

Haier

CAUTION

READ THIS MANUAL CAREFULLY TO
DIAGNOSE TROUBLE CORRECTLY
BEFORE OFFERING SERVICE .

Wine Cooler

Service Manual



Model:JC-160GDD

●Features

- Optimized for Preservation of Wine Flavors.
- Dual compartment flex-zone wine cellar.
- 46 bottle capacity with dual storage compartment
- Curved glass door with blue gray UV tint & metal trim
- Wood storage shelves
- Adjustable dual electronic control flex- zone

Haier Group

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Safety Precautions


Read all of the instructions before using this appliance. When using this appliance, always exercise basic safety precautions, including the following:

1. Use this appliance only for its intended purpose as described in this use and care guide.
2. This wine cellar must be properly installed in accordance with the instructions in installation section before it is used, See grounding instructions in the installation section.
3. Never unplug your wine cellar by pulling on the power cord, Always grasp the plug firmly and pull straight out from the outlet.
4. Repair or replace immediately, all electric service cords that have become frayed or otherwise damaged, Do not use a cord that shows cracks or abrasion damage along its length, the plug or the connector end.
5. Unplug your wine cellar before cleaning or before making any repairs,
Note: If for any reason this product requires service, we strongly recommend that a certified technician performs the service.
6. If your old wine cellar is not being used, we recommend that you remove the door and leave the shelves in place, This will reduce the possibility of danger to children.

SAFETY PRECAUTIONS

- 7. This wine cellar should not be recessed or built-in an enclosed cabinet ,It is designed for freestanding installation only.**
- 8. Do not operate your wine cellar in the presence of explosive fumes.**
- 9. Do not store foods in wine cellar as interior temperature may not be cool enough to prevent spoilage.**

Specifications

JC-160GDD product specification	
Model Number	JC-160GDD
Reference Model	JC-160GD-D
PHOTO	
Features	
Capacity (Bottles)	46
Capacity (cubic feet)	5.6
Temperature Control Type	Dual Electronic - Flexible Zones
Auto Setting Red & White Wines	No
Humidity Control	No
Led Display	Yes
Temp Level Display	Yes
Humidity Level Display	No
On/Off Indicator White Wine	No
On/Off Indicator Red Wine	No
On/Off Indicator Temp Set Lock	No
On/Off Indicator Interior Light	No
Interior light	Auto/Manual
Interior fan	One fan per zone
Door Type	Full View Glass Curved
Tinted Glass	UV - Grey Blue
Reversible Door	No
Automatic Door Stop	Yes
Storage Racks QTY	7
Bottles per Rack	5 bottles per wood flat rack and 3bottles per small wood rack
Storage Racks Type	Flat wood rack and small wood rack
Storage Racks Color	wood trim color same as JC110GD
Handle Type	Yes
Door trim color	#62
Cabinet color	Black
Worktop / Color	Matte Black
Interior Liner Color	Black
Installation Type	Free Standing
Leveling Legs	Yes
Castor/roller	No
Storage Compartments	Two
Performance Data	
Electrical Requirements (v/hz)	220-240V/50Hz
Running Amps	0.6A
Start Up Amps	10.0 (max)
Annual Energy Consumption (Kwh/Yr)	273.75
Temperature Setting Range	6-18° C

Min/Max Ambient Temperature	-5-50° C
Noise Level	≤42dB
Listing Agencies	CE/GS
Technical Details	
Cabinet Insulation	
Door Insulation	Double Pane Tempered Glass
Cabinet Liner	HIPS
Type Of Refrigerant Used	R600a
Flat Back	No
Ventilation (Rear/Side/Front)	Rear
Number Of Lights	1
Light Bulb Wattage	20W
Type Of Light Bulb	LED
Compressor Model	ZBC1112CY
Dimensions (Inches)	
Height	50-13/32
Width	19-15/16
Depth w/o Handle	22-27/32
Depth including Handle	22-27/32
Unit Weight (approx. lbs)	127.8
Carton Dimensions (in.) & Shipping Information	
Carton Height	50-25/32
Carton Width	22-3/8
Carton Depth	24
Shipping weight (lbs) Approx.	138.86
Container Quantity	156

PARTS IDENTIFICATION



- | | |
|--|-------------------------------------|
| 1. Red Wine Indicator | 7. Temperature Adjustment (up/down) |
| 2. White Wine Indicator | 8. Full Length Recessed Door Handle |
| 3. LED Temperature Display - Upper Compartment | 9. Auto Light Switch |
| 4. LED Temperature Display - Lower Compartment | 10. Adjustable Leveling Legs |
| 5. Temperature Set Button | 11. Interior Shelves |
| 6. Interior Light Button | 12. Tinted Double Panel Glass Door |

Features

1. Flex- temperature Zone

This offers wine lovers a whole new level of storage flexibility.

