

# SERVICE MANUAL FOR VT45

## Tools

### I. Screwdriver



### II. Multimeter



### III. Plier



### IV. Charging Tube



V. Vacuum Pump



VI. Electronic Weigher



VII. Suds



### VIII. Charging connector

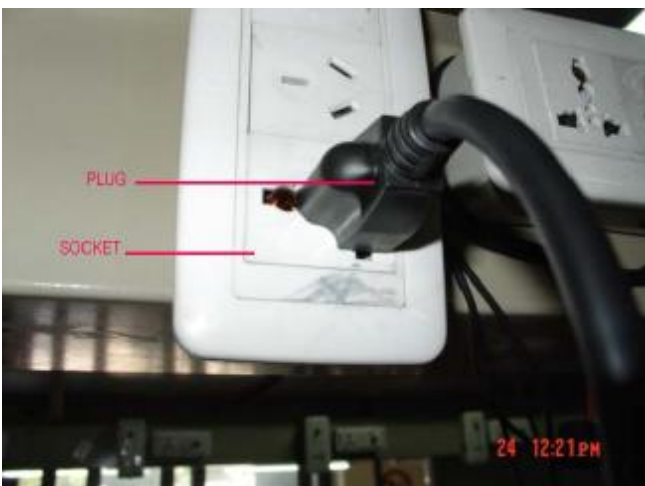


1. The wine cellar does not get cold at all.

Turn on the power, check whether the temperature display board is indicating or not, if yes, look over if the temperature of the cabinet gets cool down after about half an hour.

If the display board is extinct, then

Check to ensure the power plug is installed properly. If not connect the power or loosen, please connect it properly. (see the following picture)



Pull out the plug.

Check and make certain the fuse in the control board has not blown

(1) Screw off the screws on the back panel.



(2) Take off the back panel.



(3) Screw off the screws on the control board cover





(4) Screw off the screws on the control board cover.



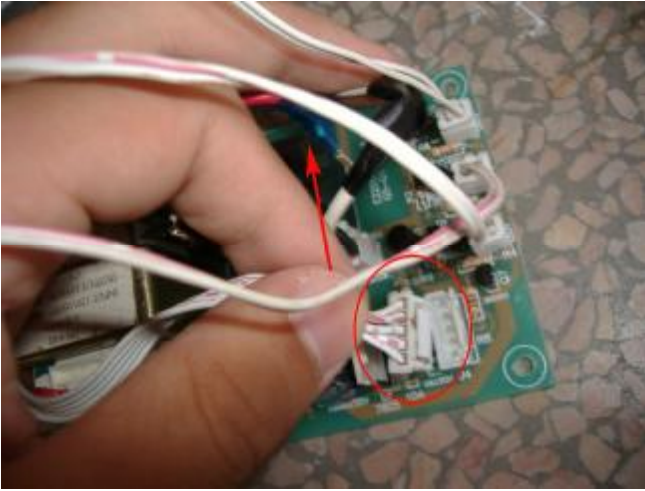
(5) Take off the control board cover.



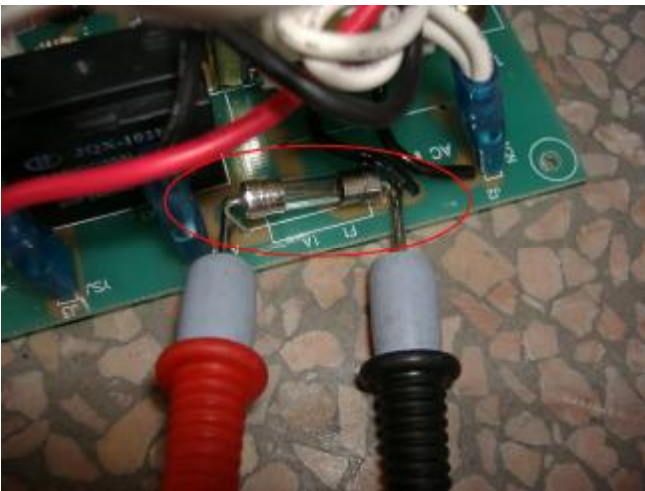
(6) Screw off the screws on the control board.



(7) Pull out the terminal on the control board.



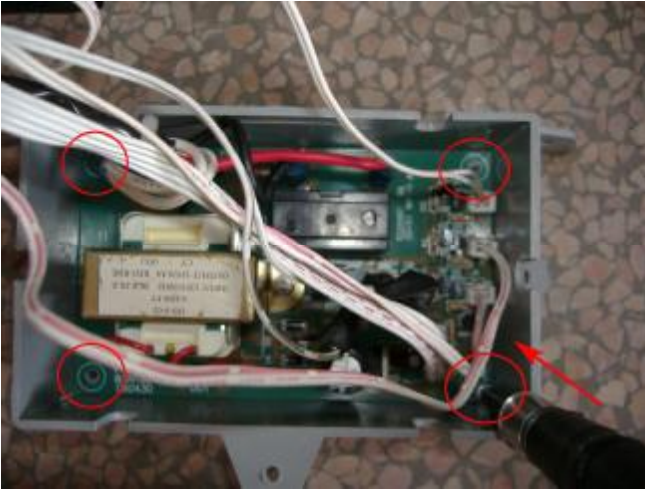
(8) Check the fuse, if the resistance is infinite, it shows the fuse is damaged, please replace the control board.



