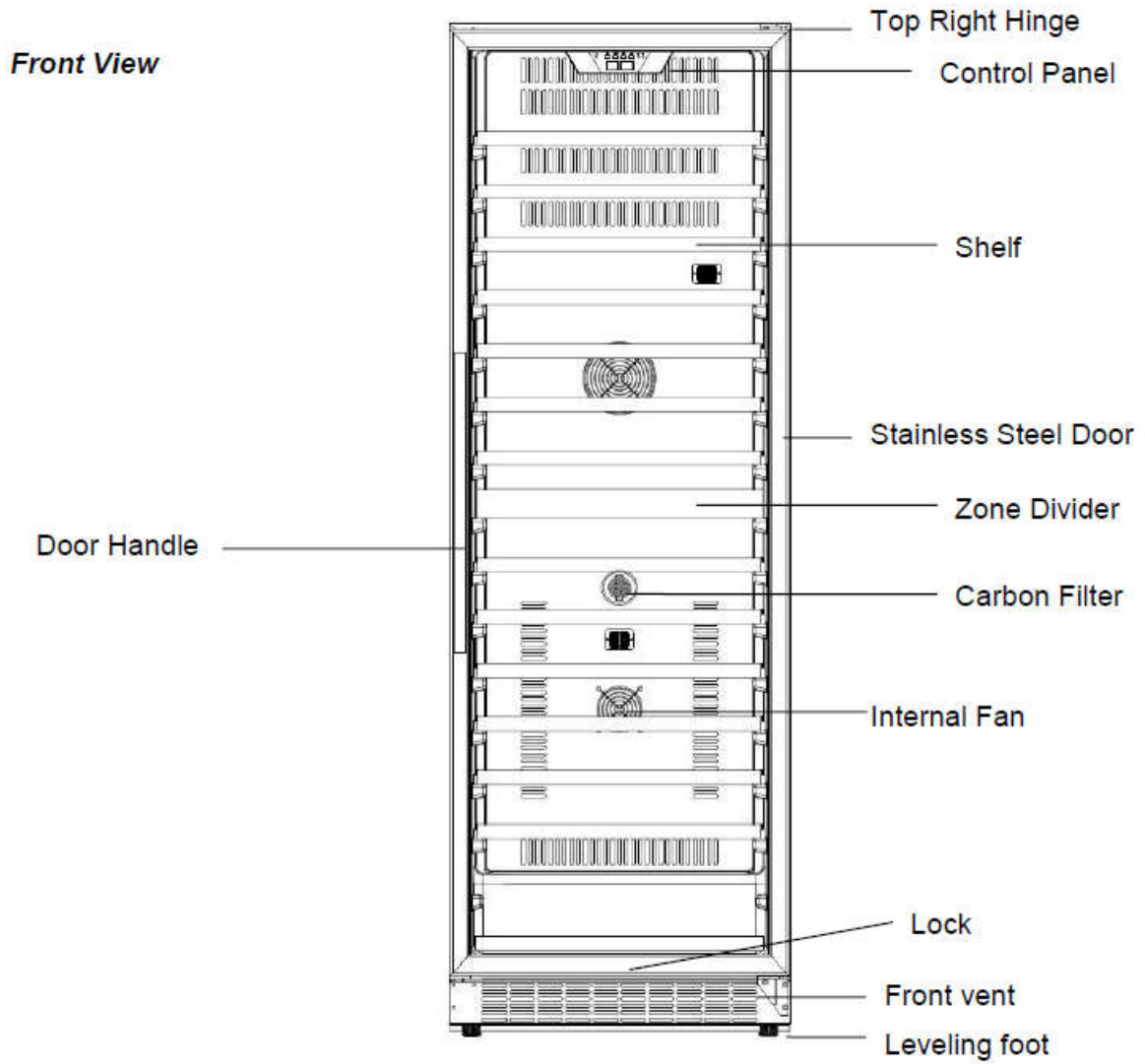
*Front View*



# 2. PARTS IDENTIFICATION

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Models: CWR1551DZ

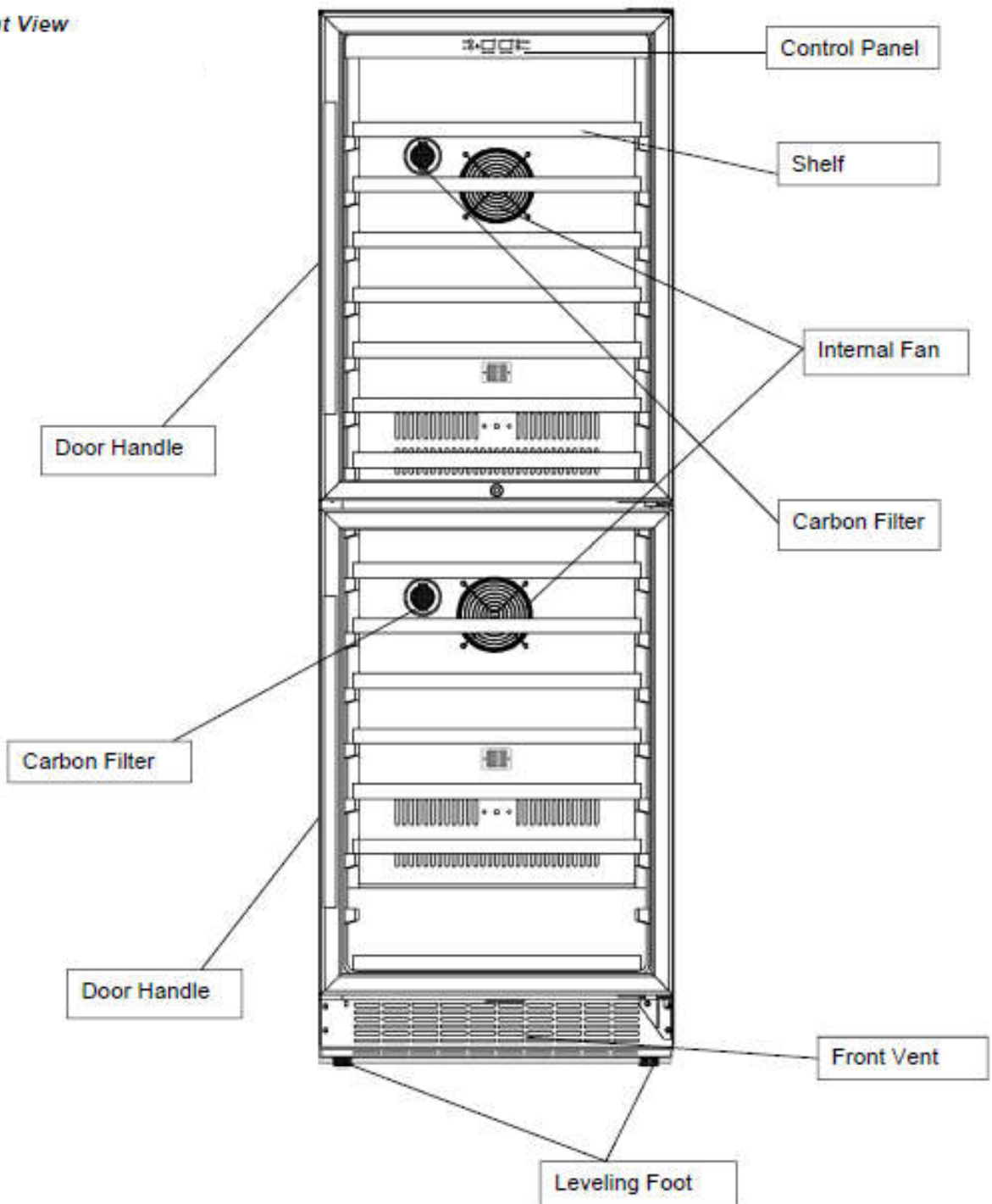


## 2. PARTS IDENTIFICATION

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Models: CWR1551DD

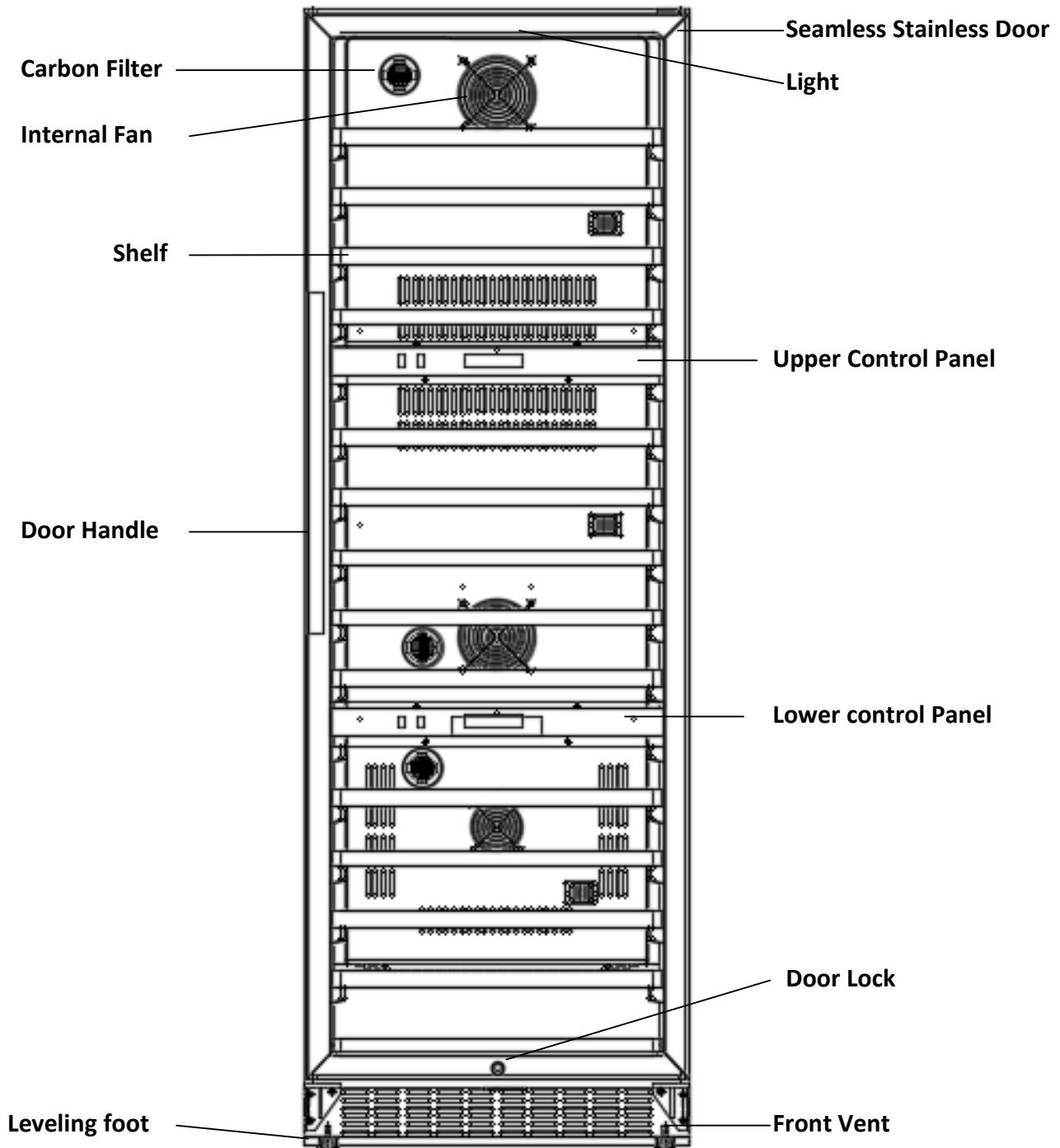
*Front View*



# 2. PARTS IDENTIFICATION

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Models: CWR1431TZ

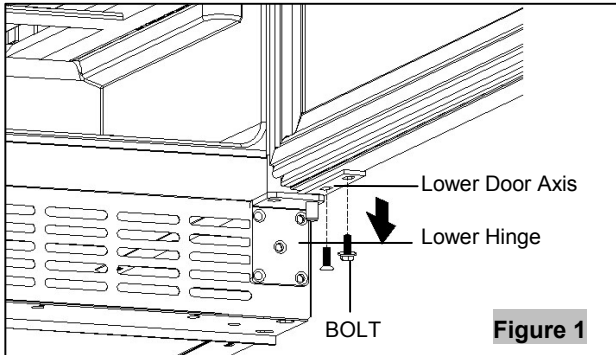


# 3. DISASSEMBLY

## 3-1 DOOR

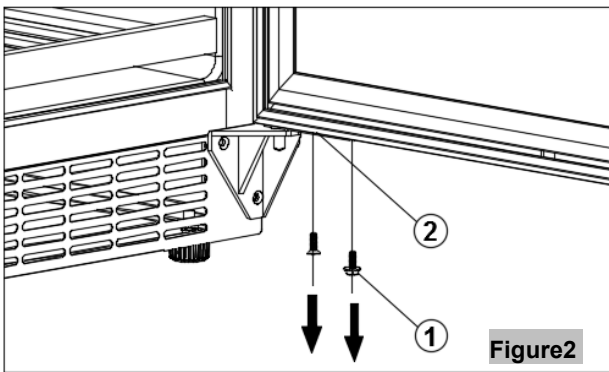
(Models: CWR461DZ , CWR262DZ )

