

SERVICE MANUAL

Single Zone Cooler

MODEL:

BBR900BL, BR7001BL, BR7001SS, BR7001SSOD, BWR300BL,
CBR1501SG , CBR1501SLD, CBR1501SSOD, CBR901SG,
CWB2886FD, CWR1211SZ, CWR1661SZ, CWR181SZ,
CWR301SZ, CWR361FD, CWR531SZ, CWR5631FD, CWR70SZ

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

CONTENTS

SAFETY PRECAUTIONS	2
PARTS IDENTIFICATION	3-10
DISASSEMBLY	11-33
<i>DOOR</i>	11
<i>WOODEN SHELVES</i>	11
<i>WIRES SHELVES</i>	12
<i>LAMP</i>	12-15
<i>DISPLAY BOARD BOARD & CONTROL BOARD</i>	15-21
<i>POWER BOARD & TRANSFORMER</i>	21-24
<i>SENSOR & FAN</i>	24-28
<i>COMPRESSOR PTC STARTER & OVERLOAD PROTECTOR</i>	28-33
TROUBLESHOOTING	33-36
<i>COMPRESSOR COMPONENTS</i>	33
<i>ANOTHER ELECTRIC COMPONENT</i>	34
<i>SERVICE DIAGNOSIS CHART</i>	35
<i>REFRIGERATING CYCLE</i>	36
DESCRIPTION OF PCB	37-40

SAFETY PRECAUTIONS

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

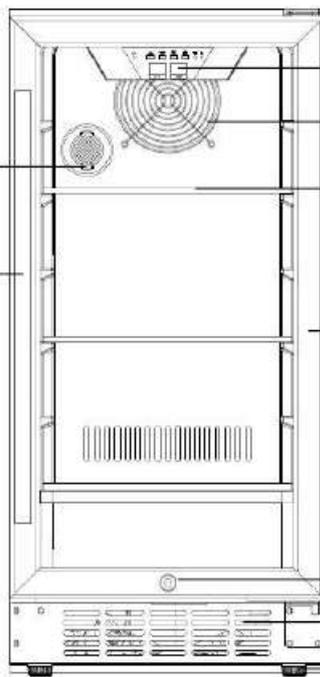
Model: CBR901SG

Front View

Carbon Filter

Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



Top Right Hinge

Control Panel

Internal Fan

Shelf

Stainless Steel Door

Lock

Front vent

Leveling foot

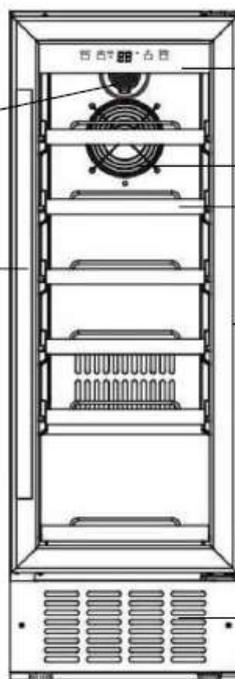
Models: CWR181SZ

Front View

Carbon Filter

Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



Top Right Hinge

Control Panel

Internal Fan

Shelf

Stainless Steel Door

Front vent

Leveling foot

2. PARTS IDENTIFICATION

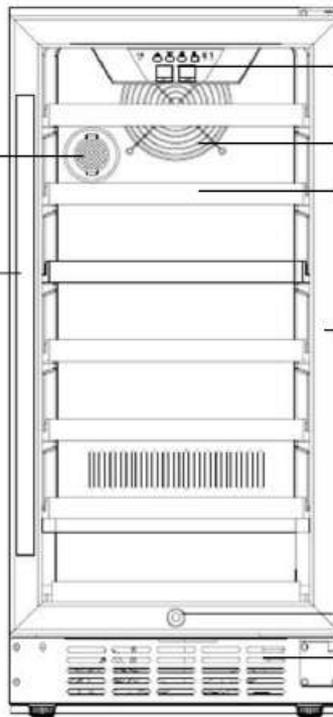
Models: CWR301SZ

Front View

Carbon Filter

Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



Top Right Hinge

Control Panel

Internal Fan

Shelf

Stainless Steel Door

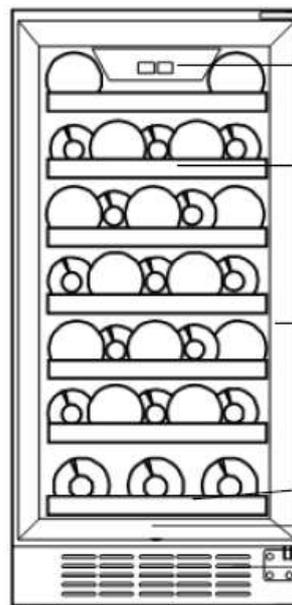
Lock

Front vent

Leveling foot

Models: BWR300BL

Front View



Top Right Hinge

Control Panel

Shelf

Door Frame

Small Shelf

Bottom Door Frame

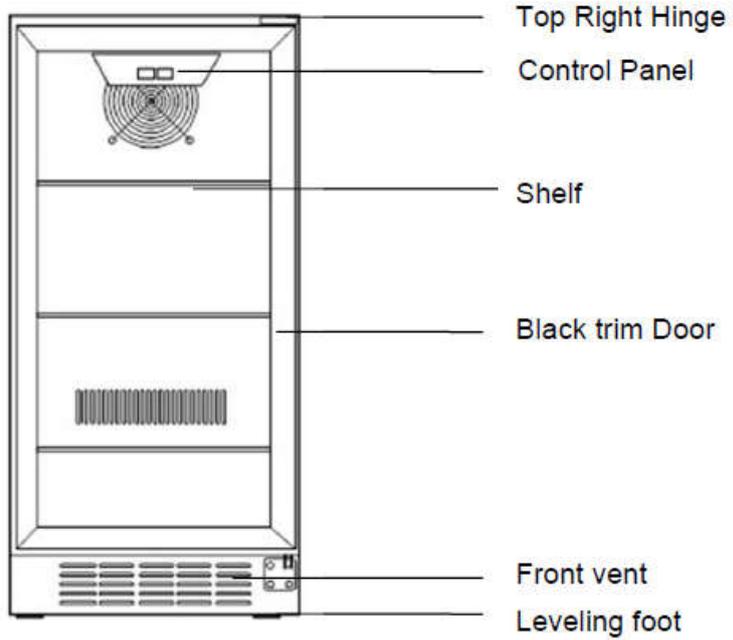
Front vent

Leveling foot

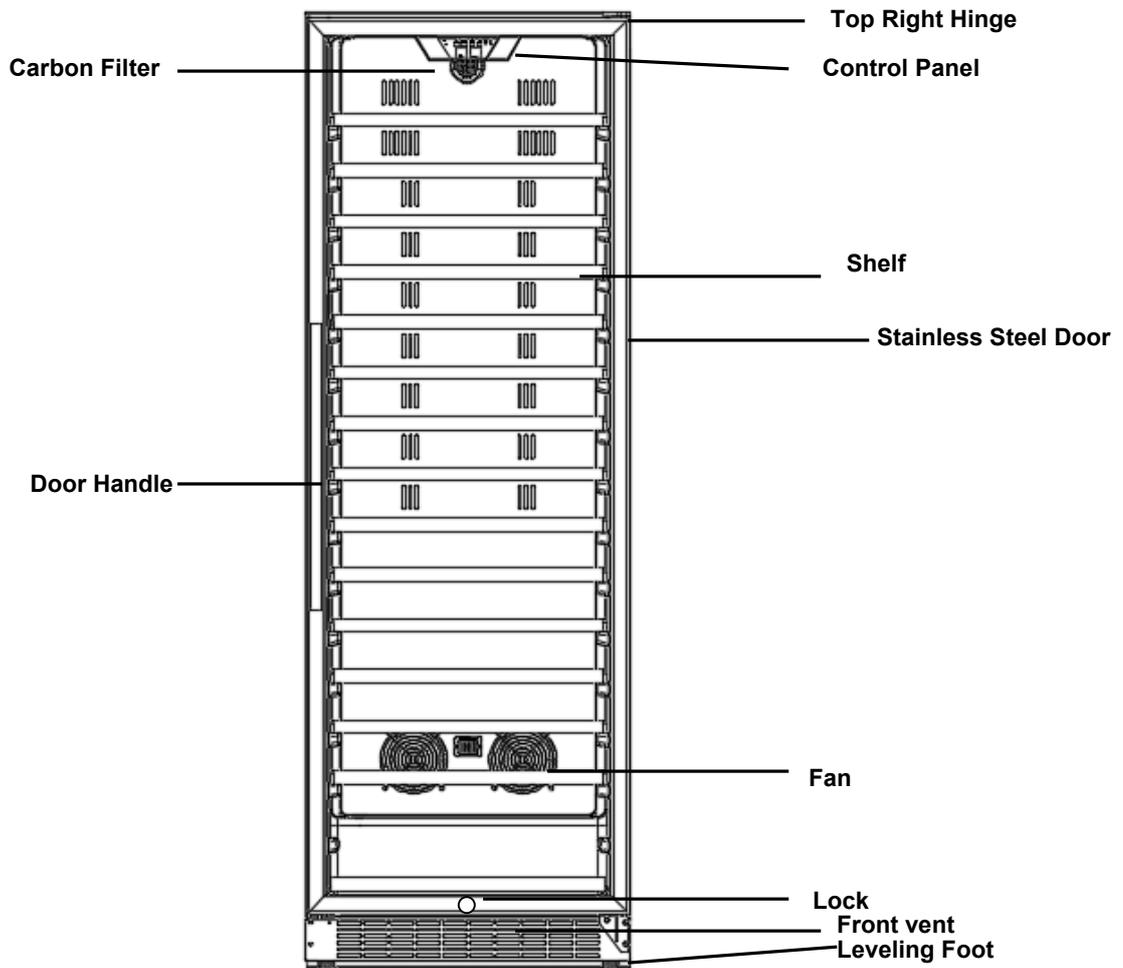
2. PARTS IDENTIFICATION

Models: BBR900BL

Front View

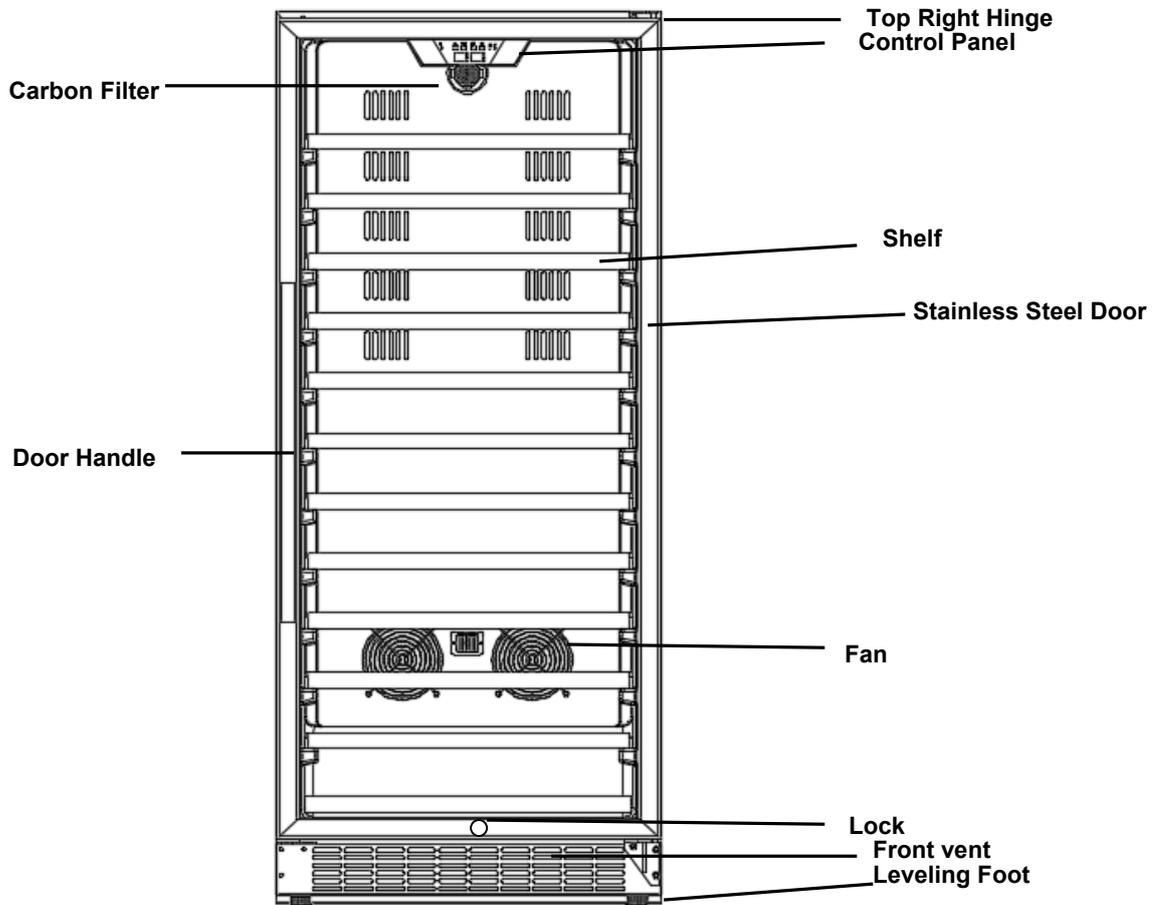


Models: CWR1661SZ

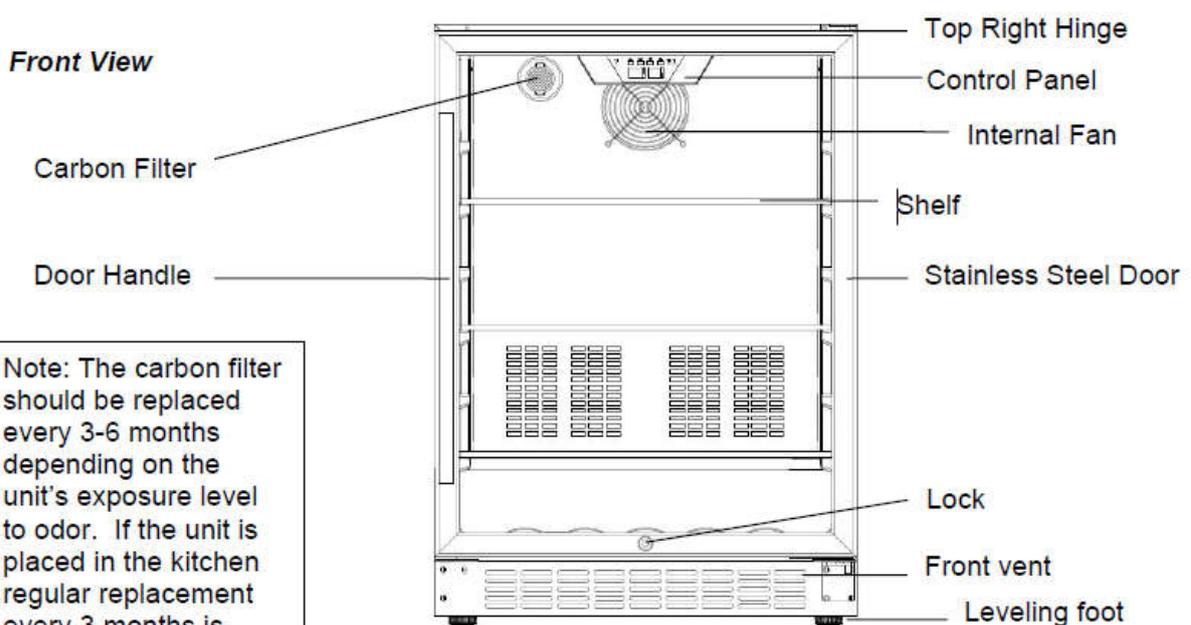


2. PARTS IDENTIFICATION

Models: CWR1211SZ



Models: CBR1501SG



Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.