Flexi-temp allows the top and bottom compartments to each be set at a temperature between 6-18° C, independent of each other. Allowing you to store wine according to your way.

2. Optimized for Preservation of Wine Flavors

The wine cellar can be set to any temperature you desire to accommodate your wine storage requirements.

3. Temperature adjustable

The wine cellar can be set to any temperature you desire to accommodate your wine storage requirements. Temperature range: 6-18° C

4. Interior lights

To complement the look of your wine collection, a soft light has been built into the wine cellar. Simply push the "Light" button and the light comes on, push again for off. For maximum energy efficiency, leave light off when not viewing your collection.

When door is open the light will go on. Upon closing the door, the light will go off.

5. Interior fans

For making the temperature more even, one fan is assembled for each compartment. When you close the door, the two fans start running, and when you

open the door ,the two fans stop running.

6.Shelving.

The shelves are designed for appearance and easy cleaning, Larger bottles or magnums can be more easily accommodated at the cross shelves at the bottom of the cellar.

Net Dimension



Model	JC-160GDD
Unit Dimension(W*D*H)	506*595*1280

INSTALLATION

Unpacking Your Wine Cellar

1.Remove all packaging material, This includes the foam base and all adhesive tape holding the wine cellar accessories inside and outside ,compressor from shipping damage due to vibration and shock.

2.Inspect and remove any remains of packing , tape or printed materials before powering on the wine cellar.

Leveling Your Wine Cellar

Your wine cellar has four leveling legs which are located in the front and rear corners of your wine cellar . After properly placing your wine cellar in its final position ,you can level your wine cellar.

Leveling cellar or by turning them clockwise to lower your wine cellar , The wine cellar door will close easier when the leveling legs are extended.

Proper Air Circulation

- To assure your wine cellar working at the maximum efficiency it was designed for,you should install it in a location where there is proper air circulation ,plumbing and electrical connections.

- The following are recommended clearances around the wine cellar:

Sides.....2”(50mm)

Top2”(50mm)

Back.....2”(50mm)

- Do not over fill your wine cellar for proper internal air circulation.

Electrical Requirement

- Make sure there is a suitable power Outlet(220-240V) with proper grounding to power the wine cellar.
- Avoid the use of three plug adapters or cutting off the third grounding in order to accommodate a two plug outlet ,This is a dangerous practice since it provides no effective grounding for the wine cellar and may result in shock hazard.

Install Limitations

- Do not install your wine cellar in any location not properly insulated or heated e.g. garage etc, Your wine cellar was not designed to operate in temperature settings below 13° Centigrade.
- Select a suitable location for the wine cellar on a hard even surface away from direct sunlight or heat source e.g. radiators, baseboard heaters, cooking appliances etc, Any floor unevenness should be corrected with the leveling legs located on the front and rear bottom corners of the wine cellar.
- Your wine cellar is designed for free-standing installation only, It is not designed for built-in application.

1. Door

- ① Remove the top cover: remove the two screws behind the top cover;



- ② Remove the screws fixed the up hinge and lift the door.



2. Fans

There are two fans in the wine cellar ,each fan is assembled in the same structure.

- ① Take out all the shelves from the compartment, and then loosen the screws that fixed the fan block .



- ② Take out the fan block from the compartment and you can see the fan which is assembled in the block



- ③ Loosen the screws which connect the fan and the block, and you can take out the single fan from the fan block slowly.



3. Light and the display panel

- ① Firstly, you should take out the fan block from the down compartment according to the method above.
- ② The middle partition is fixed on the cabinet by two screws, so, you should loosen the screws and take off the middle partition from the wine cellar.



The middle partition

- ③ Make the up lid , foam , low lid separated from the middle partition



- ④ Disassemble the lamp shade from the low lid, and loosen the screws fixed the LED light.



- ⑤ Loosen the screws which fixed the display panel.



4. Main control panel

① Disassemble the enclosure and then disassemble the main control panel box



DISASSEMBLY

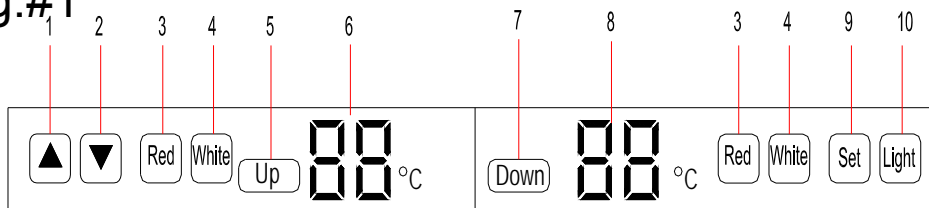
② The main control panel is fixed at the panel box by one screw



CONTROL AND DISPLAY SYSTEM

1. Control and display panel

Fig.#1



- 1. Temperature Adjustment (up)
- 2. Temperature Adjustment (down)
- 3. Red Wine Indicator
- 4. White Wine Indicator
- 5. Upper Compartment Indicator
- 6. LED Temperature Display - Upper Compartment
- 7. Lower Compartment Indicator
- 8. LED Temperature Display - Lower Compartment
- 9. Temperature Set Button
- 10. Interior Light Button

Once you have plugged the unit into an electrical outlet, let the unit run for at least 30 minutes to acclimate itself before making any adjustments, during this time, depending on the internal temperature, the red or white wine light will stay on for the upper compartment and red or white wine light will stay on for the lower

2. Function Schedule

Function Description	on
white	Press the "white wine" button
red	Press the "red wine" button
light	Press the "light" button

The illustration of the function in the subject of "Temperature Adjustments" of "Installation and Accessory Parts".