(9) Replace with a new control board.



(10) Fix it with the screws.



(1) Plug the terminal on the control board.

(2) Recover the control board cover.



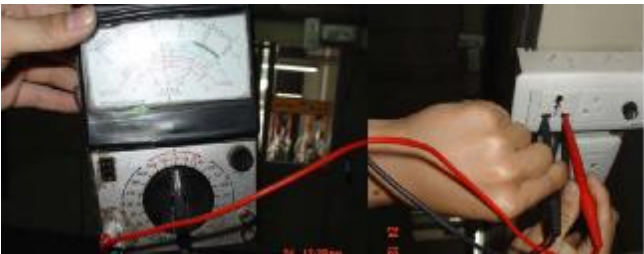
(3) Fix the control board cover.



(4) Fix the back panel with screws.



④ Check the voltage in the socket. See the following.



The voltage should be between 105V to 126V in the socket, if it isn't within the range, please contact the local power supply administration.

⑤ Check if the refrigerant system is leakage.

(1) Pull out the plug.



(2) Screw off the screws on the back panel.





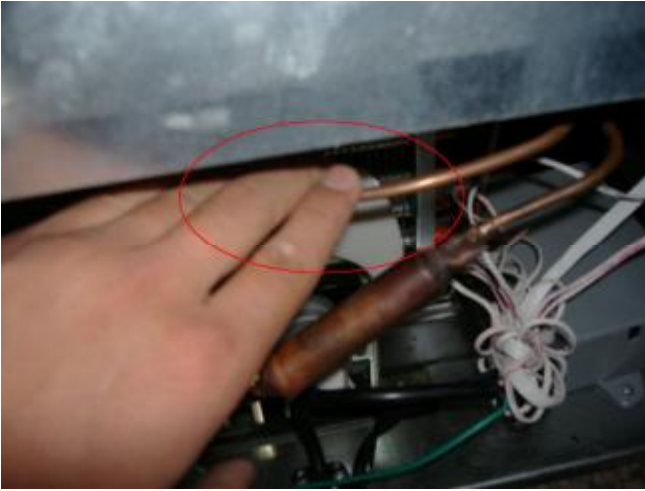
(3) Take off the back panel.



(4) If compressor is shaking when you touch it by hand, this shows compressor is working.



(5) If exhaust pipe isn't hot felt by hand after compressor running a period of time.



(6) The intake pipe isn't cool by hand.



Then we can say machine has the problem of System Leakage.

Method:

- a. Cut process tube.



- b. Take off the process tube.



c. Replace a new process tube



d. Weld the process tube



e. Install the vacuumizing connector onto the process tube.





f. 0.8Mpa

Charge nitrogen. Connect the dried Ni nitrogen that the pressure is 0.8Mpa to the process tube



g. Cover the welding point with towel that is soaked with soapsuds. If there is bubbles that means there is seam.







h. Re-weld the parts at which there are seams



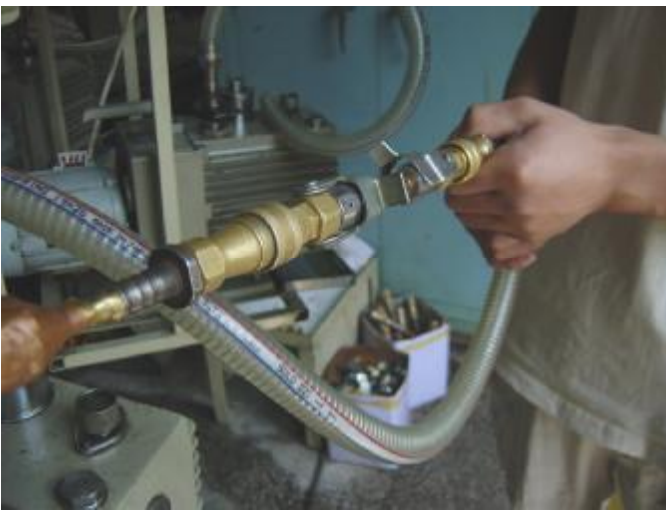
i. Test with towel as charging Ni trogen until there are no bubbles.



j. Connect the vacuum pump with the processing tube and then vacuimize for more than 20 minutes.



k. Connect the vacuum pump with canned bottle and then vacuumize for about 5 minutes.



l. Weigh up the canned bottle.



m. Charge the refrigerant into the canned bottle. (about 62g)



n. Weigh the canned bottle with refrigerant



o. Connect the canned bottle with the process tube and then compressor work for more than 5 minutes, charge the refrigerant into compressor



p. Weigh the canned bottle for check the refrigerant were charged completely





q. Clamp the process tube and make it flat, and seal it after ensuring no leakage of the gas.



r. Connect the refrigeration system to power and check is there any problems and then fit in the back panel





⑥ If the refrigerant system has no leakage, we should check if there is any block in the tubes.

(1) Cut off the capillary from the filter, if the gas pushed out through the filter meanwhile no gas through the capillary, it shows there is block in the tubes.



(2) Take off the filter with the welding torch and replace a new one.

(3) Recharge the nitrogen gas, vacuumize the machine and recharge the refrigerant as above methods.

2. The wine cellar is not cooling enough.

- ① Avoid the cellar in direct sunlight or adjacent to heat source. Keep light in the cabinet on result in too high inner temperature.
- ② Ensure the good ventilation around the cellar.
- ③ Check and ensure the door closed well or keep it open not too long time.
- ④ Check and ensure the door gasket is good enough.



