

# Vinotemp®

## Service Manual for VT-182

Using these instructions, you will be able to properly repair your VT-182.

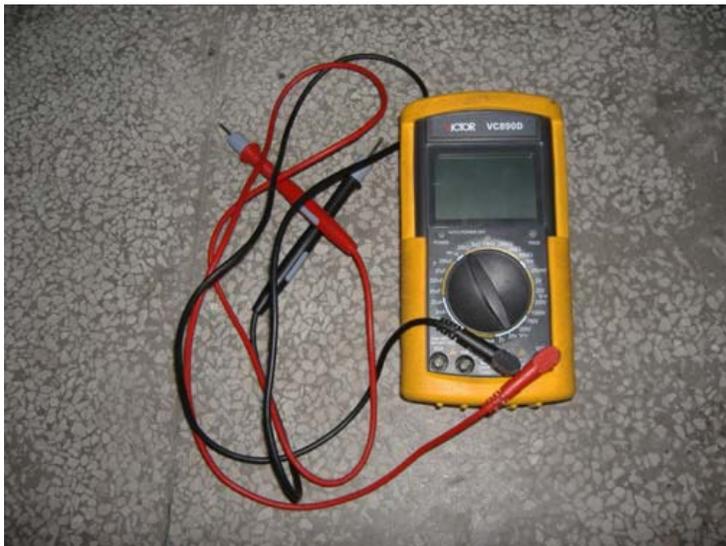
**Be sure to have the unit *unplugged* while performing the installation.**

### Tools Required:

1. Screwdriver



2. Multimeter



3. Pliers



4. Charging Tube



5. Vacuum Pump



6. Electronic Scale



7. Soap Suds



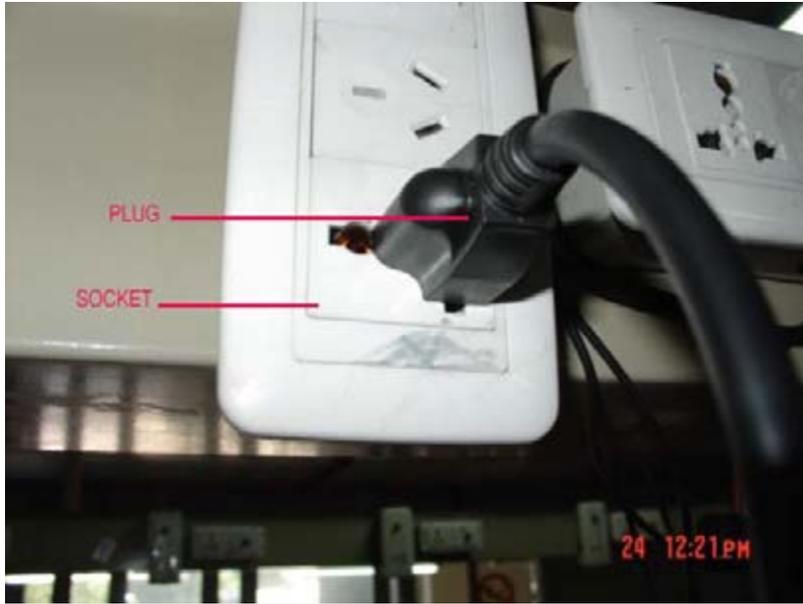
## 8. Charging Connector



### Troubleshooting:

#### 1. **Wine cellar does not get cold.**

- a. Turn on the power and check to see whether the temperature display board is indicating or not. If it is, monitor the temperature to see if it begins to cool after about half an hour.
- b. If the display board is blank, do the following:
  - i. Check to ensure the plug is properly plugged in. If it is not, please connect it properly. (See the image below)



- ii. Check and make certain the fuse in the control board has not blown. If it has blown, please replace it as follows:
  1. Take off the screws on the back panel