3. Function adjustment and control principles

Temperature Adjustments:

See fig.#1

CONTROL AND DISPLAY SYSTEM

- The wine cellar is preset in the factory to automatically accommodate temperature requirements for red or white wines.
- The wine cellar can be set to any temperature between 6° C and 18 ° C in either of the compartments to accommodate your wine storage requirements. To set the temperature, hold the “set” button for about 3 seconds, you will notice the temperature display blinking for the upper compartment. Press the up or down arrow button to increase or decrease the temperature setting. Once the desired temperature is attained, press the “Set” button. Doing this, the electronic control panel will memorize the setting. The temperature display will revert back to display the inside temperature. It may take some time to reach the set temperature.

Light control:

Normally, when you open the door, the LED light is on and when you close the door, the LED light is off. If you want to keep the LED light on after you close the door, you can open the door and press the “light” button, and you can notice that the LED light is on after you closed the door. Open the door and Press the “light” button again, the LED light is on but it is closed after you close the door.

4. Failure code display

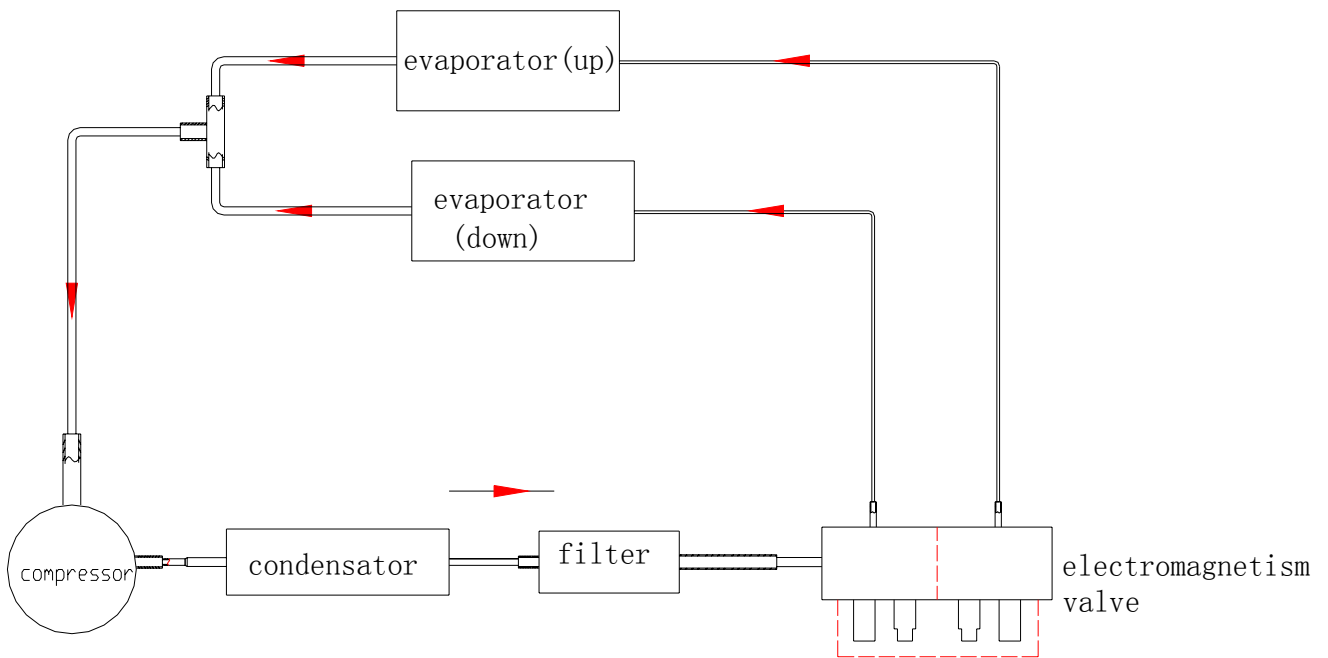
Some times the display works out of orders, reading the following contention may give you some help.