Loosen 2 bolts securing the lower door axis to the lower hinge to remove the door. (Figure 1)



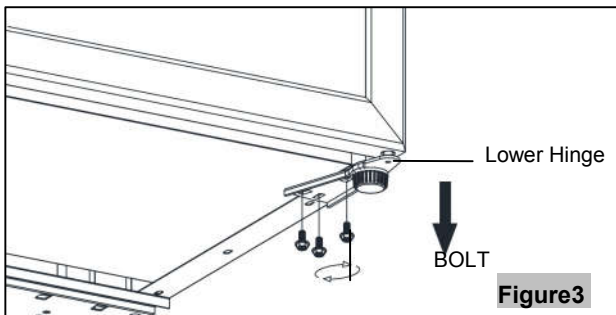
(Models: CWR1101DZ, CWR1551DZ, CWR1551DD, CWR1431TZ)

Loosen 2 bolts securing the lower door axis to the lower hinge to remove the door. (Figure 2)



(Models: CWF340DZ)

Loosen 3 bolts fixing the lower hinge to the cabinet to remove the door. (Figure 3)

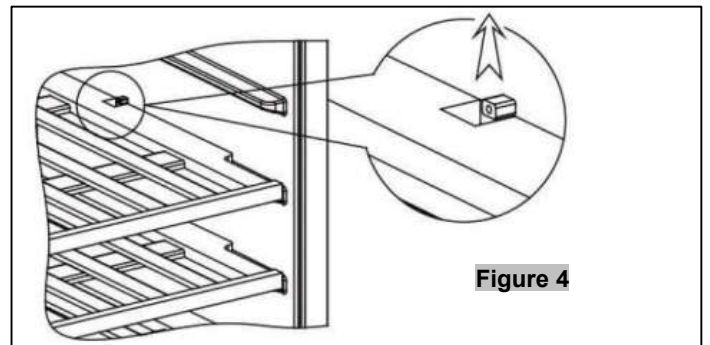


## 3-2 WOODEN SHELVES

(Models: CWR461DZ , CWR262DZ

CWR1101DZ, CWR1551DZ, CWR1551DD, CWR1431TZ)

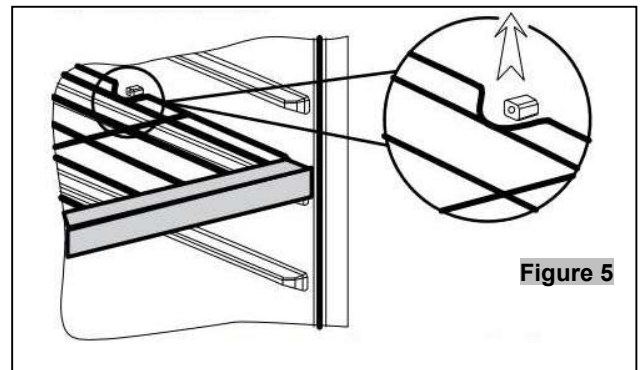
- Open the door completely.
- If necessary, make sure you remove all the contents sitting on the shelf..
- Pull the shelf forward until the notch aligns with the plastic post on each side of the shelf track.
- Lift the shelf until both notches pass through the posts.
- Continue to pull the shelf forward until it is completely removed from the inner compartment. (Figure 4)



## WIRES SHELVES

(Models: CWF340DZ)

- Open the door completely.
- If necessary, make sure you remove all the contents sitting on the shelf..
- Pull the shelf forward until the notch aligns with the plastic post on each side of the shelf track.
- Lift the shelf until both notches pass through the posts.
- Continue to pull the shelf forward until it is completely removed from the inner compartment. (Figure 5)





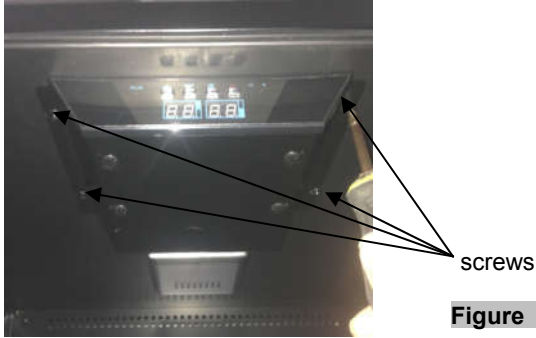
# 3. DISASSEMBLY

## 3-3 LAMP

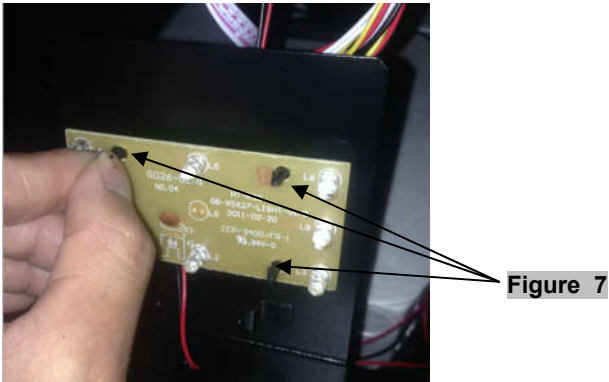
(Models: CWR461DZ , CWR262DZ , CWR1101DZ , CWR1551DZ ,

### LED light in upper zone

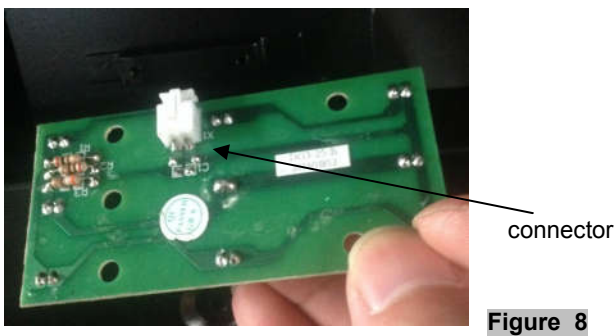
1. Loosen four screws. (figure 6)



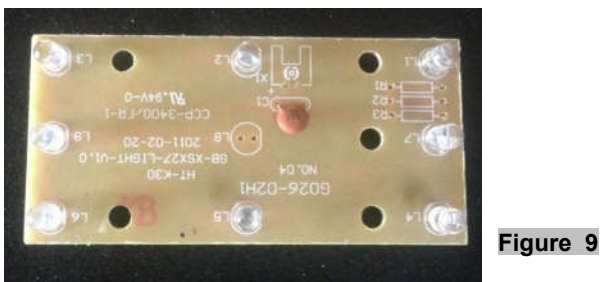
2. Open the electrical box and remove four fasteners on PCB board. (figure 7)



3. Unplug the led light connector. (figure 8)



4. Pull out the LED light. LED light is pictured below. (figure 9)

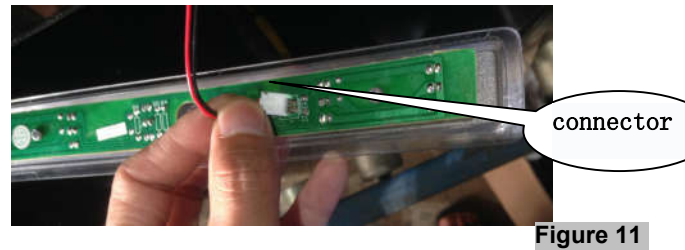


### LED light in lower zone

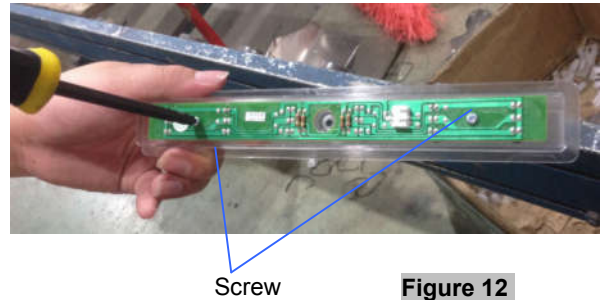
1. Loosen one screw. (figure 10)



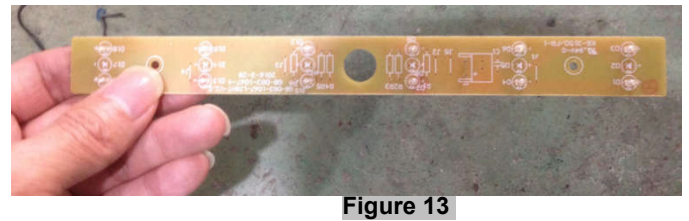
2. Unplug the led light connector. (figure 11)



5. Loosen two screws. (figure 12)

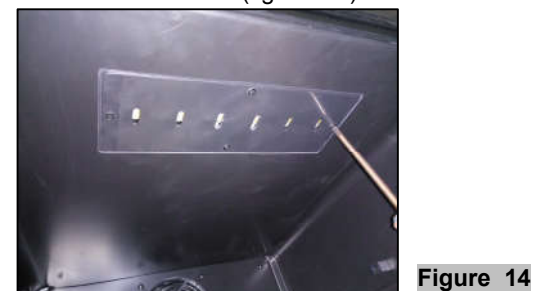


6. Pull out the LED light. The LED light is pictured below. (figure 13)



### (Models: CWF340DZ) LED Light in upper zone

1. Loosen four screws. (figure 14)



# 3. DISASSEMBLY

2. Unplug the led light connector. (figure 15)

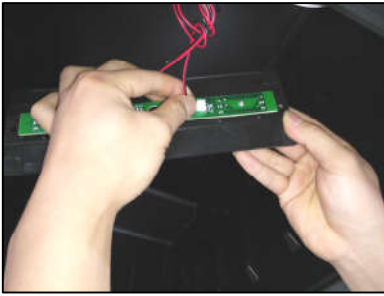


Figure 15

3. Loosen two screws. (figure 16)

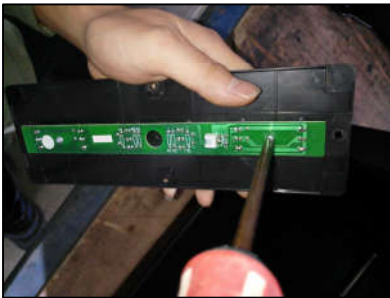


Figure 16

4. The LED light is pictured below. (figure 17)



Figure 17

## LED light in lower zone

3. Loosen one screw. (figure 18)



Figure 18

4. Unplug the led light connector. (figure 19)

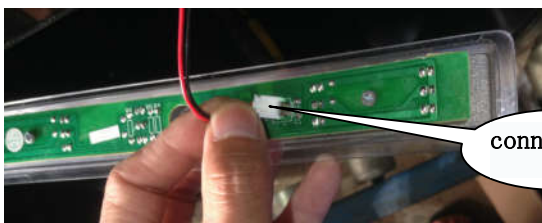
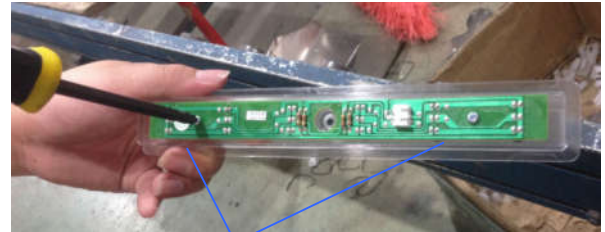


