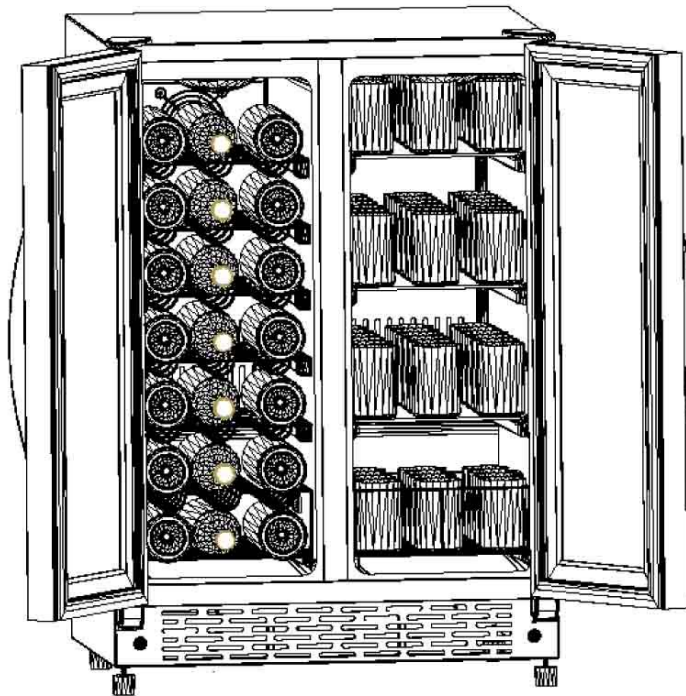

WINE CHILLER

Model Number: **WBV21DZ**

SERVICE MANUAL



CAUTION

Before servicing, make sure to unplug the appliance.

Replace all part before operating the appliance.

Failure to do so could result in death, electrical shock or personal injury.