Failure code display

Failure code display	Description and reason	Solutions
LL	“LL”blinks with buzzing; that means the related compartment temperature is lower than -5°C	Stop the wine cellar running until the temperature recover. Don't use wine cellar in lower temperature environment .Check the sensor of related chamber and it's connecting status.
HH	“HH”blinks with buzzing; that means the related compartment temperature is higher than 50°C	Don't use the wine cellar in high environment. Check the sensor of related chamber and it's connecting status, check machine cooling
EE	“EE”blinks with buzzing, it is the abbreviation of “ERROR, ERROR”, means something is wrong with the sensors, usually the sensor circuit is broken. Compressor enter into protection mode (stop cooling).	Check the sensor if connects well with the main control panel, or find the location of the sensor broken circuit and repair it.
F1	Continuous compressor running time is more than 3 hours, and any sensor felt the temperature change of each chamber is within 1 °C. Compressor enter into protection mode (stop	Check if each sensor and it's connecting status is failure, or find the location of the sensor broken circuit and repair it.

Buzzing sound you may hear when “LL” or “HH” or “EE” or "F1" appears on the display panel, to remove the buzzing sound ,you can press the ”set” button.

1.Refrigeration Flow System Chat



Explanation: The electromagnetic valve includes two single valves. When the two compartment temperature does not reach the set temperature, the two valves are keeping open; when one compartment temperature reaches the set temperature, the related valve is closed and the other one keeping open. Both the two compartments temperature reaches each set temperature, the valves don't close but the compressor stop working.

REFRIGERATION PRINCIPLE

2. Compressor's starting and stopping control

Form: The temperature display & the compressor's and valves' working status

Set °C Actual °C	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Working	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Not working	3	4	4	5	6	7	8	9	10	11	12	13	14	15	16
Temperature display	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

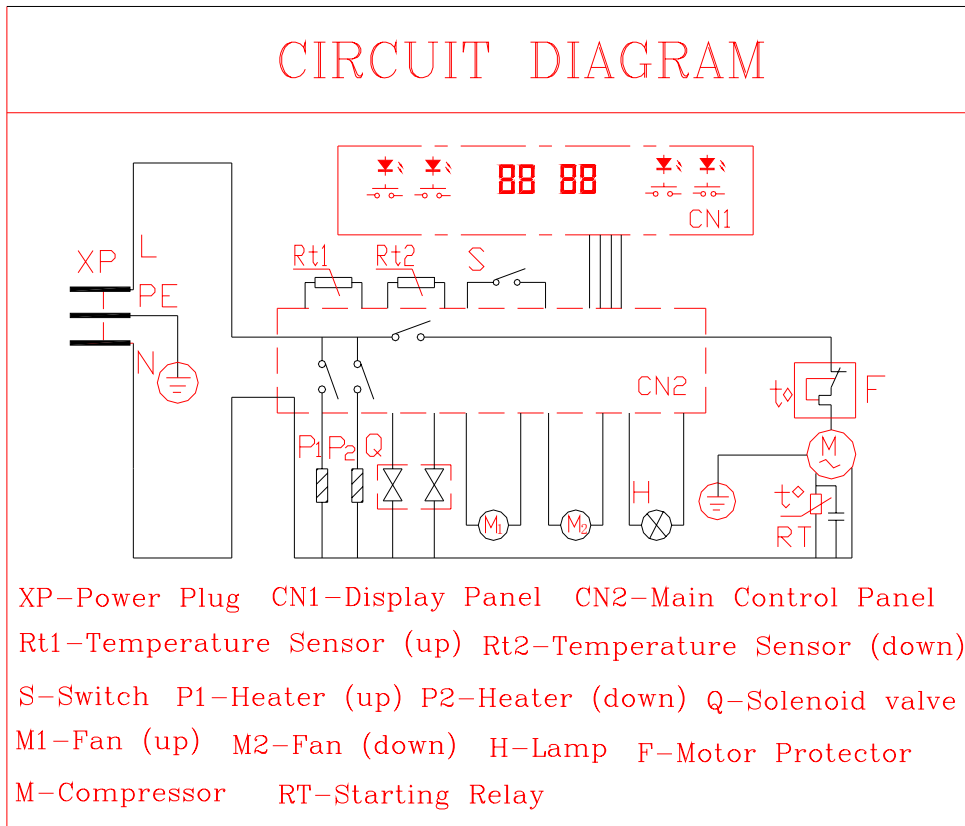
3. The Heaters' working control

Heaters are designed in the wine cellar in order to make the compartment temperature reach the temperature you set when the compartment temperature is lower than what you set.