2. Remove the back panel.

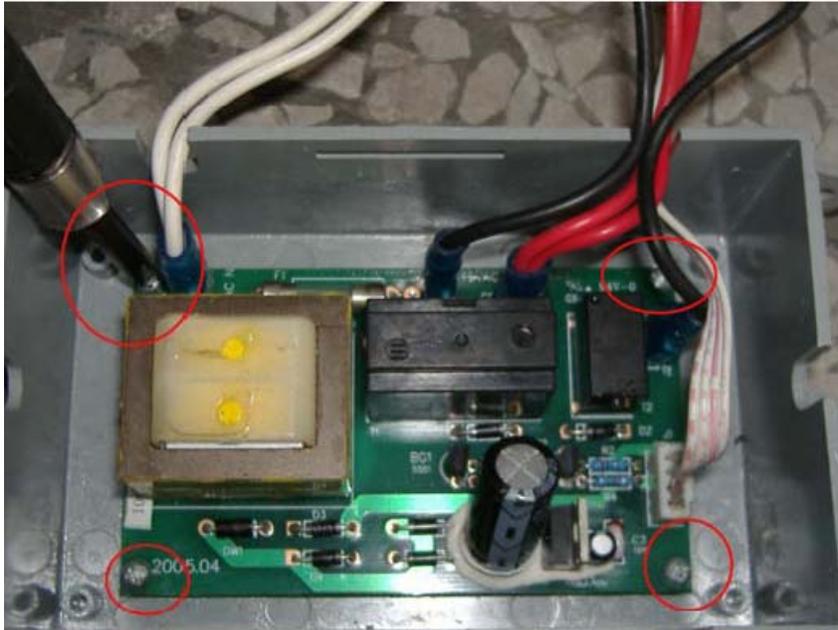


3. Remove the screws on the control board cover.

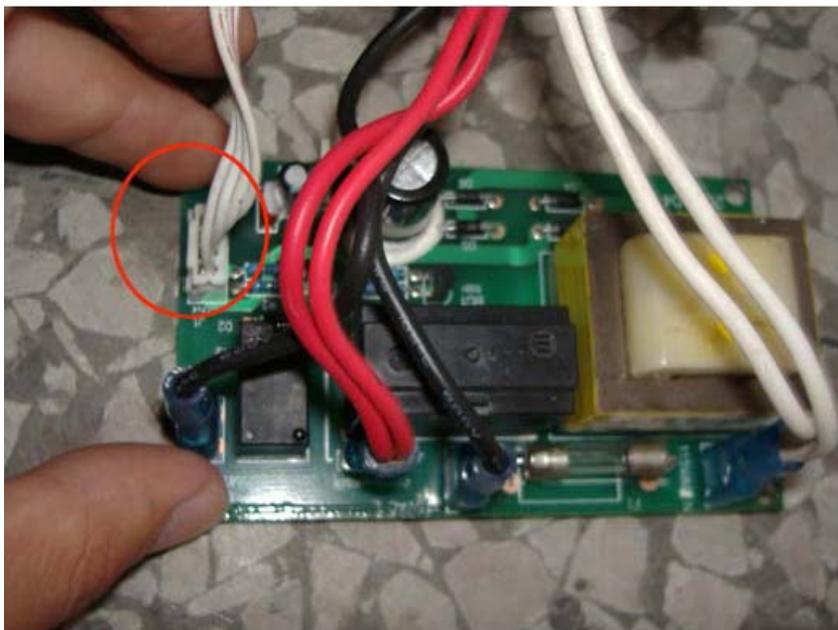


4. Remove the control board cover.

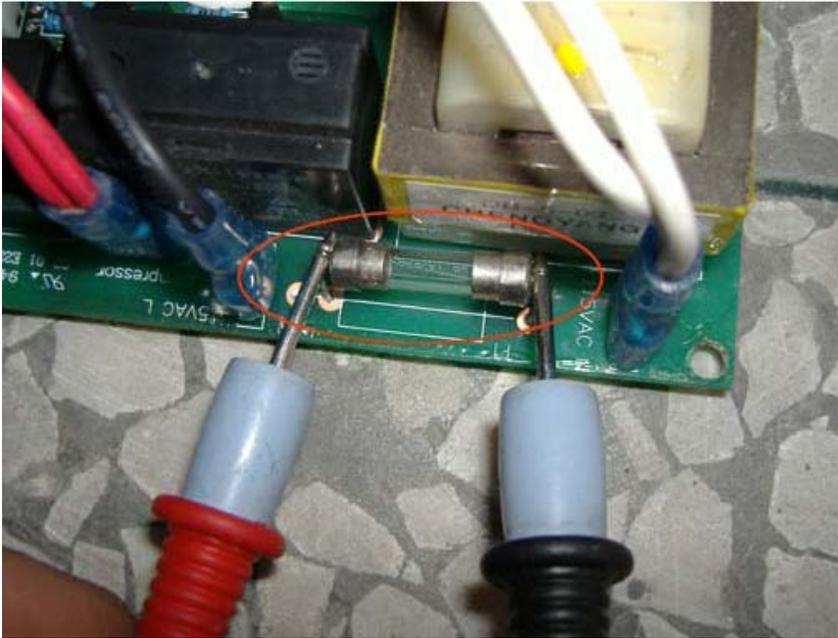
5. Remove the screws on the control board.



6. Pull out the terminal on the control board.



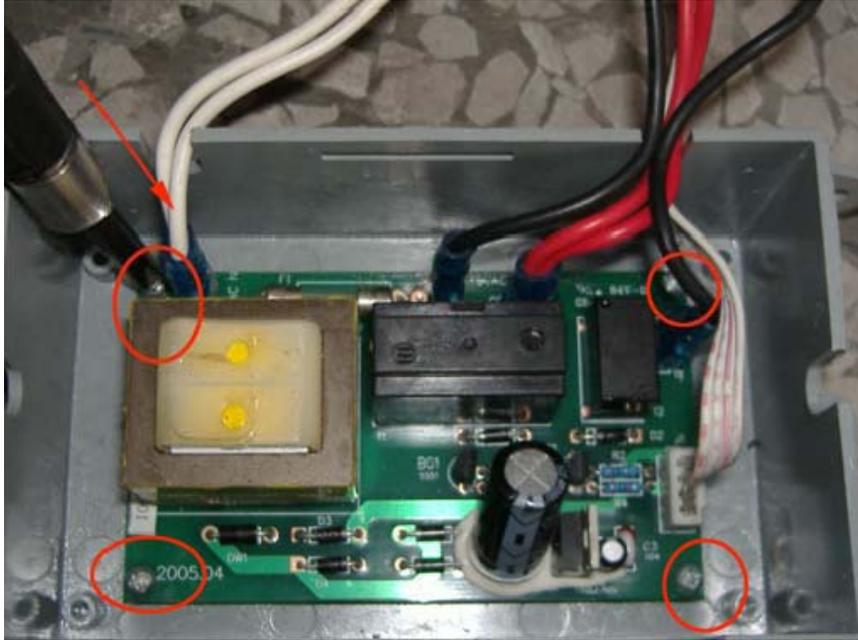
7. Check the fuse using a multimeter. If you do not get a reading the fuse is broken and the control board needs to be replaced.



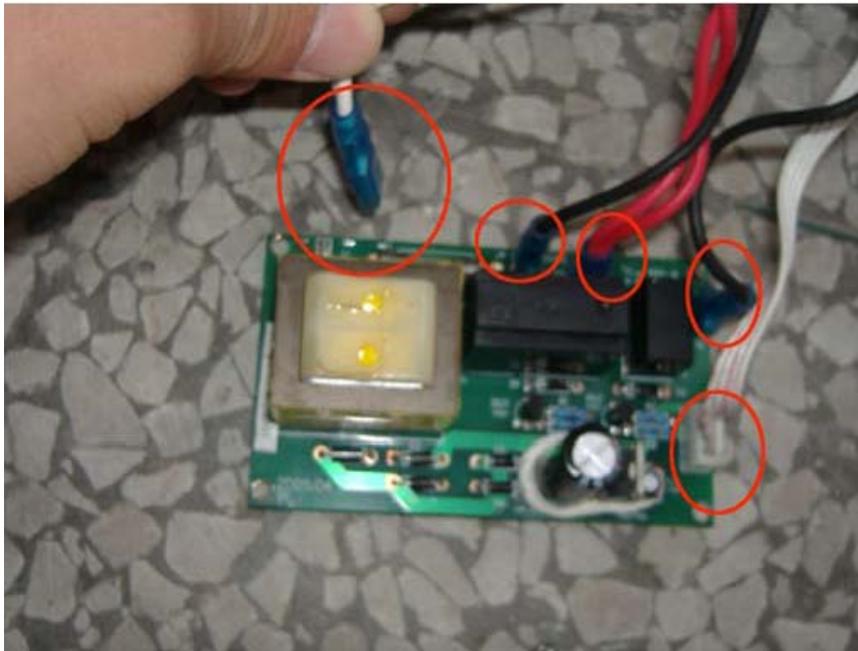
8. Replace with a new control board.



9. Secure the control board with the control board screws.



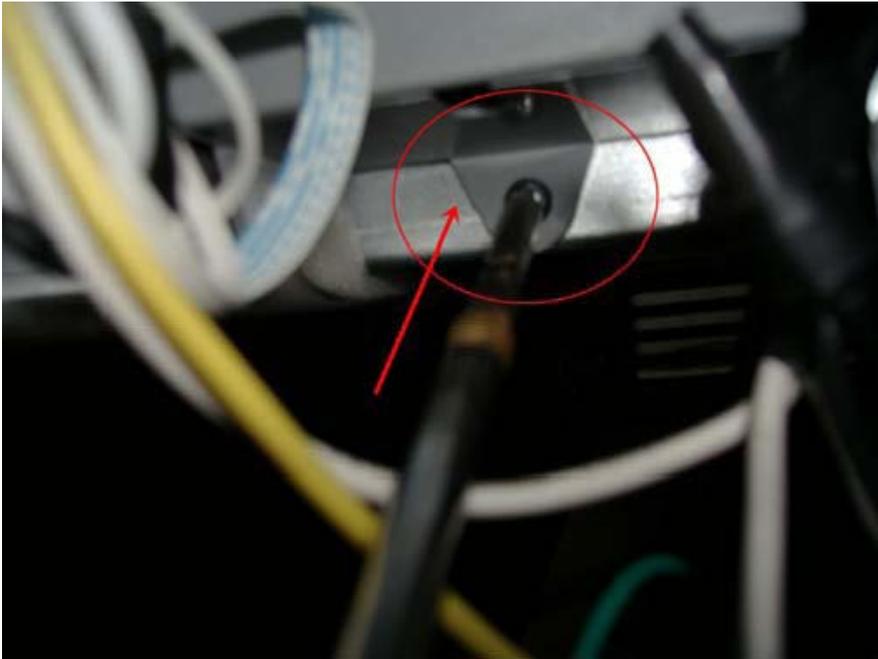
10. Plug in the terminal on the control board.