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1. SPECIFICATIONS

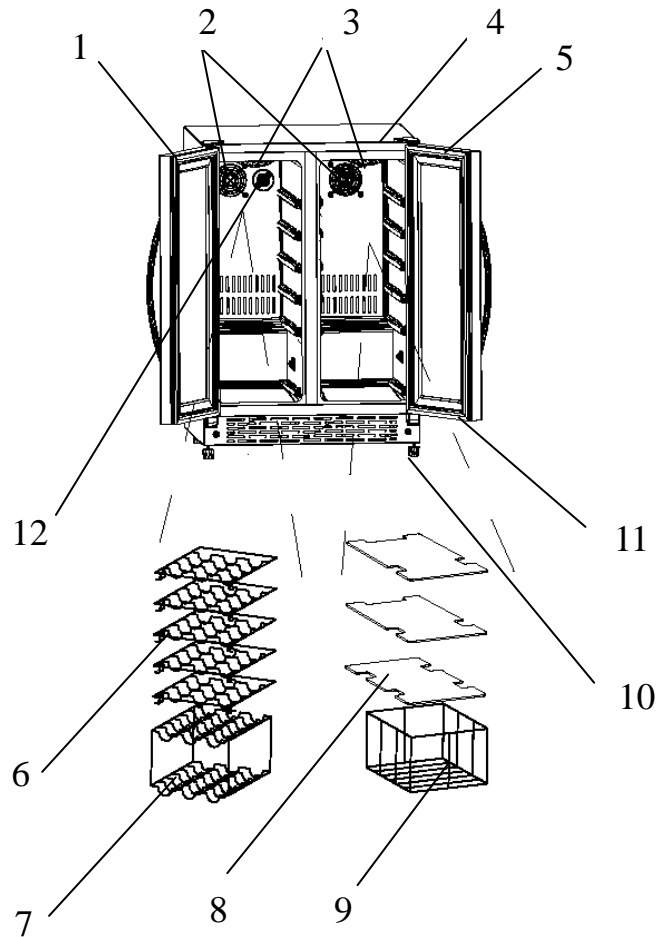
1.1 WBV21DZ

Model No.		WBV21DZ
Type		BUILT-IN OR RECESSED OR FREE STANDING
Capacity		
No. of Wine Bottles		21
Capacity	Zone One - L	75
	Zone Two - L	75
	Zone Three - L	N.A
Performance & Features		
Ambient Temp. Range	°C	16 ~ 38
Setting Temp. Range	°C/°F	Left side 7 ~ 18 / 45 ~ 65 Right side 1 ~ 7 / 34 ~ 43
Power Source	V/Hz	115/60
Rated Input	W	170
Rated Current	A	2.2
Noise Level	dB(A)	Less than 45
Defrost Type		Automatic
Temp. Control		Electronic
Blowing Agent		Cyclopentane
Refrigerating System		
Cooling System		Wind cooling
Compressor	Model No.	AE1350Y HYE55Y42
	Type	Hermetic
	LRA	13.1
	RLA	2.0
	Overload Protector	B60-125
	PTC Starter	QP2-22/
	Oil	/
Condenser Fan Motor	Model No.	YJF610A-610-RX
	Rating	110-120V, 60Hz
Evaporator Fan Motor	Model No.	PL92B12H
	Rating	12 V, 0.2A
Expansion device		Capillary (Ø0.6 x 1800 mm)
Refrigerant / Charged Volume		R134a / 90g
Dimensions & Weights		
Net Dimensions	Width - mm	624
	Height - mm	856
	Depth - mm	595
Packing Dimensions	Width - mm	655
	Height - mm	906
	Depth - mm	705
Weight		
	Net / Gross - KGS	51/58

* Specifications are subject to change without prior notice.

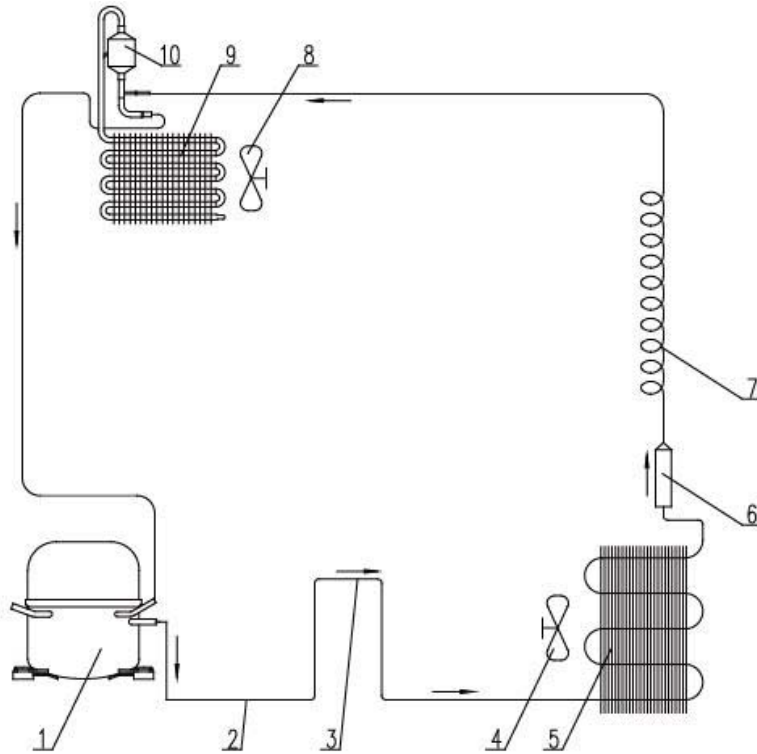
2. Name of Parts

2.1 WBV21DZ



1. WINE CHILLER TEMPERATURE CONTROL PANEL
2. INTERIOR FAN
3. INTERIOR LIGHT
4. CABINET
5. BEVERAGE CENTER TEMPERATURE CONTROL PANEL
6. WINE BOTTLE SHELVES
7. WINE BOTTLE STORAGE RACK / BASKET
8. BEVERAGE SHELVES
9. STORAGE BASKET
10. LEVELING LEGS
11. LOCK
12. CHARCOAL FILTER