- ⑤ Check if the refrigerant system is leakage.
- ⑥ Check if the condenser fan motor is rotating. Method: I I

(1) Screw off the screws on the back panel.



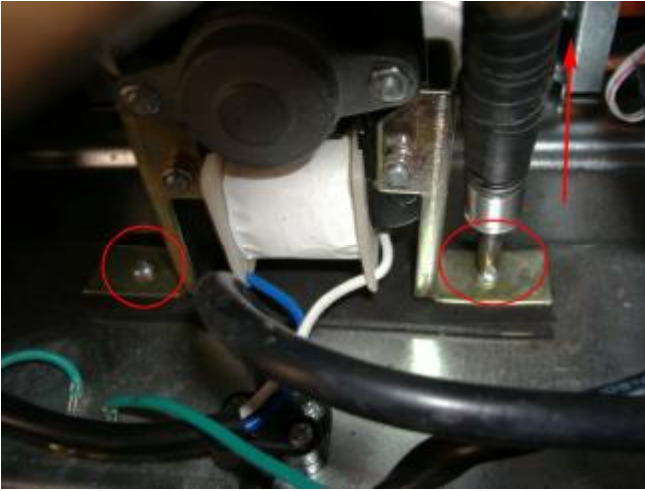
(2) Take off the back panel.



If the fan motor is not running when the compressor is working, and the connectors are proper fixed, please repair it as following:



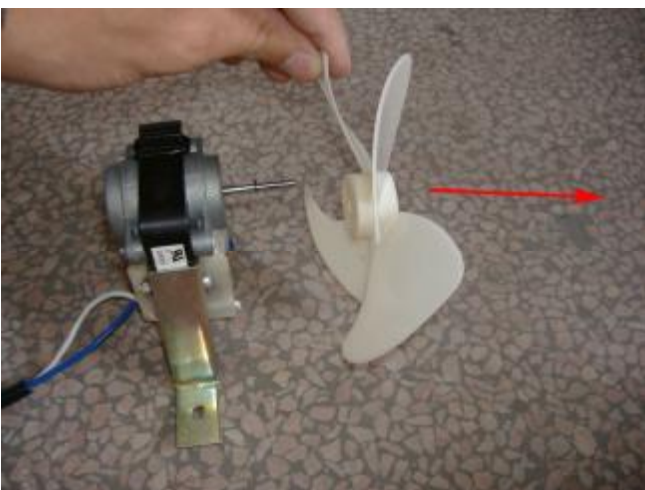
a. Screw off the fixed screws on the fan motor.



b. Take out the fan motor.



c. Pull out the blade.



d. Pull out the terminal.





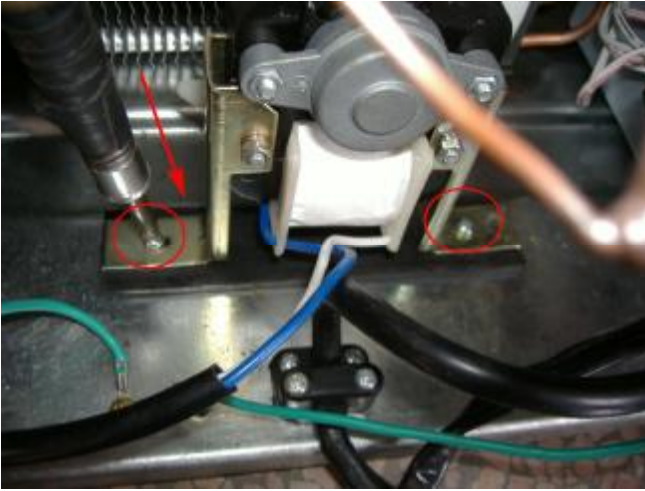
e. Replace the fan motor with a new one.



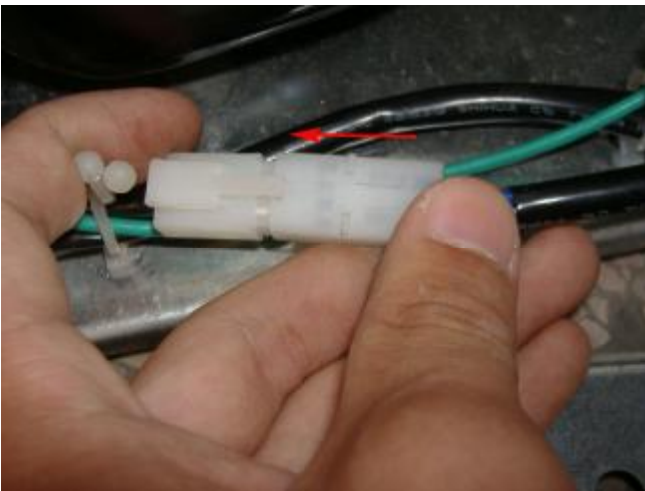
f. Insert the blade.



g. Fix the fan motor.



h. Install the connector.



i. Fit in the back panel.



3. The cellar is too noisy.

① Make certain the cellar is properly leveled and standing firm.

You may adjust the leveling legs to keep it level.



② Make certain the pipeline untouched each other.



③ Check if the fan fixed screws are loose and the blade touches with other parts.

4. The light is not on when connect the power.

① Check and ensure the connectors on the control board are tightened enough.

a. Unplug the power cord.



b. Take out the racks.



c. Screw off the screws on the light cover.



d. Remove the light cover.