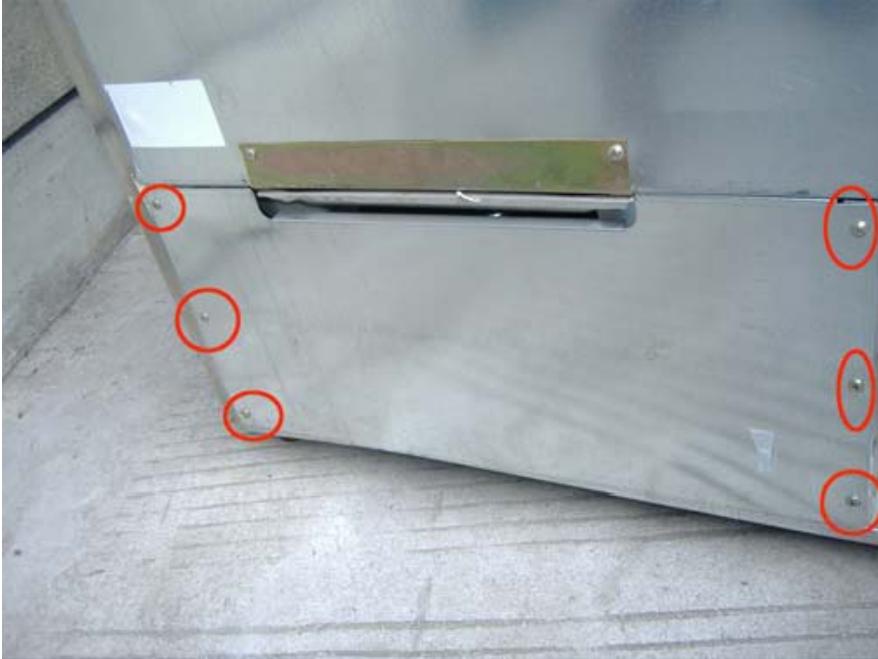
11. Replace the control board cover.



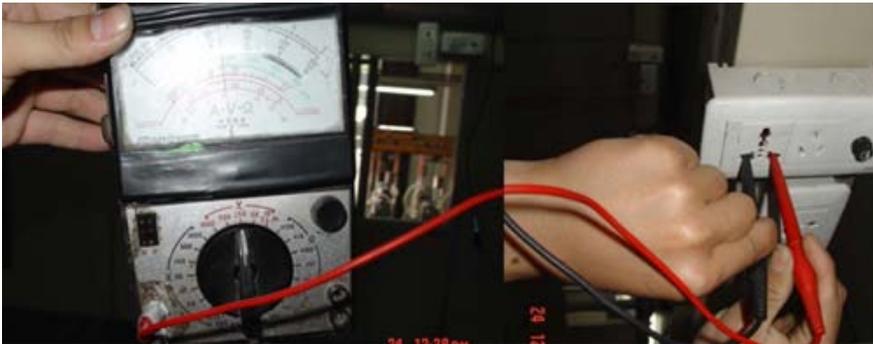
12. Fasten the control board cover screws.



13. Replace the screws on the back panel.



iii. Check the voltage in the electrical socket. (See below)



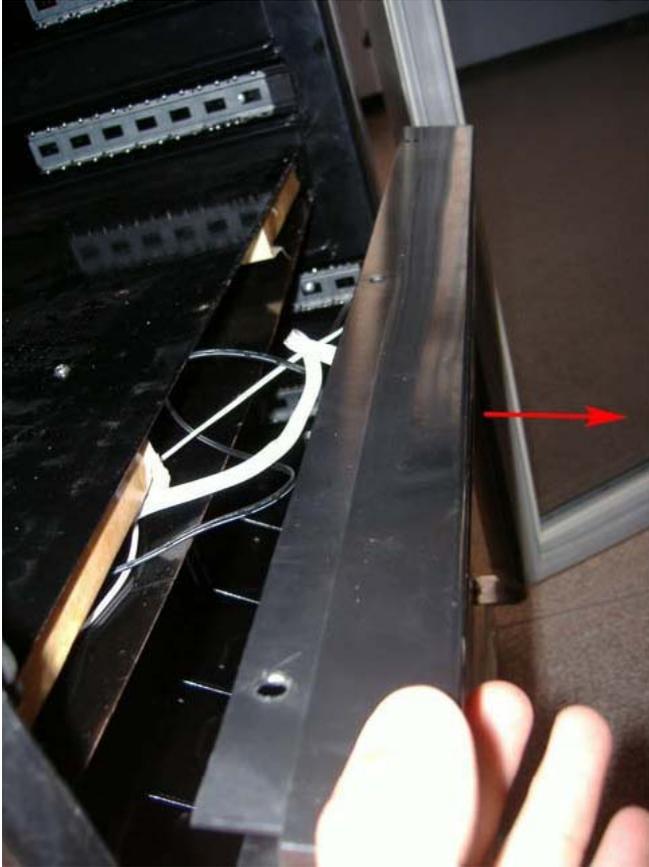
The voltage in the socket should be between 105V and 126V. If the voltage falls outside of this range, please contact your local power supplier.

iv. Check to see if the terminal on the temperature display board is loose.

1. Remove screws on the cover.



2. Remove the plastic panel.



3. Make sure that the terminal is secure.



v. Check to see if there is a leak in the refrigeration system.

1. Leave the unit running for a considerable amount of time and monitor the temperature. Proceed to the next step if there is no change in temperature.
2. Unplug the unit.



3. Remove the screws from the back panel.



4. Remove the back panel.



5. Touch the compressor by hand. If there is a slight vibration. The compressor is working properly.



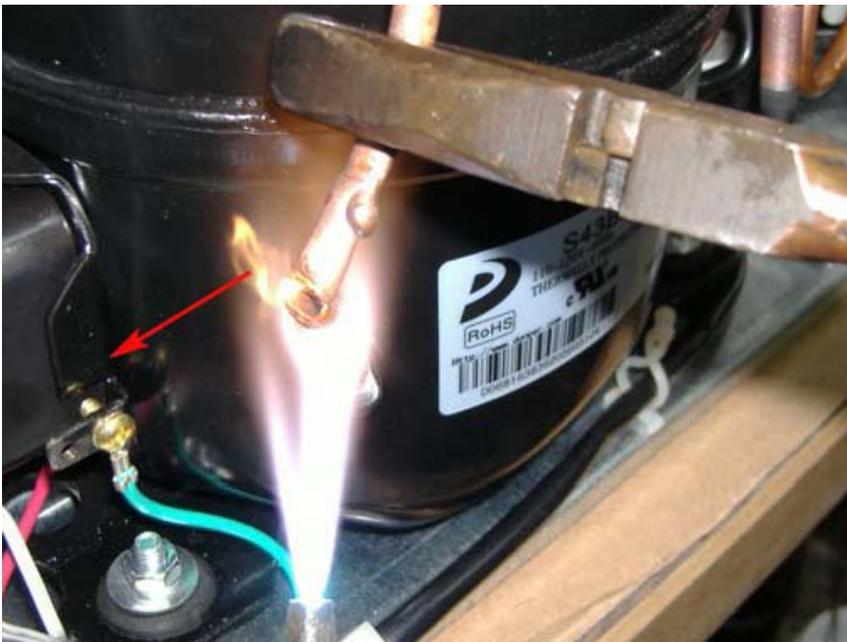
6. Finally, check the exhaust and intake pipes. The unit may have a leak in its refrigeration system if the exhaust pipe is cool to the touch and/or the intake pipe is warm to the touch. (See below for repair)



- a. Cut the process tube.



b. Remove the process tube.



c. Replace with a new process tube.



d. Fasten the new process tube with a welder.



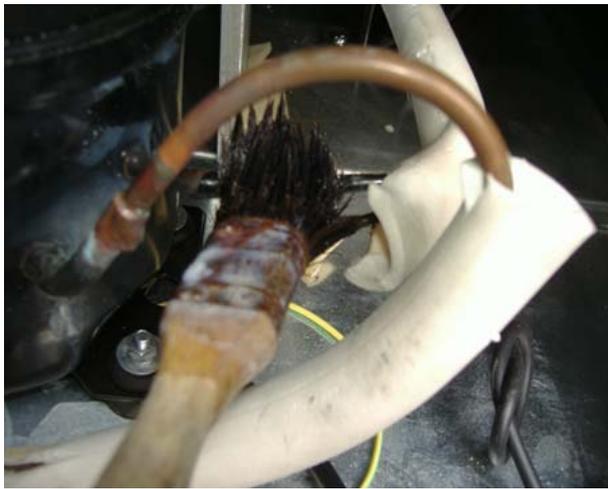
e. Connect the charging tube to the process tube.