2. PARTS IDENTIFICATION

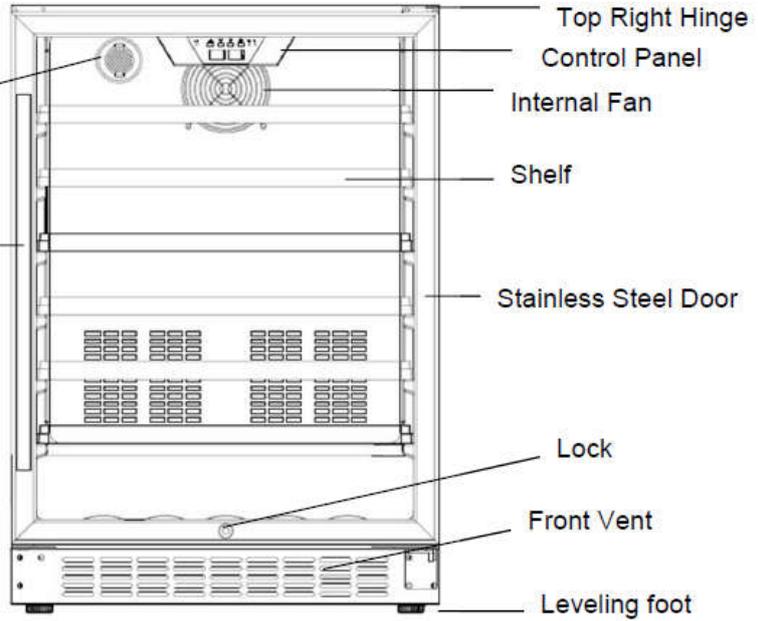
Models: CWR531SZ

Front View

Carbon Filter

Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



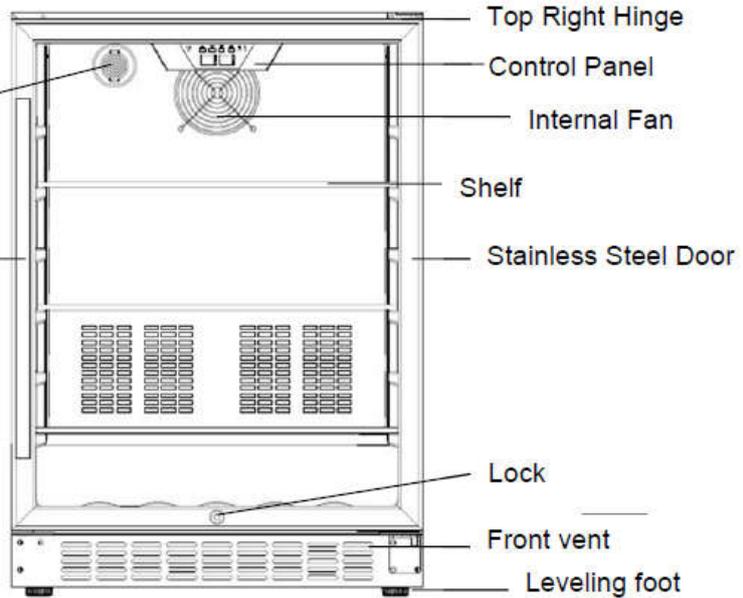
Models: CBR1501SLD

Front View

Carbon Filter

Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



2. PARTS IDENTIFICATION

Models: CBR1501SSOD

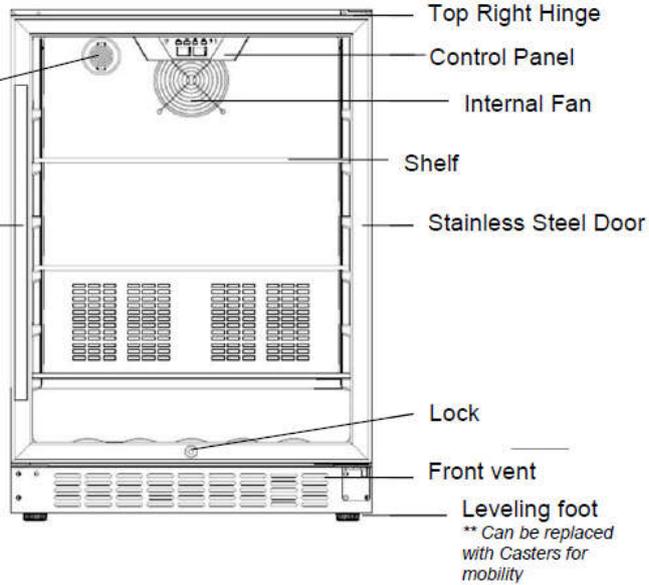
Parts Identification

Front View

Carbon Filter

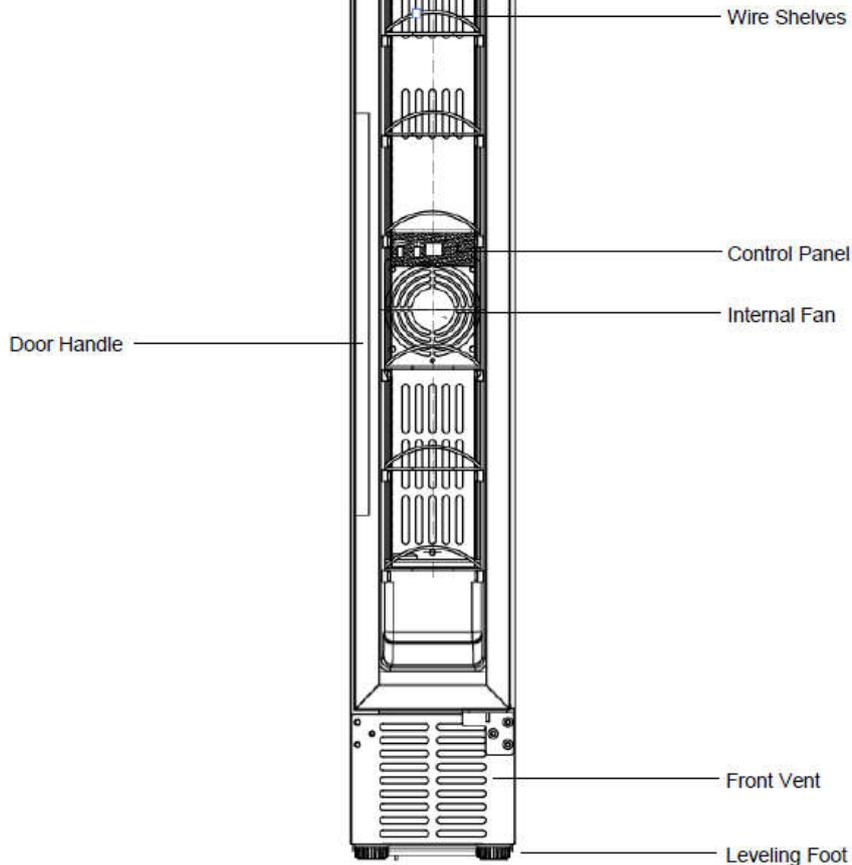
Door Handle

Note: The carbon filter should be replaced every 3-6 months depending on the unit's exposure level to odor. If the unit is placed in the kitchen regular replacement every 3 months is ideal.



Models: CWR70SZ

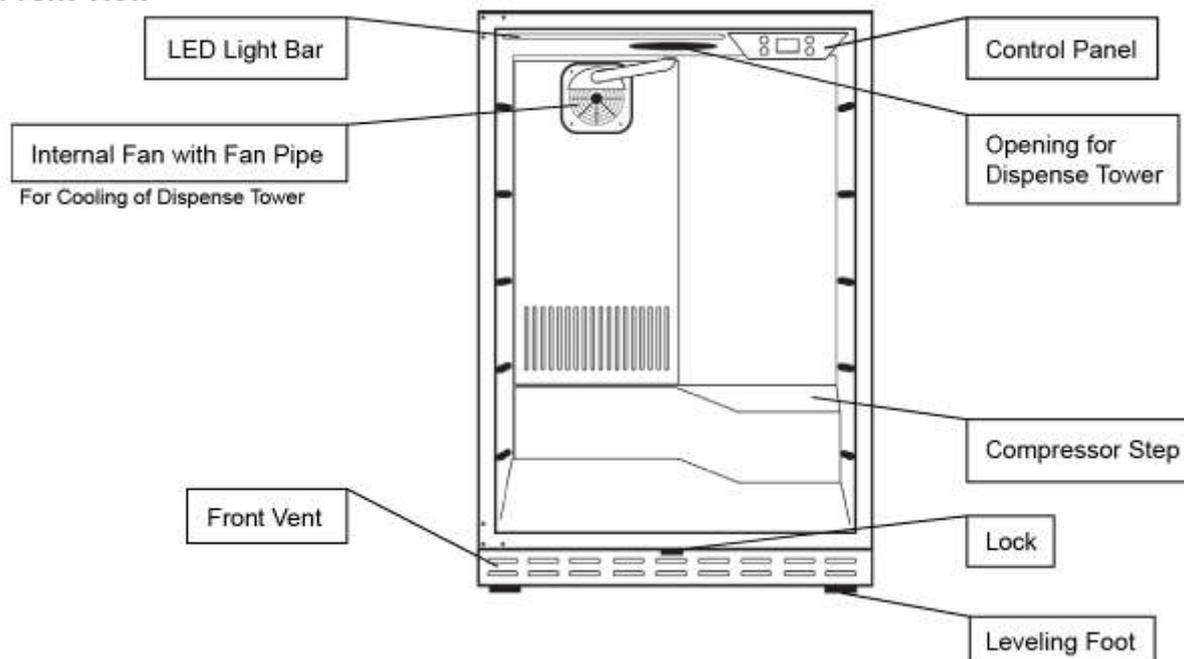
Front View



2. PARTS IDENTIFICATION

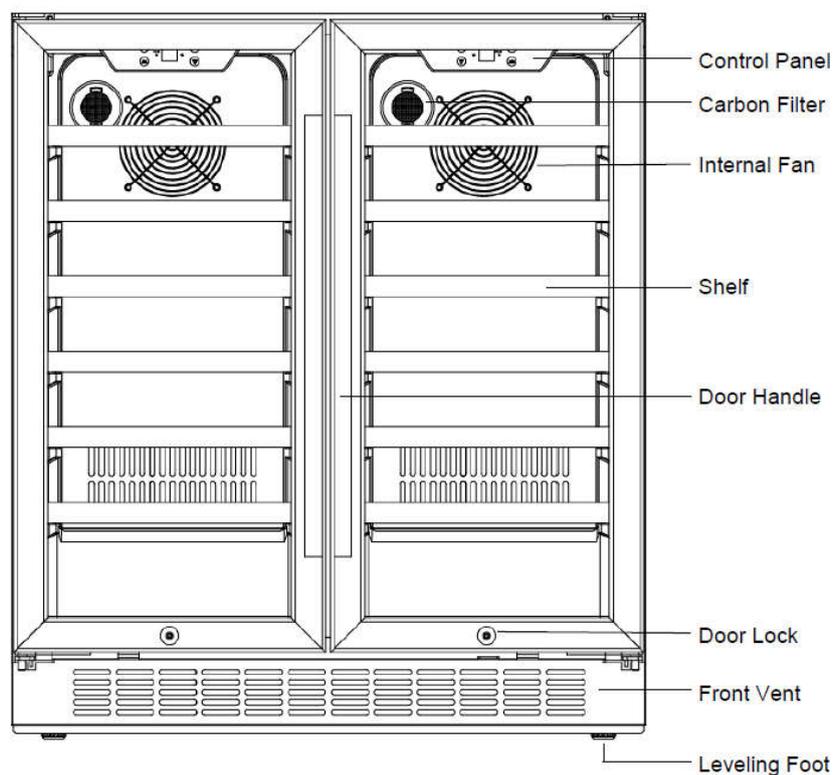
Models: BR7001SS/ BR7001SSOD/ BR7001BL

Front View



Models: CWR5631FD

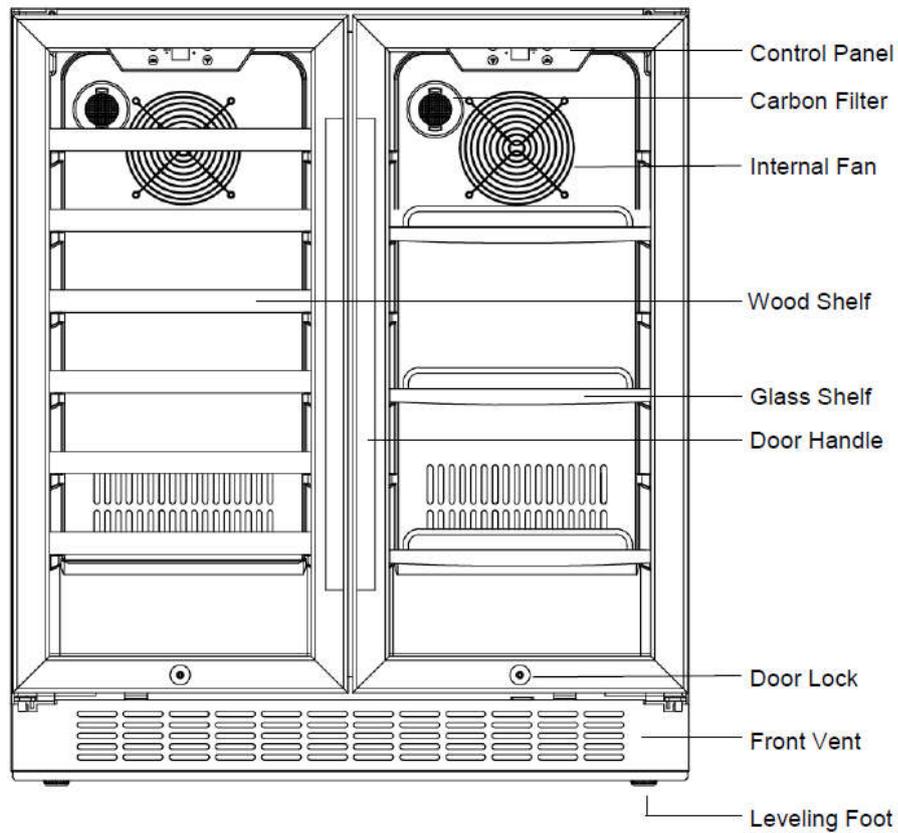
Front View



2. PARTS IDENTIFICATION

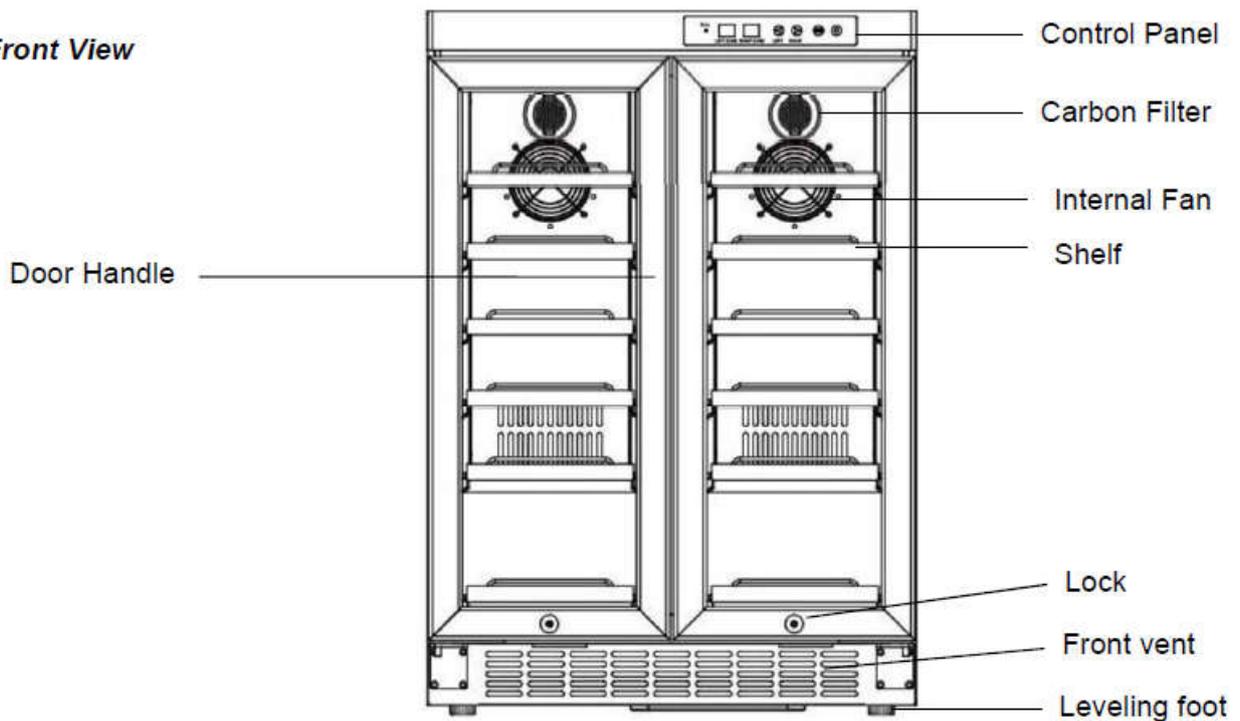
Models: CWB2886FD

Front View



Models: CWR361FD

Front View

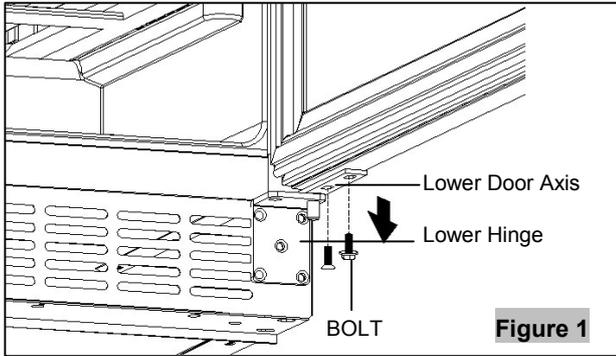


3. DISASSEMBLY

3-1 DOOR

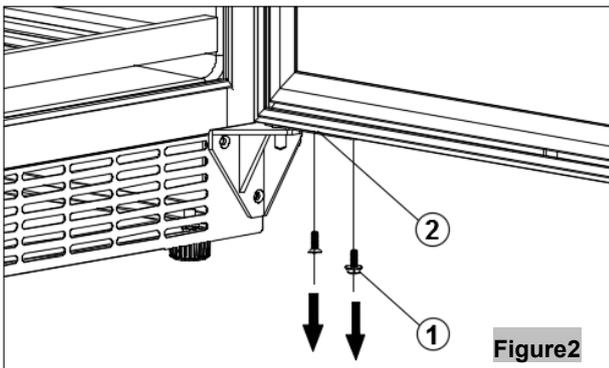
(Models: CBR901SG, CWR301SZ , BWR300BL, BBR900BL, CWR361FD, CBR1501SG, CWR531SZ, CBR1501SLD, CBR1501SSOD, CWR5631FD, CWB2886FD)

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



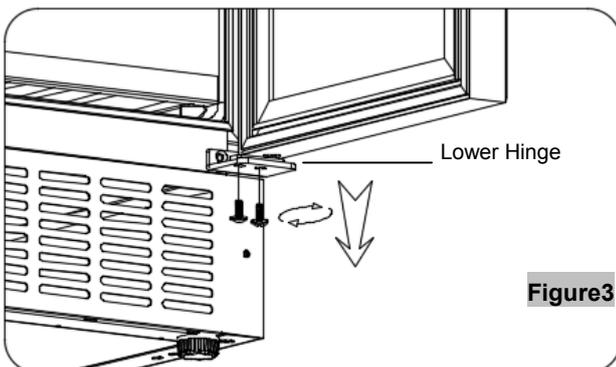
(Models: CWR1661SZ, CWR1211SZ)