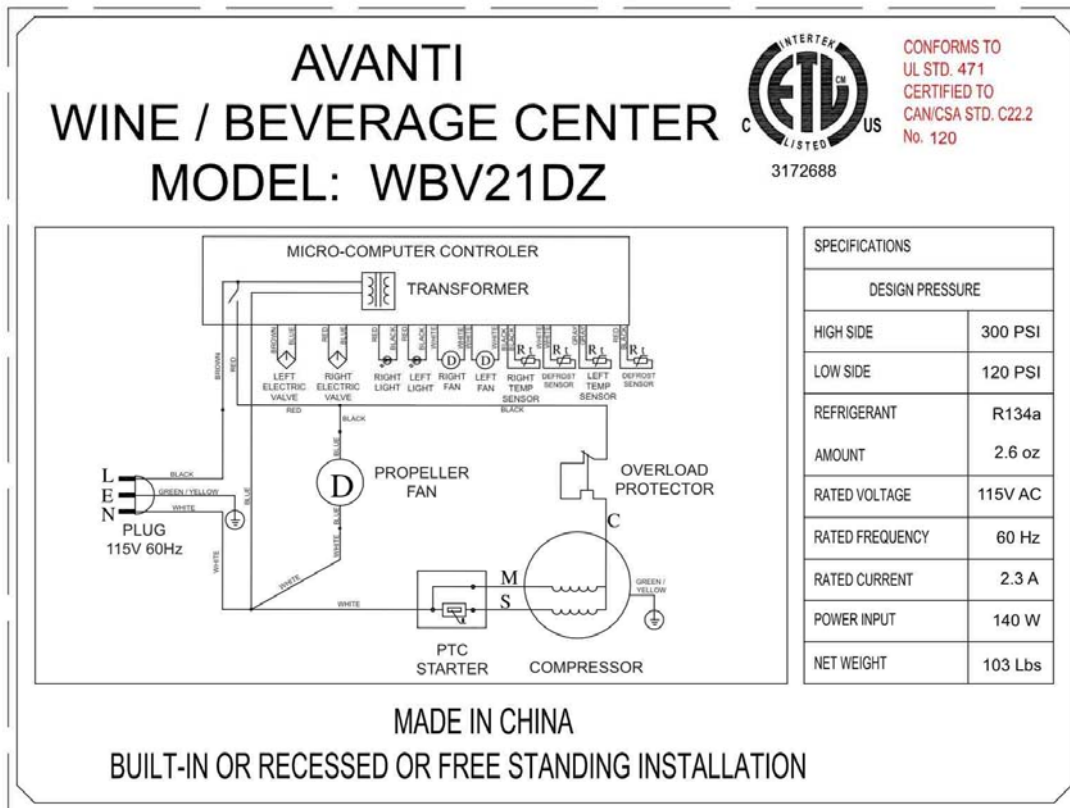
3. REFRIGERANT CYCLE DIAGRAM



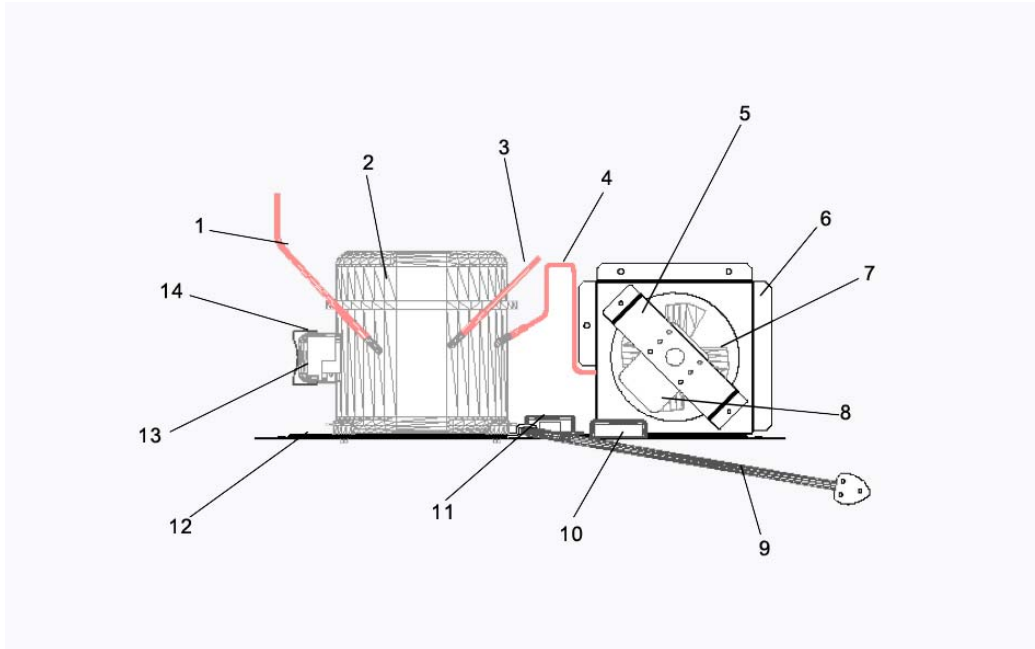
1. Compressor
2. Hot Pipe
3. Condenser (Internal)
4. Condenser Fan
5. Condenser (External)
6. Dry Filter
7. Capillary
8. Evaporator Fan
9. Evaporator
10. Accumulator