- f. Charge the nitrogen with a pressure of 0.8Mpa to the process tube.



- g. Cover the welding point with a towel that is soaked with soapsuds. If there are bubbles, it means that there is a seam.



- h. Re-weld the parts at which there are seams.
- i. Test with suds while charging nitrogen until there are no bubbles.



- j. Connect the vacuum pump with the processing tube and run for 20 minutes.



- k. Connect the vacuum pump with canned bottle and run for 5 minutes.



I. Weigh the bottle.



m. Charge the refrigerant into the canned bottle. (About 100g)



n. Weight the canned bottle after charging.



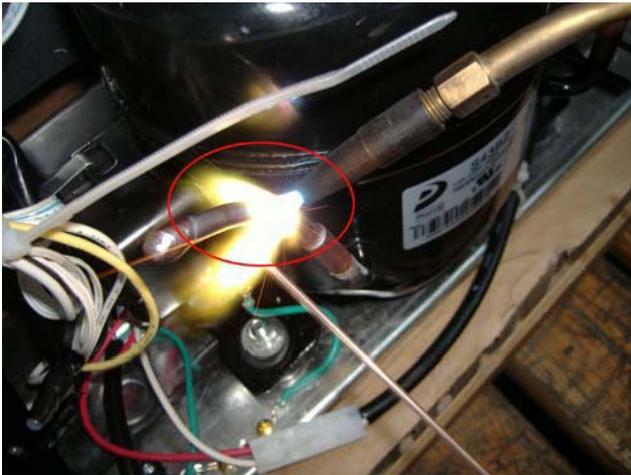
o. Connect the canned bottle with the process tube and charge the refrigerant into the compressor for 5 minutes.



- p. Weigh the canned bottle to make sure that the refrigerant is completely charged.



- q. Clamp the process tube until it is flat. Seal it to ensure that there are no leaks.



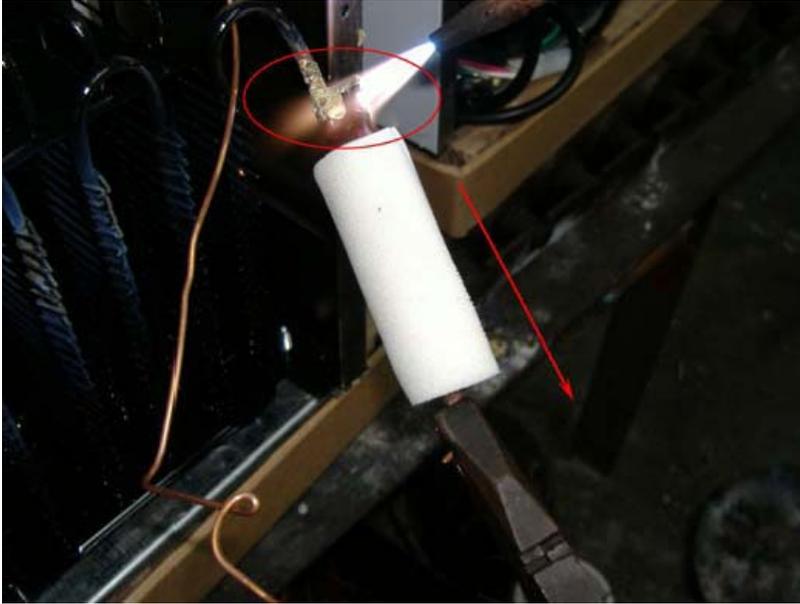
- r. Plug the unit back in and check to see if the problem has been resolved. Replace the back panel.



- vi. If there is no leak in the refrigerant system, there may be a blockage in the tubes.
  1. Disconnect the capillary from the filter. If gas pushes through the capillary but not through the filter, there is a blockage in the tubes.



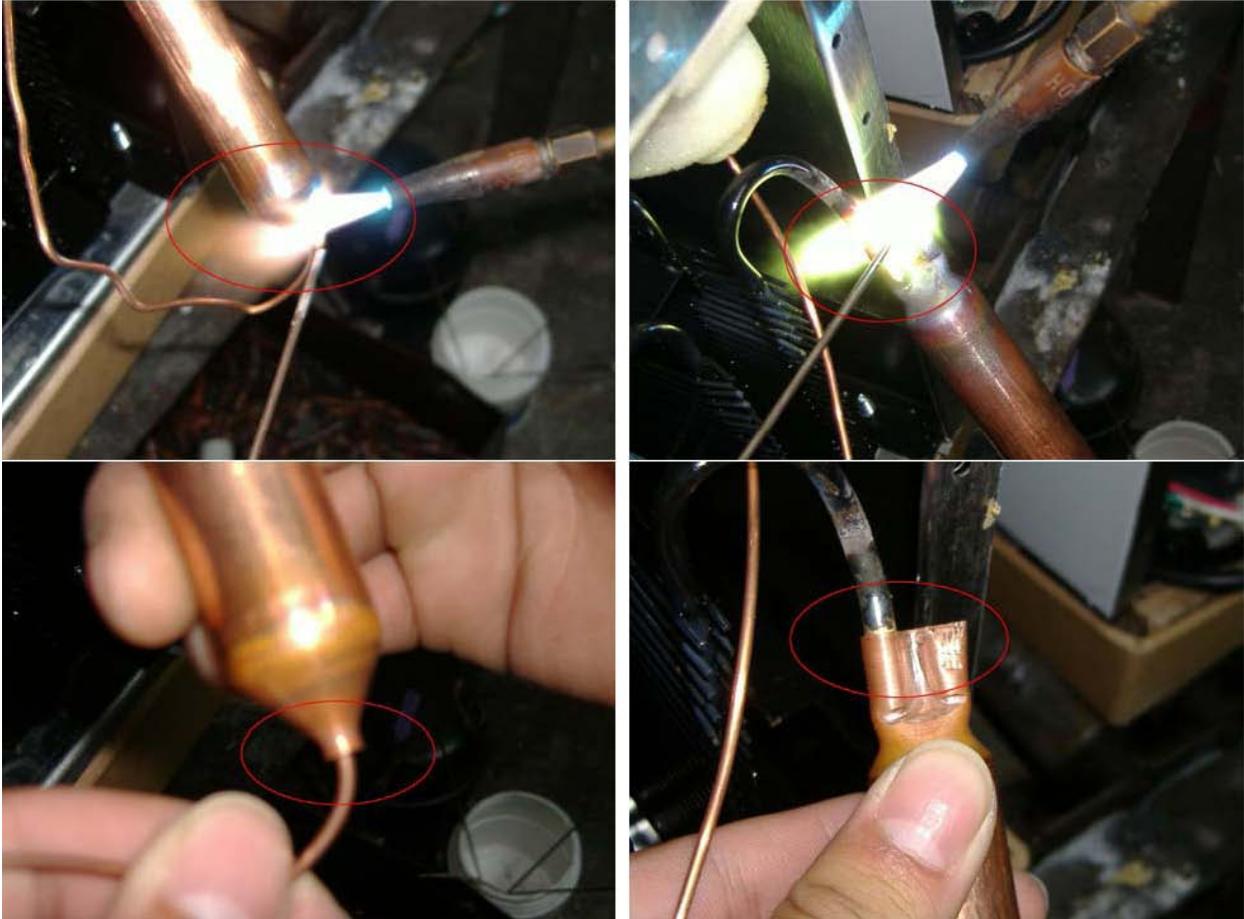
2. Remove the filter with a welding torch and replace it with a new one.
    - a. Remove the filter with a welding torch.



b. Replace with a new filter.



c. Weld the filter.