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



(Models: CWR181SZ, BR7001SS, BR7001SSOD, BR7001BL, CWR70SZ)

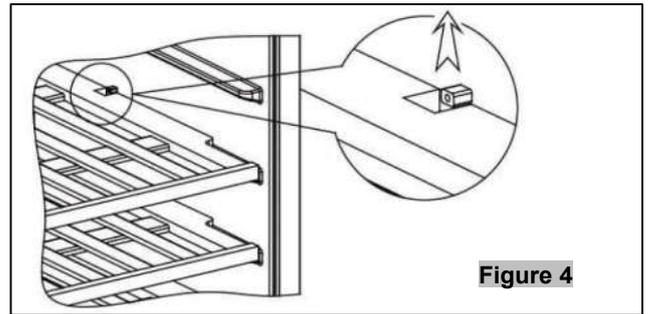
Open the door and using a Phillips screwdriver, remove the two bottom screws from the lower hinge. Be careful to hold the glass door with hands from dropping after removing the screws.. (Figure 3)



3-2 WOODEN SHELVES

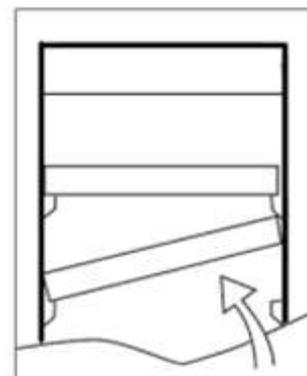
TYP A : (Models: CWR361FD)

- 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)



TYP B : (Models: CWR5631FD, CWB2886FD)

- Open the door completely.
- Make sure the shelf is pushed back completely (towards the rear wall).
- If necessary, make sure you remove all the contents sitting on the shelf.
- Identify the protective stoppers located on the right and left sides of the back of each wood wine shelf.
- Lift either the left or right side of the shelf creating a 45° angle from its original position. Make sure not to lift either side of the shelf too hard as it may come in contact with the inner wall mount
- Pull the shelf forward until it is completely removed from the inner compartment. Set aside safely. (Figure 5)



3. DISASSEMBLY

■ GLASS SHELVES

(Models: CBR901SG, CBR1501SG, CBR1501SLD, CBR1501SSOD)

- Open the door completely.
- If necessary, make sure you remove all the contents sitting on the shelf.
- Remove both of the plastic notches with a screwdriver.
- Continue to pull the shelf forward until it is completely removed from the inner compartment. (Figure 6)

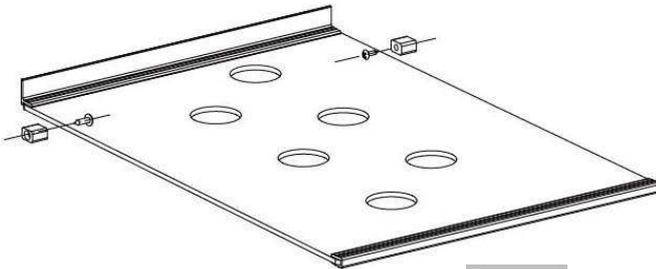


Figure 6

■ WIRES SHELVES

TYP A : (Models: CWR181SZ, CWR301SZ, BWR300BL, BBR900BL, CWR531SZ)

- 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 7)

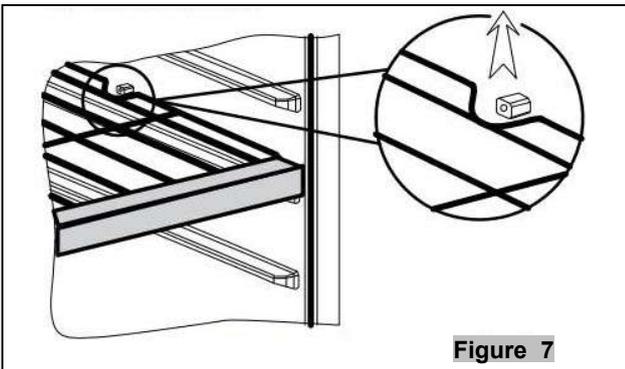


Figure 7

TYP B : (Models: CWR70SZ)

- Open the door completely.
- Make sure the shelf is pushed back completely (towards the rear wall).
- If necessary, make sure you remove all the contents sitting on the shelf.
- Identify the protective stoppers located on the right and left sides of the back of each shelf. - 12

- Lift either the left or right side of the shelf creating a 45° angle from its original position. Make sure not to lift either side of the shelf too hard as it may come in contact with the inner wall mount.
- Pull the shelf forward until it is completely removed from the inner compartment. Set aside safely. (Figure 8)

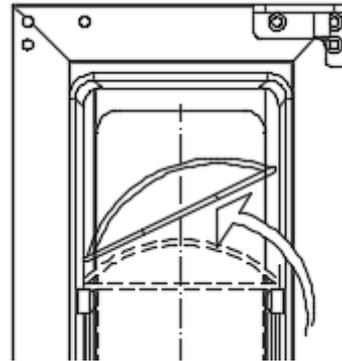


Figure 8

3-3 LAMP

(Models: CBR901SG, CWR301SZ, BWR300BL, BBR900BL, CBR1501SG, CWR531SZ, CBR1501SLD, CBR1501SSOD, CWR1661SZ, CWR1211SZ)

1. Loosen four screws. (figure 9)

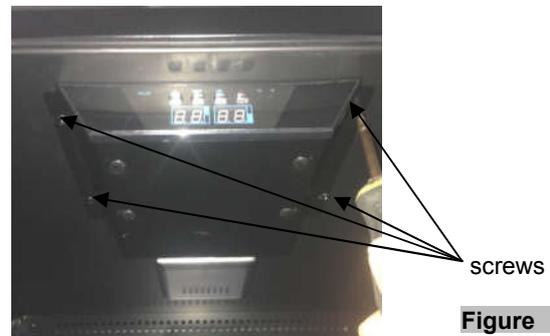


Figure 9

2. Loosen the display PCB board fasteners and remove the PCB board. (figure 10)



Figure 10

3. DISASSEMBLY

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

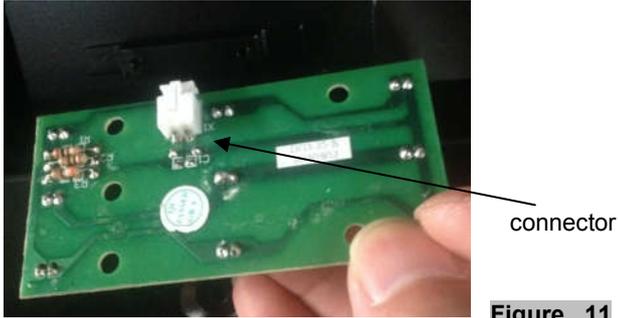


Figure 11

4. Pull out the LED light. (figure 12)

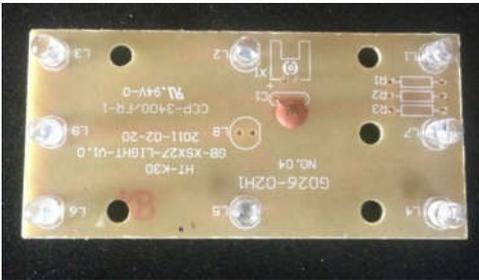


Figure 12

(Models: CWR361FD, BR7001SS, BR7001SSOD, BR7001BL, CWR5631FD, CWB2886FD)

1. Loosen one screw. (figure 13)

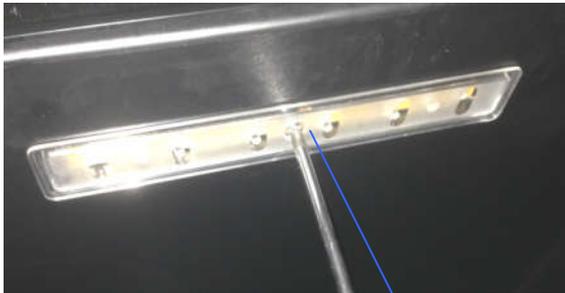


Figure 13

2. Unplug the led light connector. (figure 14)

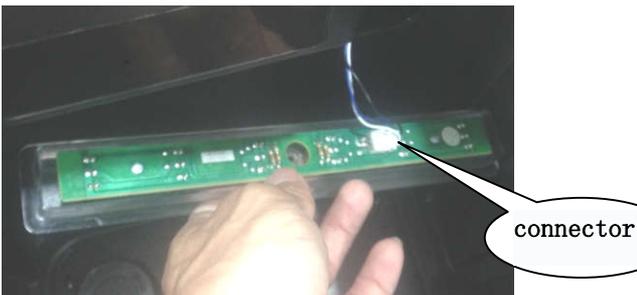


Figure 14

3. Loosen four screws. (figure 15)

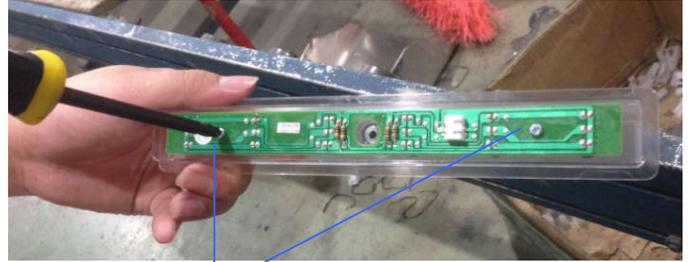


Figure 15

4. Pull out the LED light. (figure 16)



Figure 16

(Models: CWR181SZ)

1. Loosen four screws. (figure 17)



Figure 17

2. Pull out the electrical box. (figure 18)



Figure 18

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

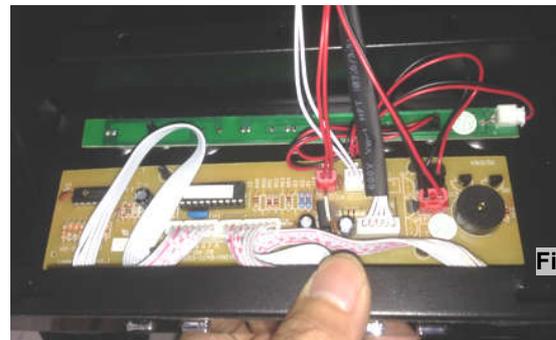


Figure 19

3. DISASSEMBLY

4. Pull out the LED light. (figure 20)



Figure 20

(Models: CWR70SZ)

1. Loosen one screw. (figure 21)



Figure 21

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



Figure 22

3. Remove the electrical box cover (figure 23)



Figure 23

4. Remove the LED light connector. (figure 24)

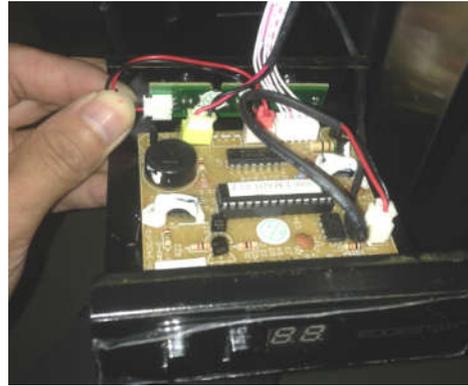


Figure 24

5. Remove the LED light fastener and take out the LED light. (figure 25)

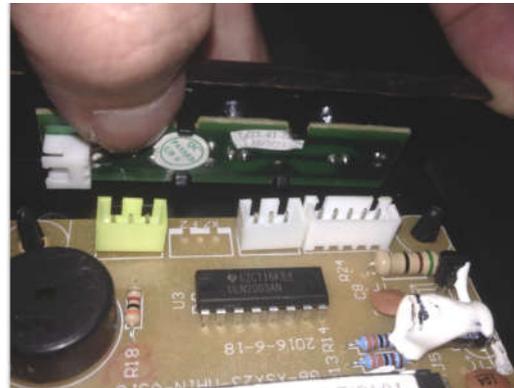


Figure 25

6. The LED light is like below. (figure 26)

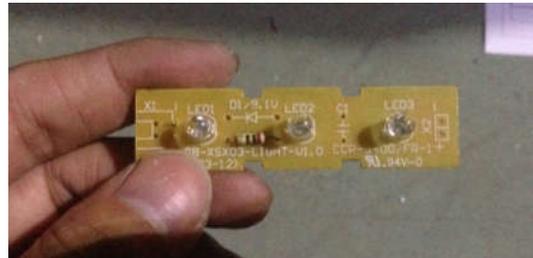


Figure 26

(Models: RP400MED)

1. Remove four screws and take out the electrical box. (figure 27)



Figure 27

3. DISASSEMBLY

2. Take out the LED light connector. Remove the screws from LED light. (figure 2 8)



Figure 28

3. The LED light is pictured below. (figure 29)

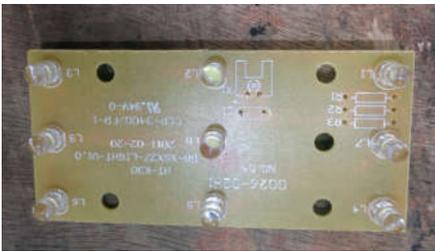


Figure 29

3-4 DISPLAY BOARD & CONTROL BOARD

(Models: CBR901SG, CWR301SZ, BWR300BL, BBR900BL, CBR1501SG, CWR531SZ, CWR1661SZ, CWR1211SZ)

1. Loosen four screws. (figure 30)
2. Pull out the electrical box.



Figure 30

Screw

3. Unplug all cable connectors. (figure 31)
4. Press the plastic tab securing the control board with forefinger and thumb.

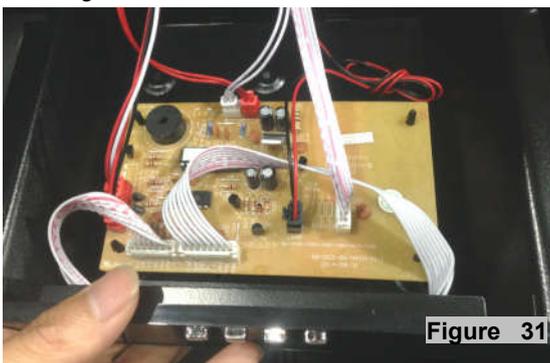


Figure 31

5. The control board is pictured below (figure 32)



Figure 32

6. Disassemble the display board. (figure 33)

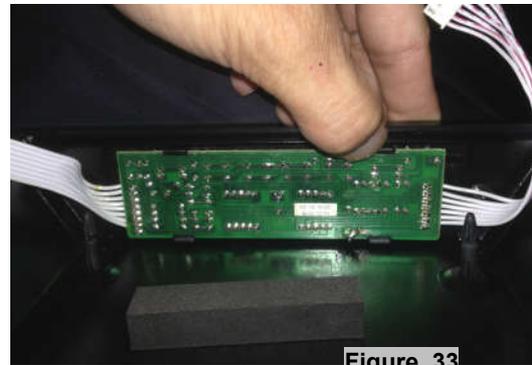


Figure 33

7. The display board is pictured below. (figure 34)

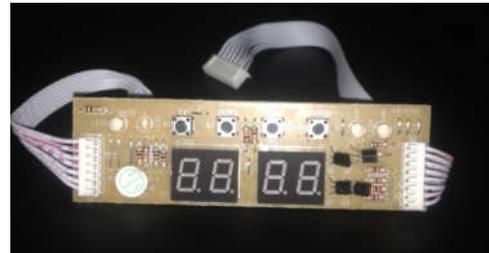


Figure 34

(Models: CBR1501SLD, CBR1501SSOD)

1. Loosen four screws. (figure 35)
2. Pull out the electrical box.



Figure 35

Screw

3. DISASSEMBLY

3. Unplug all cable connectors. (figure 36)
4. Press the plastic tab securing the control board with forefinger and thumb.