4. WIRING DIAGRAM

4.1 WBV21DZ



5. COMPRESSOR VIEW AND PARTS LIST



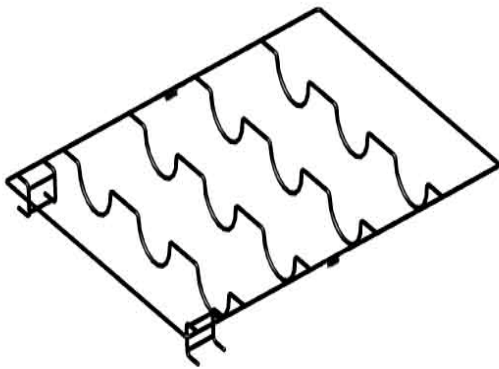
- 1. Suction Pipe
- 2. Compressor
- 3. Process Pipe
- Outlet Pipe of Condenser
- 4. Discharge Pipe
- 5. Condenser Fan Supporter
- 6. Condenser Fan Cover
- 7. Condenser Fan
- 8. Condenser Fan Motor
- 9. Power Supply Cord with Plug
- 10. Junction Box
- 11. Electrical Box of Compressor
- 12. Compressor Base
- 13. Compressor Junction Box
- 14. Compressor Junction Box supporter

6. HOW TO REMOVE THE SHELVES

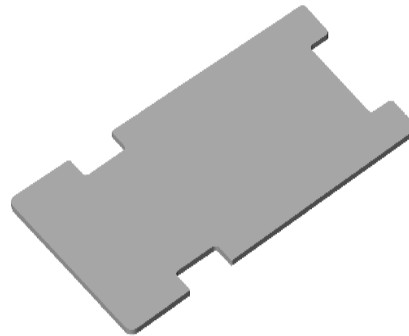
The appliance is equipped with the wired shelves and beverage shelves. You can move the shelves out and in smoothly.

- To prevent damaging the door gasket, make sure to have the door all the way opened when pulling the bottom shelf out of the rail compartment.
- For easy access to the storage content, you must pull the shelf approximately 1/2 out of the rail compartment, however this unit was designed with a plastic post on each sides of the shelf track to prevent bottles from falling.
- When removing the shelf out of the inner rail, make sure to remove all items first. Then move the shelf to the position where the notch of shelf is exactly under the plastic post and lift the shelf. In order to replace the shelf, repeat steps described above in reverse.

Wire shelf



Beverage shelf (glass shelf)

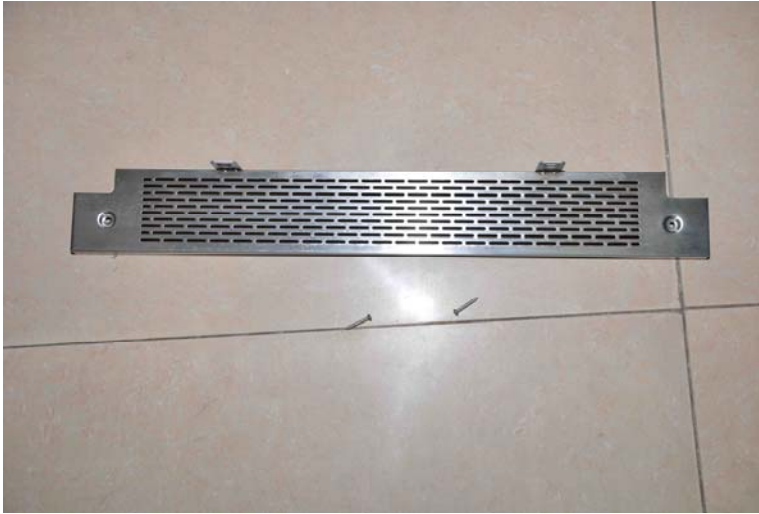


7 REPLACING THE BOTTOM GRILLE

1. Remove two screws that are used to fix the bottom grille with the cabinet.



-
1. The bottom grille is shown as below.



8. HOW TO REMOVE THE DOOR

Note: All parts removed must be saved to do the reinstatement of door.

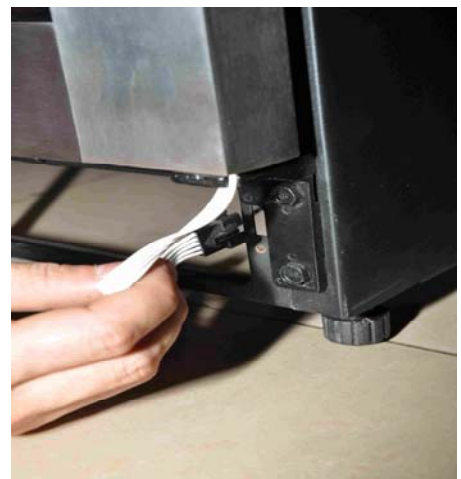
1. Remove the bottom grille according to "Replacing the Bottom Grille".
2. Pull out and remove the lower hinge cover.



-
3. Disconnect the communication cable between the door and the cabinet.