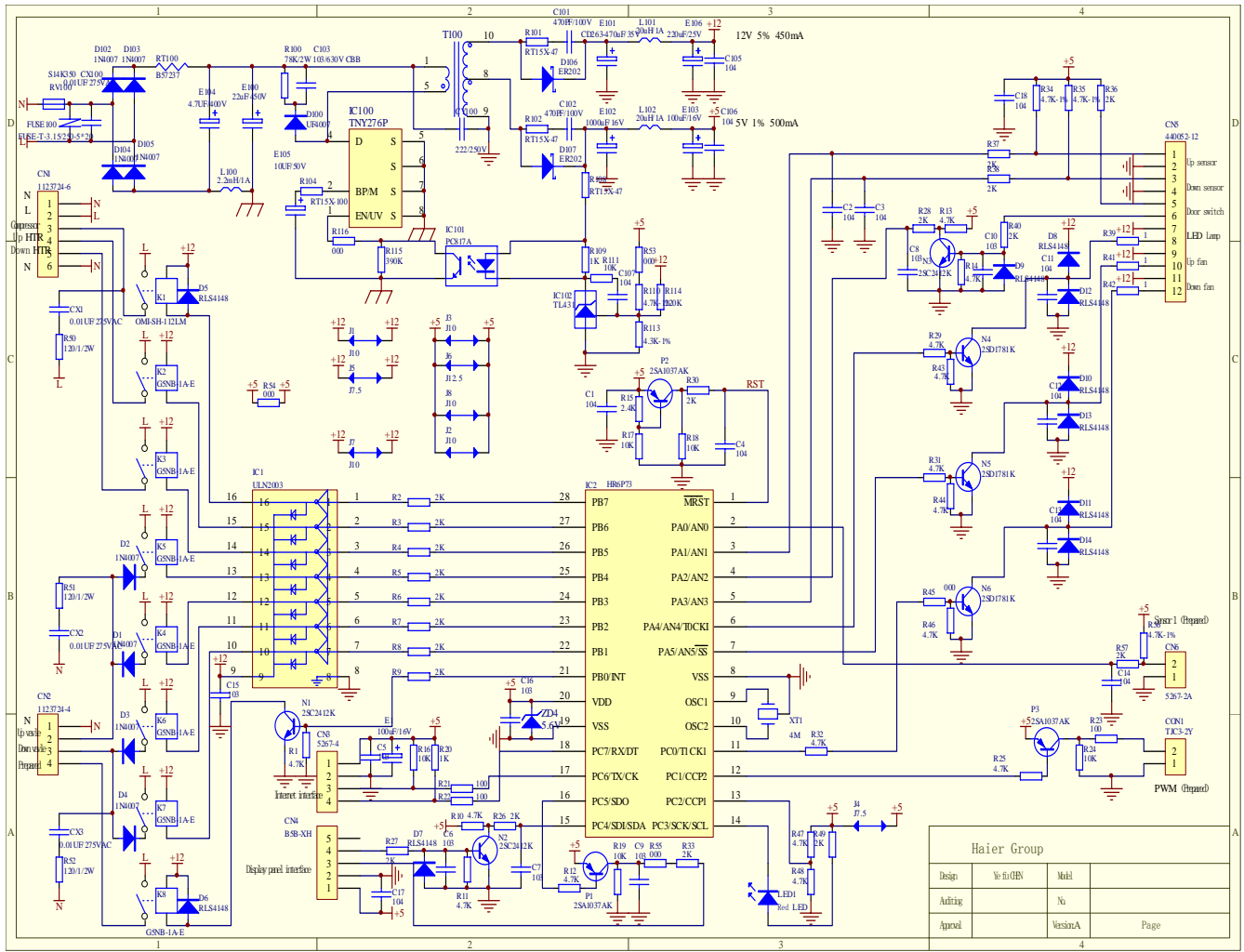
set Temperature °C	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Heaters' working temperature	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Heaters' not working temperature	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Temperature display	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Circuit Diagram

JC-110/160GDD



Display diagram



Cleaning and Maintenance

Warning: To avoid electric shock always unplug your wine cellar before cleaning, Ignoring this warning may result in death or injury.

Caution: Before using cleaning products, always read and follow manufacture's instructions and warnings to avoid personal injury or product damage.

General:

- Prepare a cleaning solution of 3-4 tablespoons of baking soda mixed with warm water, Use sponge or soft cloth, dampened with the cleaning solution, to wipe down your wine cellar.
- Rinse with clean warm water and dry with a soft cloth.
- Do not use harsh chemicals, abrasives, ammonia, chlorine bleach, concentrated detergent solvents or metal scouring pads ,SOME of these chemical may dissolve , damage and/or discolor your wine cellar.

Door Gaskets:

- Clean door gaskets every three months according to general instructions, Gaskets must be kept clean and pliable to assure a proper seal,
- Petroleum jelly applied lightly on the hinge side of gaskets will keep the gasket pliable and assure a good seal.

Power Interruptions

- Occasionally there may be power interruptions due to thunderstorms or other

causes, Remove the power cord from AC outlet when a power outage occurs, When power has been restored , plug power cord to AC outlet again.

Vacation and Moving Care

- For long vacations or absences ,unplug the wine cellar and clean the wine cellar and door gaskets according to “General cleaning “ section, Prop doors open, so air can circulate inside. When moving always move the wine cellar vertically, Do not move with the unit lying down, Possible damage to the sealed system could occur.