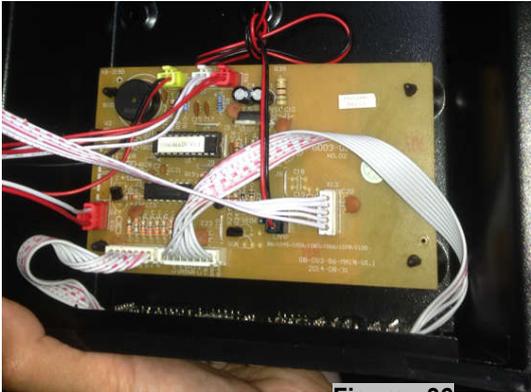


Figure 36

5. The control board is pictured below. (figure 37)

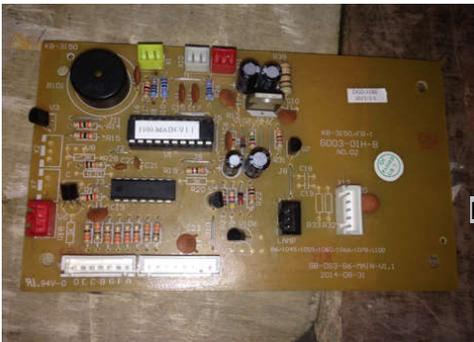


Figure 37

6. Disassemble the display board. (figure 38)



Figure 38

7. The display board is pictured below. (figure 39)

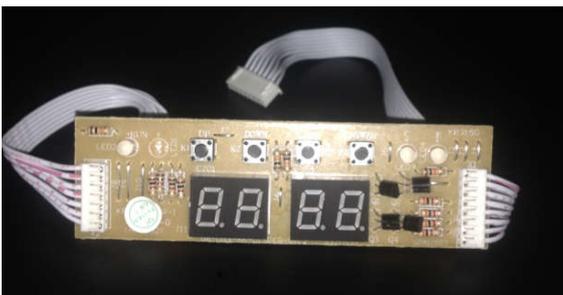


Figure 39

(Models: CWR181SZ)

1. Loosen four screws. (figure 40)



Figure

screw

screw

2. Pull out the electrical box. (figure 41)



Figure 41

3. Unplug all cable connectors. (figure 42)

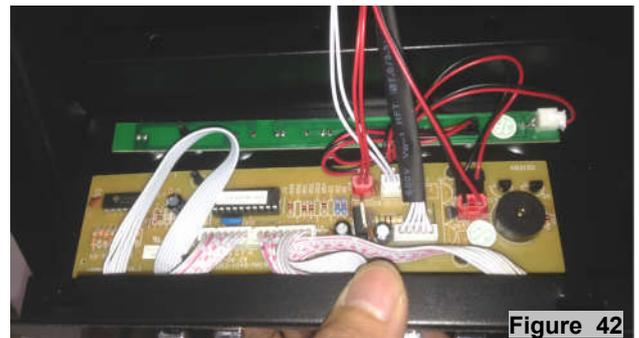


Figure 42

4. Press the plastic tab securing the control board with forefinger and thumb. (figure 43)

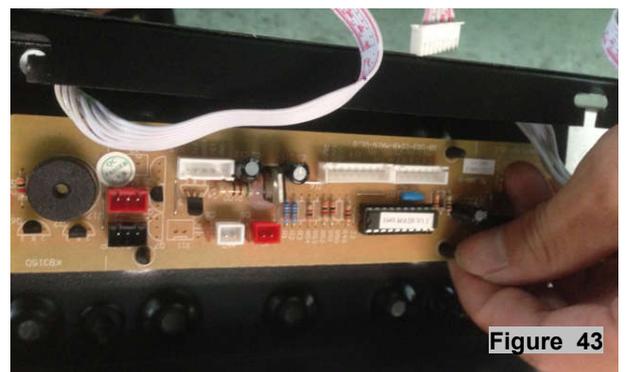


Figure 43

3. DISASSEMBLY

5. The control board is pictured below. (figure 44)



Figure 44

6. Disassemble the display board. (figure 45)



Figure 45

7. The display board is pictured below. (figure 46)

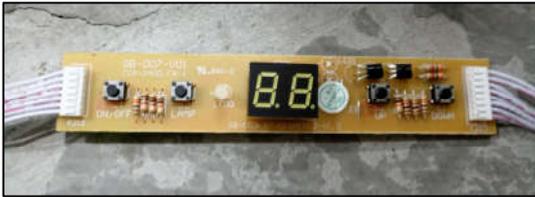


Figure 46

(Models: CWR361FD)

- 1. Take down both doors.
- 2. Remove five screws from the top panel.(figure 47)



Figure 47

3. Pull out the top panel. (figure 48)



Figure 48

4. Remove all connectors from the PCB board.(figure 49)

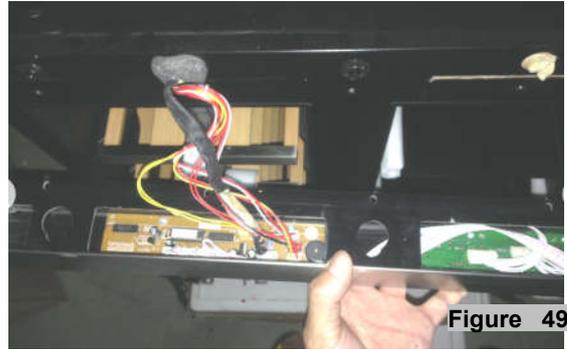


Figure 49

5. Remove four screws and take out the PCB board.(figure 50)



Figure 50

6. The control board is pictured below. (figure 51)



Figure 51

7. Remove 6 screws from the PCB board and take it out.(figure 52)



Figure 52

8. The display board is pictured below. (figure 53)



Figure 53

3. DISASSEMBLY

(Models: BR7001SS, BR7001SSOD, BR7001BL)

1. Remove four screws from the electrical box and take it out .(figure 54)



Figure 54

2. Remove all the connector from the PCB board (figure 55)

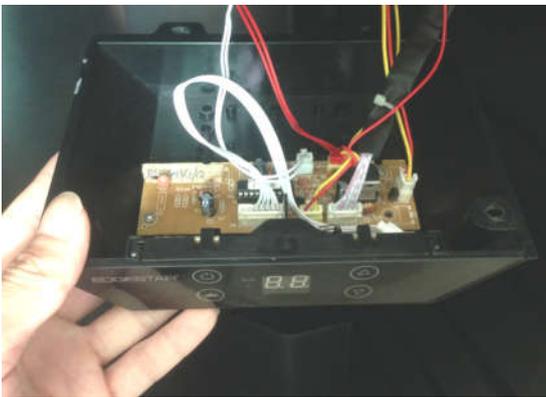


Figure 55

3. Remove four screws from the PCB board and take it out .(figure 56)

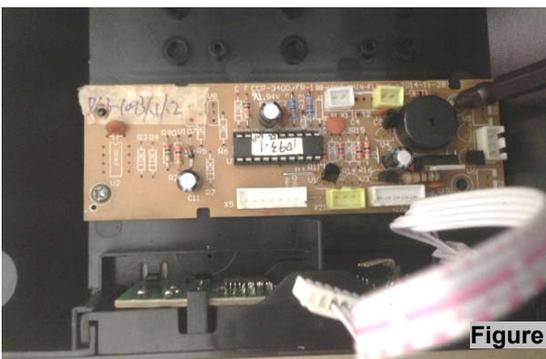


Figure 56

4. The control board is pictured below. (figure 57)



Figure 57

5. Remove the film cover.(figure 58)

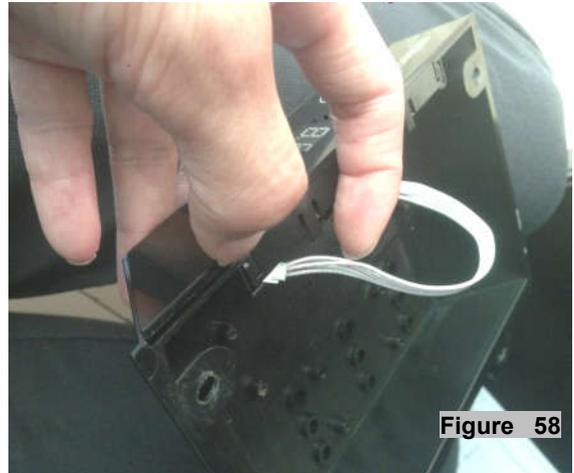


Figure 58

6. Pull open the display board support bracket.(figure 59)

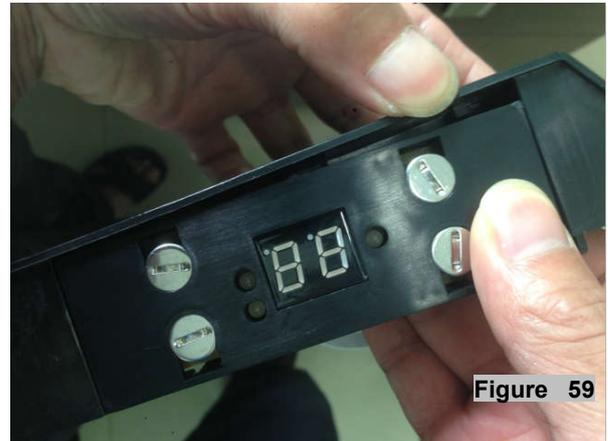


Figure 59

7. Pull open the fixer from the bracket. Take out the display PCB board (figure 60)

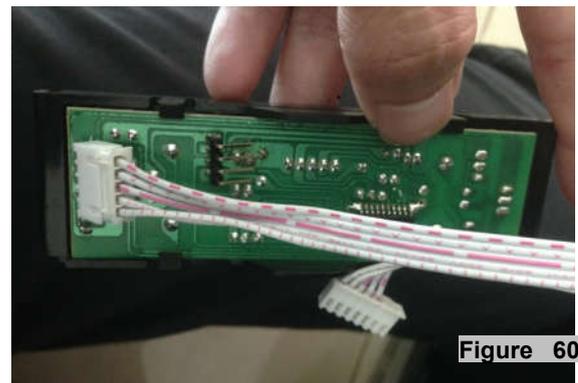


Figure 60

8. The display board is pictured below. (figure 61)

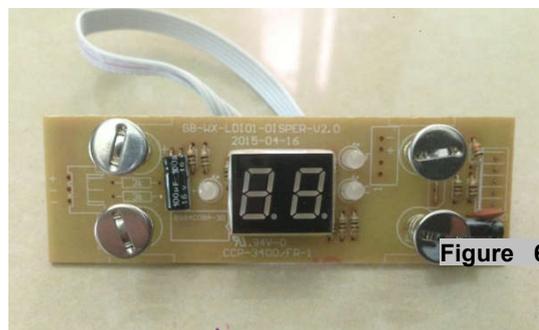


Figure 61

3. DISASSEMBLY

(Models: **CWR70SZ**)

1. Loosen one screw. (figure 62)



Figure 62

2. Pull out the electrical box from the cabinet.(figure 63)



Figure 63

- 3.Remove the electrical box cover(figure 64)



Figure 64

- 4.Remove all the connectors from the PCB board. (figure 65)



Figure 65

5. Remove four fasteners from the PCB board . Remove the PCB board. (figure 66)



Figure 66

6. The control board &The display board is like below. (figure 67)

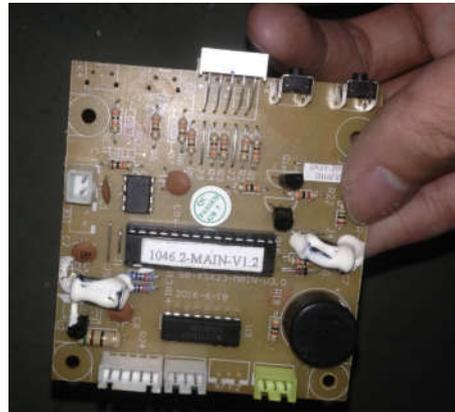


Figure 67

(Models: **CWR5631FD, CWB2886FD**)

1. Remove four screws from the electrical box and remove box. (figure 68)



Figure 68

2. Remove all the connectors from the PCB board(figure 69)



Figure 69

3. DISASSEMBLY

3. Remove film cover (figure 70)



Figure 70

4. Pull open the display board support bracket.(figure 71)



Figure 71

7. Remove PCB board fasteners and remove board.(figure 72)



Figure 72

8. The display board is pictured below. (figure 73)

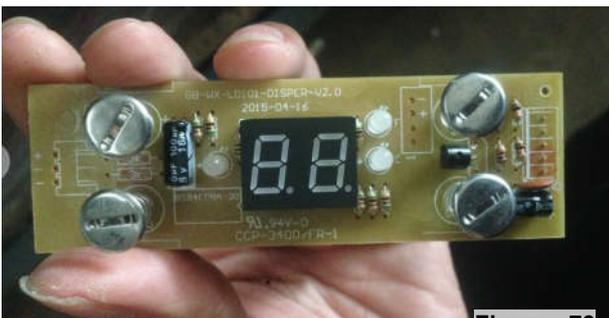


Figure 73

(Models: RP400MED)

1. Remove four screws from the electrical box and remove box (figure 74)



Figure 74

2. Remove all connectors from PCB board. Remove four screws from the PCB board and remove board.(figure 75)

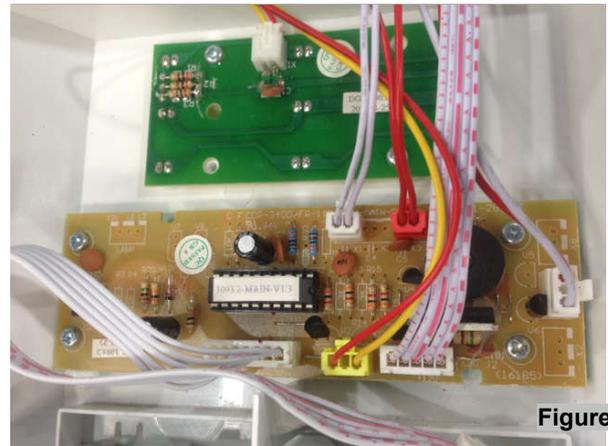


Figure 75

3. The control board is pictured below. (figure 76)



Figure 76

4. Remove all the connector from the PCB board.(figure 77)



Figure 77

3. DISASSEMBLY

5. Remove film cover (figure 78)



Figure 78

6. Pull open the display board support bracket.(figure 79)



Figure 79

7. Remove PCB board fasteners and remove board. (figure 80)



Figure 80

8. The display board is pictured below. (figure 81)



Figure 81²¹

3-5 POWER BOARD & TRANSFORMER (Models: CWR70SZ)

1. Set unit on side as pictured below . (figure 82)

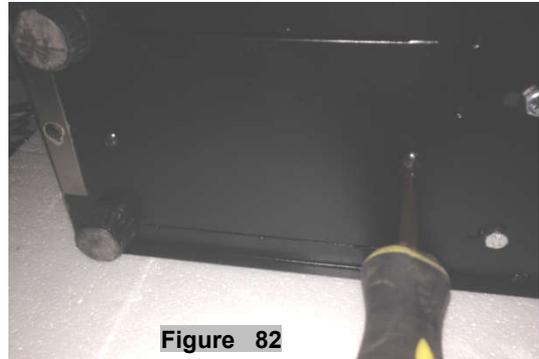


Figure 82

2. Open the electrical box cover (figure 83)

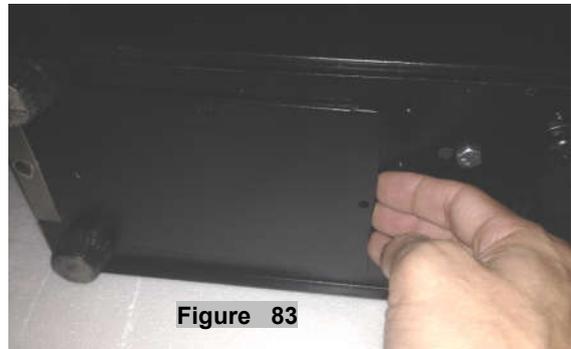


Figure 83

3. The power board & transformer are pictured below. (figure 84)

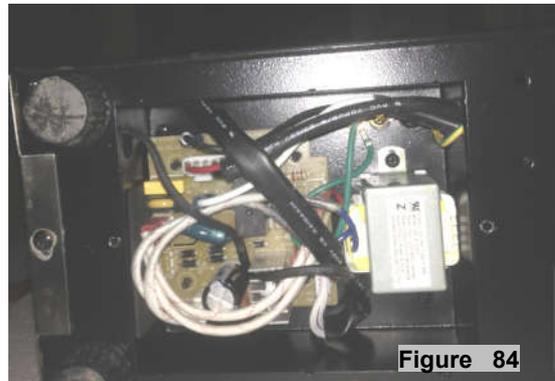


Figure 84

(Models: CWR181SZ)

1. Remove the screws from the electrical box near the compressor (figure 85)



Figure 85

3. DISASSEMBLY

2. Set unit on side as pictured below. Remove the screws from the bottom of the electrical box. (figure 86)

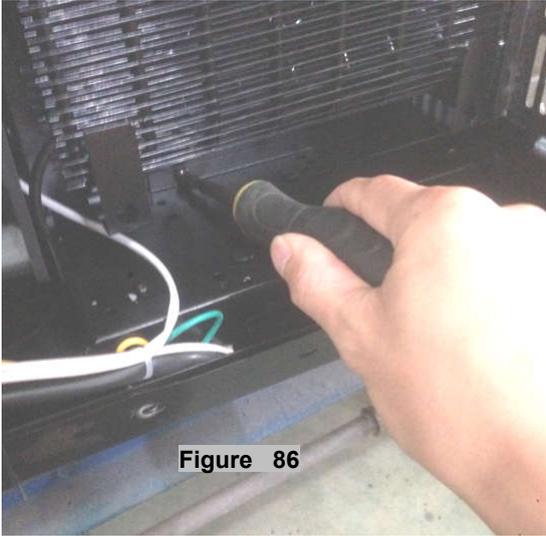


Figure 86

3. Move the electrical box from right side and take out the electrical box.(figure 87)

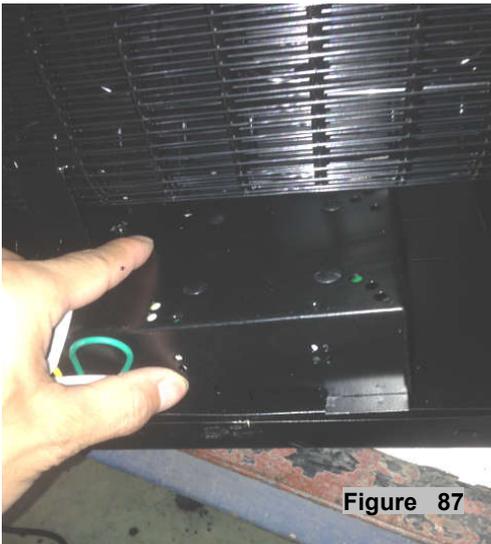


Figure 87

4. The power board & transformer are pictured below.(figure 88)

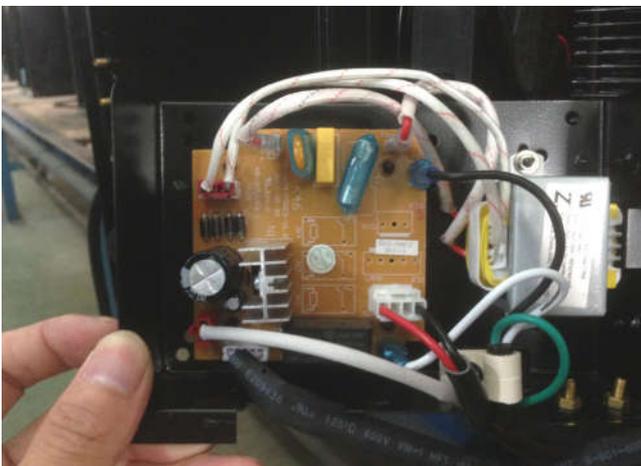


Figure 88

(Models: CBR901SG, CWR301SZ, BWR300BL, BBR900BL)