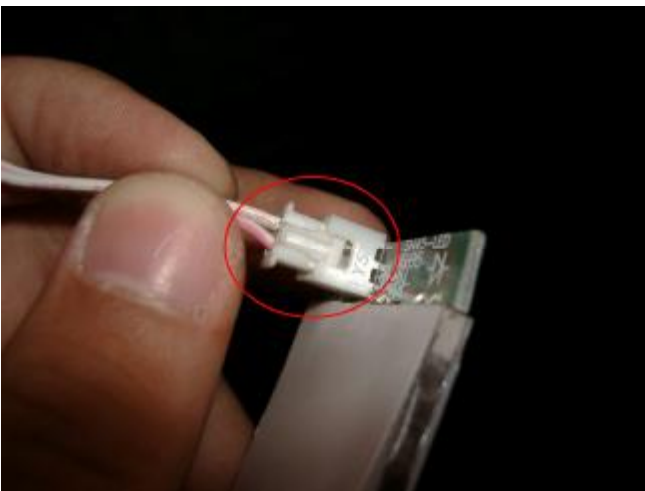




e. Take off the LED board.



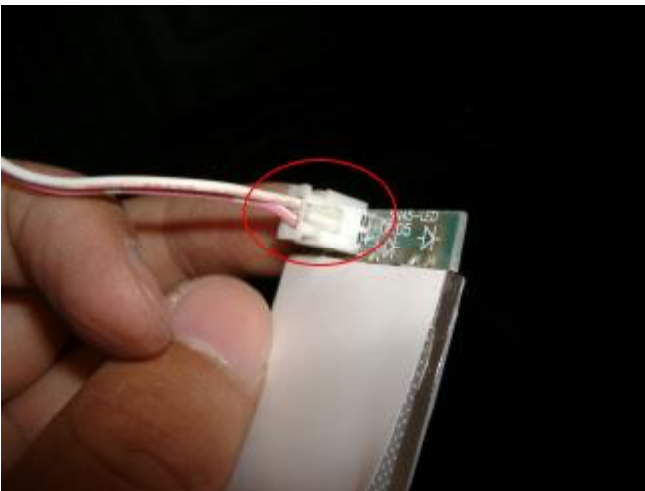
f. Check if the connector on the LED board is loose.



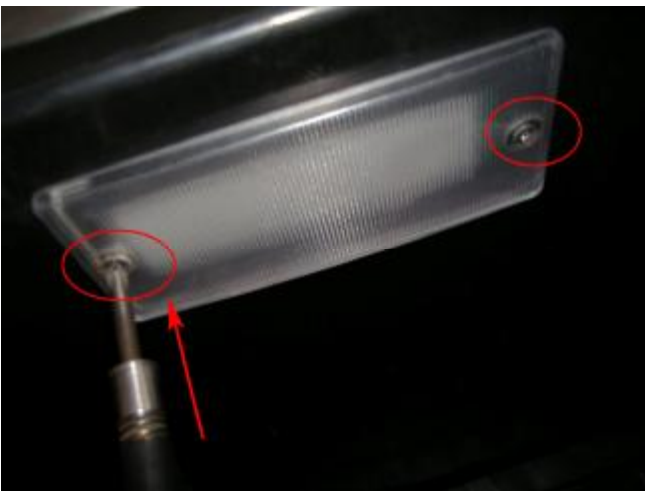
g. If the board has a good connecting, we should replace a new LED board.



h. Install the connector on the board.



i. Fix the light cover.



#### 5.LED “ER”

“ER” showed on LED indicator

LED “ER”,

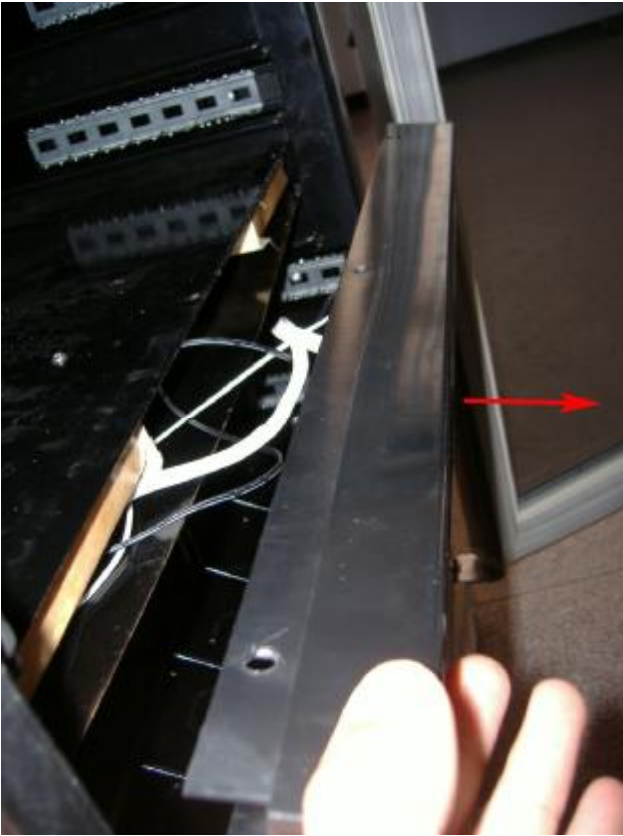
“ER” showed on the LED indicator, the terminal is not connected well or the thermal resistor is damaged.