Normal Operating Sounds You May Hear

- Boiling water, gurgling sounds or slight vibrations that are the result of the refrigerant circulating through the cooling coils.
- The thermostat control will click when it cycles on and off.

Wine Cellar Does Not Operate

- Check if wine cellar is plugged in.
- Check if there is power at the ac outlet ,by checking the circuit breaker.

Wine appears too warm

- Frequent door openings.
- Allow time for recently added wine to reach desired temperature.
- Check gaskets for proper seal.
- Clean condenser coils.
- Adjust temperature control to colder setting.

Wine temperature is too cold.

- If temperature control setting is too cold, adjust to a warmer setting.

Wine cellar runs too frequently

- This may be normal to maintain constant temperature during high temperature and humid days.
- Doors may have been opened frequently or for an extended period of time .
- Clean condenser coils,
- Check gasket for proper seal.
- Check to see if doors are completely closed.

Moisture build up on interior or exterior of the wine cellar:

- This is normal during high humidity periods.
- Prolonged or frequent door openings.
- Check door gaskets for proper seal.

Wine Cellar door does not shut properly:

- Level the wine cellar.
- Check for blockages e.g. wine bottles, shelves.

Normal problems

Problems	Reasons	Removing methods
Compressor can not be started	<ol style="list-style-type: none"> 1. Fuse is broken 2. The contact of plug, socket, and cable is not good. Cable broken. 3. The voltage is too low, 10-15% less than rated voltage 4. The knob of temperature controller is at "rest" position. 5. The temperature controller is out of order. 6. Starting relay or thermal protection unit is out of order or broken. 7. Wire broken of motor starting coil or operation coil. 8. The compressor motor is burned or rotor and stator are blocked to dead. 9. There is leakage of high-pressure gas valve or the shaft is embraced to dead. 	<ol style="list-style-type: none"> 1. Check if there is short circuit and solve it, if not, change capable fuse 2. Check and connect tightly, or change. 3. Use till voltage rises to rated value or attach a stabilizer. 4. Rotate the knob to wanted position for suitable temperature. 5. Change the controller. 6. Change starting relay or thermal protection unit. 7. Measure using R×1 position of avometer, if there is wire broken, change compressor. 8. Change compressor. 9. Change compressor.
Compressor starts too frequent, operation time too long, but temperature drop in wine cellar is too slow	<ol style="list-style-type: none"> 1. The point of sensor was moved. 2. The temperature controller is out of order. 3. The environment temperature is too high, humidity too high, airflow is impeded. 4. The frost layer at the evaporator is too thick. 5. The refrigerant is insufficient or leakage. 6. Compressor efficiency is reduced. 7. The drying filter is blocked. 	<ol style="list-style-type: none"> 1 Check the point of sensor, and move it to original place. 2. Change the temperature controller. 3. Put the wine cellar to suitable place and make air circulate well. 4. Remove frost regularly. 5. Check or supplement refrigerant. 6. Change compressor. 7. Change new drying filter.
Compressor runs without stop, temperature in freezer is too low	<ol style="list-style-type: none"> 1. The point of sensor was moved. 2. The temperature sensing probe of controller is not placed well, and causes maladjustment 3. Compressor efficiency reduced. 	<ol style="list-style-type: none"> 1. Check the point of sensor, and move it to original place. 2. Adjust to suitable position, normally contact tightly with evaporator cover. 3. Change compressor.