4. Pull out the wire from the cabinet.



5. Remove the upper hinge cover from the top right of the door



6. Remove the three screws with the upper hinge and remove the upper hinge.



7. Lift up the door slightly and remove the wire from the lower hinge.

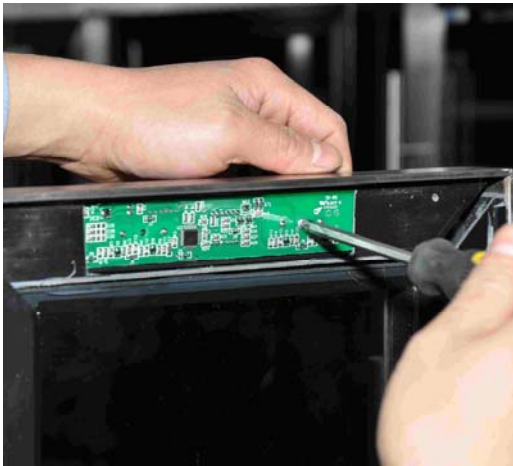


9.RELACING THE CONTROL PANEL

1. Remove the cover behind the control panel with a screw driver.



2. Remove two screws that are used to fix the PCB board.



3. Remove PCB board and disconnect the cables.



10. REPLACING THE MAIN PCB.

1. Lay down the cabinet to the left side and place it on a padded surface to prevent scratching it. The main PCB is located at the bottom of the cabinet.

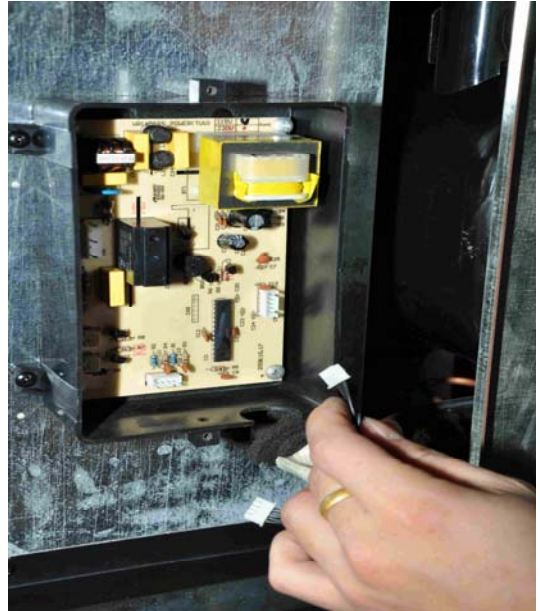
Note: Never lay down the cabinet to the right side as it may damage the compressor.



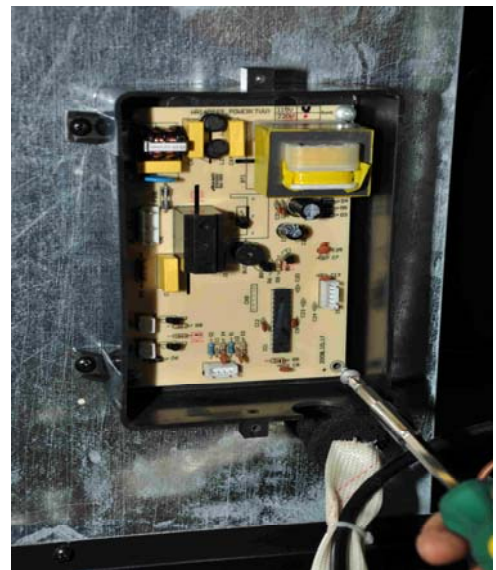
2. Remove the main PCB box cover



-
3. Disconnect all terminals on the main control PCB.



4. Remove four screws that are used to fix the main control PCB. Now you can replace the main control PCB.



11. REPLACING THE FAN MOTOR AND EVAPORATOR

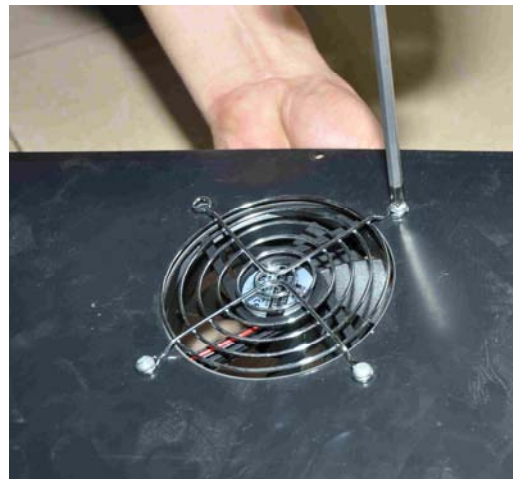
1. Remove all the shelves according to “How to remove the shelves”.
2. Remove the screws that are used to fix the air duct with the cabinet.



