



AEC 380-C

Cryo Console

Operation Manual

AMOS SCIENTIFIC PTY.LTD. ABN37 159 778 140

www.amos-scientific.com

Foreword

Thank you for purchasing our AEC 380-C Cryo console. Presented in this 《Operation Manual》 are the functions and operation method support for the Embedding Center and the matters needing attention concerning safety. Please carefully read this manual before use so that you can understand its performance better and make full use of the functions. If you have any questions, contact us and we will provide satisfactory service of you at any time.

Please keep this 《Operation Manual》 appropriately for later consultation.

Contents

1 Safety Matters	- 1 -
2.Characteristics & Application.....	- 2 -
3.Main Structure	- 2 -
4. Technical Parameters	- 2 -
5. Operation Explanation.....	- 3 -
6 Trouble shooting	- 5 -
7 Cleaning & Maintenance	- 5 -
8 Wiring Diagram of Electrical Appliance	- 6 -
9 Schematic Diagram of Integrated circuit.....	- 7 -
10 Distribution Diagram Of Component.....	- 8 -

1 Safety Matters

- Please read these explicit rules. Act in violation of them can affect normal operation of the equipment, cause damage to the equipment or result in danger.



- Please use 220VAC±10% at50HZ or 110VAC±10% at60HZ.



- Input power supply must be of good earth connection.



- Keep away from flammables and explosives.



- Don' t open the equipment without authorization to prevent high voltage shock.



- Only professional maintenance personnel is allowed to repair equipment.



- Use fuses with correct capacity



- Ensure power socket and circuit be able to bear 2 times of rated current at least.



- Keep away from from any interference source.

- **Electrical Protection Ratings: I class, B type**
- **Baleful liquid Leak-in proof degree: Normal (enclosed equipment without liquid leak-in proof)**
- **Working system: Continuous running**

● Conditions of Installation

- Ensure more than 20cm of space around the equipment for heat dissipation.
- No water drop, steam, dust including oily dust and floating dust.
- No erosive,flammable and explosive gas and liquid.
- Solid and non-vibration.
- No interference from other electromagnetic signals.
- Operating ambient temperature from 5°C to 40°C ,relative humidity under 90%

● Delivery inspection

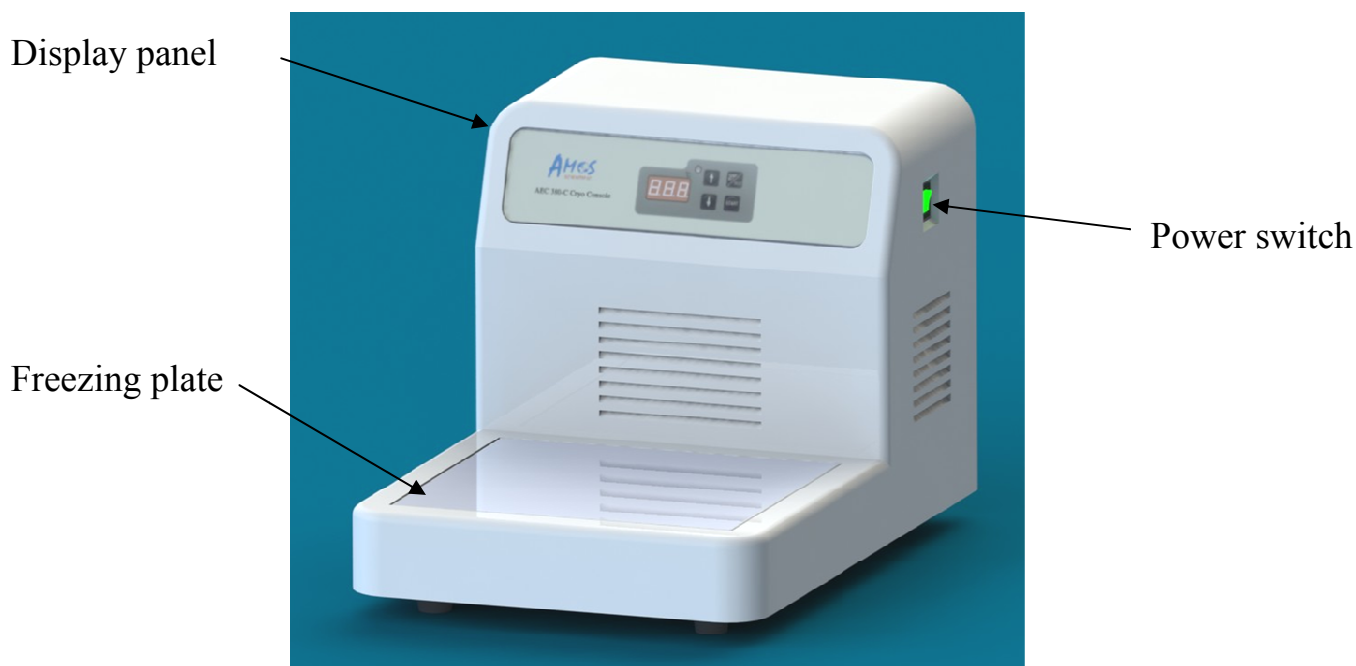
Product has been through strict inspection by quality management before ex-factory. However, product may be damaged or partially lost due to negligence or severe clash during delivery. Thus