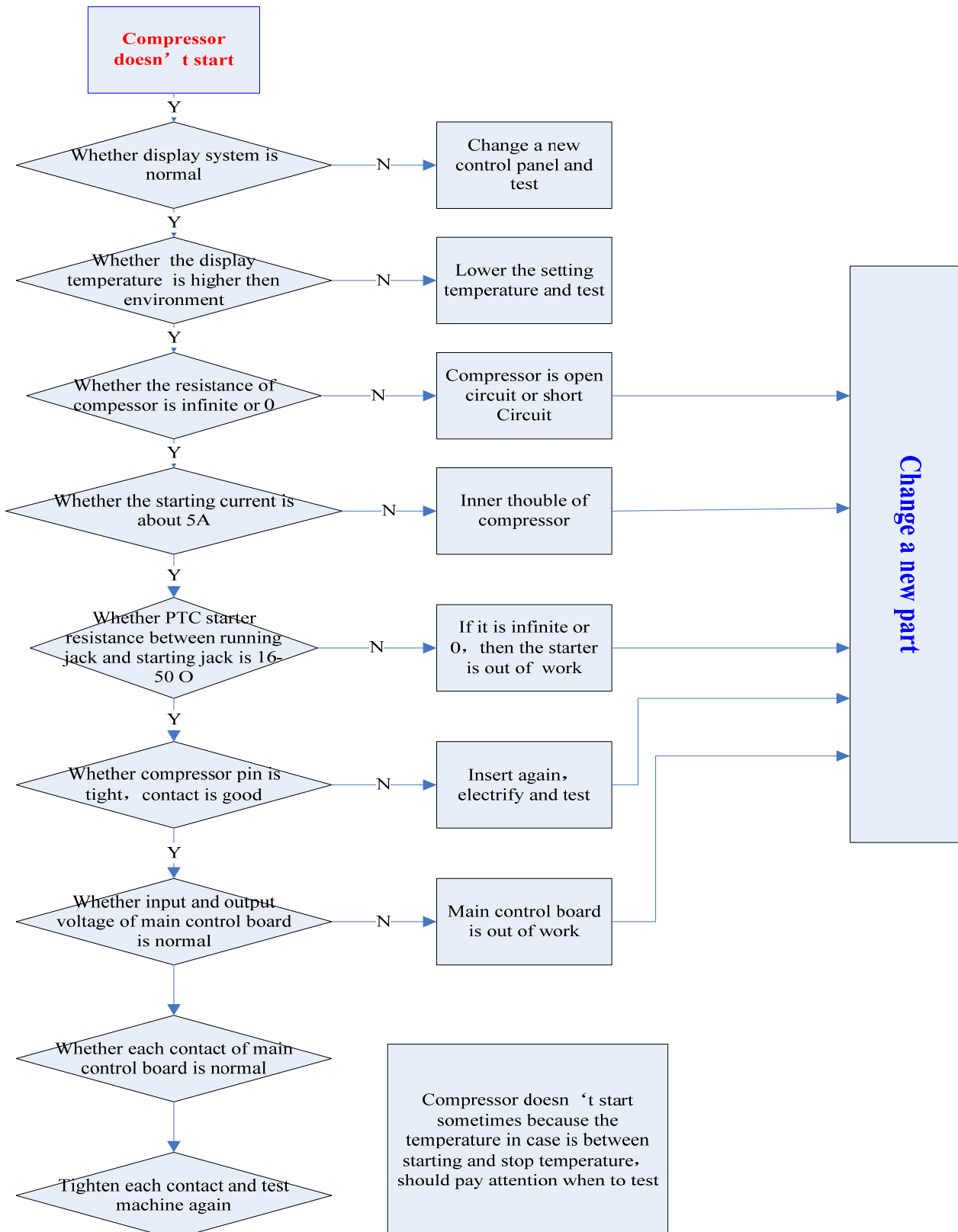
TROUBLE SHOOTING

<p>Compressor buzzes and cannot be started, thermal protection unit jump repeatedly.</p>	<ol style="list-style-type: none"> 1. Voltage is too low. 2. Starting relay out of order. 3. The starting coil of starting motor is broken. 4. Compressor does not run. 	<ol style="list-style-type: none"> 1. Supplement a stabilizer, adjust to rated value. 2. Change starting relay. 3. Change compressor. 4. The shaft and piston in the compressor is blocked, please change.
<p>After short time of operation, over load protection unit cuts off</p>	<ol style="list-style-type: none"> 1. The voltage is too high. 2. Over load protection unit is not good, it jumps earlier. 3. Starter contacting point is adhered. 4. There is short circuit in compressor. 5. There is mechanical problem in the compressor. 6. Temperature around compressor is too high. 	<ol style="list-style-type: none"> 1. Supplement a stabilizer and adjust its value to rated. 2. Change over load protection unit. 3. Change starting relay. 4. Change compressor. 5. Change compressor. 6. Increase heat radiation space.
<p>Too much noise when compressor runs</p>	<ol style="list-style-type: none"> 1. The floor is loose. 2. The wine cellar body is not stable and in level. 3. When compressor runs, friction between tubes and wine cellar body causes resonance. 4. Compressor fixing screw is loose. 5. The vibration absorption cushion for compressor fixing is too tight, or too loose or ageing. 6. Compressor inside noise is too big or vibration absorption suspending spring is broken. 	<ol style="list-style-type: none"> 1. Reinforce the floor. 2. Make the wine cellar body stable. 3. Move the tube a little away to avoid friction. 4. Make the screw tight. 5. Adjust the degree of tight or loose of vibration absorption cushion, or change cushion. 6. Change compressor.
<p>Electricity leakage of wine cellar body, you will feel tingle when touching by hand</p>	<ol style="list-style-type: none"> 1. Wine cellar body has not been connected to the ground. 2. The compressor terminal contacts body shell and causes short circuit. 3. When the components of electrical system get wet, insulation ability is dropped, electricity leaks. 	<ol style="list-style-type: none"> 1. Make the ground connection as stipulated. 2. Change compressor. 3. Check carefully step by step, if insulation is seriously damaged, please change; remove wet parts and put them into drying box to make them dry.