1. Remove the screws from the bottom of the electrical box.(figure 89)

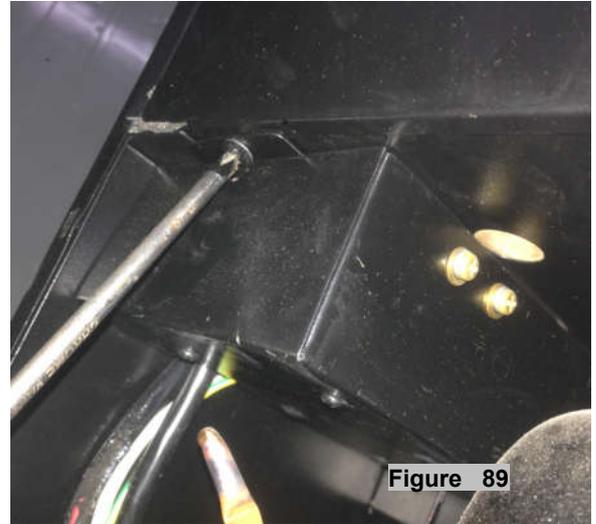


Figure 89

2. The power board & transformer are pictured below. (figure 90)



Figure 90

(Models: CBR1501SLD, CBR1501SSOD, CBR1501SG, CWR531SZ)

1. Loosen three screws. (figure 91)



Figure 91

3. DISASSEMBLY

2. The power board & transformer are pictured below.(figure 92)



Figure 92

(Models: CWR1661SZ, CWR1211SZ)

1. Loosen three screws. (figure 93)

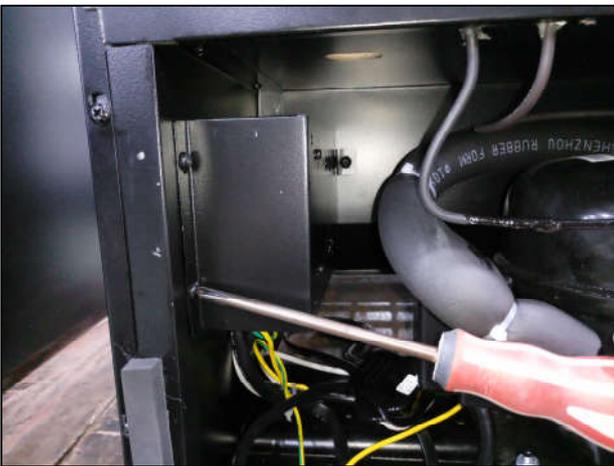


Figure 93

2. The power board & transformer are pictured below. (figure 94)



Figure 94

(Models: BR7001SS, BR7001SSOD, BR7001BL)

1. Loosen three screws. (figure 95)



Figure 95

2. The power board & transformer are pictured below. (figure 96)



Figure 96

(Models: CWR361FD)

1. Loosen three screws. (figure 97)



Figure 97

3. DISASSEMBLY

2. The power board & transformer are pictured below.(figure 98)



Figure 98

(Models: CWR5631FD, CWB2886FD)

1. Loosen three screws. (figure 99)

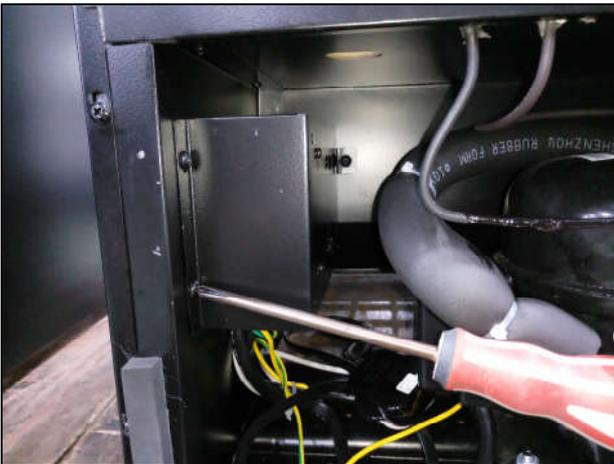


Figure 99

2. The power board & transformer are like below. (figure 100)



Figure 100

(Models: RP400MED)

1. Loosen three screws. (figure 101)

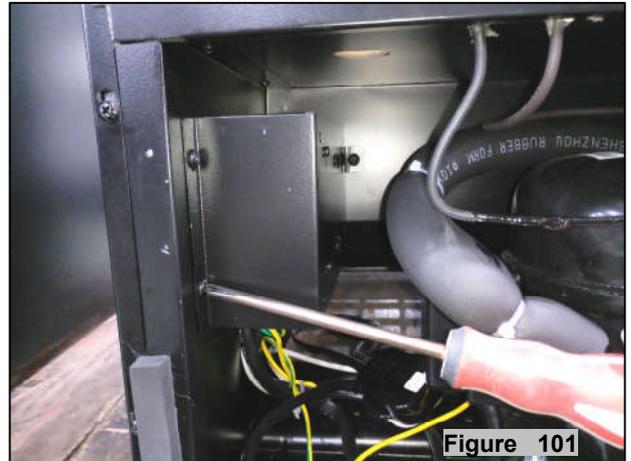


Figure 101

2. The power board & transformer are pictured below. (figure 102)



Figure 102

3-6 SENSOR & FAN

(Models: CWR70SZ)

1. Remove screws from the wiring harness and remove wiring harness to replacce the sensor. (figure 103)



Figure 103

3. DISASSEMBLY

2. Loosen two screws. Pull out the rear air duct cover. (figure 1 0 4)

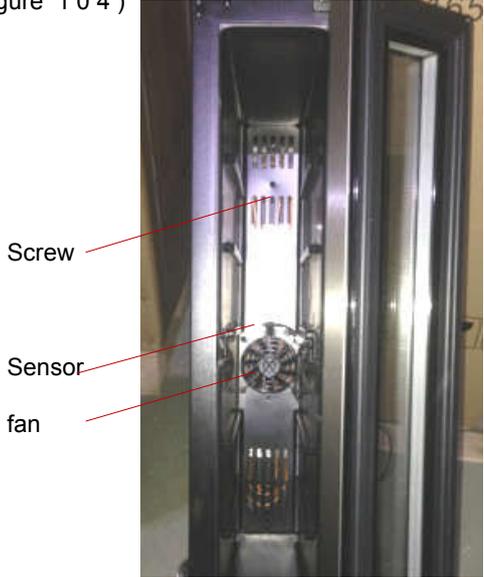


Figure 104

3. You can replace the fan.(figure 105)

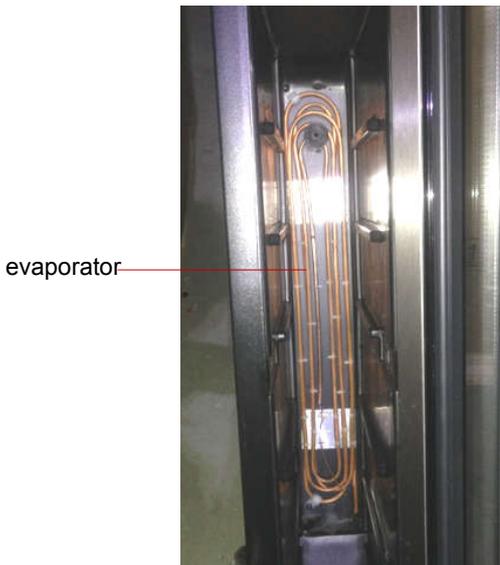


Figure 105

(Models: CWR181SZ)

1. Loosen six screws. Pull out the rear air duct cover. (figure 1 0 6)

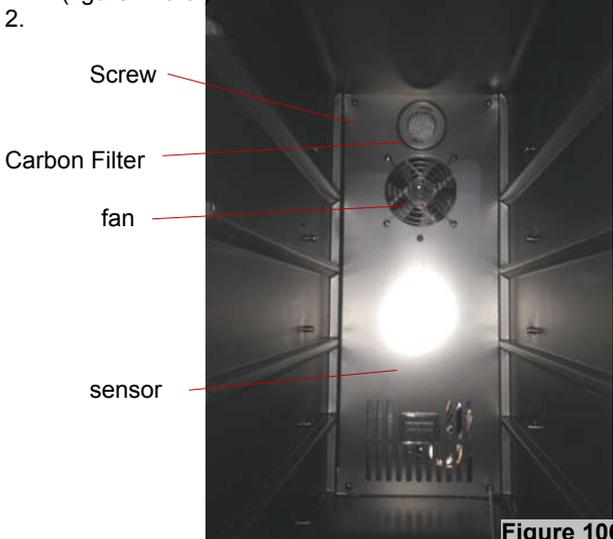


Figure 106

3. Loosen 1 screw to replace the sensor & fan.(figure 107)

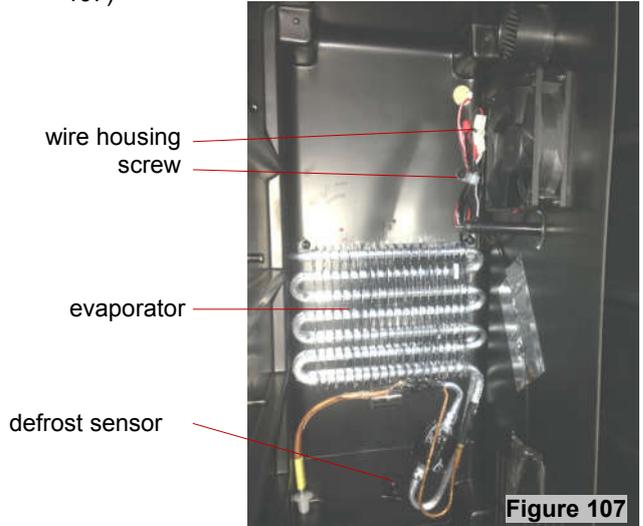


Figure 107

(Models: CBR901SG, CWR301SZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 1 0 8)

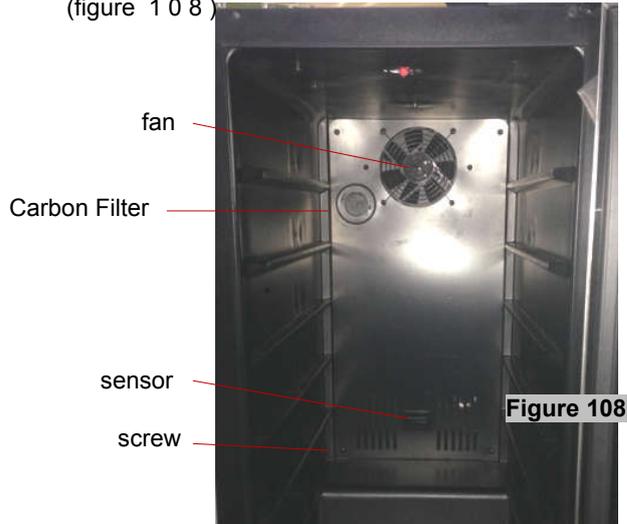


Figure 108

2. Loosen 1 screw to replace the sensor & fan. (figure 109)

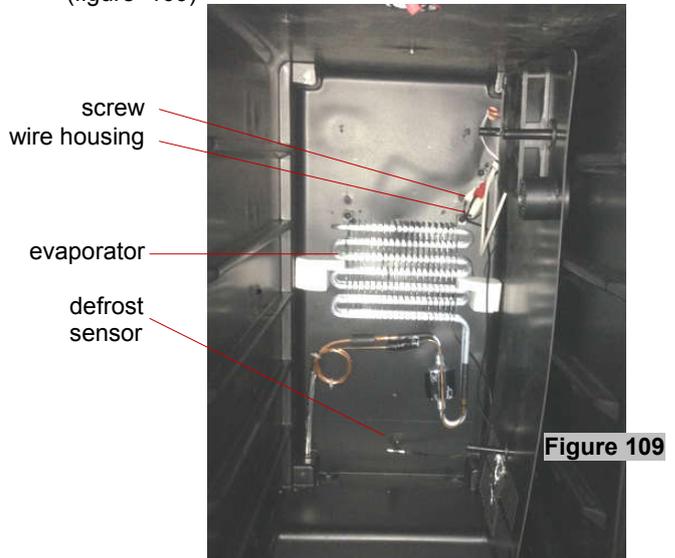


Figure 109

3. DISASSEMBLY

(Models: BWR300BL, BBR900BL)

1. Loosen screws. Pull out the rear air duct cover. (figure 110)

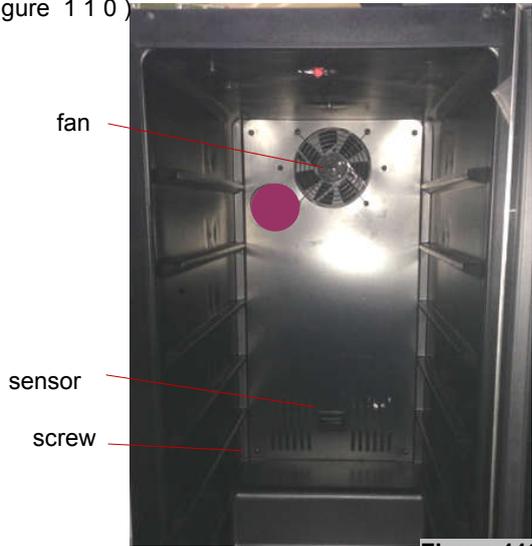


Figure 110

2. Loosen 1 screw to replace the sensor & fan. (figure 111)

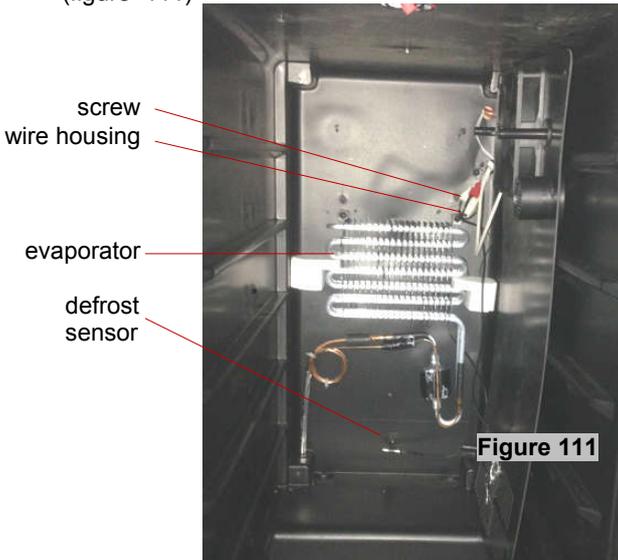


Figure 111

(Models: CBR1501SLD, CBR1501SSOD, CBR1501SG, CWR531SZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 112)

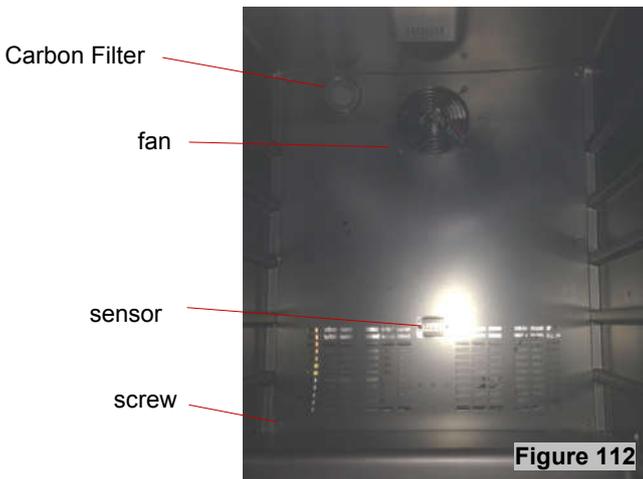


Figure 112

2. Loosen 1 screw to replace the sensor & fan. (figure 113)

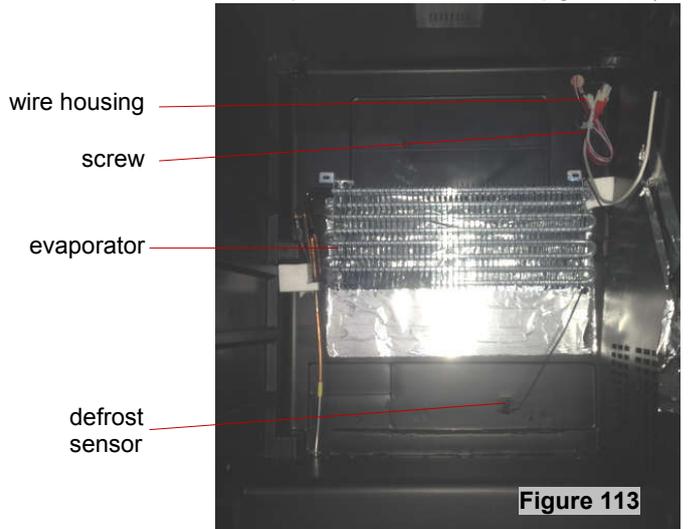


Figure 113

(Models: CWR1211SZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 114)