Figure 19

7. Loosen two screws. (figure 20)



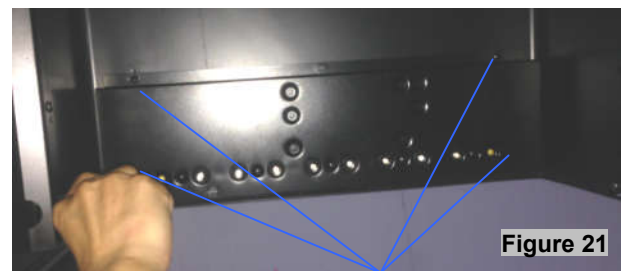
Screw

Figure 20

(Models: CWR1551DD)

## LED Light in upper zone

1. Loosen four screws. (figure 21)



Screw

Figure 21

2. Pull out the electrical box. (figure 22)



Figure 22

3. Unplug all cable connectors. (figure 23)

4. Press the plastic tab securing the control board with forefinger and thumb. (figure 24)



Figure 23



Figure 24

5. The LED light is pictured below. (figure 25)



Figure 25

# 3. DISASSEMBLY

## LED light in lower zone

1. Remove four screws from the middle air duct board (figure 26)

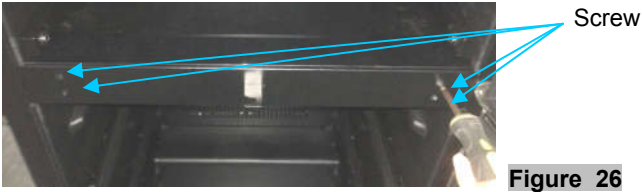


Figure 26

2. Remove the middle air duct board cover. Unscrew four screws (figure 27)

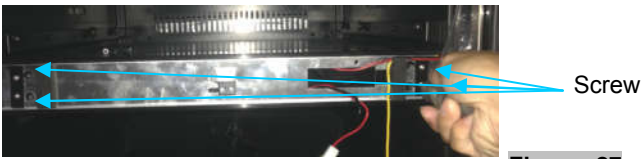


Figure 27

3. Take out the complete middle air duct board (figure 28).



Figure 28

5. Pull out the LED light connector (figure 29)

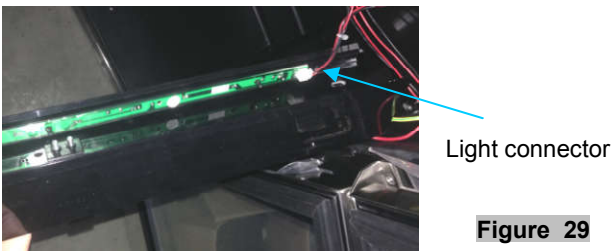


Figure 29

5. Loosen the LED light fasteners. Take out the LED light. (figure 30)



6. The LED light is pictured below. (figure 31)



Figure 31. 11

(Models: CWR1431TZ)

## LED light in upper zone

1. Loosen one screw. (figure 32)



Figure 32

2. Unplug the led light connector. (figure 33)

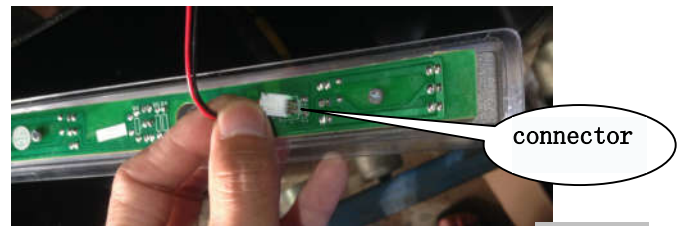


Figure 33

3. Loosen two screws. (figure 34)

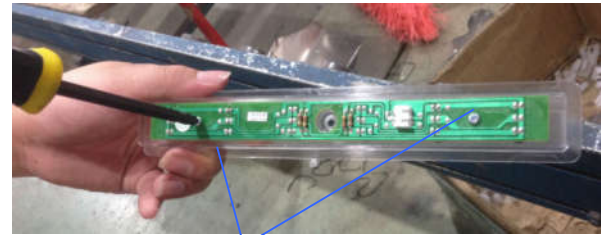


Figure 34

4. The LED light is pictured below. (figure 35)



Figure 35

## LED light in middle and lower zone

1. Remove five screws (figure 36)

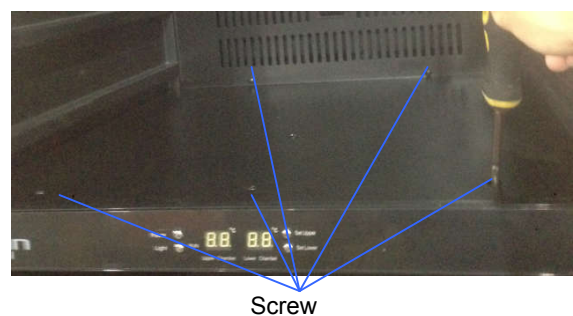


Figure 36

# 3. DISASSEMBLY

2. Pull out the cover board (figure 37)



Figure 37

3. Take out the LED light connector (figure 38)



Figure 38

4. Loosen the LED light fasteners. (figure 39)



Figure 39

5. The LED light is like below. (figure 40)



Figure 40

## 3-4 DISPLAY BOARD & CONTROL BOARD (Models: CWR461DZ, CWR262DZ, CWR1101DZ, CWR1551DZ)

1. Loosen four screws. (figure 41)
2. Pull out the electrical box.



Figure 41

Screw

3. Unplug all cable connectors. (figure 42)
4. Press the plastic tab securing the control board with forefinger and thumb.

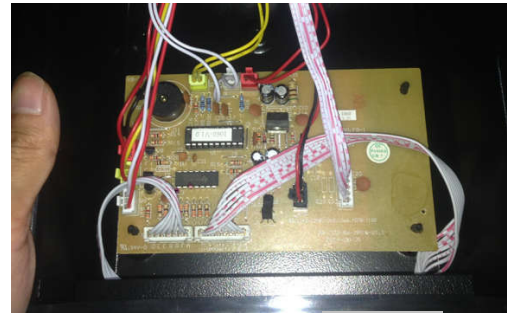


Figure 42

5. The control board is pictured below. (figure 43)



Figure 43

6. Disassemble the display board. (figure 44)

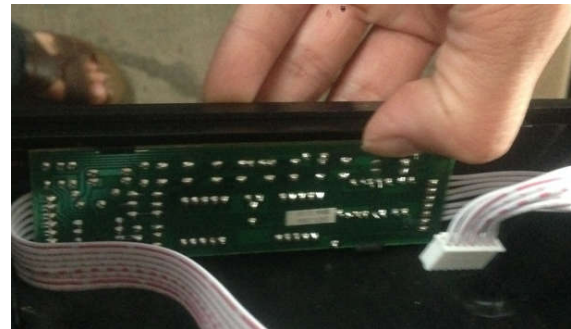


Figure 44

7. The display board is pictured below. (figure 45)

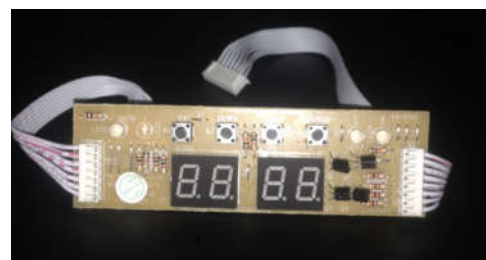


Figure 45

## (Models: CWF340DZ)

1. Loosen free screws. (figure 46)



Figure 46

# 3. DISASSEMBLY

2. Push up the top insert Assembly. (figure 47)



Figure 47

3. Unplug the cable connector. (figure 48)



Figure 48

4. Loosen six screws. (figure 49)



Figure 49

5. The display board is pictured below. (figure 50)



Figure 50

6. Loosen four screws.

7. Press the plastic tab securing the control board with forefinger and thumb. (figure 51)



Figure 51

8. Unplug all cable connectors.

9. The control board is pictured below. (figure 52)

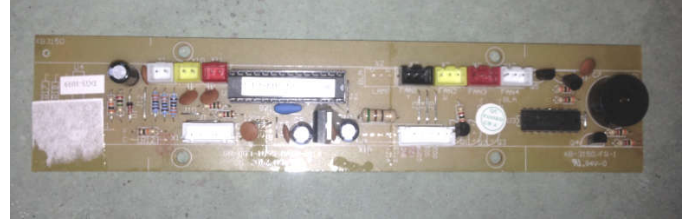


Figure 52

(Models: CWR1551DD)

1. Loosen four screws. (figure 53)

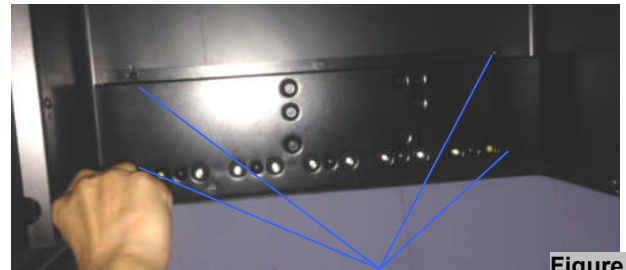


Figure 53

Screw

2. Pull out the electrical box. (figure 54)



Figure 54

3. Loosen the two fixer from PCB board. Take out the PCB board.(figure 55)



Figure 55

3. The display board is pictured below. (figure 56)

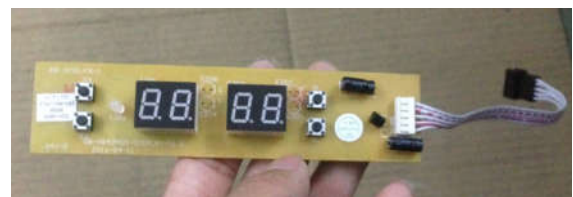
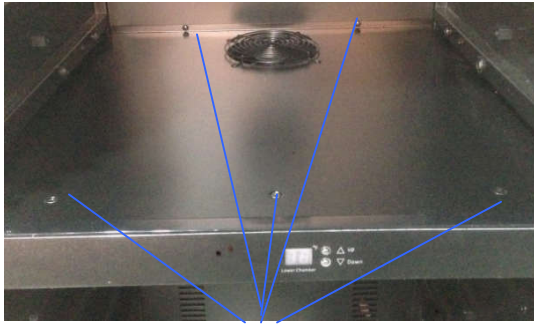