- Please check the contents inside including equipment, operation manual, packing list and spare parts after unpacking,
- Check nameplate to ensure it is your order.
- Make sure of no damage or loss during delivery.

2.Characteristics & Application

AEC380 cryo console is support for Embedding Center to cool the embedding wax , which meet the requirement of large quantity .

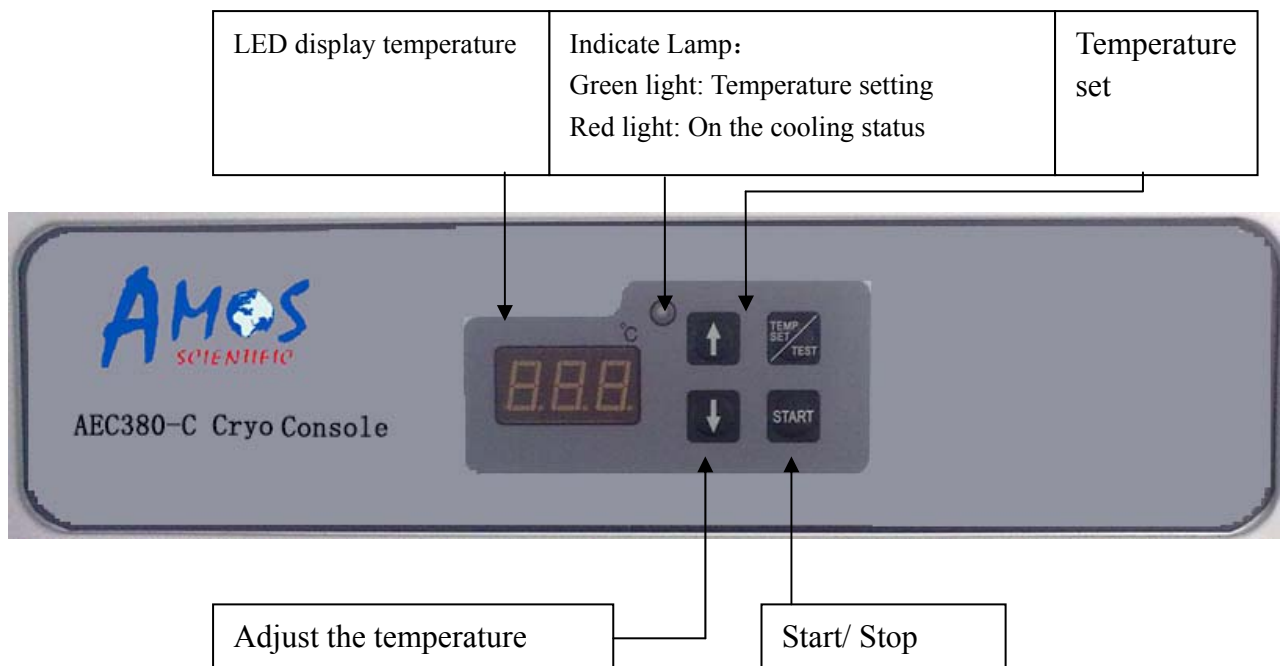
3.Main Structure



4. Technical Parameters

Working temperature: from +15°C to -15°C increments 1°C
 Rated Power: 330W
 Supply voltage: AC 220V±10% 50Hz or AC 110V±10% 60Hz
 Fuse: 220V/8A or 110V/8A
 Noise: ≤50db
 Dimensions:
 Width: 410mm
 Depth: 602mm
 Height: 410mm
 Weight: about 24Kg

5. Operation Explanation



Please switch on the cryo console 10 minutes before embedment.

A. Connect the Cryo Console to the power supply and switch on the power supply

B. And then press key **TEMP.SET** (the green light is on), while the screen will display the set temperature.

C. The operator can press key **▲ ▼** to adjust the temperature.

* it will be showed "OF" or "-OF" to alarm when the temperature exceed the set temperature. Showed "OF" to indicate set temperature on 15°C above, showed "-OF" to indicate set temperature on -15°C under.) Press **TEMP.SET** to adjust the set temperature.