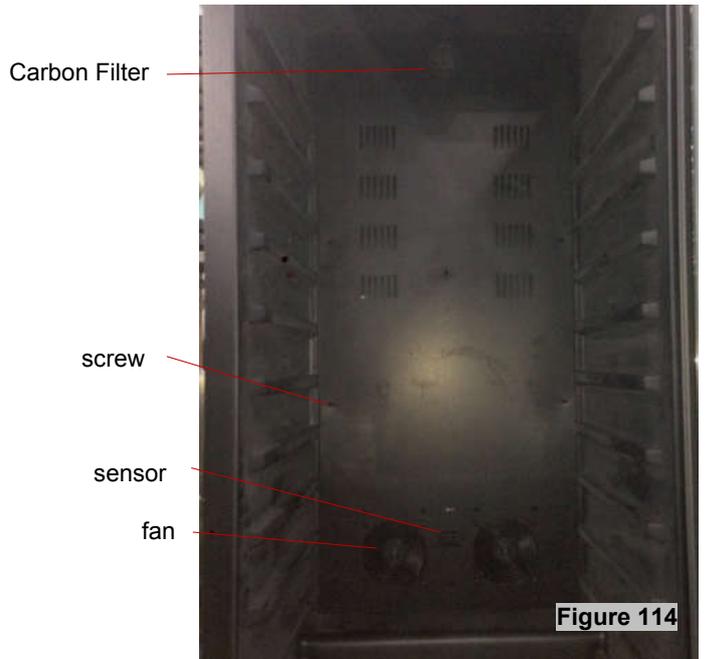


Figure 114

2. Loosen 1 screw. to replace the sensor & fan. (figure 115)

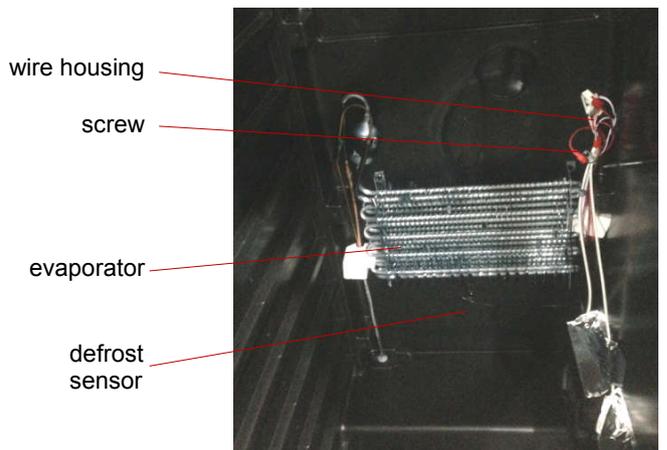


Figure 115

3. DISASSEMBLY

(Models: CWR1661SZ)

1. Loosen screws. Pull out the rear air duct cover. (figure 116)

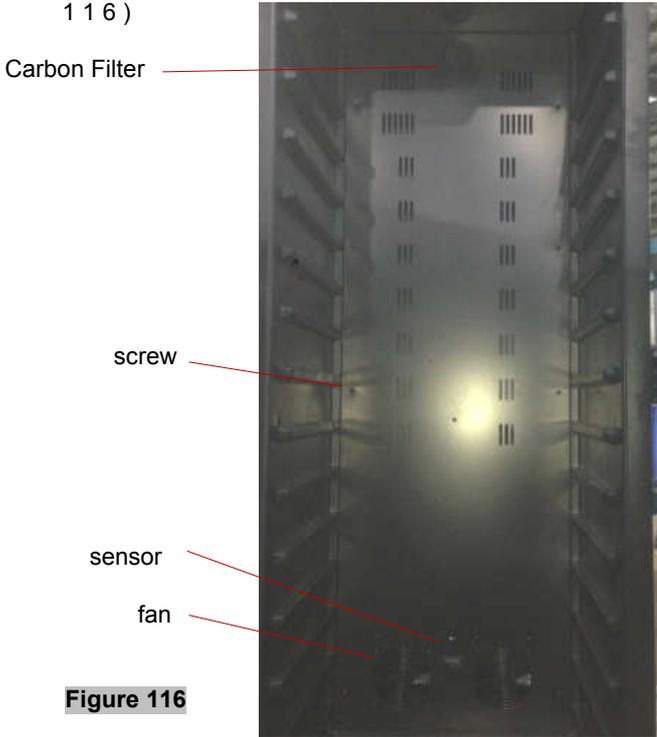


Figure 116

2. Loosen 1 screw to replace the sensor & fan.(figure 117)

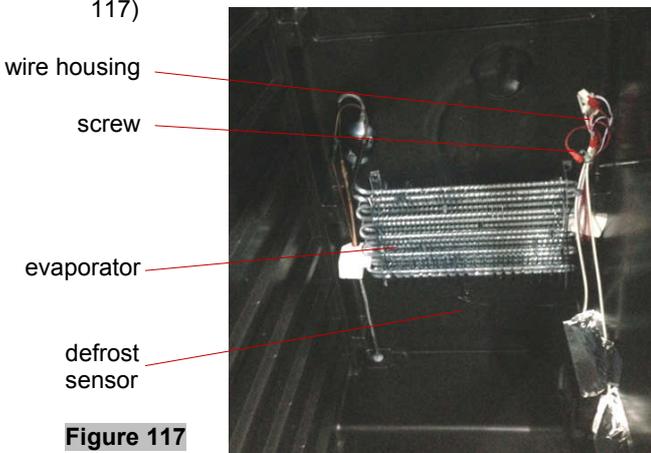


Figure 117

(Models: CWR361FD)

1. Loosen screws. Pull out the rear air duct cover. (figure 118)

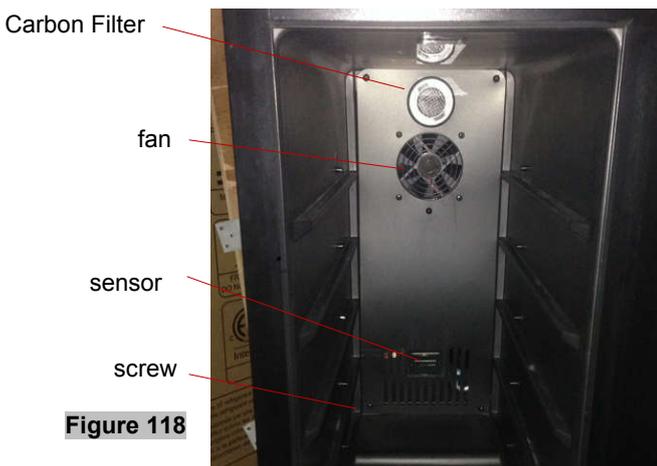


Figure 118

2. Loosen 1 screw to replace the sensor & fan.(figure 119)

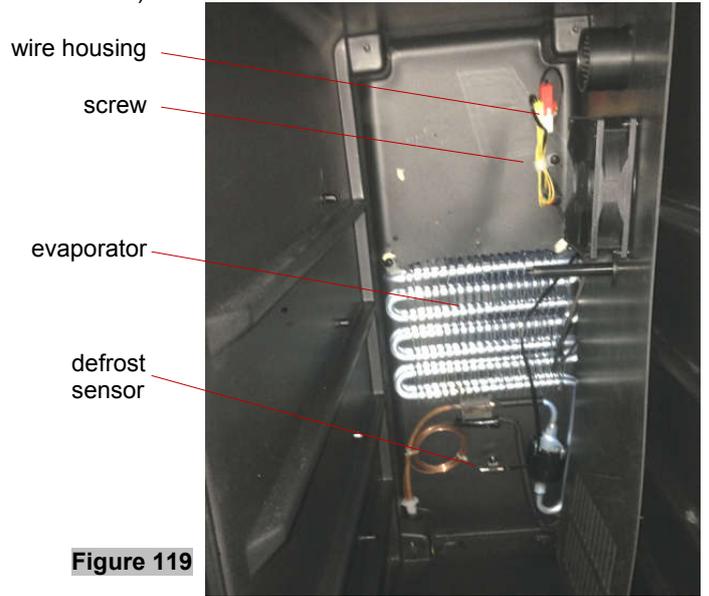


Figure 119

(Models: BR7001SS, BR7001SSOD, BR7001BL)

1. Loosen screws. Pull out the rear air duct cover. (figure 120)



Figure 120

3. Loosen 1 screw to replace the sensor & fan. (figure 121)

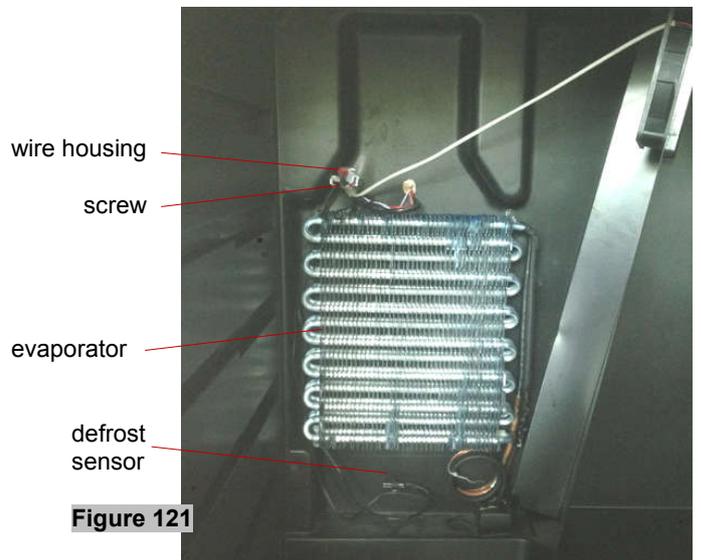
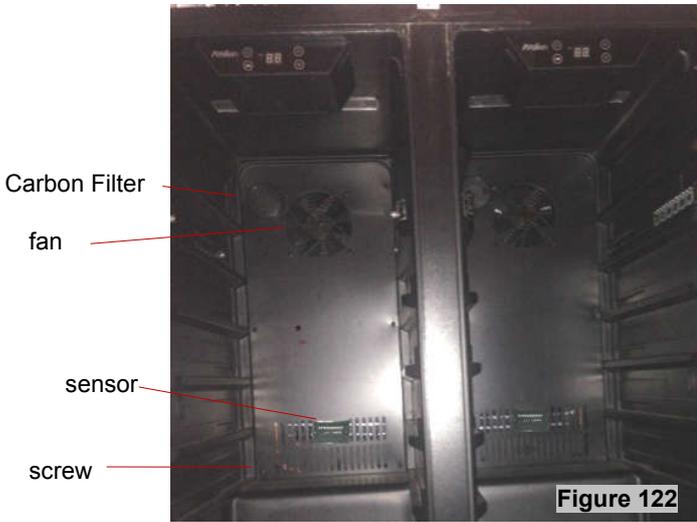


Figure 121

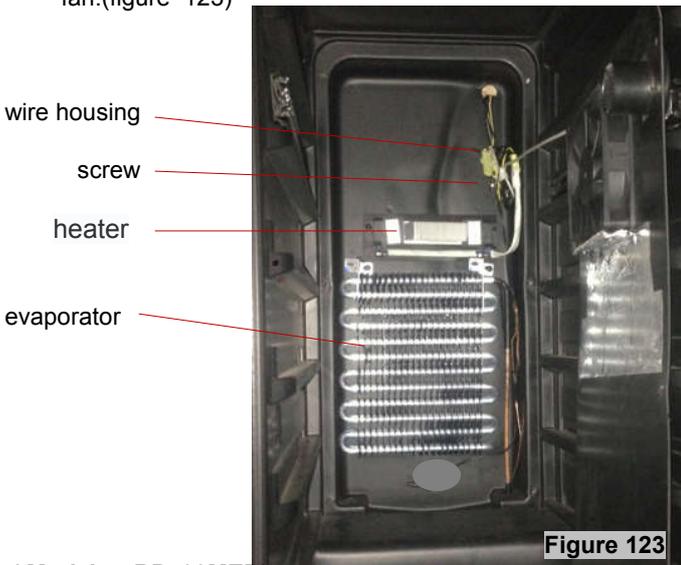
3. DISASSEMBLY

(Models: CWR5631FD, CWB2886FD)

1. Loosen screws. Pull out the rear air duct cover. (figure 1 2 2)

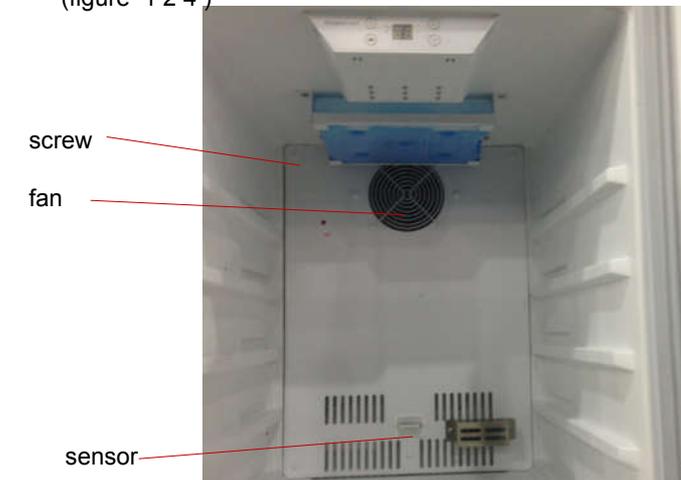


2. Loosen 1 screw to replace the sensor, heater & fan.(figure 123)

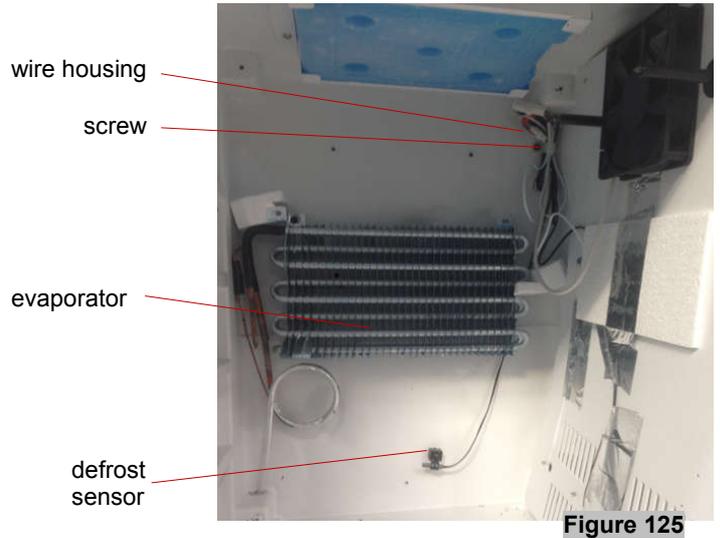


(Models: RP400MED)

1. Loosen screws. Pull out the rear air duct cover. (figure 1 2 4)



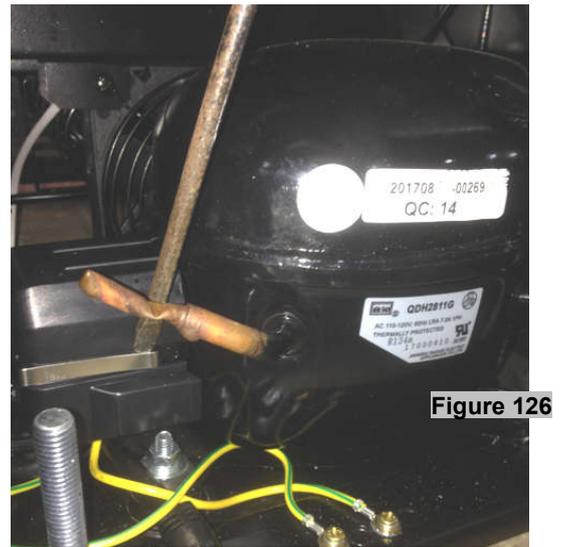
2. Loosen 1 screw to replace the sensor, heater & fan.(figure 125)



3-7 COMPRESSOR PTC STARTER & OVERLOAD PROTECTOR

(Models: CWR181SZ)

1. Remove the clamp that is used to fix the compressor junction box., take out the box. (figure 126)



2. Dismantle the compressor PTC starter and overload protector. (figure 127)



3. DISASSEMBLY

- 3. The compressor PTC starter and overload protector is like below. (figure 128)



Figure 128

(Models: CBR901SG, CWR301SZ, BWR300BL, BBR900BL)

- 1. Remove the clamp that is used to secure the compressor junction box. Remove the box. (figure 129)



Figure 129

- 2. Dismantle the compressor PTC starter and overload protector. (figure 130)



Figure 130

- 3. The compressor PTC starter and overload protector is pictured below. (figure 131)



Figure 131

(Models: CWR361FD, CBR1501SG, CWR531SZ)

- 1. Loosen one screw. (figure 132)



Figure 132

- 2. Remove the compressor junction box. (figure 133)



Figure 133

3. DISASSEMBLY

3. Dismantle the compressor PTC starter and overload protector. (figure 134)

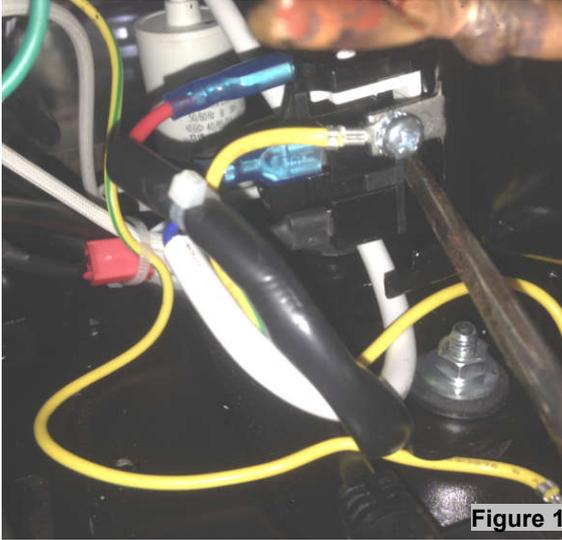


Figure 134

4. The compressor PTC starter and overload protector is pictured below. (figure 135)



Figure 135

(Models: CBR1501SLD, CBR1501SSOD ,BR7001SS, BR7001SSOD, BR7001BL)