Figure 56

# 3. DISASSEMBLY

(Models: CWR1431TZ)  
PCB board for lower zone

1. Remove five screws from the air duct board (figure 57)



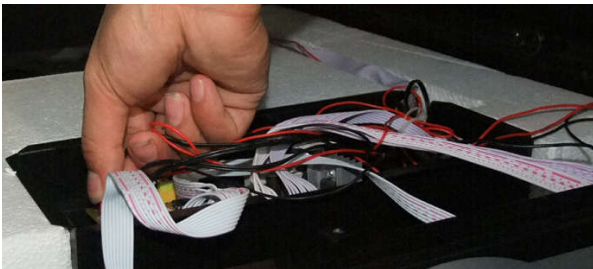
Screw **Figure 57**

2. Pull out the air duct board cover (figure 58)



**Figure 58**

3. Unplug all cable connectors. (figure 59)



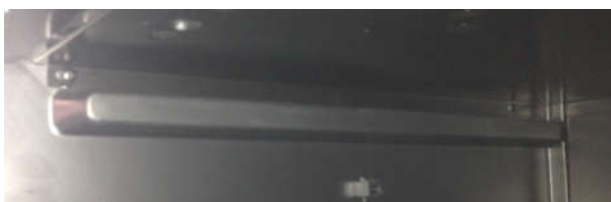
**Figure 59**

4. The control board is pictured below. (figure 60)



**Figure 60**

5. Remove the six screws from Air duct board C (figure 61)



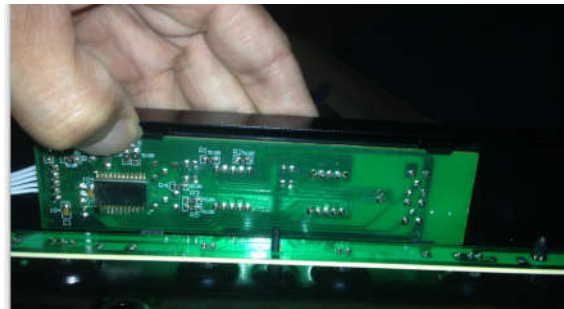
**Figure 61**

6. Loosen the display PCB board connector. Pull out the air duct board C. Take out the front display PCB board cover from left side (figure 62)



**Figure 62**

7. Loosen the display PCB board fixer and take out the PCB board. (figure 63)



**Figure 63**

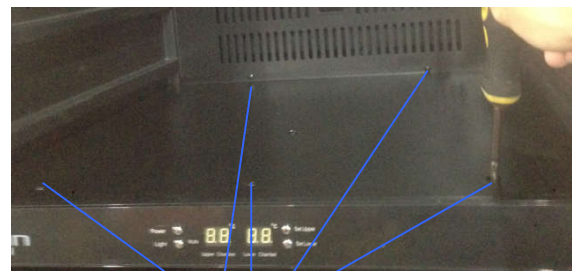
8. The display board is pictured below. (figure 64)



**Figure 64**

**Display PCB board in upper zone**

9. Remove the screws from air duct board (figure 65)



**Figure 65**

10. Pull out the air duct board cover (figure 66)



**Figure 66**

# 3. DISASSEMBLY

11. Remove the six screws from Air duct board C (figure 67)



Figure 67

12. Loosen the display PCB board connector. Pull out the air duct board C. Take out the front display PCB board cover from left side (figure 68)

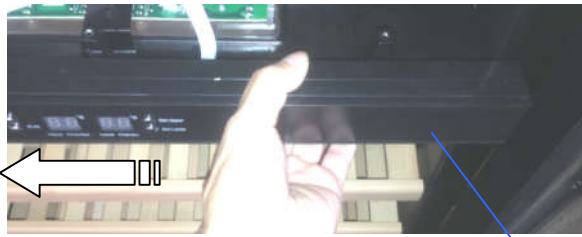


Figure 68

Front display PCB board cover

13. Loosen the fixer from the display PCB board. Take out the display PCB board (figure 69)



Figure 69

14. The display board is like below. (figure 70)



Figure 70

## 3-5 POWER BOARD & TRANSFORMER

(Models: CWR262DZ)

1. Remove the screws from the box near compressor. (figure 71)



Figure 71 - 15

2. The power board & transformer as below. (figure 72)



Figure 72

(Models: CWR461DZ, CWR1101DZ, CWR1551DZ)

1. Loosen three screws. (figure 73)



Figure 73

2. The power board & transformer are like below. (figure 74)



Figure 74

(Models: CWF340DZ)

1. Loosen three screws. (figure 75)



Figure 75

# 3. DISASSEMBLY

2. The power board & transformer are pictured below.(figure 76)



Figure 76

(Models: CWR1551DD)

3. Loosen three screws. (figure 77)



Figure 77

4. The power board & transformer are like below. (figure 78)

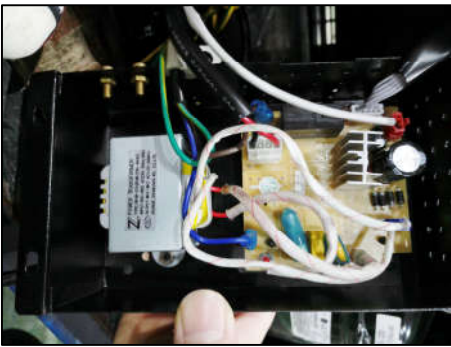


Figure 78

(Models: CWR1431TZ)

5. Loosen three screws. (figure 79)



Figure 79

6. The power board & transformer are pictured below. (figure 80)



Figure 80

## 3-6 SENSOR & FAN

(Models: CWR262DZ)

1. Loosen six screws. Pull out the rear air duct cover. (figure 8 1 )

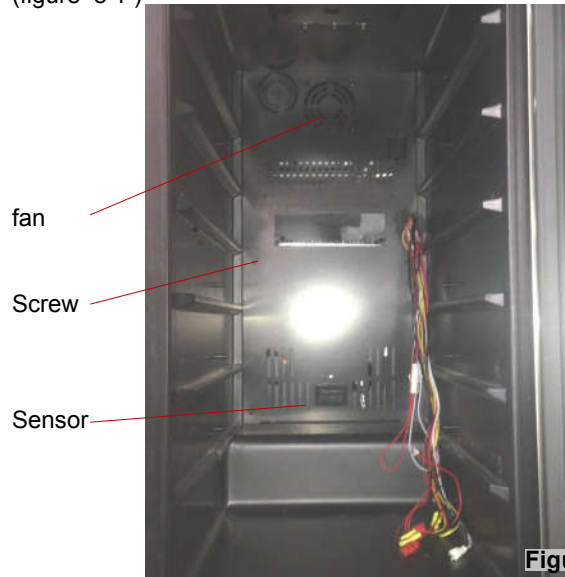


Figure 81

2. Loosen screw to replace the sensor, heater & fan. (figure 82)

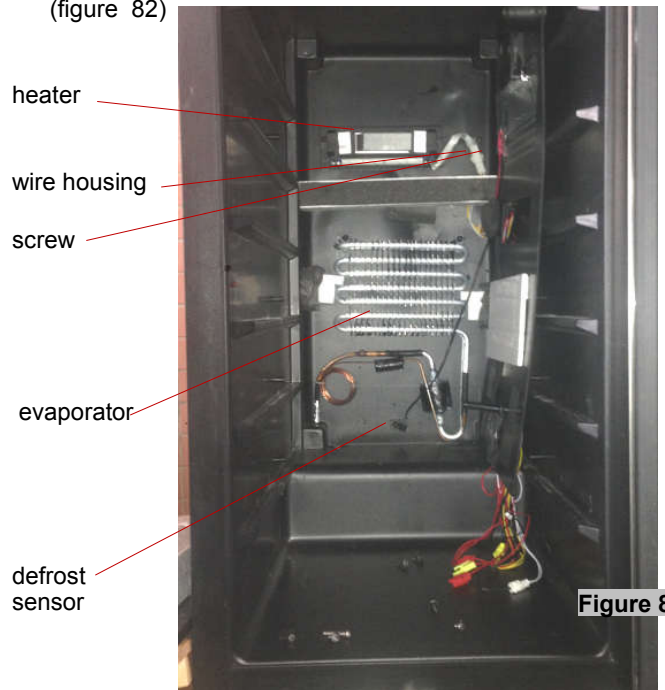


Figure 82



# 3. DISASSEMBLY

(Models: CWR461DZ)

1. Loosen six screws. Pull out the rear air duct cover. (figure 84)

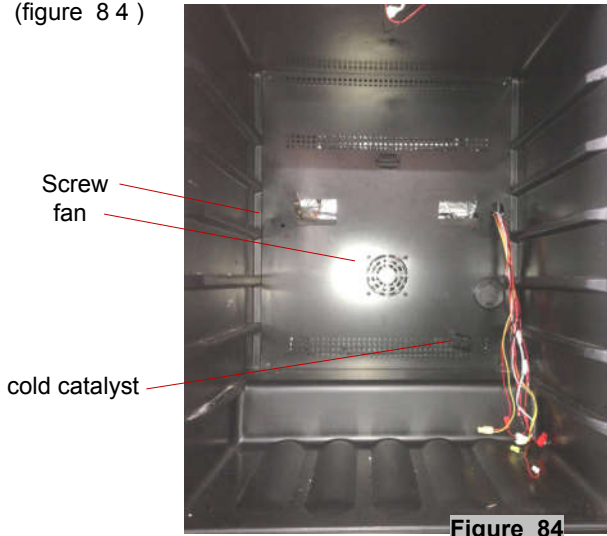


Figure 84

2. Loosen 1 screw to replace the sensor, heater & fan. (figure 85)

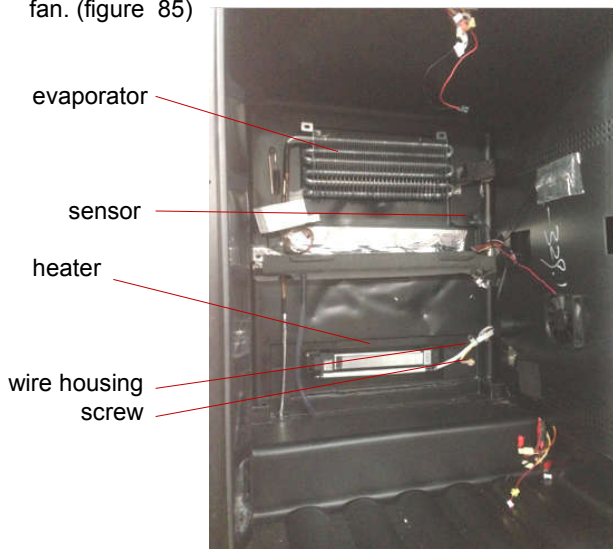


Figure 85

(Models: CWR1101DZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 86)