D. Press key **TEMP.SET** again (the red light is on), the screen will display the actual temperature.

E. Press key **START** to refrigerate and the temperature will reach the set temperature after a while.

If you want to stop working, you can stop the machine working by press key **START** again to stop cooling and then turning off the power supply.

Note: The set temperature of cryo console is from +15°C to -15°C available actually.



Attention:

- Don't turn the machine on within five minutes after turning the table off (the effect of refrigeration is much better when turn the machine on after the temperature of the machine comes back to ambient
- Don't leave the paraffin piece on the table for long to prevent cracking
- Enough space should be provided at the rear of the table heat dissipating area for quick heat dissipation. (Enough space 20 cm at least far away from the wall.)
- Water resulted from ice dissolution should be removed timely

6 Trouble shooting

Type	Problem	Possible causes	Judge Method	Corrective action
No display	No display on the panel	Fuse broken	Take out the fuse to check its internal resistance by multimeter, if the value is infinite, the fuse is broken	Replace a new one
		Power cord plug poor	Check the connection is good or not	Plug in again
		Power switch is open circuit	Check the switch is open circuit or not	Replace a new one
		switch power supply no output	Replace the power supply	Replace the power supply
Don't refrigerate	Don't refrigerate after the machine cooling some time	Fan broken	Check the Fan is working or not	Replace a new one
		Compressor is on the protection of overheating, please turn off 5 minutes, and press to START restart.		
		Refrigeration medium empty	Service by qualified person.	Service by qualified person.
Alarm	No any display when machine start and also with Alarm.	sensor is broken	Replace the sensor to check if the work well or not	Replace the sensor

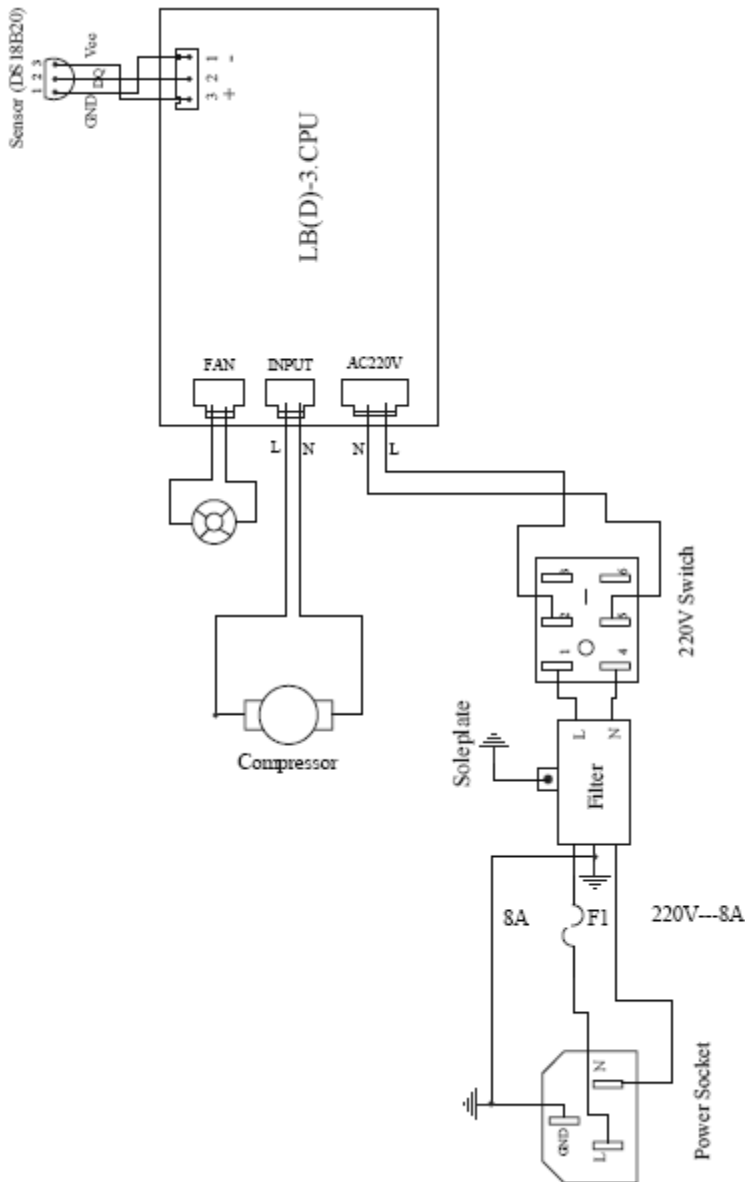
If there are any trouble can not be resolved , please contact with the manufacturer .