3. Recharge the nitrogen gas and refrigerant as described above.

**2. The wine cellar is not getting cool enough.**

- a. Avoid placing the unit in direct sunlight or adjacent to a heat source.
- b. Make sure that there is proper clearance around the unit for ventilation.
- c. Make sure that the door is firmly closed. Be careful not to leave the door open for any longer than needed.



d. Check the integrity of the door gasket.



e. Check the fan motor.

i. Remove the screws from the back panel.



ii. Remove the back panel.



- iii. Check the fan. If the fan motor is not running while the compressor is on, follow these steps to repair.
1. Remove the fastening screws on the fan motor.



2. Take out the fan motor.



3. Remove the blade fastening screw.



4. Remove the blade.



5. Unplug the terminal and replace the fan.



6. Insert the blade.



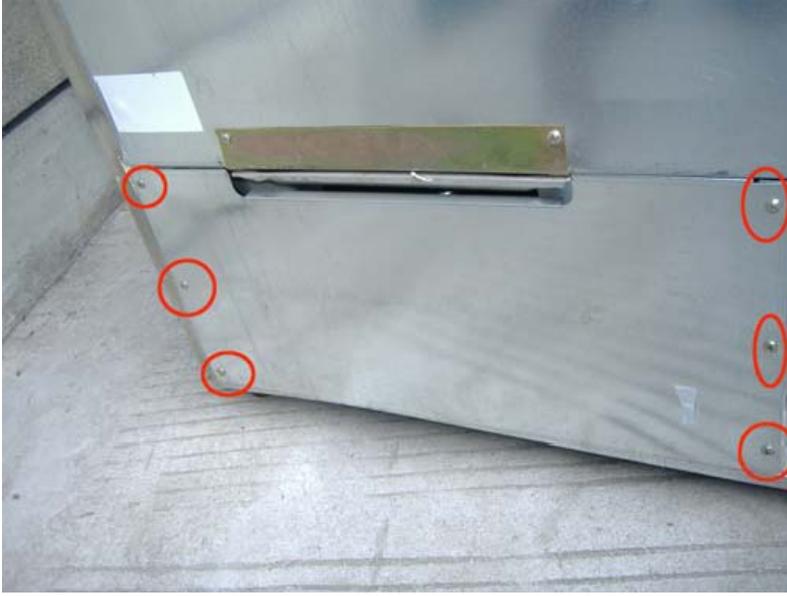
7. Fasten the blade.



8. Fasten the fan with the screws.

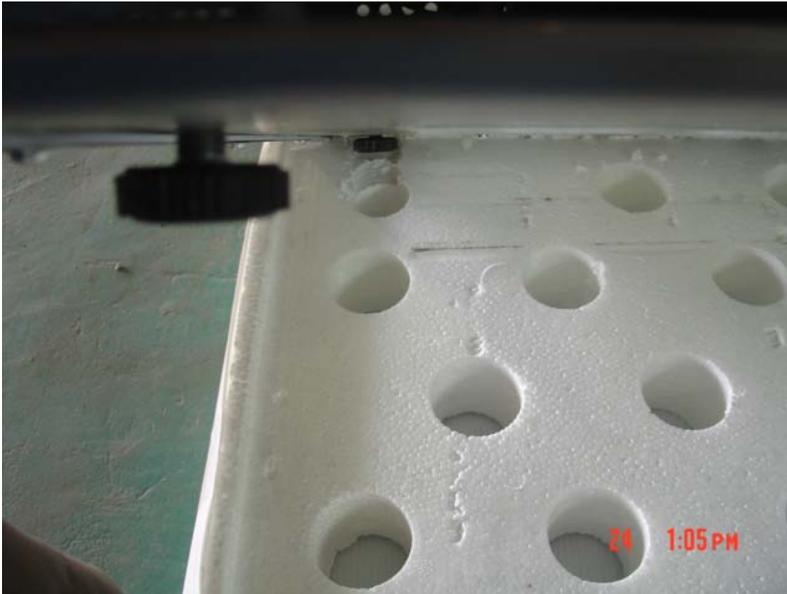


9. Install the back panel.



**3. The cellar is noisy.**

- a. Make certain that the unit is properly leveled and standing firmly. You may adjust the legs to keep it level.



- b. Make sure that the pipes are not touching one another.



- c. Make sure that the fan is not loose and that the fan is free of obstructions.
  - d. If the fan is shaking, the fan blade should be replaced.
- 4. The light does not turn on.**
- a. Check to ensure the lamp is tightened enough.
  - b. If the lamp is broken, replace it with a new one.
    - i. Unplug the power.



- ii. Remove the racks.



iii. Remove the screws from the lamp cover.



iv. Remove the lamp cover.



v. Remove the lamp.



vi. Install the new lamp.



- vii. Turn the lamp on to make sure that it is working properly. Once the lamp begins working, disconnect the power again.
- viii. Return the lamp cover.



- c. Check to see if the ballast is broken.
  - i. Remove the screws from the back panel.



ii. Remove the back panel.



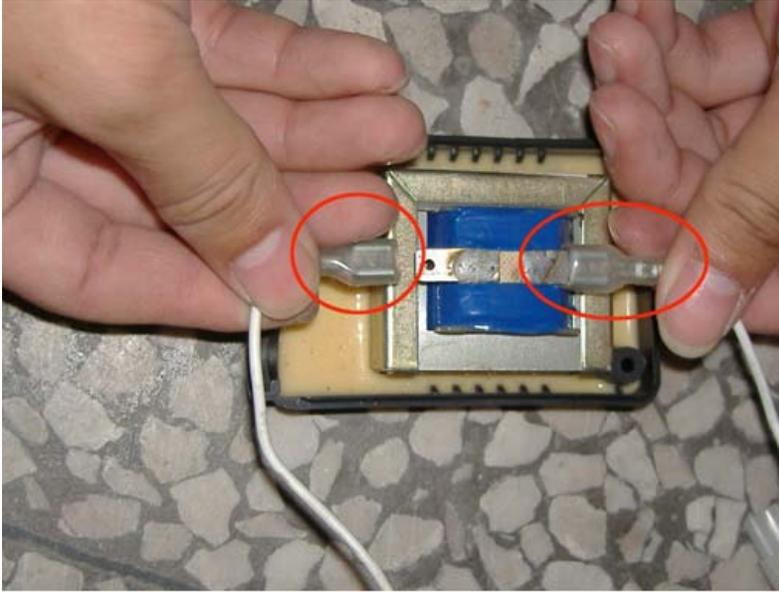
iii. Remove the screws from the board cover.



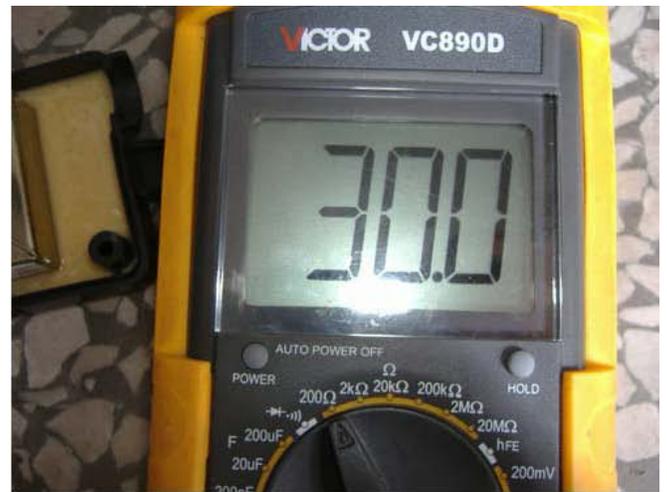
iv. Remove the screws.