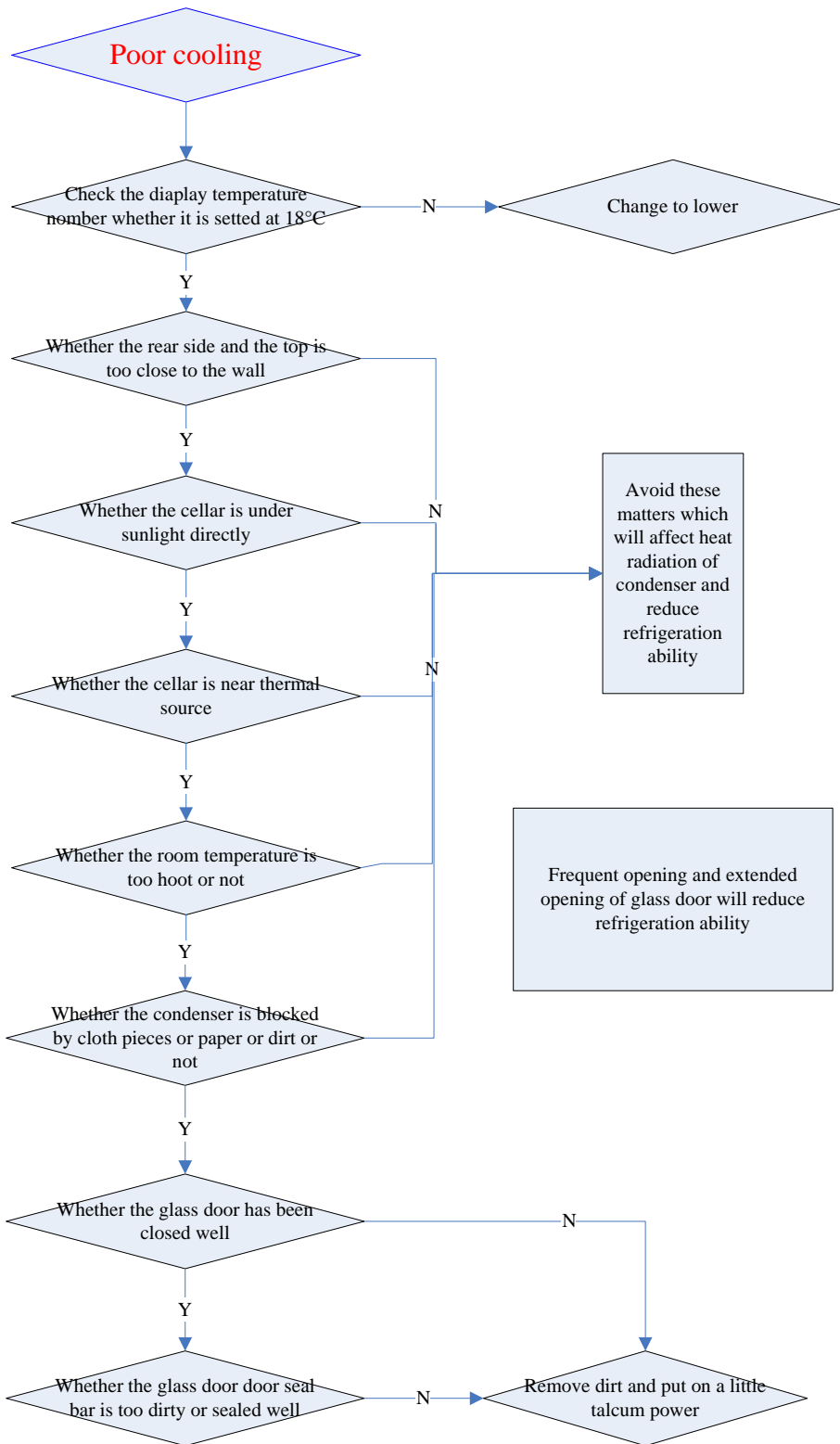
TROUBLE SHOOTING

Electricity leakage of temperature controller	<ol style="list-style-type: none"> 1. The service time is too long. 2. The environment is too dirty. 3. Humidity is too high. 	<ol style="list-style-type: none"> 1. Change temperature controller. 2. Use brush to remove dust. 3. Make the temperature dry and control the environment humidity.
Temperature controller out of order	<ol style="list-style-type: none"> 1. There is leakage of temperature sensing medium. 2. Damage of cam of contacting point spring, etc. 	Change temperature controller.
The probe of temperature sensing tube doesn't contact evaporator well	It has not been mounted to position or changed during transportation.	Mount it again.
One compartment doesn't cool	<ol style="list-style-type: none"> 1. Check the electromagnetism valve connection cord if it is broken or doesn't connect well 2. Check the main control panel if it is out of order 3. the electromagnetism valve has broken down . 	<ol style="list-style-type: none"> 1. Connect the connection cord 2. Replace the main control panel 3. Replace the electromagnetism valve.

Compressor doesn't start



Poor cooling



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