1. Open the box near compressor. The starter and overload protector are located inside. (figure 136)



Figure 136

2. Dismantle the compressor PTC starter and overload protector. (figure 137)

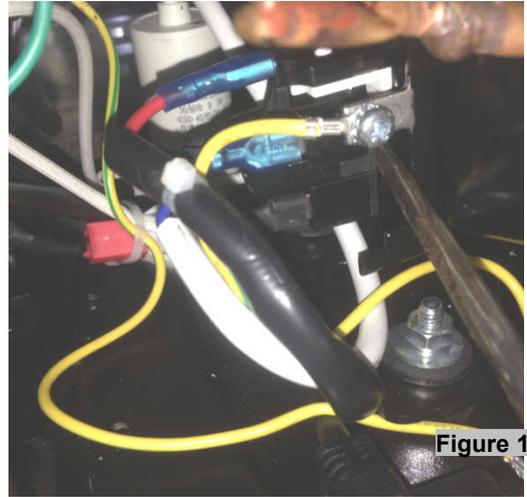


Figure 137

3. The compressor PTC starter and overload protector is pictured below. (figure 138)



Figure 138

(Models: CWR1211SZ)

1. Loosen one screw. (figure 139)



Figure 139

3. DISASSEMBLY

- 2. Remove the compressor junction box. (figure 140)



Figure 140

- 3. Dismantle the compressor PTC starter and overload protector. (figure 141)

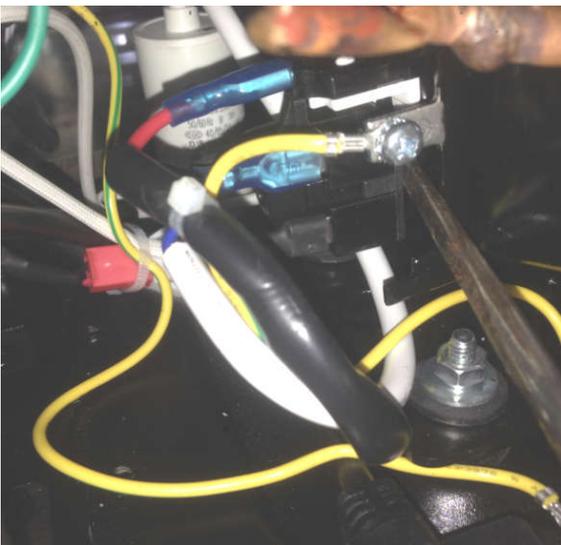


Figure 141

- 4. The compressor PTC starter and overload protector is pictured below. (figure 142)

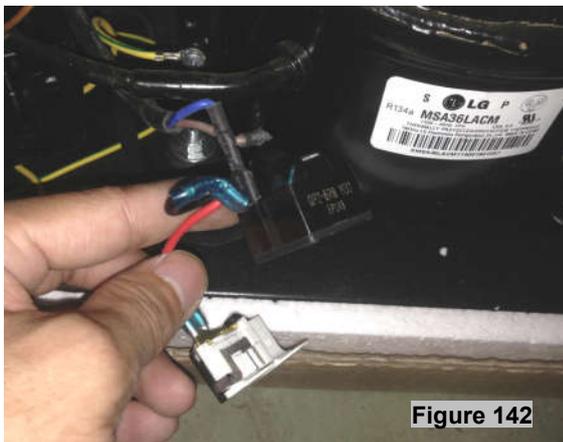


Figure 142

(Models: CWR1661SZ)

- 1. Open the box near compressor, remove the box. (figure 143)



Figure 143

- 2. Remove the compressor junction box. (figure 144)



Figure 144

- 3. Dismantle the compressor PTC starter and overload protector. (figure 145)

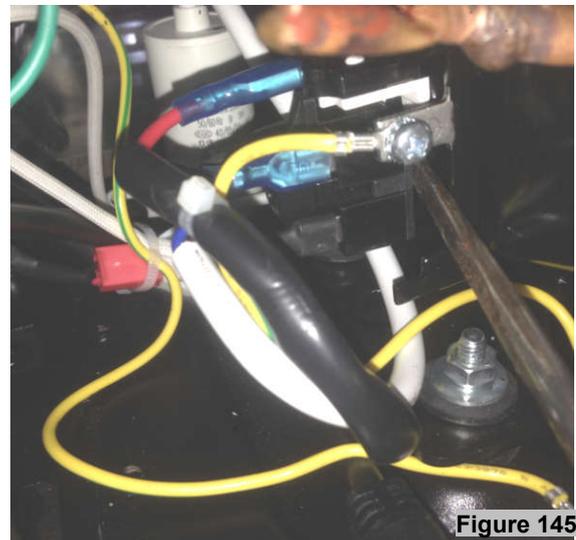


Figure 145

3. DISASSEMBLY

4. The compressor PTC starter and overload protector is like below. (figure 146)



Figure 146

(Models: CWR5631FD, CWB2886FD)

1. Remove the screws from wiring fixer. Take out the wiring harness.(figure 147)



Figure 147

2.Open the electrical box, remove the cover.(figure 148)



Figure 148

3. Open the compressor relay and protector. (figure 148)



Figure 148

4. The compressor PTC starter and overload protector is pictured below. (figure 149)



Figure 149

(Models: RP400MED)

1. Remove the screws from wiring harness. Take out the wiring harness (figure 150)



Figure 150

3. DISASSEMBLY

2. Open the electrical box, remove the cover.(figure 151)



Figure 151

3. Open the compressor relay and protector(figure 152)

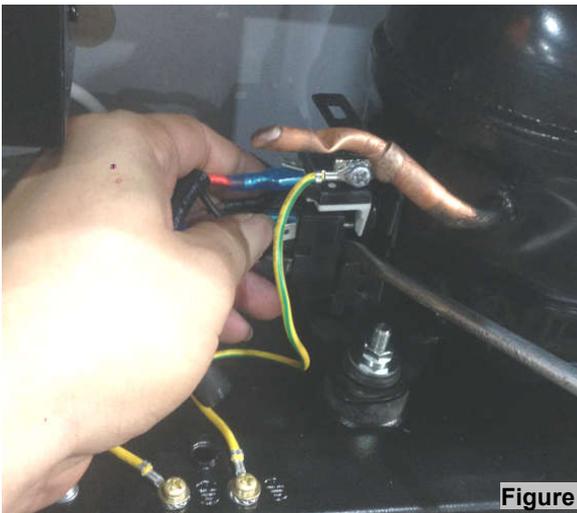


Figure 152

4. The compressor PTC starter and overload protector is like below. (figure 153)

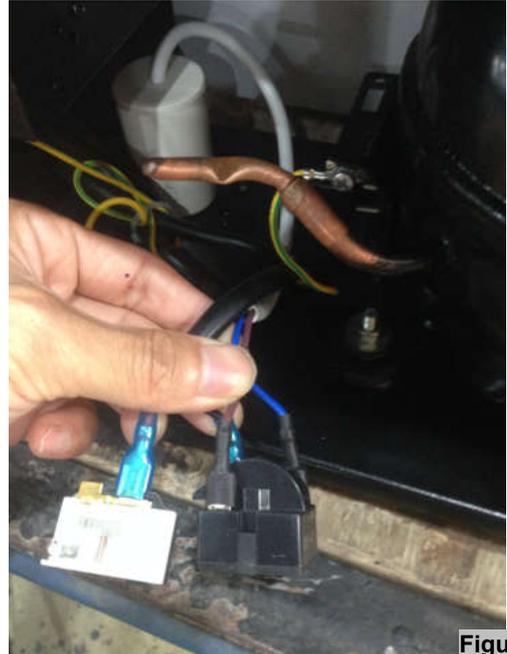
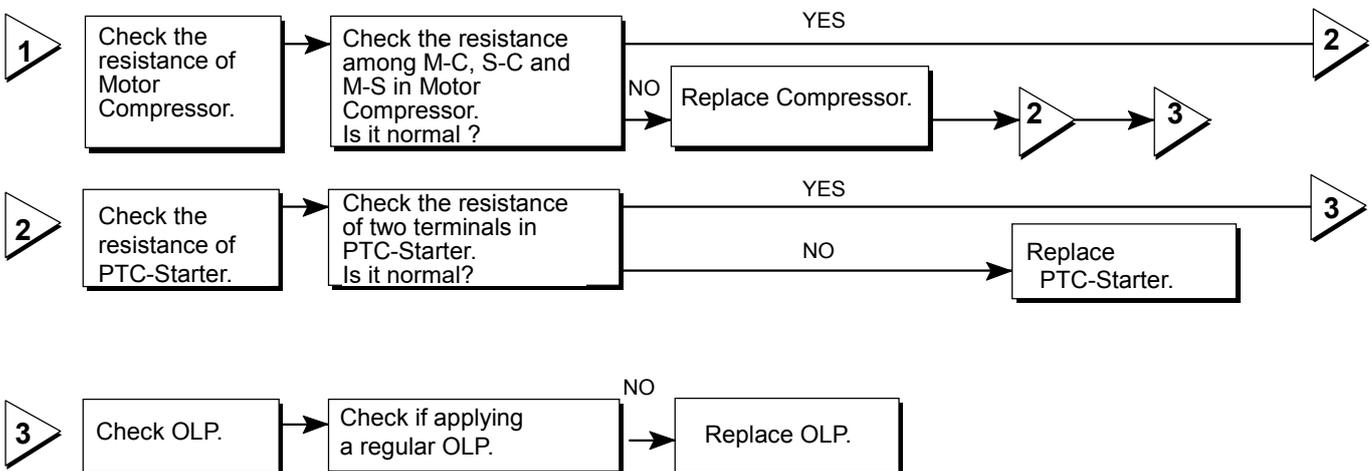


Figure 153

4. TROUBLESHOOTING

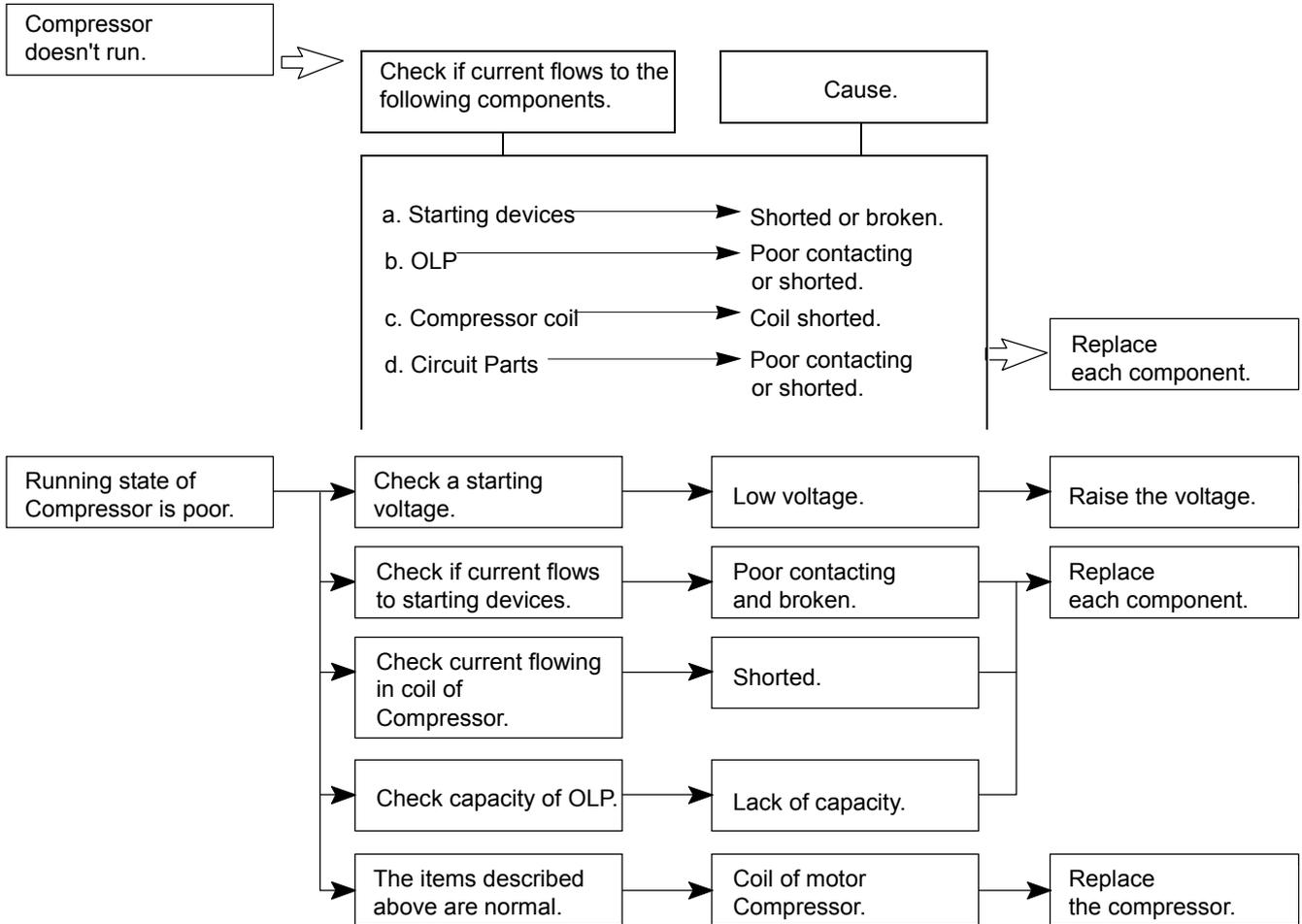
4-1 COMPRESSOR COMPONENTS



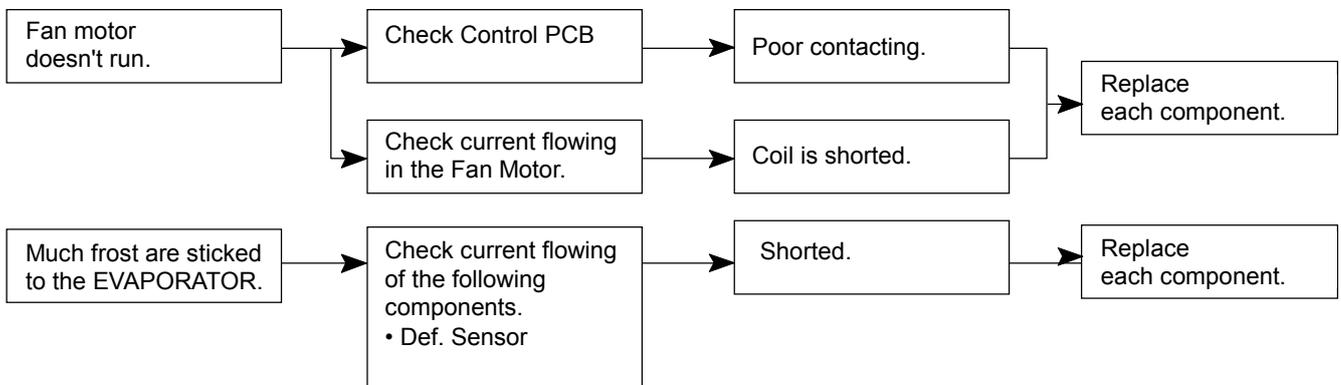
4. TROUBLESHOOTING

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 unit is properly leveled.
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 white 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 failure. Connection to main control PCB is white 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 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 failure. Connection to main control PCB is with red color wires. Check the circuit, if it is normal, the sensor may need to be replaced.