① The repair steps for the terminal is:

(1) Screw off the screws on the cover.



(2) Take off the plastic panel.



(3) Take off the protective box inside the plastic panel.



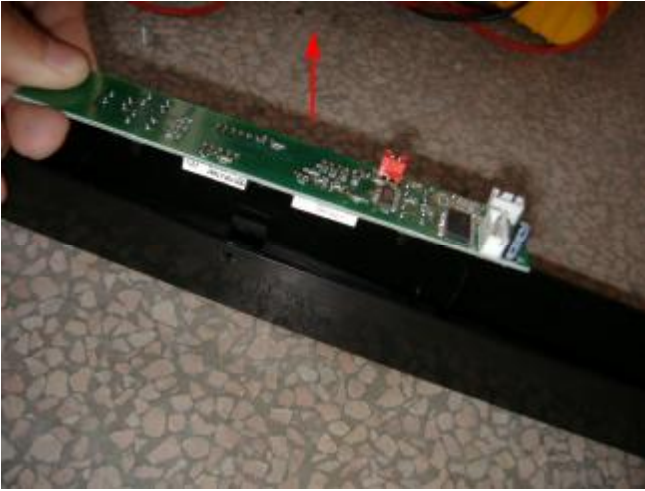




(4) Check if the connectors on the temperature display board are loose. (The white one is the terminal of up cabinet sensor, the red one is the terminal of bottom cabinet sensor)



(5) a. Take out the display board.



b. Pull out the terminal of the display board.



c. Cut the terminal according to the picture.



d. Reconnect a new terminal, and tie it up with rubberized fabric.



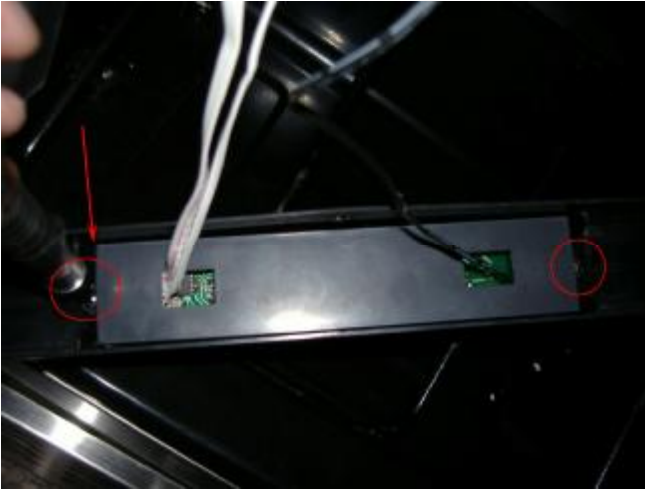
e. Fix the temperature display board.



f. Plug the terminal.



g. Install the protective box.



h. Fit in the plastic panel.



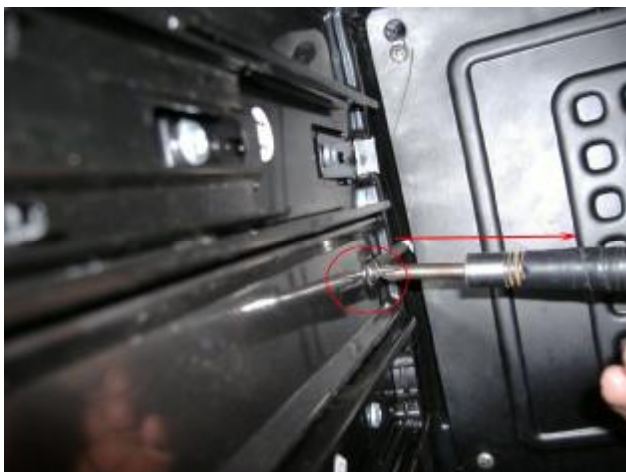


② The repair steps are as follows if the thermal resistor is damaged.

(1) Take out all the racks in the cabinet.



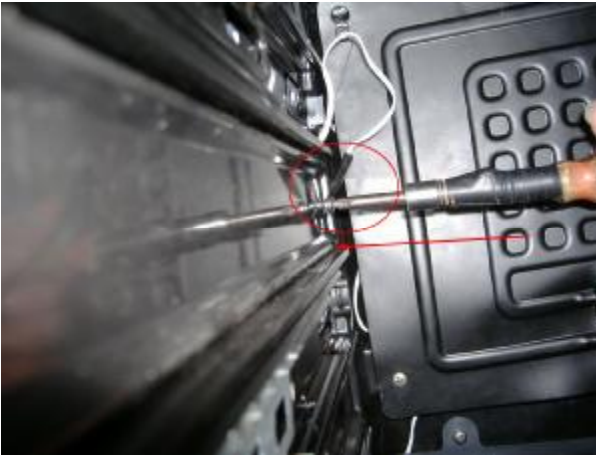
(2) Screw off the screws of the thermal resistor. (up cabinet or bottom cabinet) 置



(3) Cut the line according to the picture, reconnect a new thermal resistor.



(4) Fix the new thermal resistor.



(5) Put the racks in and then close the door.

## 6. LED “LL”

“LL” showed on the LED indicator.

LED “LL”:

“LL” showed on the LED indicator that means the temperature is too low in the cabinet. The circuit is out of control, please replace the control board, the steps are as follows:

(1) Screw off the screws on the back panel.