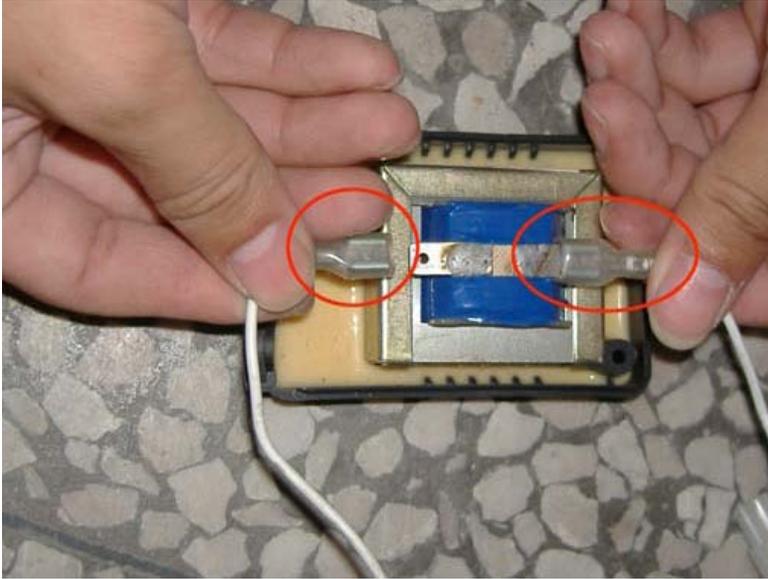
v. Remove the terminals from the ballast.



- vi. Check the resistance with the multimeter. If the resistance is infinite or shows no resistance, the ballast is damaged.



- vii. Install new ballast and plug in the terminal.



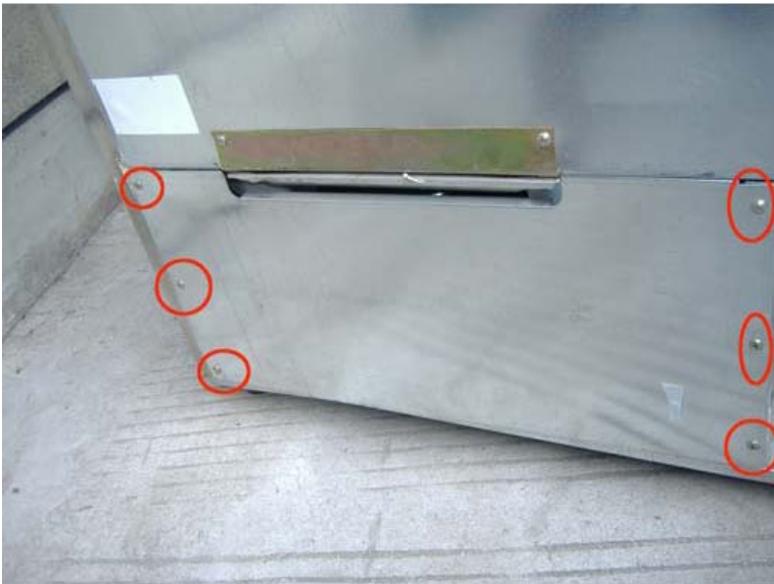
viii. Fasten the screws.



ix. Fasten the screws on the board cover.



x. Reattach the back panel.



5. **“ER” message is displayed on the LED indicator.** This means that the terminal is not connected well or the thermal resistor is damaged.
  - a. Repair the terminal.
    - i. Unplug the unit from the power supply.
    - ii. Remove the screws from the cover.



iii. Remove the plastic panel.



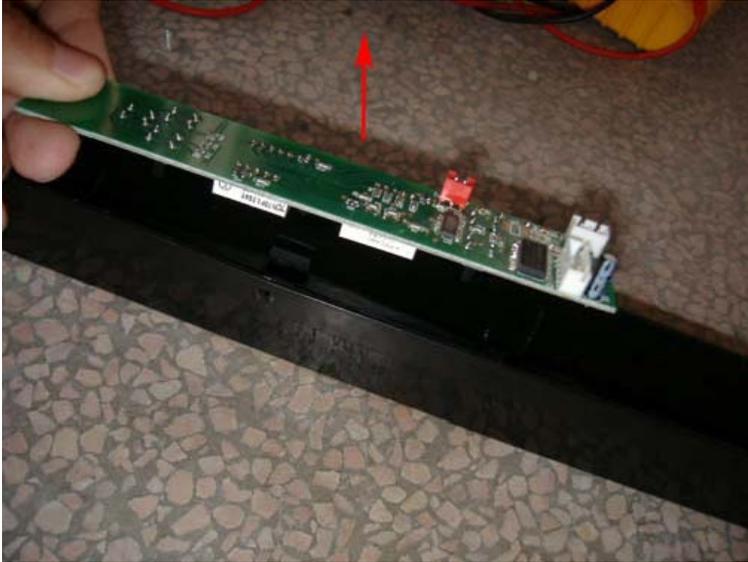
iv. Remove the screws on the display board.



- v. Check to make sure that the connectors on the temperature display board are not loose. (The red terminal is for the upper cabinet sensor, the white terminal is for the lower cabinet sensor)



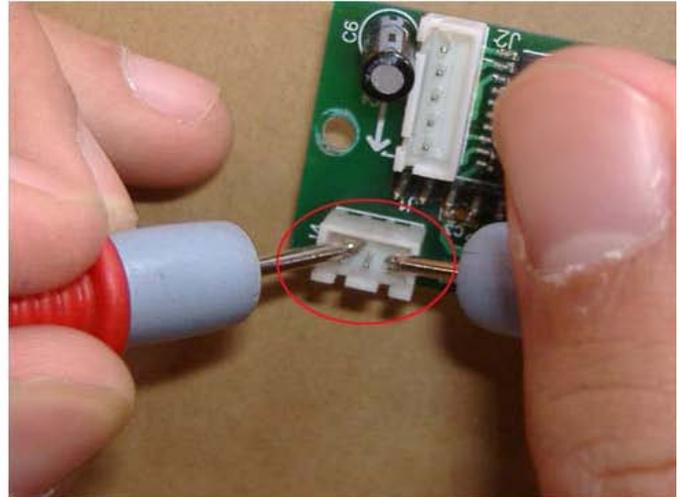
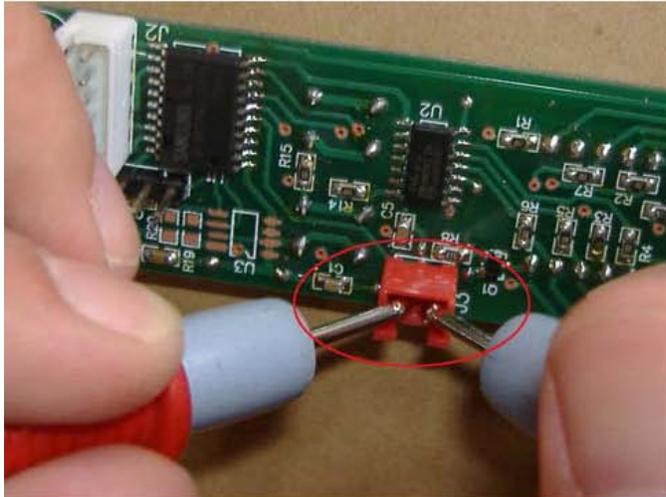
- vi. If the connectors are not loose, check to make sure that they are working properly.
  1. Take out the display board.