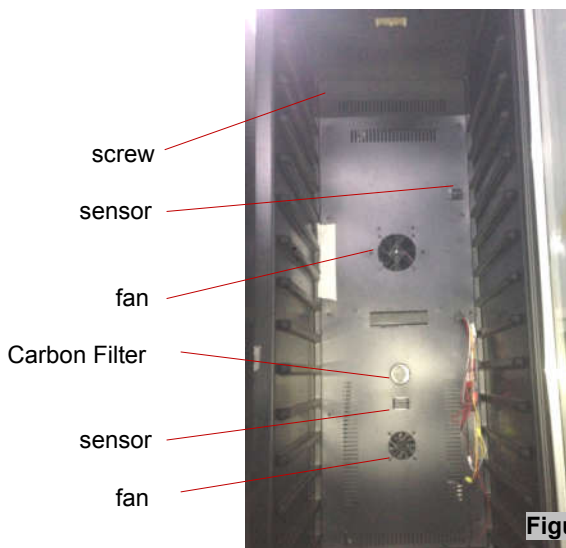


Figure 86

2. Loosen screw to replace the sensor, heater & fan. (figure 87)

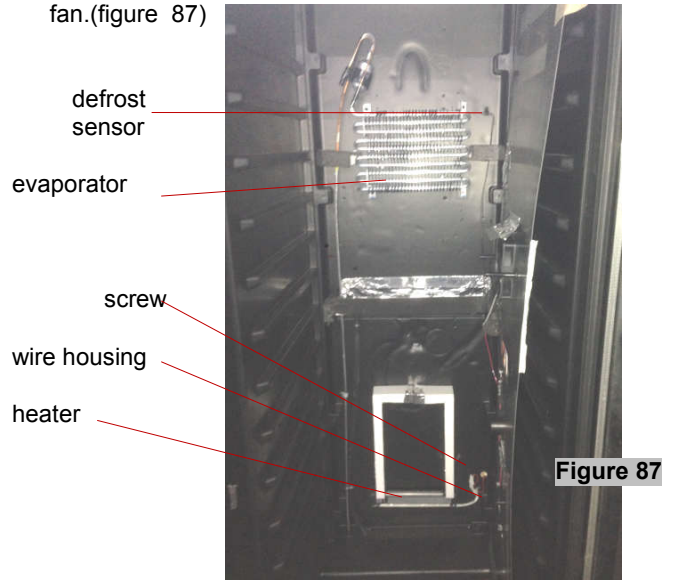


Figure 87

(Models: CWR1551DZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 88)

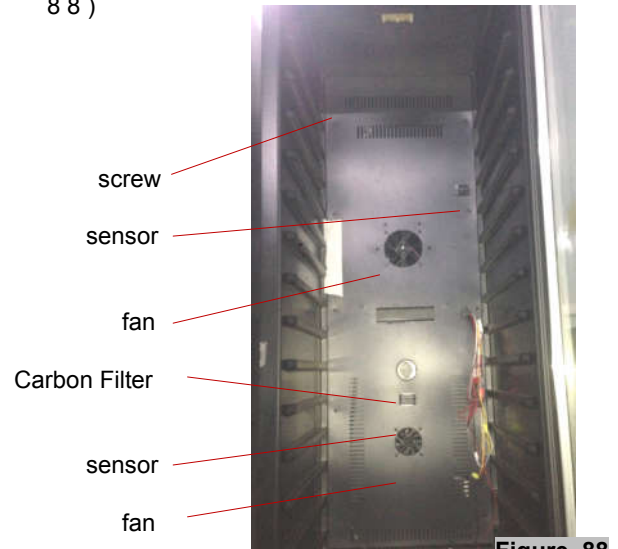


Figure 88

2. Loosen screw to replace the sensor, heater & fan. (figure 89)

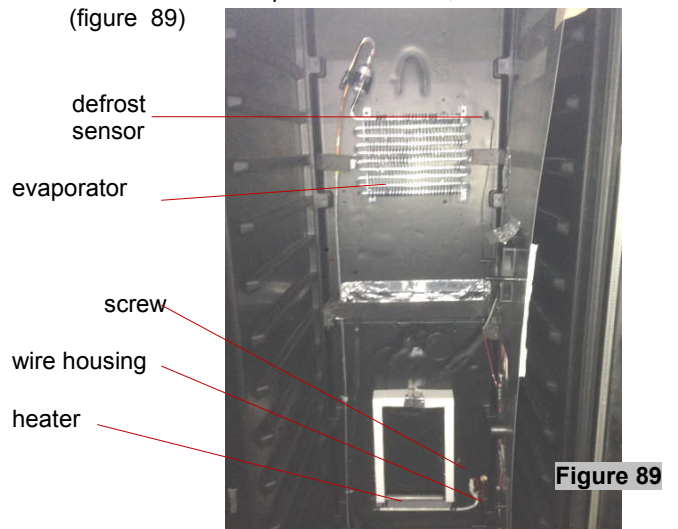


Figure 89

# 3. DISASSEMBLY

(Models: CWF340DZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 90)

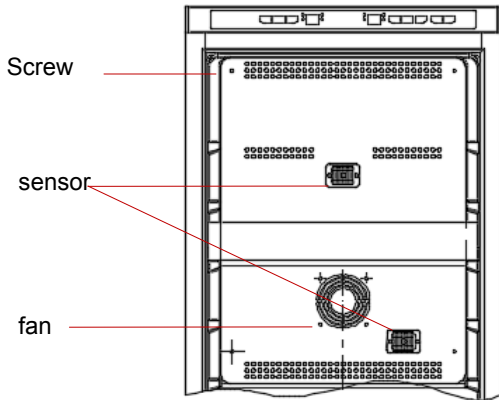


Figure 90

2. Loosen 1 screw to replace the sensor, heater & fan. (figure 91)

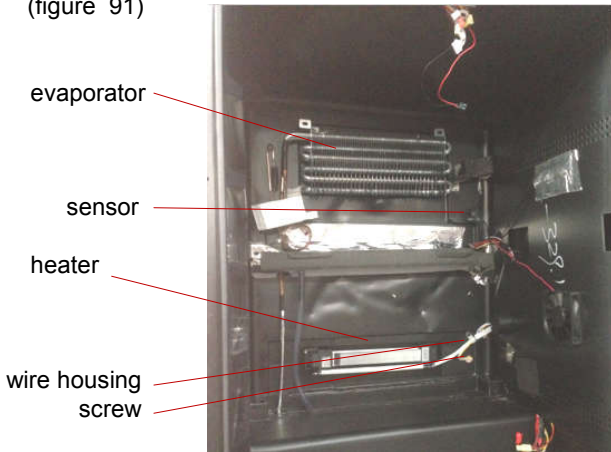


Figure 91

(Models: CWR1551DD)

1. Loosen screws. Pull out the rear air duct cover. (figure 92)

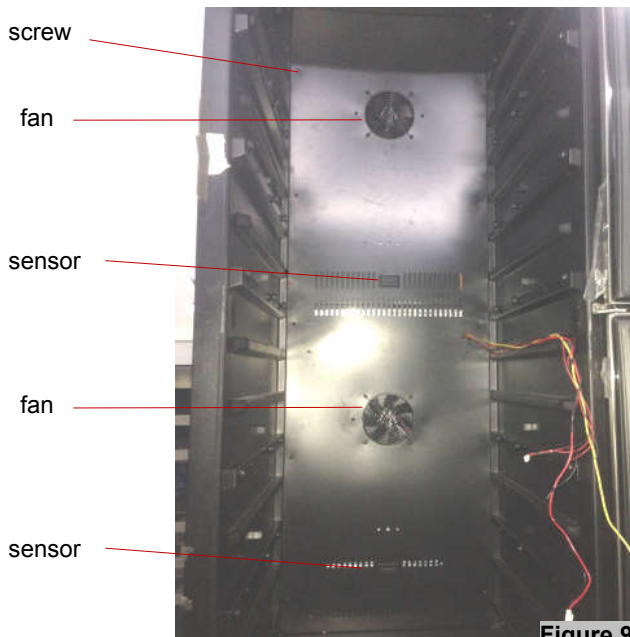


Figure 92 18

2. Loosen screw to replace the sensor, heater & fan. (figure 93)

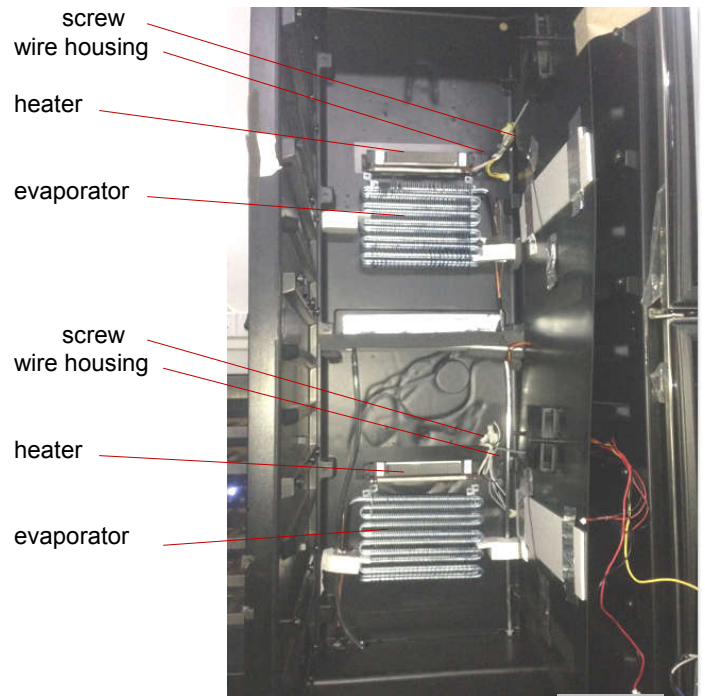


Figure 93

(Models: CWR1431TZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 94)

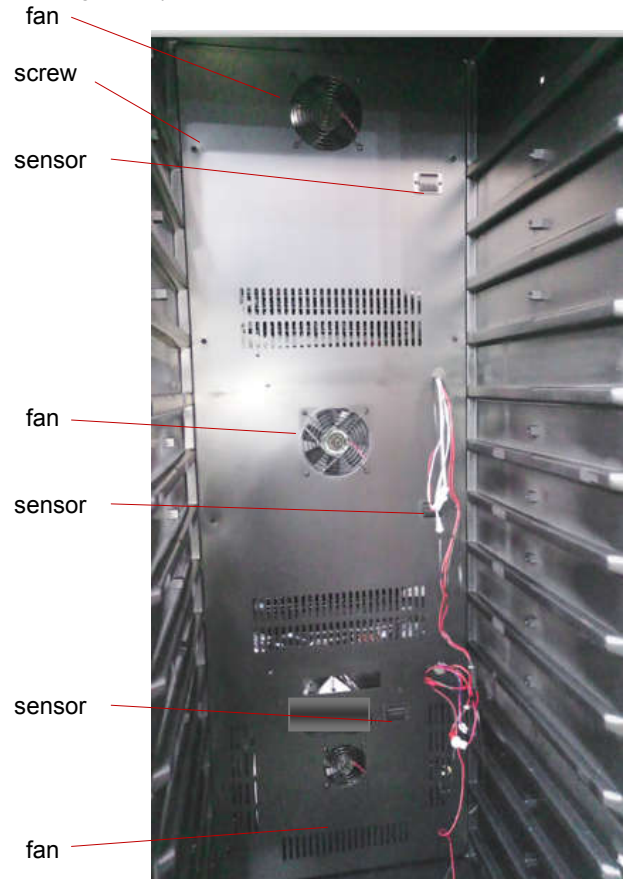
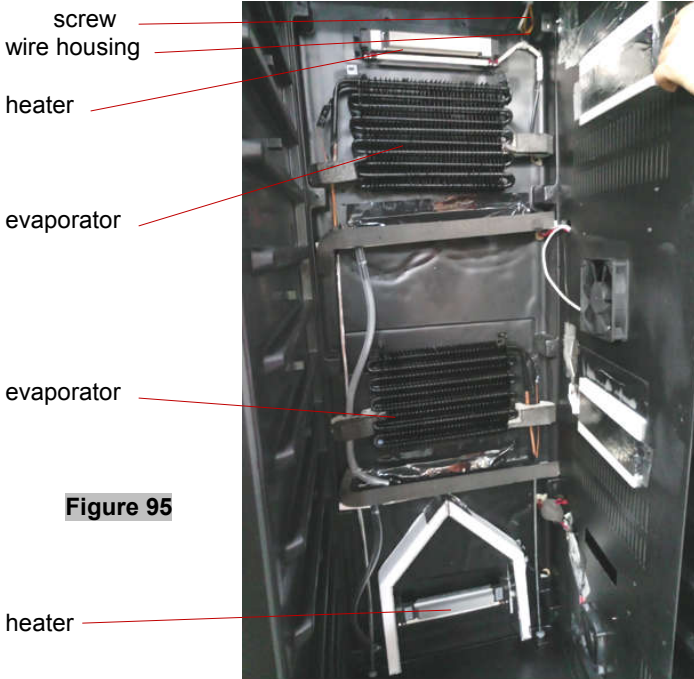