(2) Take off the back panel.



(3) Screw off the screws of the control board cover (according to the picture)



(4) Screw off the screws of the control board.

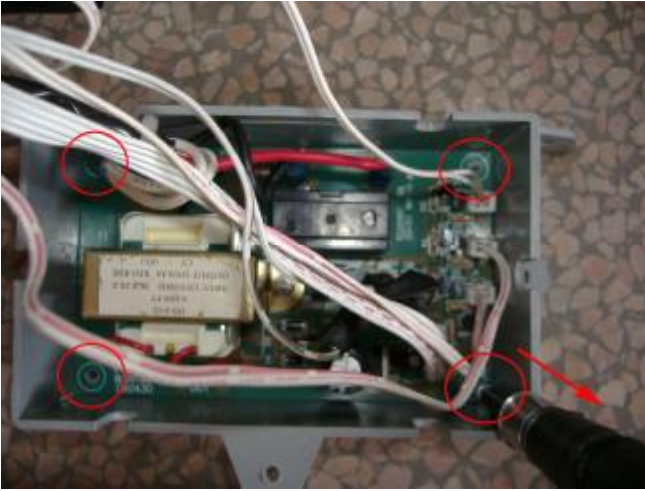


(5) Take off the upper cover of the control board.

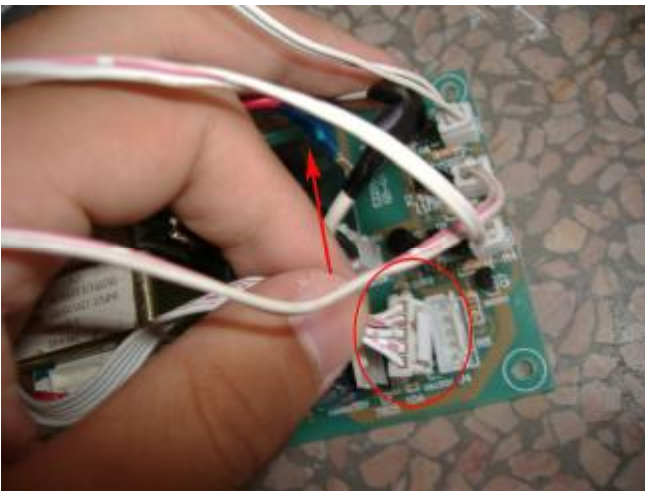


(6) Screw off the screws on the control board.





(7) Pull out the terminal on the control board.

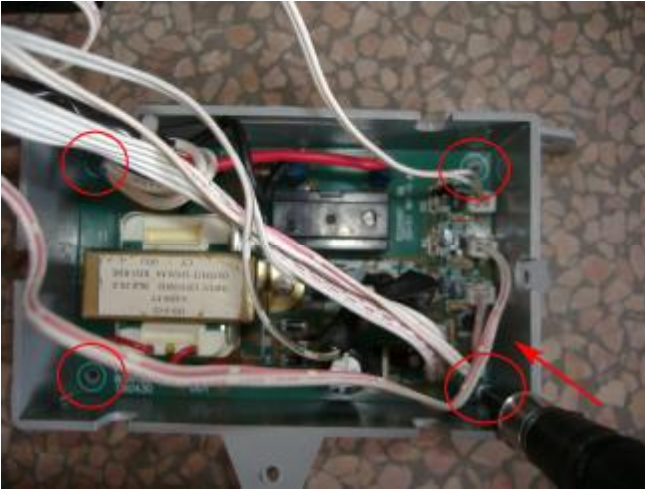


(8) Replace with a new control board.



(9) Fix it with the screws.





(10) Plug the terminal on the control board.

(11) Recover the control board cover.



(12) Fix the control board cover.



(13) Fix the back panel with screws.



7. LED “HH” : “HH” showed on the LED indicator LED “HH”

“HH” showed on the LED indicator, the temperature in the cabinet is too high; the cellar does not get cold at all: the refrigerating system got trouble.

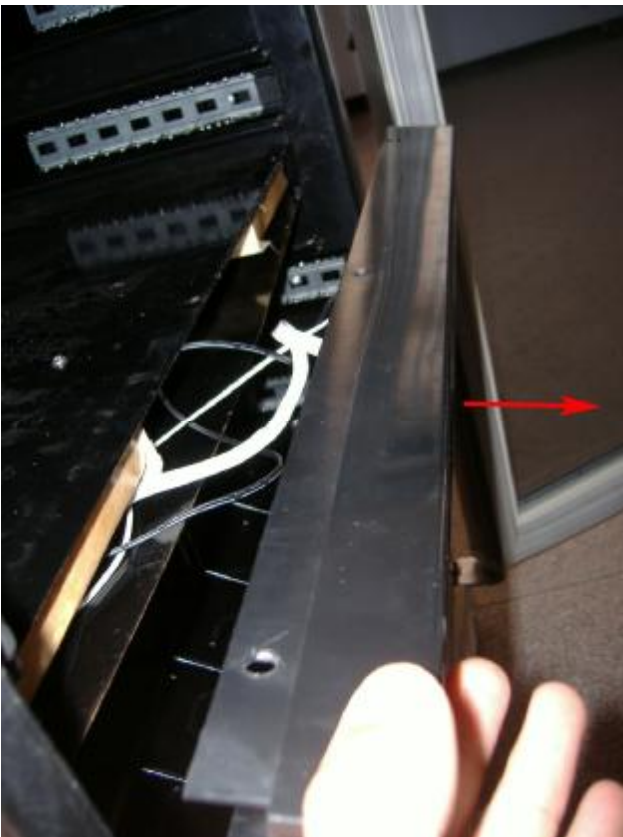
8. LED : Unavailable letters showed on the LED indicator, the indicator should be replaced. Please do as follows:

(1) Screw off the screws on the cover.