2. Disconnect the wires then you can replace the evaporator fan motor.



-
4. Remove screws between air dust and the evaporator fan motor, then you can replace the fan motor.



EVAPORATOR PICTURE



12. REPLACING THE LED LIGHT ASSEMBLY

1. Remove the top two shelves according to “How to remove the shelves”.
2. Turn the light cover counter-clockwisely to remove.



-
3. Remove the two screws that are used to fix light holder.



4. Disconnect the cables then you can replace the LED light assembly.



13. REPLACING THE CONDENSER FAN MOTOR, THE COMPRESSOR PTC STARTER AND OVERLOAD PROTECTOR

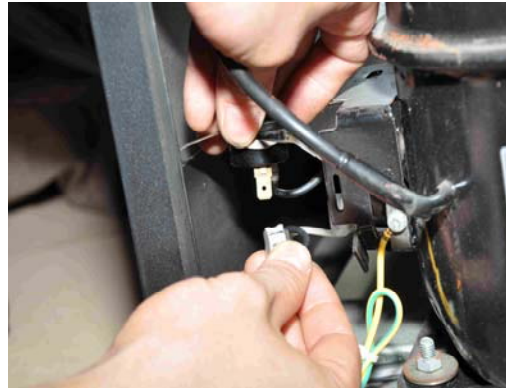
1. Remove the seven screws that are used to fix the condenser fan motor with the compressor base.



2. Remove the clamp that is used to fix the junction box of compressor. Then dismantle the junction box cover.



-
3. Disconnect the condenser fan motor cable with compressor. Now you can replace the condenser fan motor.



4. Disconnect the compressor **PTC** starter and overload protector cable with compressor. Now you can replace the compressor **PTC** starter and overload protector.



*****Starter and protector pictures

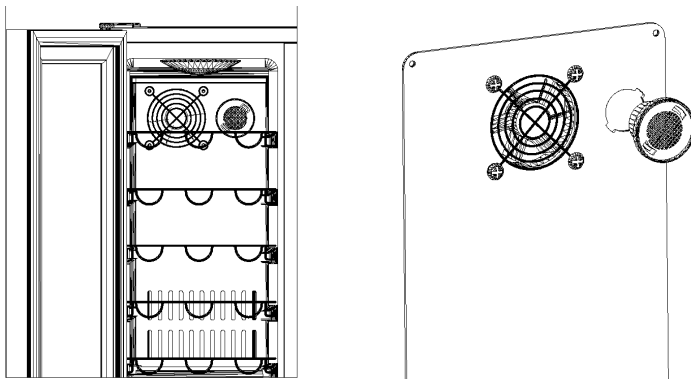
14. REPLACING THE DOOR GASKET

1. Open the door and detach the old door gasket from the doorframe by pulling off the gasket.



15. REPLACING CHARCOAL FILTRATION

1. Remove the bottles of wine stored on the two(2) shelves in front of the filter.
2. Remove the shelves and set aside to be replaced once you have changed the filter.
3. Hold the filter and turn it counter-clockwisely and then pull it out.
4. Remove the existing filter and replace with a new one.
5. Put the new filter into the hole and then turn the filter clockwise.