Figure 94

# 3. DISASSEMBLY

- Loosen screw to replace the sensor, heater & fan. (figure 95)



**Figure 95**

## 3-7 COMPRESSOR PTC STARTER & OVERLOAD PROTECTOR

(Models: CWR262DZ)

- Remove the clamp that is used to fix the compressor junction box. (figure 96)



**Figure 96**

- Remove the compressor junction box. (figure 97)



**Figure 97**

- Dismantle the compressor PTC starter and overload protector. (figure 98)



**Figure 98**

- The compressor PTC starter and overload protector is pictured below. (figure 99)



**Figure 99**

(Models: CWR461DZ)

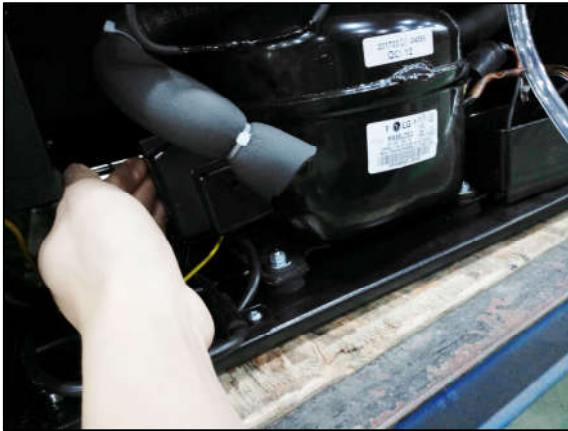
- Loosen one screw. (figure 100)



**Figure 100**

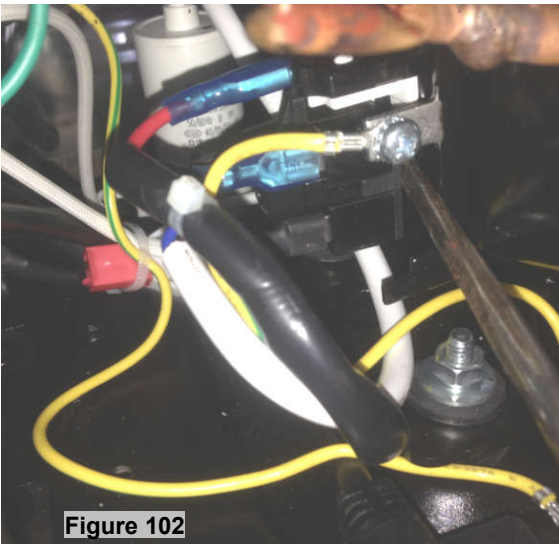
# 3. DISASSEMBLY

2. Remove the compressor junction box. (figure 101)



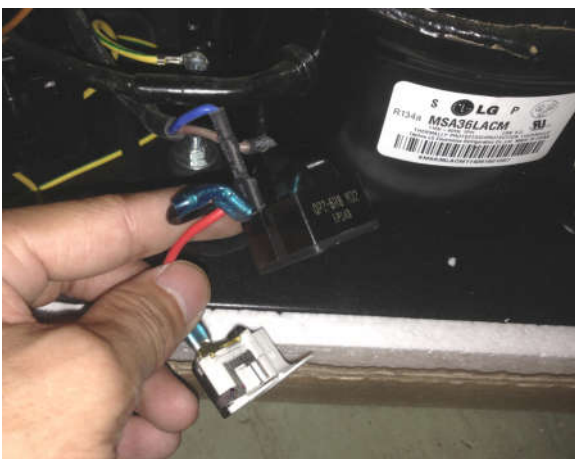
**Figure 101**

3. Dismantle the compressor PTC starter and overload protector. (figure 102)



**Figure 102**

4. The compressor PTC starter and overload protector is like below. (figure 103)



**Figure 103**

(Models: CWR1101DZ)

1. Loosen one screw. (figure 104)



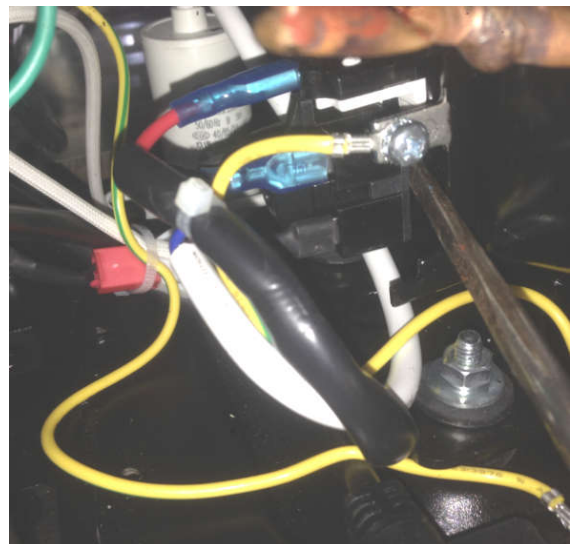
**Figure 104**

2. Remove the compressor junction box. (figure 105)



**Figure 105**

3. Dismantle the compressor PTC starter and overload protector. (figure 106)



**Figure 106**

# 3. DISASSEMBLY

4. The compressor PTC starter and overload protector is like below. (figure 107)

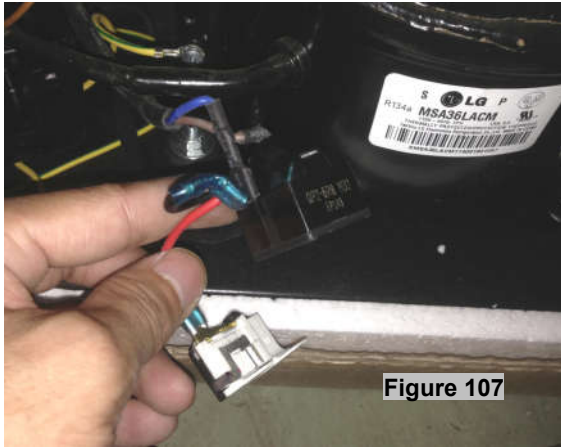


Figure 107

(Models: CWR1551DZ, CWR1551DD)

1. Open the box near compressor, remove the box.(figure 108)



Figure 108

2. Remove the compressor junction box. (figure 109)



Figure 109

3. Dismantle the compressor PTC starter and overload protector. (figure 110)

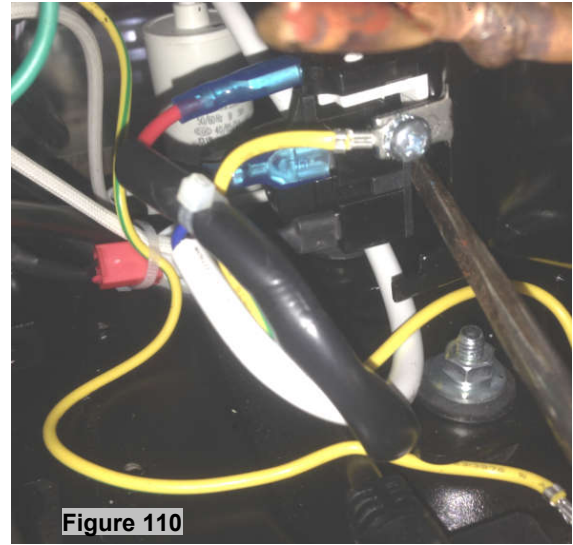


Figure 110

4. The compressor PTC starter and overload protector is like below. (figure 111)



Figure 111

(Models: CWF340DZ)

1. Open the box near compressor and remove.(figure 112)

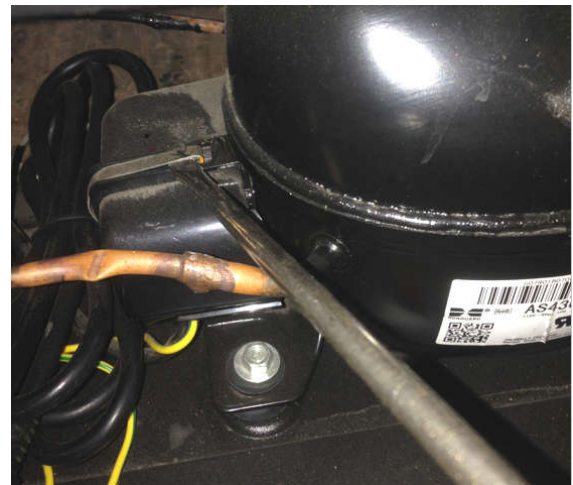


Figure 112

# 3. DISASSEMBLY

- 2. Dismantle the compressor PTC starter and overload protector. (figure 113)



Figure 113

- 3. The compressor PTC starter and overload protector is like below. (figure 114)



Figure 114

Models: CWR1431TZ

- 1. Open the box near compressor and remove (figure 115)



Figure 115

- 2. Dismantle the compressor PTC starter and overload protector. (figure 116)

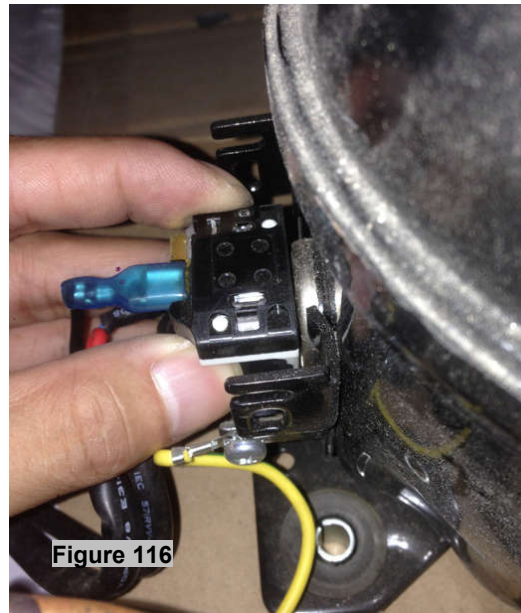


Figure 116

- 3. The compressor PTC starter and overload protector is like below. (figure 117)