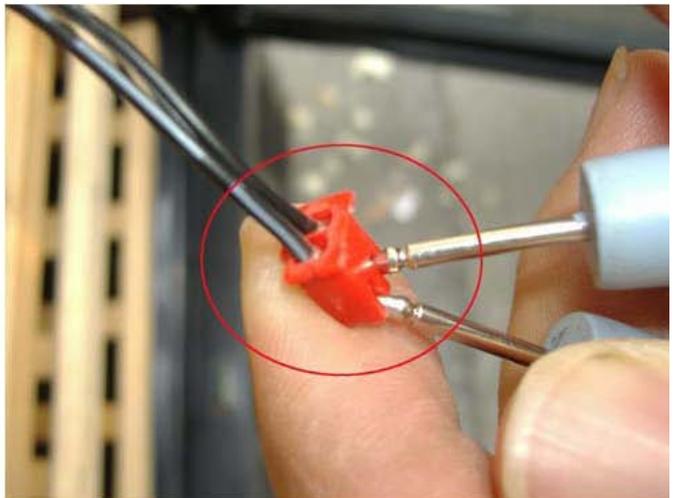
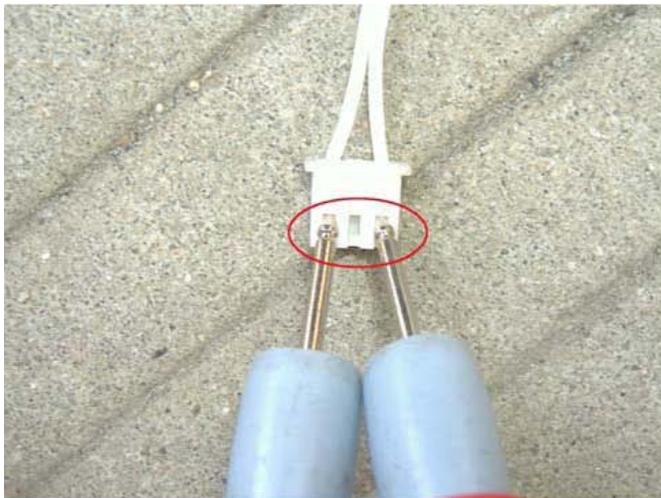
2. Pull out the terminal of the display board.



3. Check the resistance of the connector on the display board.  
If the resistance is infinite or it shows now resistance, the display board is damaged and should be replaced.



4. Check the resistance of the sensor terminal. If the resistance is infinite or shows no resistance, the terminal is damaged, proceed to the next step.



5. Cut the terminal according to the picture.



6. Reconnect a new terminal and tie it up with electrical tape.



7. Install the temperature display board.



8. Plug the terminal back in.



9. Reattach the plastic panel.



- b. If the display board and the resistance of the sensor terminal are working properly, the thermal sensor may be damaged.
  - i. Remove all racks from the cabinet.



ii. Remove the screws from the thermal sensor.



iii. Cut the line according to the picture and reconnect a new sensor.



iv. Secure the screws on the thermal sensor.



6. **“LL” message is displayed on the LED indicator.** This means that the cabinet temperature is too low. The control board needs to be replaced.
  - a. Remove screws from the back panel.



b. Remove the back panel.



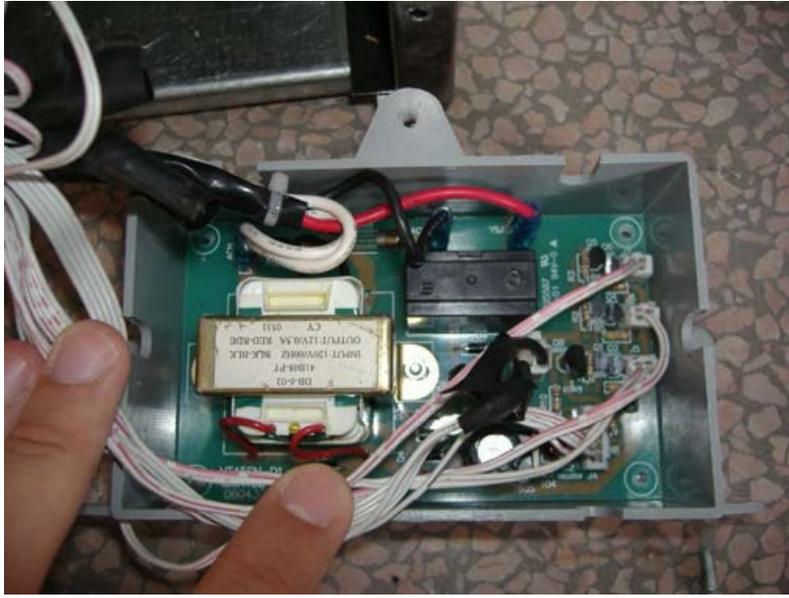
c. Remove the screws from the control board cover.



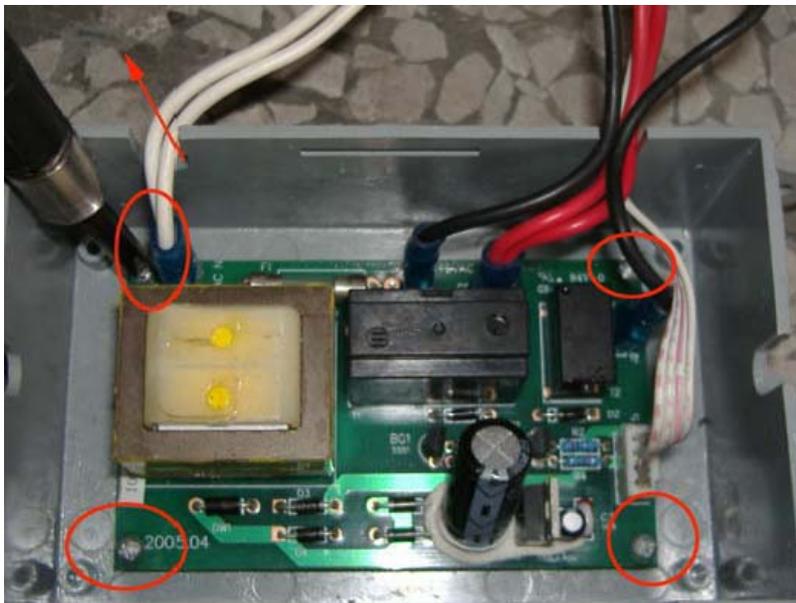
d. Remove screws from the control panel.



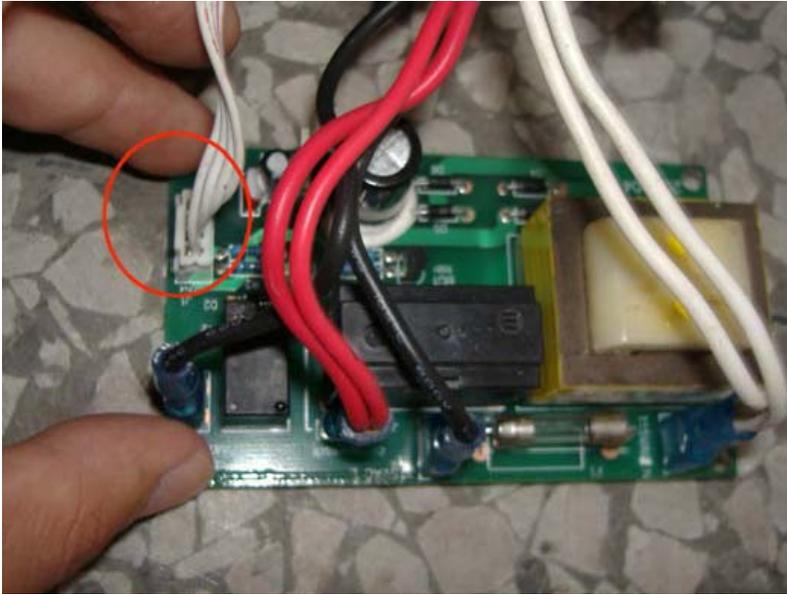
e. Remove the control board cover.



f. Remove the screws from the control board.