16. TROUBLESHOOTING

16.1 Troubleshooting Guide

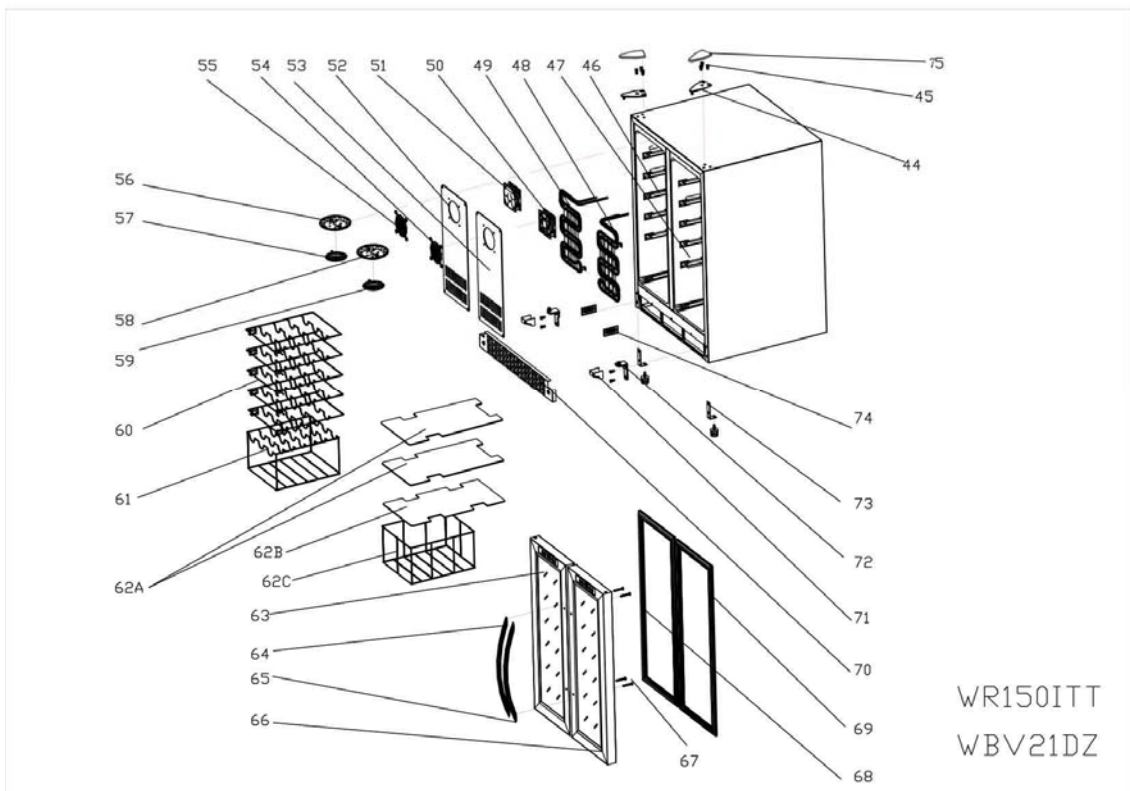
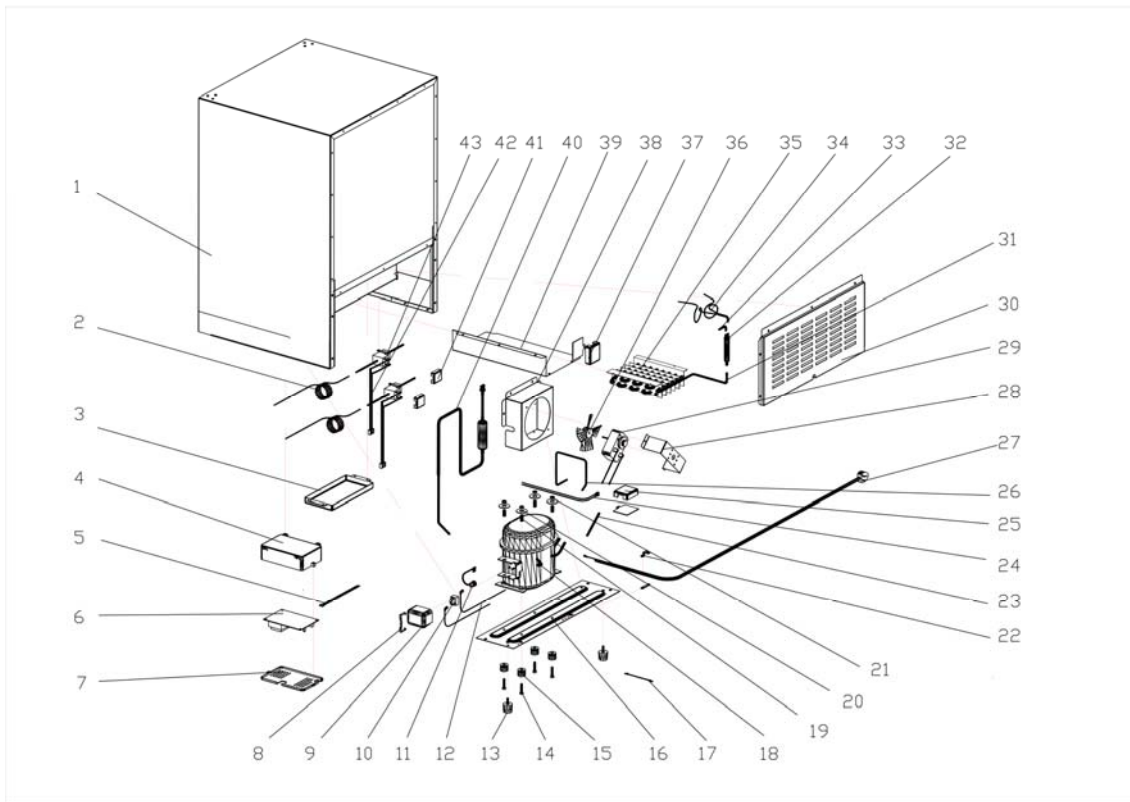
PROBLEM	POSSIBLE CAUSE
Wine Chiller does not operate.	Not plugged in. The appliance is turned off. The circuit breaker tripped or a blown fuse.
Wine Chiller is not cold enough.	Check the temperature control setting. External environment may require a higher setting. The door is opened too often. The 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 wine chiller. 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".
Vibrations.	Check to assure that the Wine Chiller is level.
The Wine Chiller 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 Wine Chiller. Contraction and expansion of the inside walls may cause popping and crackling noises. The Wine Chiller is not level.
The door will not close properly.	The Wine Chiller is not level. The door was reversed and not properly installed. The gasket is dirty. The shelves are out of position.
Display "E1" or "E2".	The air sensor is failed. This sensor is connected to the main control PCB in white color wires.