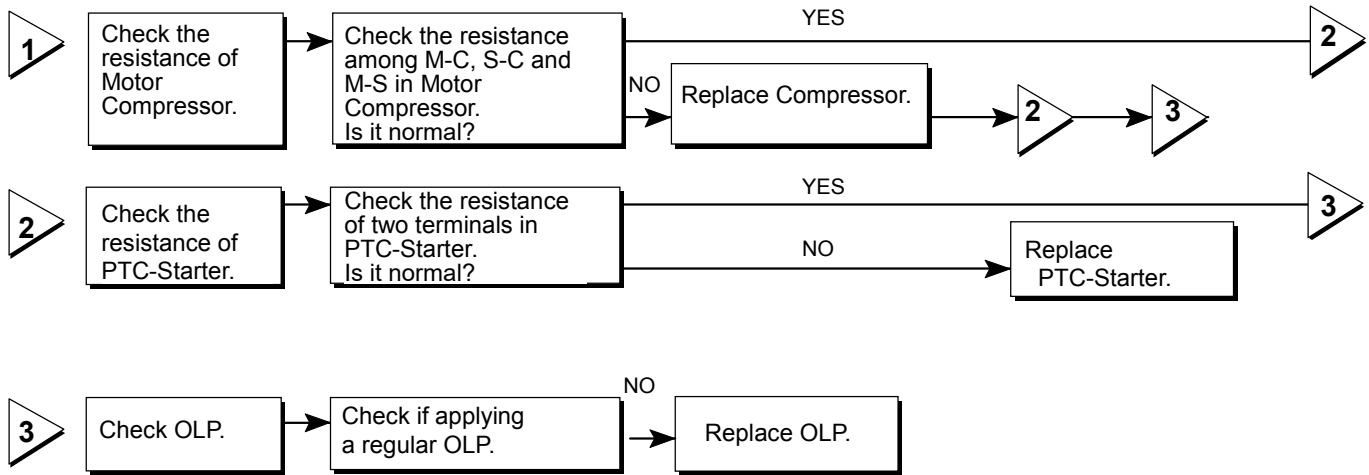


Figure 117

# 4. TROUBLESHOOTING

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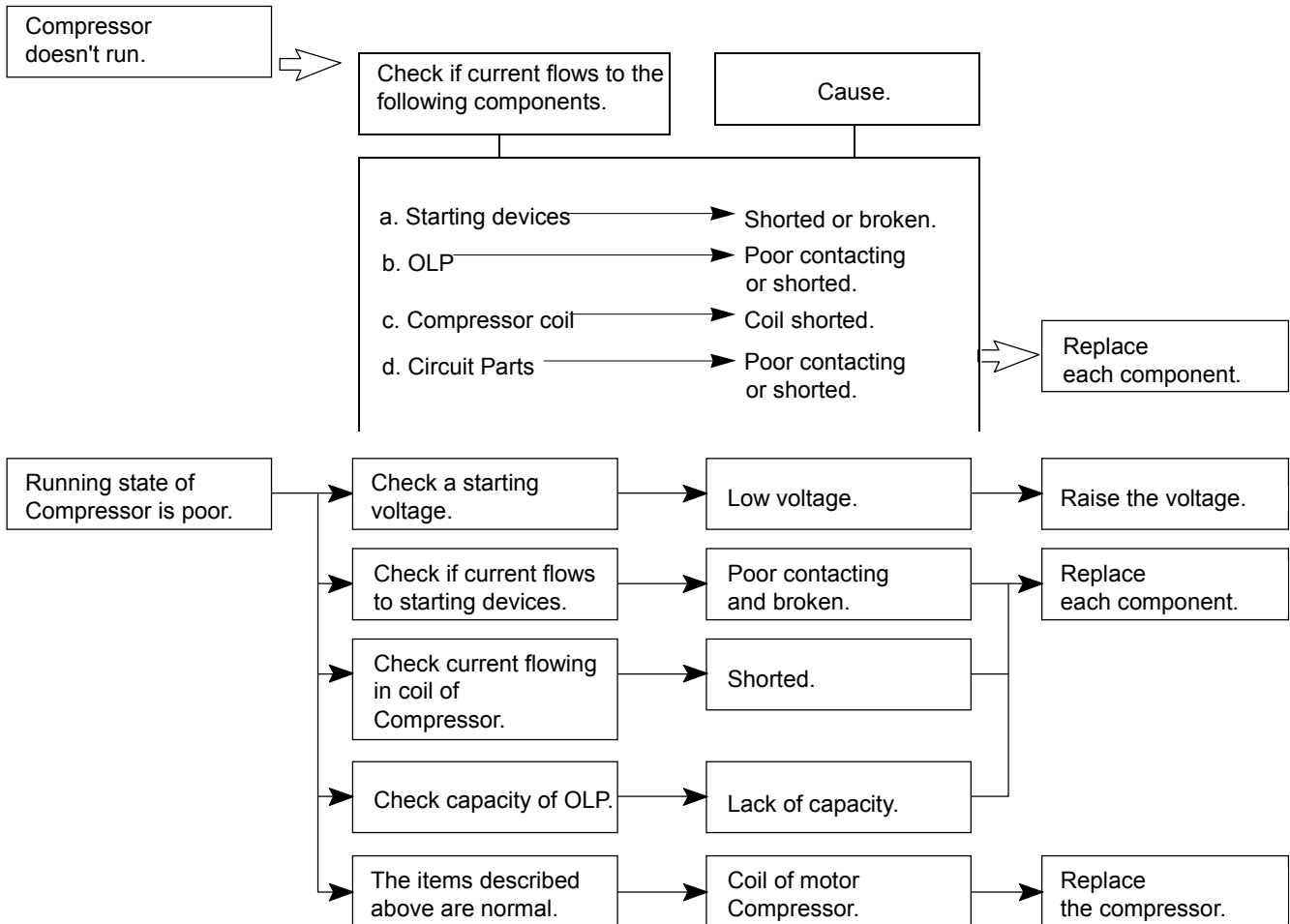
## 4-1 COMPRESSOR COMPONENTS



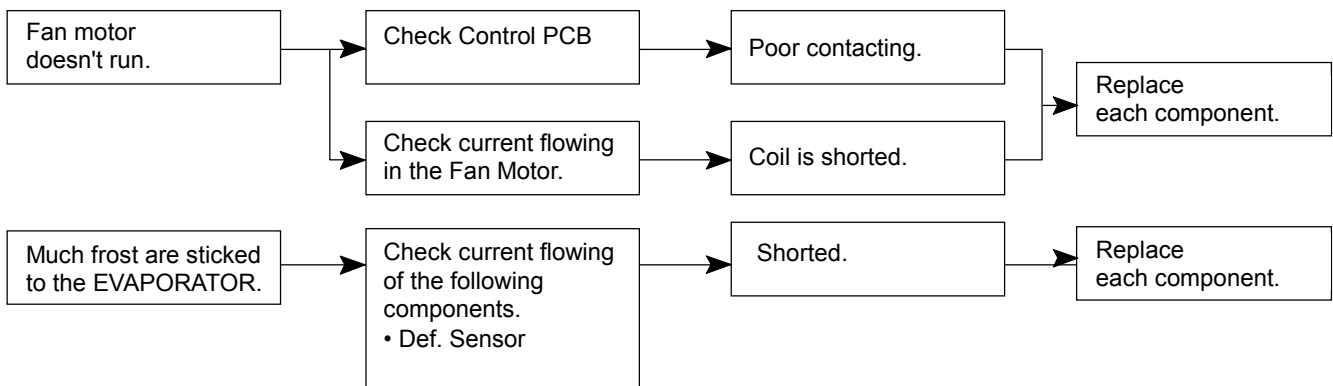
# 4. TROUBLESHOOTING

## 4-2 OTHER ELECTRIC COMPONENTS

### ▼ Cooling is impossible



### ▼ Cooling ability is poor





# 4. TROUBLESHOOTING

## 4-3 SERVICE DIAGNOSIS CHART

Problem	Possible Cause
Appliance does not operate.	Not plugged in. The appliance is turned off. The circuit breaker tripped or a blown fuse.
Appliance is not cold enough.	Check the temperature control setting. External environment may require a higher setting. If ambient room temp too high, adjust control setting. The door is opened too often. The door is not closed completely. The door gasket does not seal properly.
Turns on and off frequently.	The room temperature is hotter than normal. A large amount of contents has been added to the appliance. The door is opened too often. The door is not closed completely. The temperature control is not set correctly. The door gasket does not seal properly.
The light does not work.	Not plugged in. The circuit breaker tripped or a blown fuse. The bulb has burned out. The light button is "OFF". Energy conservation button is on.
Vibrations.	Check to assure that the Wine Chiller is level.
The appliance seems to make too much noise.	The rattling noise may come from the flow of the refrigerant, which is normal. As each cycle ends, you may hear gurgling sounds caused by the flow of refrigerant in your refrigeration appliance. Contraction and expansion of the inside walls may cause popping and crackling noises. The appliance is not level.
The door will not close properly.	The appliance is not level. The door was reversed and not properly installed. The gasket is dirty. The shelves are out of position.
Display error code "E1"	The air sensor has an open circuit. Connection to main control PCB is with yellow color wires. Check the circuit, if it is normal, the sensor may need to be replaced.
Display error code "E2"	The air sensor has a short circuit failed. Connection to main control PCB is with yellow color wires. Check the circuit, if it is normal, the sensor may need to be replaced.
Display error code "E3".	The defrost sensor has an open circuit. Connection to main control PCB is with red color wires. Check the circuit, if it is normal, the sensor may need to be replaced.
Display error code "E4".	The defrost sensor has a short circuit. Connection to main control PCB is with red color wires. Check the circuit, if it is normal, the sensor may need to be replaced.
Display error code "E7".	The air sensor has an open circuit. Connection to main control PCB is with white color wires. Check the circuit, if it is normal, the sensor may need to be replaced.
Display error code "E8".	The air sensor has a short circuit. Connection to main control PCB is with white color wires. Check the circuit, if it is normal, the sensor may need to be replaced.

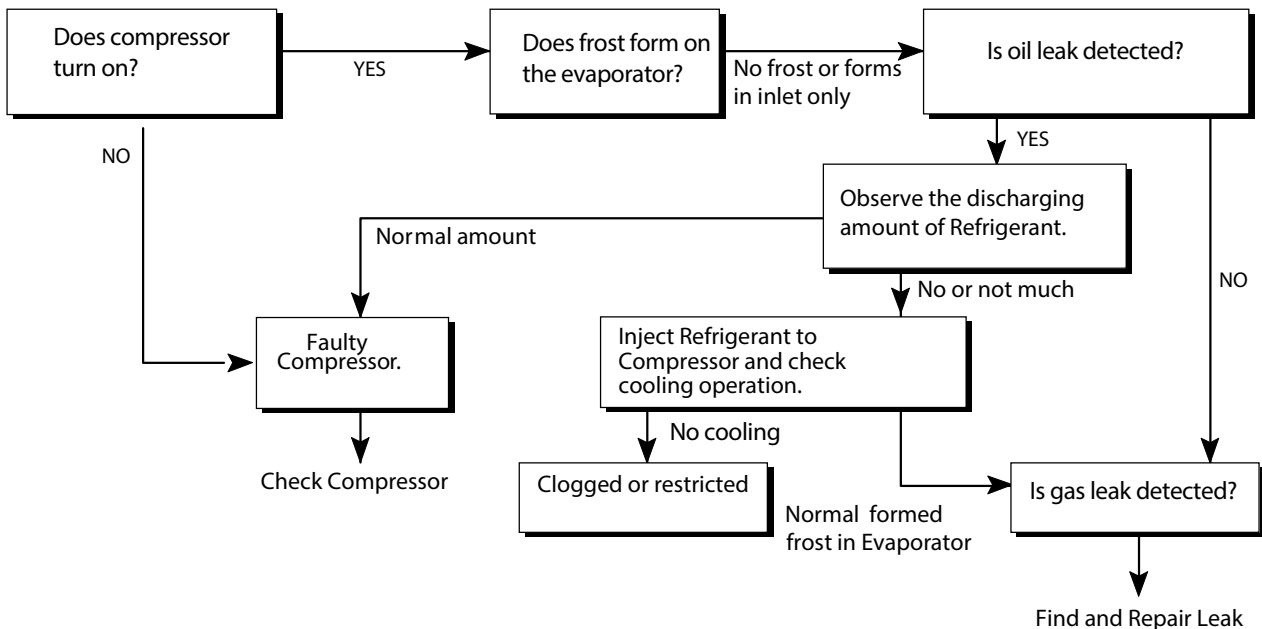
# 4. TROUBLESHOOTING

## 4-4 REFRIGERATING CYCLE

### ▼ Troubleshooting Chart

CAUSE		STATE OF UNIT	STATE OF EVAPORATOR	TEMPERATURE OF COMPRESSOR	COMMENTS
LEAKAGE	PARTIAL LEAKAGE	Appliance does not get cold enough	Low flowing sound of Refrigerant is heard and frost forms	A little high - more than ambient room temperature.	<ul style="list-style-type: none"> <li>• A little refrigerant discharges</li> <li>• Normal cooling is possible when charging refrigerant of regular amount stated on specification plate / rating label.</li> </ul>
	WHOLE LEAKAGE	Appliance does not get cold at all	Flowing sound of Refrigerant is not heard and frost isn't formed.	A little high - more than ambient room temperature.	<ul style="list-style-type: none"> <li>• A little refrigerant discharges</li> <li>• Normal cooling is possible when charging refrigerant of regular amount stated on specification plate / rating label.</li> </ul>
CLOG IN CAPILLARY	PARTIAL RESTRICTION	Appliance does not get cold enough	Flowing sound of Refrigerant is heard and frost forms	A little high - more than ambient room temperature.	<ul style="list-style-type: none"> <li>• No discharging of refrigerant</li> <li>• The capillary tube is faulty.</li> <li>• The filter dryer is faulty.</li> <li>• The condensor is faulty.</li> <li>• The evaporator is faulty.</li> </ul>
	WHOLE RESTRICTION	Appliance does not get cold	Flowing sound of Refrigerant is not heard and frost isn't formed.	A little high - more than ambient room temperature.	<ul style="list-style-type: none"> <li>• No discharging of refrigerant</li> </ul>

Observe refrigerant discharging point. Oil discharge/stain is often best indicator. Use bubbles to locate hole in line, evaporator or condensor.