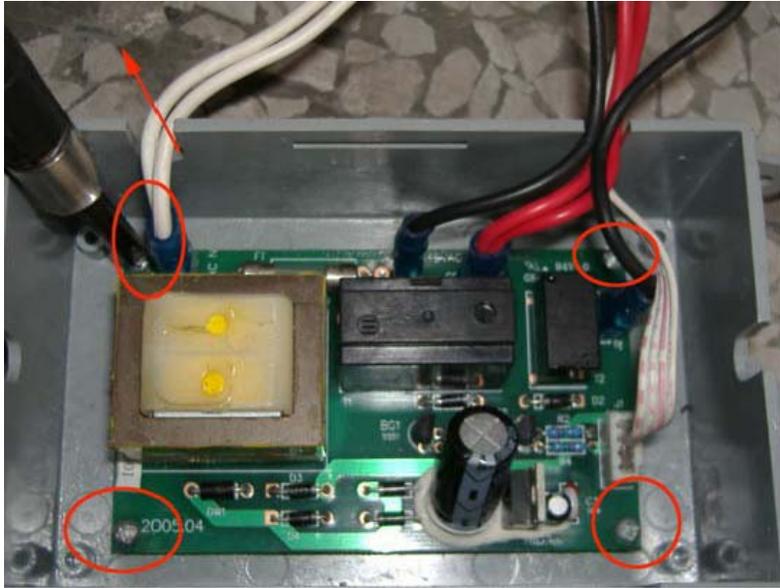
g. Disconnect the terminal on the control board.



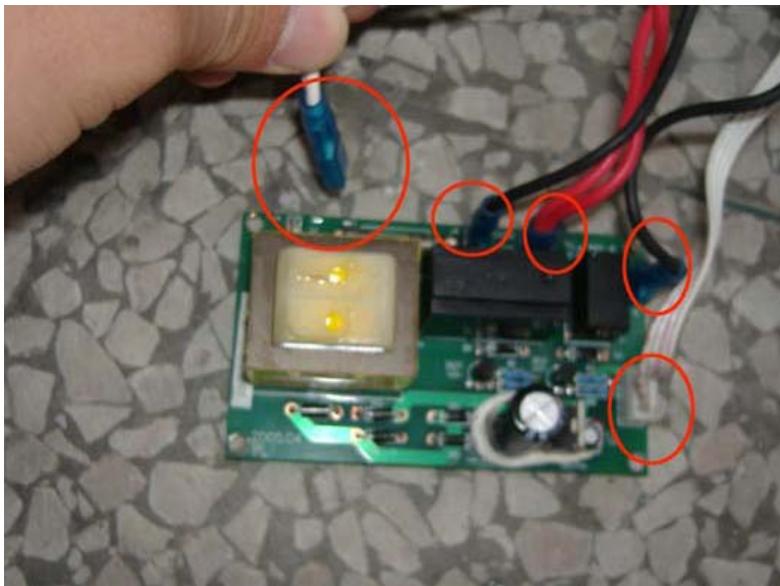
h. Replace with a new control board.



i. Secure the control board with screws.



j. Connect the terminal to the control board.



k. Return the control board cover to its proper position.



l. Fasten the screws on the control board cover.



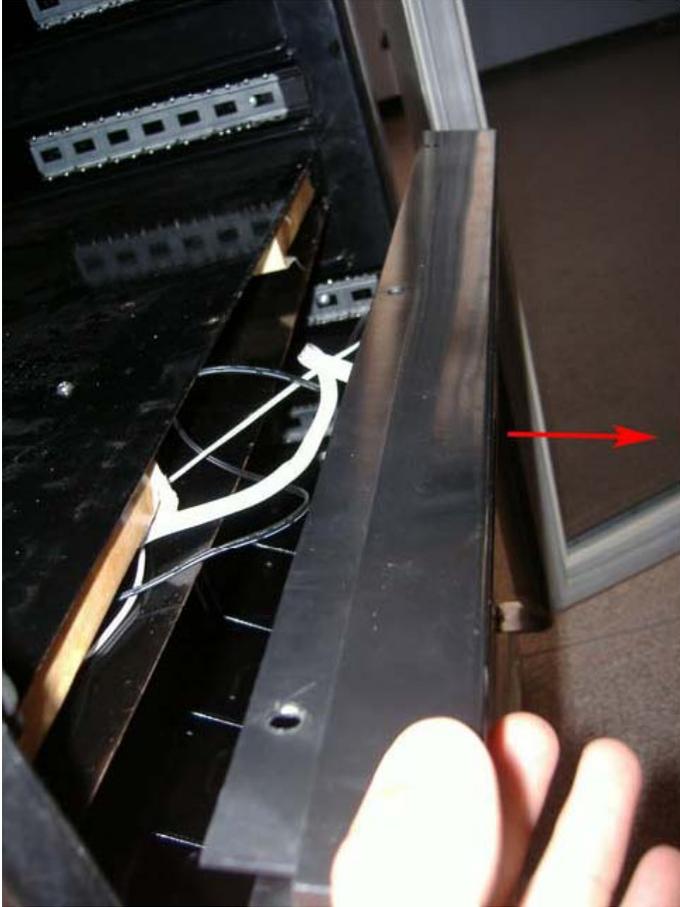
m. Secure the back panel with screws.



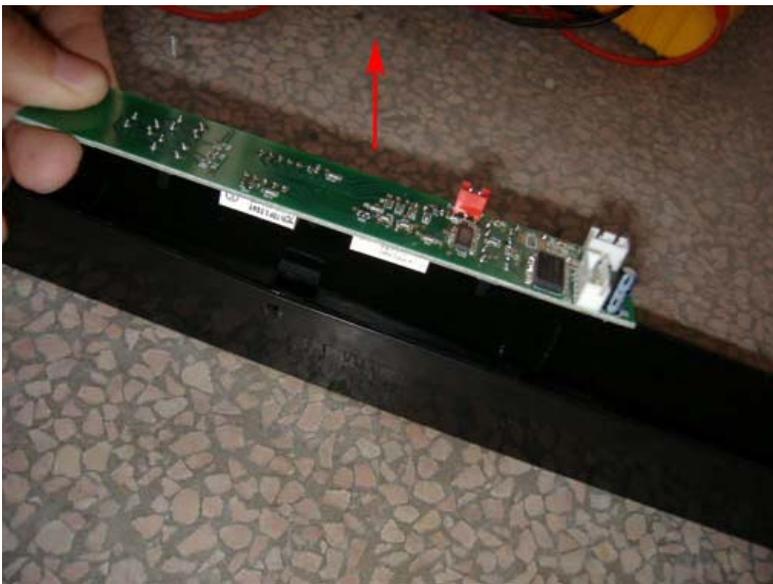
7. **“HH” message is displayed on the LED indicator.** This means that the cabinet temperature is too high. Please refer to the first troubleshooting category “Wine cellar does not get cold”.
8. **LED indicator is blank.**
  - a. Remove the screws on the cover.



b. Remove the plastic panel.



c. Remove the display board.



- d. Disconnect the terminal from the display board.
- e. Replace the display board with a new one.



f. Fasten the screws on the display board.



g. Reconnect the terminal.



h. Return the plastic panel to its appropriate position and fasten the screws.