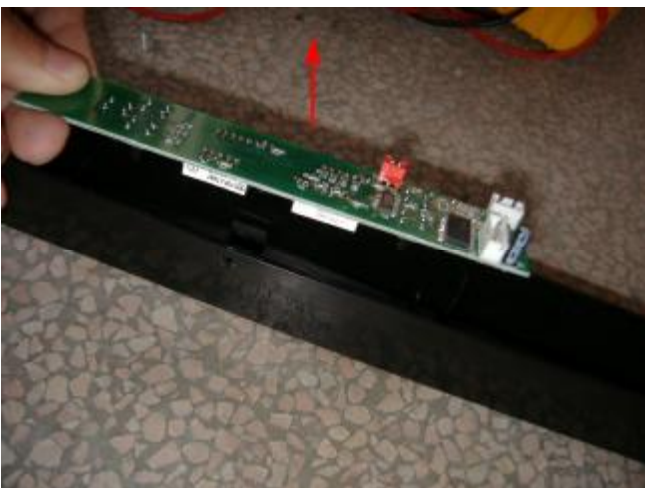
(2) Take off the plastic panel.



(3) Take off the protective box inside the plastic panel.



(4) Take out the display board.





(5) Pull out the terminal of the display board.

(6) Replace the display board with a new one.



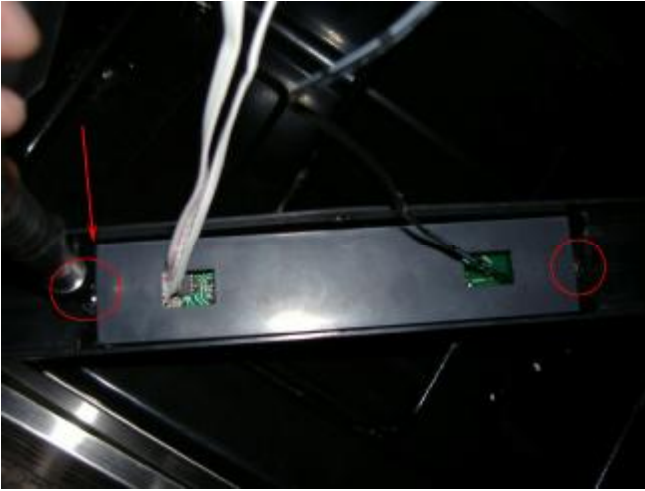
(7) Fix the temperature display board.



(8) Plug the terminal.



(9) Install the protective box.



(10) Fit in the plastic panel.



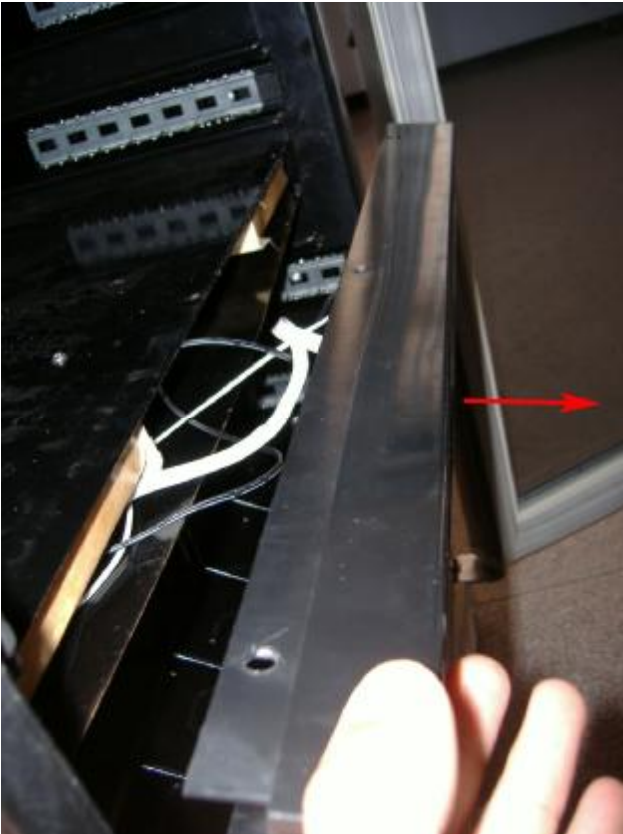
9. If the temperature of the up and down cabinet has great warp (the up temperature is low, but the bottom temperature is too high), it seems the fan in the middle shelf doesn't rotating, we should check whether the fan is working normally or not.