# 5. DESCRIPTION OF PCB

(Models: CWR461DZ, CWR262DZ, CWR1101DZ, CWR1551DZ)

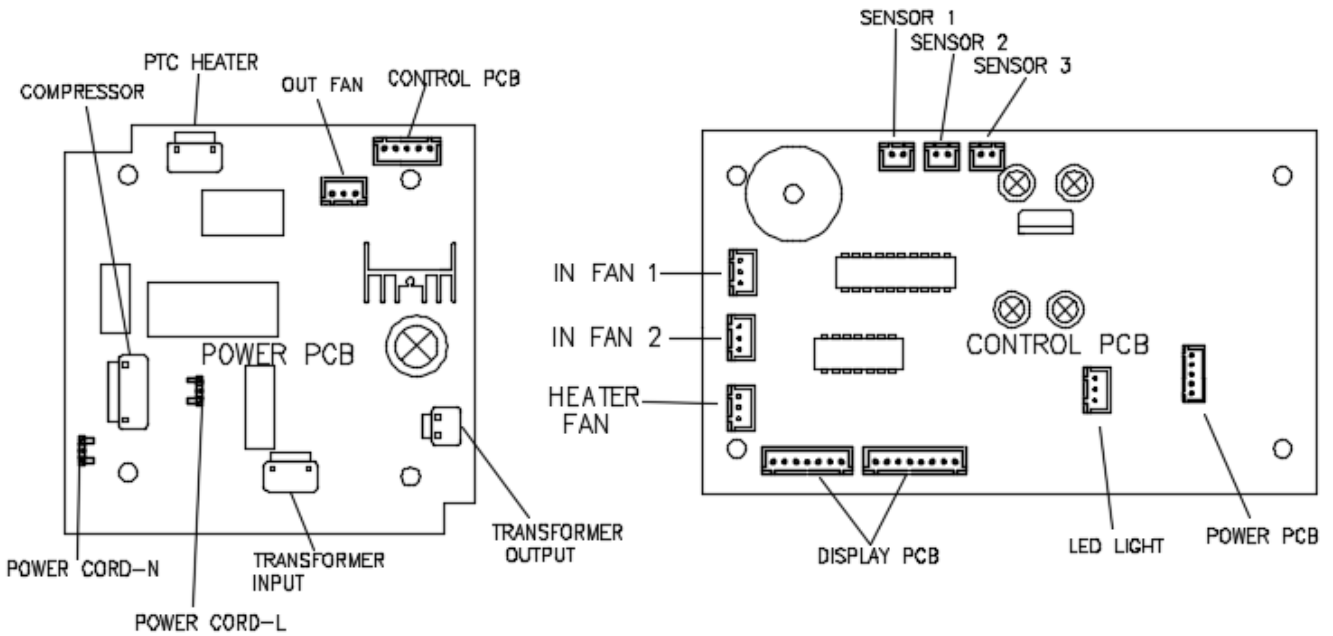


Figure 55

(Models: CWF340DZ)

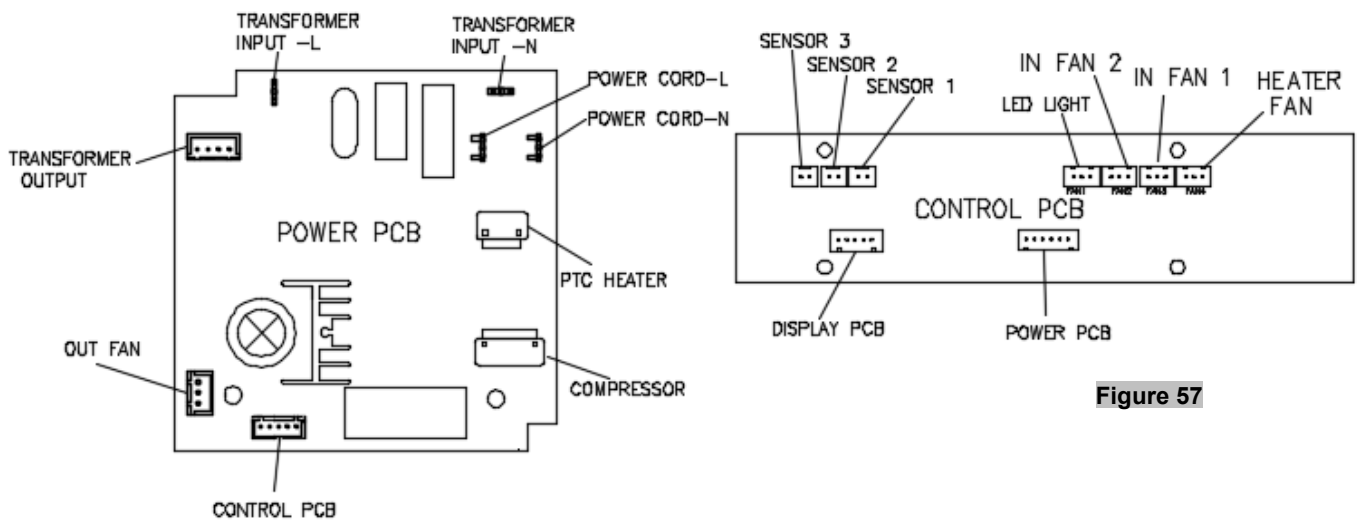
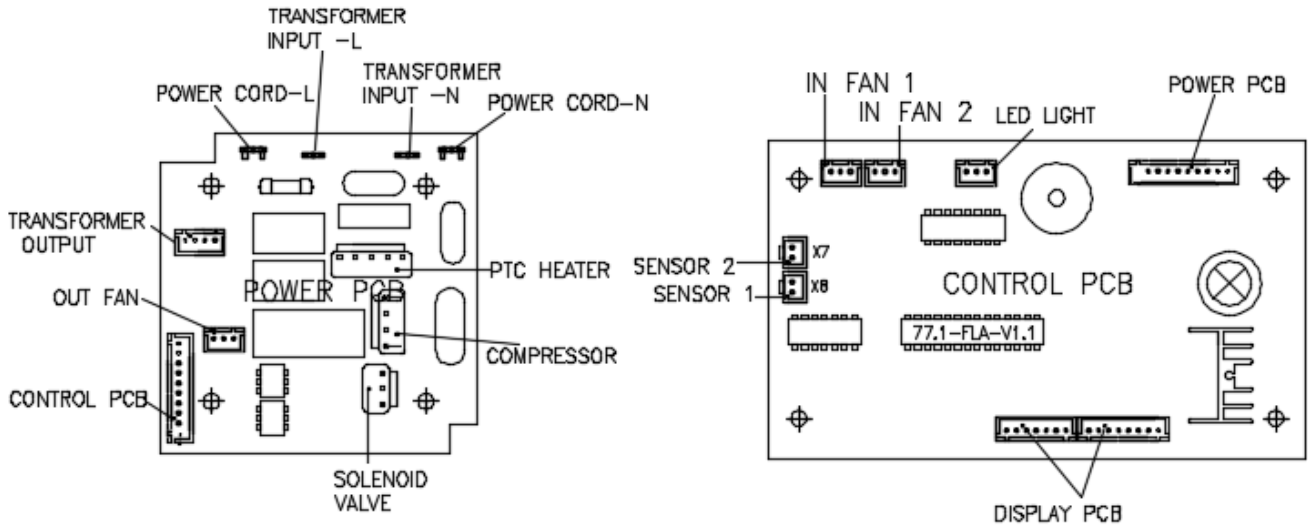


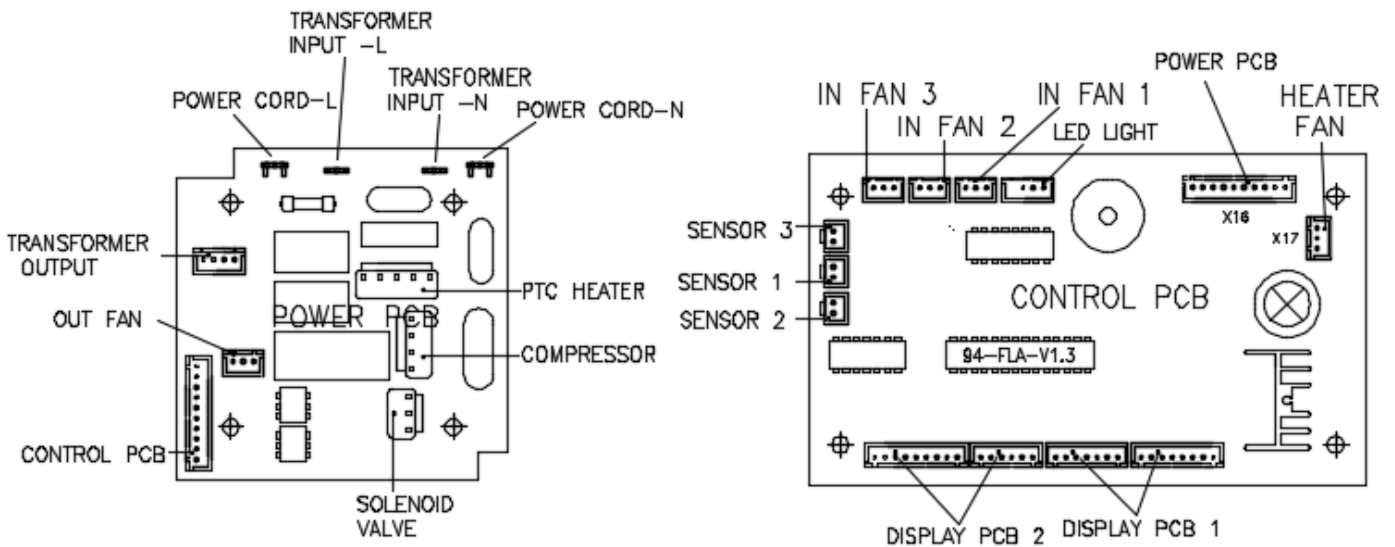
Figure 57

# 5. DESCRIPTION OF PCB

(Models: CWR1551DD)



(Models: CWR1431TZ)



<b>DATE</b>	<b>REVISION NOTES:</b>
9/22/2017	Initial Document
10/16/2017	Minor text and title revision
10/27/2017	Minor text edits
12/19/2017	Formatting edits