16.2 Trouble Check for Refrigerant System

No.	Symptom	Cause	Action
1	<ul style="list-style-type: none">• The evaporator cools down and warms again.• The condenser warms in proportion as the evaporator.• The process repeats again.	Moisture in the refrigerant causes the malfunction.	Replace the refrigerant.
2	<ul style="list-style-type: none">• The condenser is cold.• The evaporator is not cold.• The temperature of compressor is high.	Foreign substances hamper the cooling system.	Locate the disturbed section and make Repairs.
3	<ul style="list-style-type: none">• No difference in temperature between suction pipe and discharge pipe of compressor.• The temperature of compressor is kept at room temperature level.• The evaporator does not cool down.	Failed compressor.	Replace the compressor.
4	<ul style="list-style-type: none">• Frost on the suction pipe.• The condenser is overheated.• The refrigeration of evaporator is not efficient.	Overcharge.	<ul style="list-style-type: none">• Discharge the refrigerant.• Charge refrigerant to the designated volume.• Check for gas leak.
5	<ul style="list-style-type: none">• The condenser is cold.• The compressor surface temperature is high.• The refrigeration is not cold enough.	Short of refrigerant.	<ul style="list-style-type: none">• Discharge the refrigerant.• Charge refrigerant to the designated volume.• Check for gas leak.

17. EXPLOSION VIEWS & PARTS LISTS

17.1 WBV21DZ EXPLODED VIEW



17.2 WBV21DZ PARTS LIST

No	Part name	Qty
1	Cabinet	1
2	Capillary	1
3	Connect water dish	1
4	Box of electronic plate	1
5	Power importation/signal output	1
	Electric wire	
6	Electronic plate	1
7	Box cover of electronic plate	1
8	Connect line cover supporter	1
9	Connect line cover	1
10	PTC starter	1
11	Overload protector	1
12	Compressor conjunction electric wire	4
13	Leveling leg	4
14	M6 Stud bolt	4
15	Compressor leg	4
16	Compressor base	1
17	Earth wire	1
18	Compressor	1
19	Compressor leg supporter	4
20	Washer	4
21	M6 nut	4
22	Wire fixation	1
23	Low pressure vacuum tube	1
24	Motor fan conjunction electric wire	1
25	Connect line box of Motor fan	1
26	Suction pipe	1
27	Power supply plug wire	1
28	Motor fan fixation	1
29	Motor fan	1
30	Backboard	1
31	Condenser liquid tube	1
32	Dry filter	1
33	High pressure vacuum tube	1
34	Shunt resistor	1
35	Condenser	1
36	Fan	1
37	Main connect line box	1
38	Motor fan supporter	1
39	Cover of condenser	1

40	Accumulator	1
41	Top hinge	1
42	M6 nut	3
43	Liner	1
44	M6 bolt	1
45	DC fan	1
46	Shelf holder	5
47	Shelf holder	5
48	Evaporator	1
49	Evaporator	1
50	DC fan	1
51	DC fan	1
52	Black plank	1
53	Black plank	1
54	DC fan cover	2
55	DC fan cover	1
56	LED light cover	1
57	LED light broad	1
58	LED light cover	1
59	LED light broad	2
60	Wine bottle shelves	3
61	Wine bottle storage rack (Wine Storage)	1
62A	Beverage Shelf (Beverage Storage)	2
62B	Beverage Shelf (Beverage Storage)	1
62C	Storage Basket (Beverage Storage)	1
63	Left door	1
64	The left door handle	1
65	The right door handle	1
66	Right door	1
67	Handle setting bolt	1
68	Left door gasket	1
69	Right door gasket	1
70	Bottom grille	1
71	Lower hinge cover	2
72	Lower hinge	2
73	Lower hinge supporter	2
74	Sensor-temperature detector cover	2
75	Upper hinge cover	2