Method:

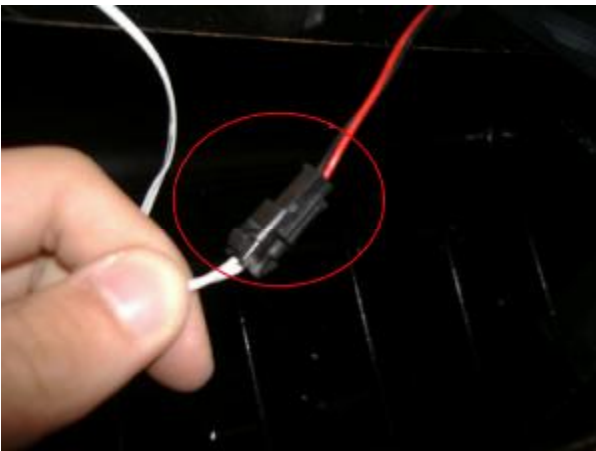
- ① Take off the plastic panel.



- ② Take off the plastic panel.



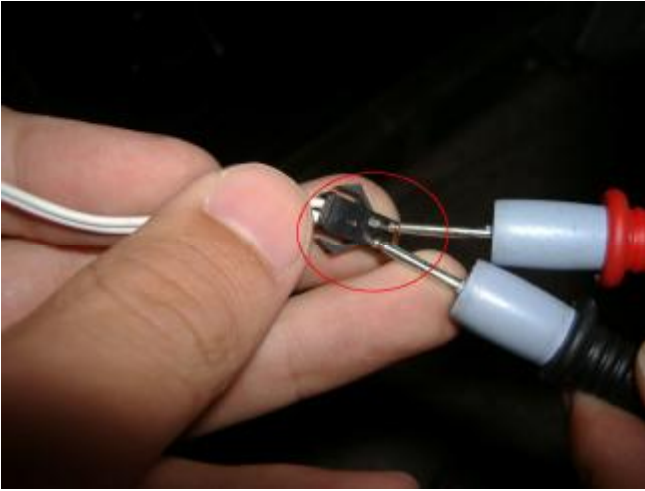
③ Check if the terminal of the fan which is in the middle shelf is loose.



④ 12V

Check the terminal if there is 12V DC voltage input with the multimeter.





⑤ Check and ensure the fan connector on the control board has good connecting.

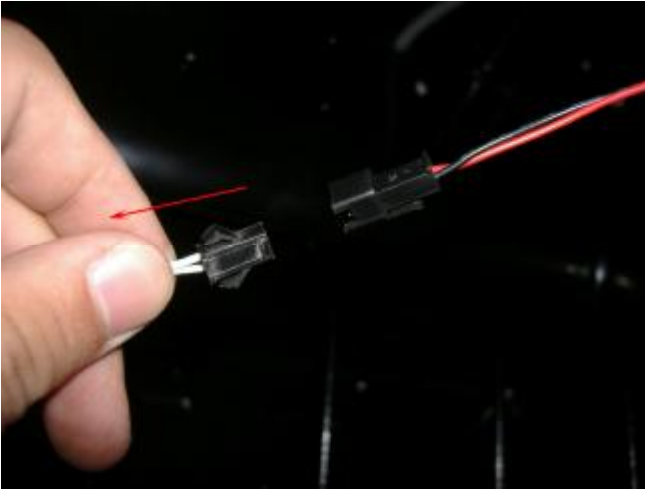


⑥ If above is well, it shows the fan is damaged, we should replace the fan. Method:

(1) Take off the fan fixed screws.



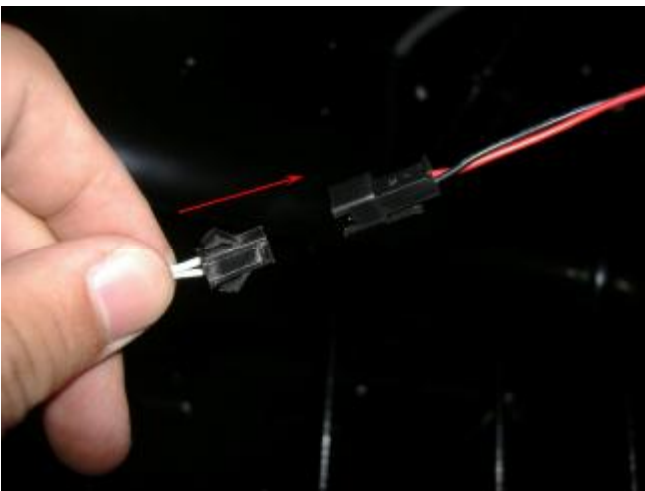
(2) Pull out the terminal.



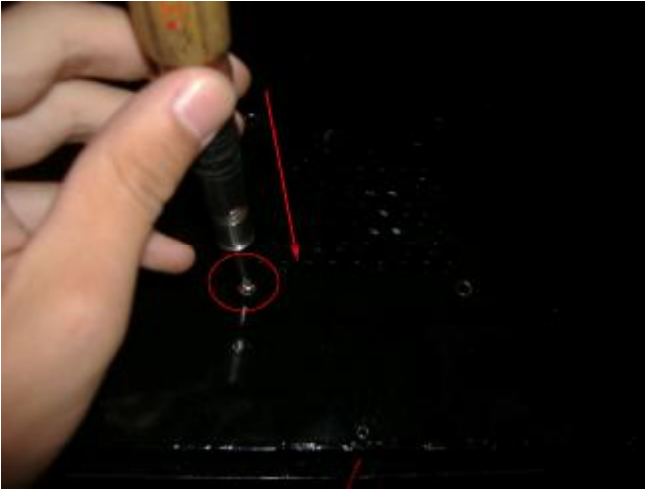
(3) Replace a new fan.



(4) Connect the terminal.



(5) Fit in the fan.



(6) Install the plastic panel.