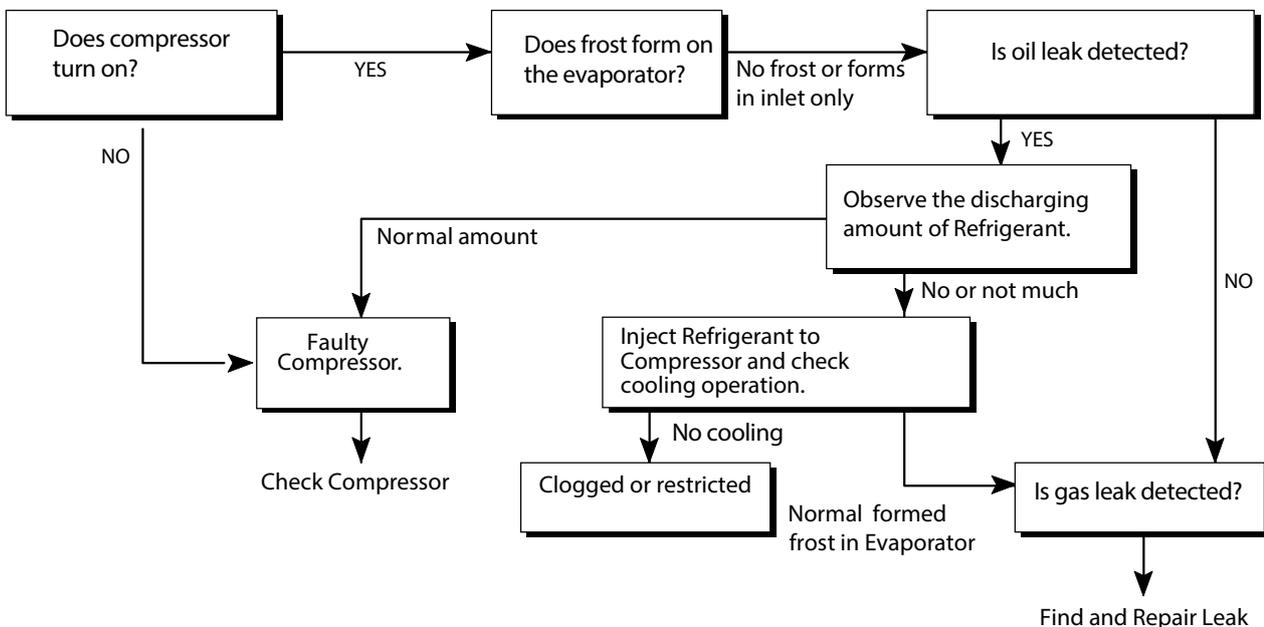
4. TROUBLESHOOTING

4-4 REFRIGERATING CYCLE

▼ Troubleshooting Chart

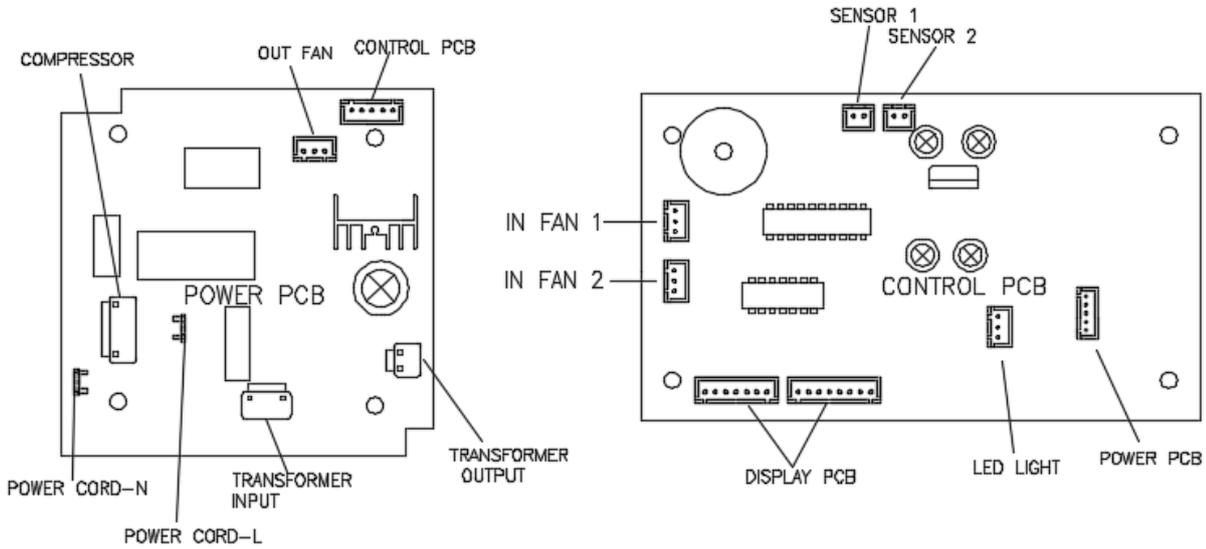
CAUSE		STATE OF UNIT	STATE OF EVAPORATOR	TEMPERATURE OF COMPRESSOR	COMMENTS
LEAKAGE	PARTIAL LEAKAGE	Appliance does not get cold enough	Low flowing sound of Refrigerant is heard and frost forms	A little high - more than ambient room temperature.	<ul style="list-style-type: none"> • A little refrigerant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

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

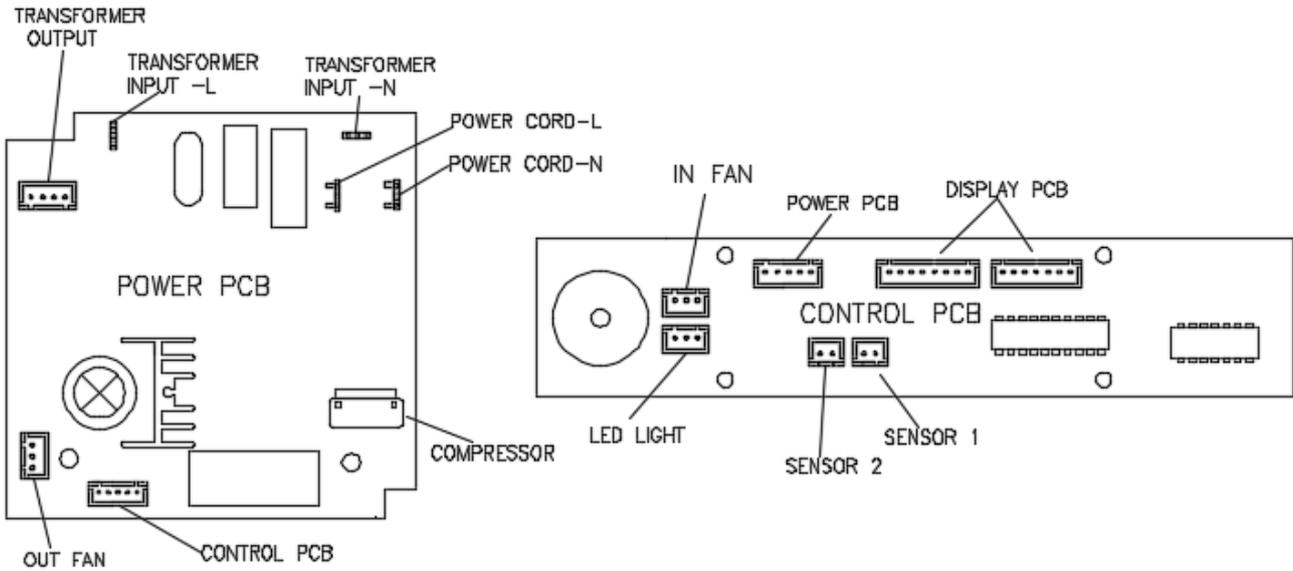


2. PARTS IDENTIFICATION

Model: CBR901SG, CWR301SZ, BWR300BL, BBR900BL, CWR1661SZ, CWR1211SZ, CBR1501SG, CWR531SZ.

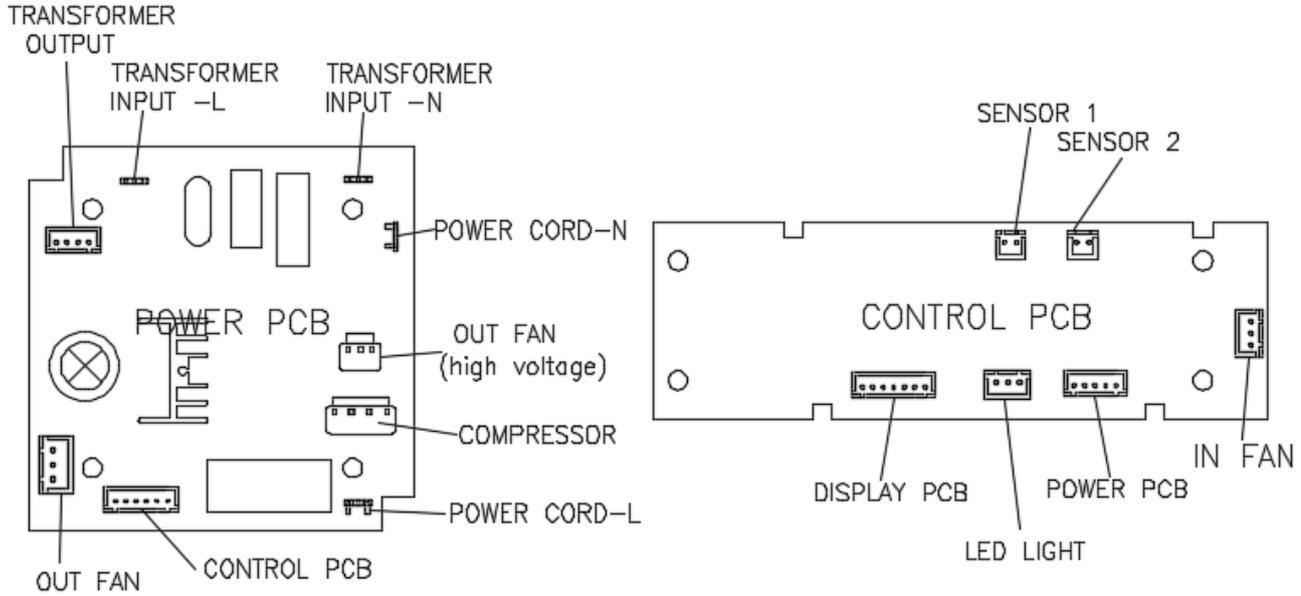


Models: CWR181SZ

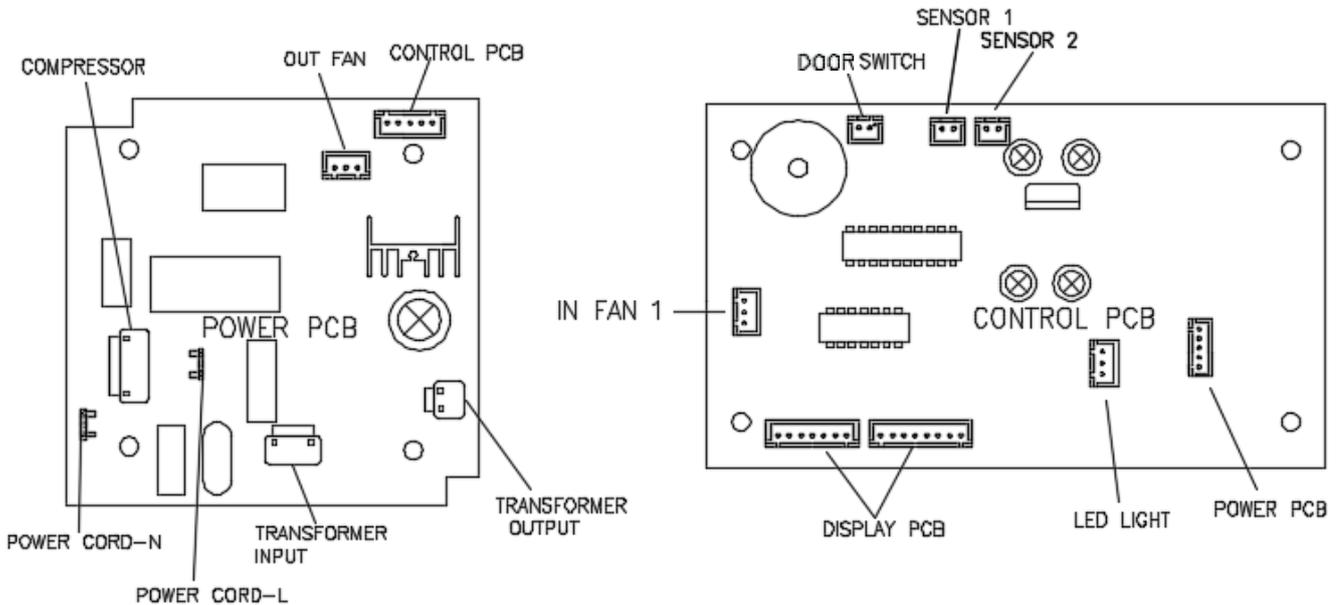


5. DESCRIPTION OF PCB

Models: BR7001SS, BR7001SSOD, BR7001BL.

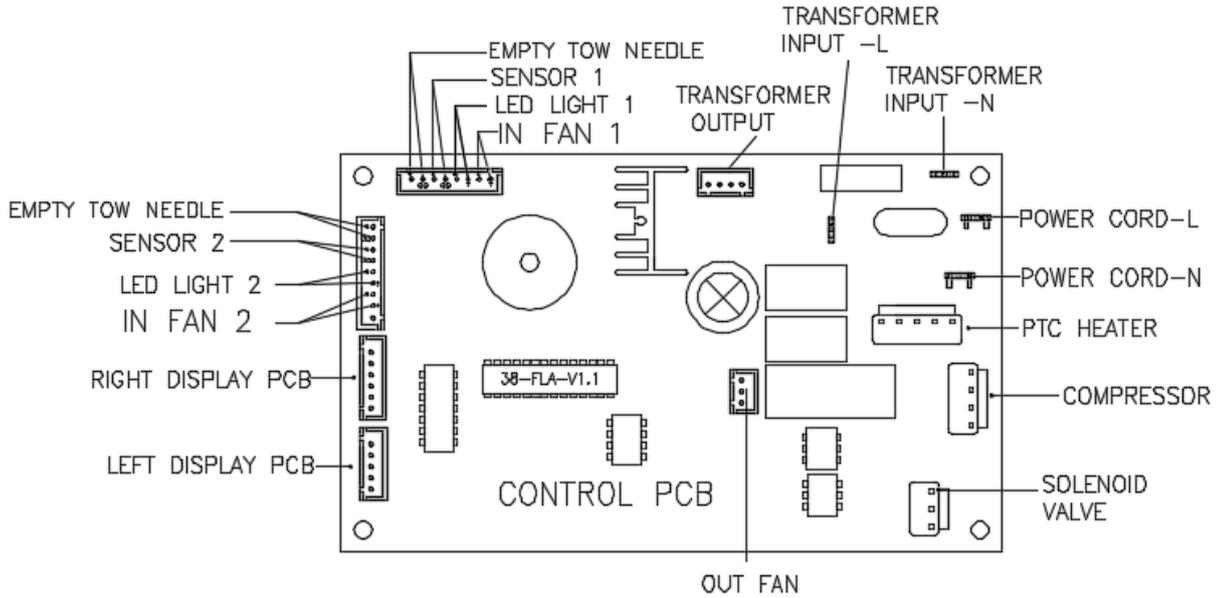


Models: CBR1501SLD, CBR1501SSOD

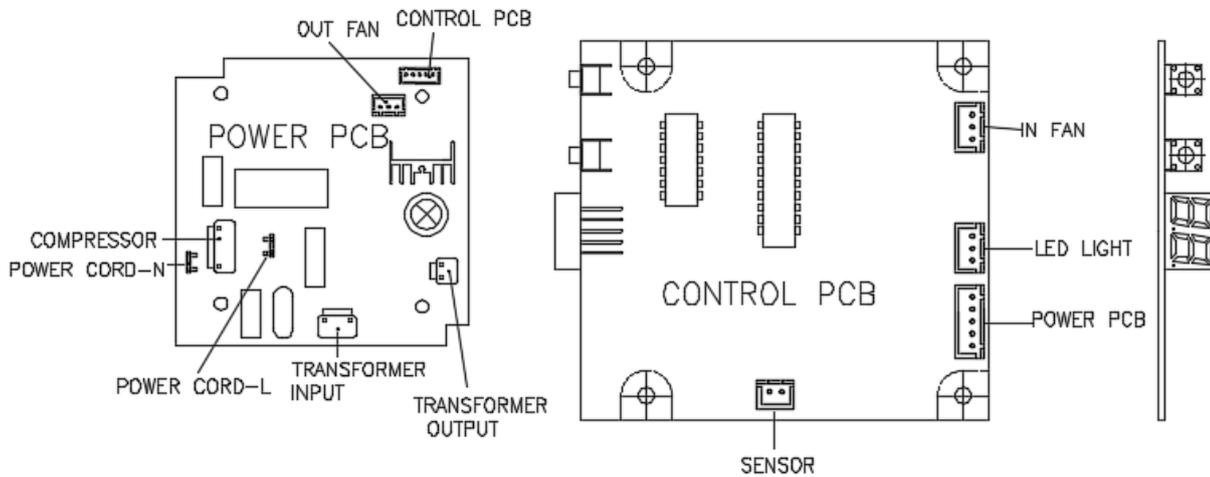


5. DESCRIPTION OF PCB

Models: CWR5631FD,CWB2886FD

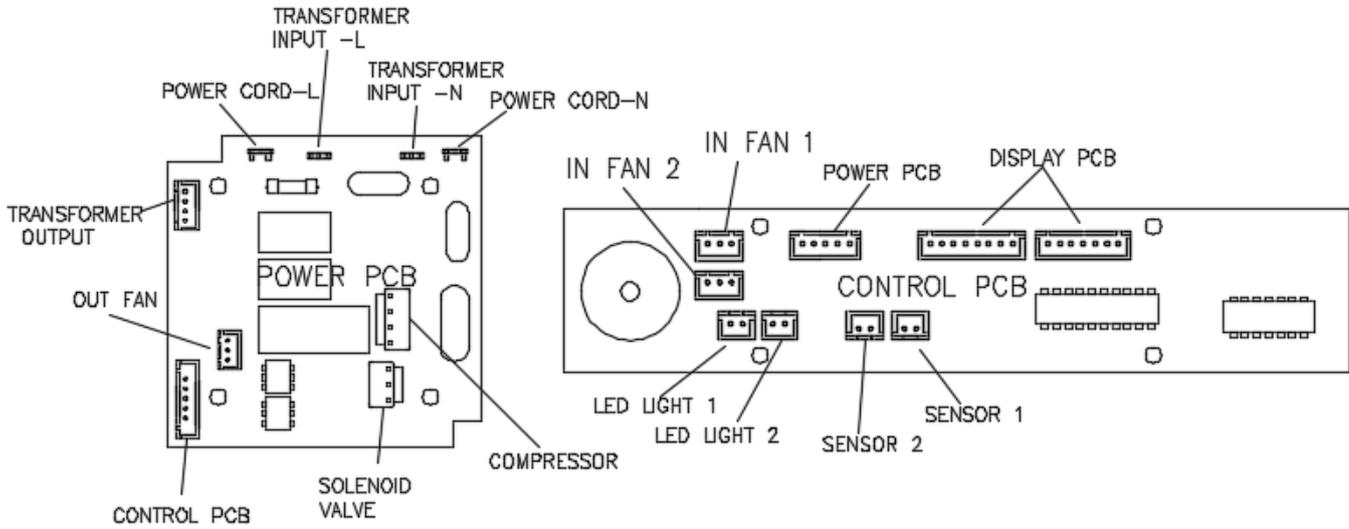


Models: CWR70SZ



5. DESCRIPTION OF PCB

Models: CWR361FD



DATE	REVISION NOTES:
9/21/2017	Initial Document
10/16/2017	Minor text and title edit
10/27/2017	Minor text edits
12/19/2017	Formatting edits