7 Cleaning & Maintenance

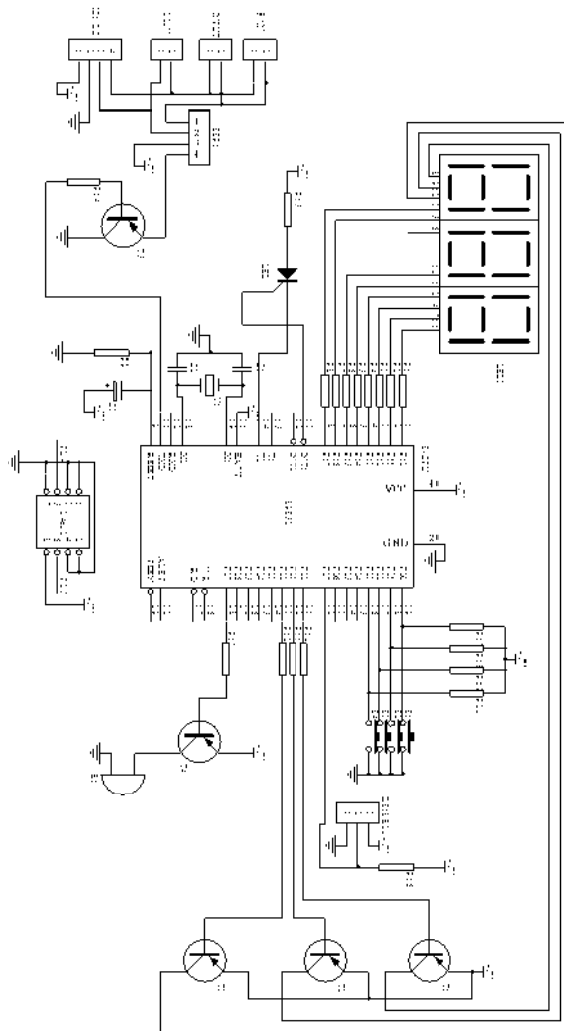
- Please reading the specification carefully when run the machine, According to the requirements of the operation.
 - Keep clean of the instrument and After hours please clear surface dirt and mesa ice water.
 - Forbid to using sharp hard object to harm the worktable.
 - Insert the fuse(1) into the fuse socket (2) as it is showed in the Fig 10 and insert the whole fuse socket into the socket (3).
 - Before replacing the fuse must turn off the power switch and disconnect the power.
- Specification of fuse: 3A (220V) ,5A(110V)



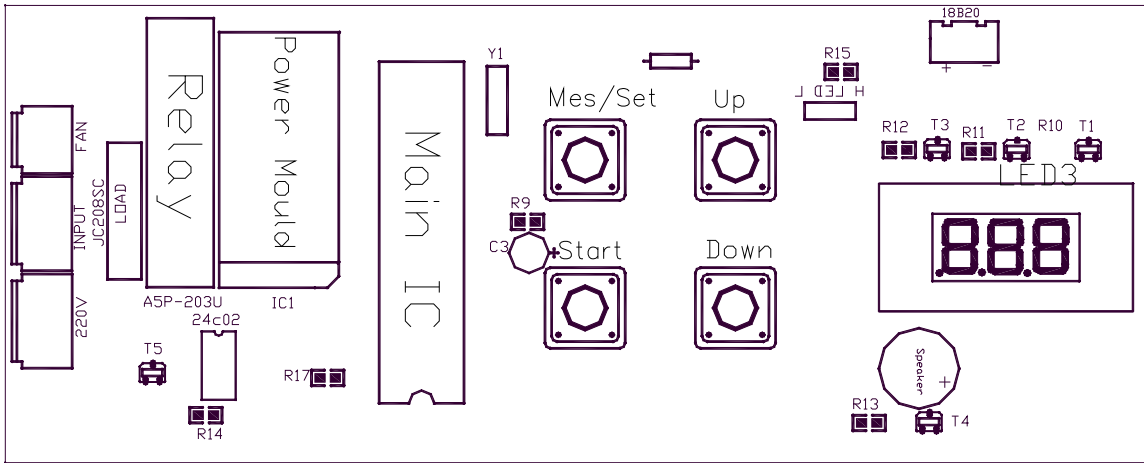
8 Wiring Diagram of Electrical Appliance



9 Schematic Diagram of Integrated circuit



10 Distribution Diagram Of Component



Standard accessories list

No	Accessory Name	Qty	Notes
1	Cryo console	1 unit	
2	Power Cord	1pc	
3	Fuse	2pcs	
4	Operation Manual	1pc	

Published by:



AMOS SCIENTIFIC PTY.LTD

7 Gabrielle Court, Bayswater North VIC 3153 Melbourne , Australia

Tel: +61-410190188 Fax: +61-410190188

ABN 37 159 778 140

www.amos-scientific.com