



**AEC 380-C** (Version: AMOSAEC 380CCOP20240409)

# **Cryo Console**

## **Operation Manual**

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# **Foreword**

**Thank you for purchasing our AEC 380-C Cryo Console. Presented in this 《 Operation Manual 》 are the functions and operation methods, supporting the use of our Embedding Center, as well as 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 you satisfactory service at any time.**

**Please keep this 《 Operation Manual 》 appropriately for future reference.**

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## 1. Safety Matters

Please adhere to these explicit rules. Violation of them can disrupt normal equipment operation, cause equipment damage, or pose safety hazards.



- Use either 220VAC±10% at 50Hz or 110VAC±10% at 60Hz power supply.



- Ensure a reliable earth connection for the input power supply.



- Keep away from flammable and explosive materials.



- Don't open the equipment unauthorized to avoid the risk of high voltage shock.



- Only authorized maintenance personnel are permitted to repair the equipment.



- Use fuses with the correct capacity.



- Ensure that power sockets and circuits can handle at least twice the rated current.



- Keep away from any sources of interference.

- **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

- Provide at least 20cm space around the equipment for heat dissipation.
- Avoid exposure to water drops, steam, dust (including greasy and floating dust).
- Keep away from corrosive, flammable, and explosive gases and liquids.
- Maintain stability and minimize vibration.
- Avoid interference from other electromagnetic signals.
- Operating under ambient temperature from 5°C to 40°C, relative humidity below 90%.

### Delivery Inspection

Product undergoes rigorous quality inspection before leaving the factory. However, damage or missing parts may occur during delivery due to mishandling. Therefore:

- Check contents upon unpacking, including equipment, operation manual, packing list, and accessories.
- Verify the nameplate to confirm it matches your order.
- Ensure no damage or loss has occurred during delivery.

## 2. Characteristics & Application

The AEC380 Cryo console is a supporting unit for the Embedding Center, designed to cool embedding wax efficiently, particularly suitable for handling large quantities.

## 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:

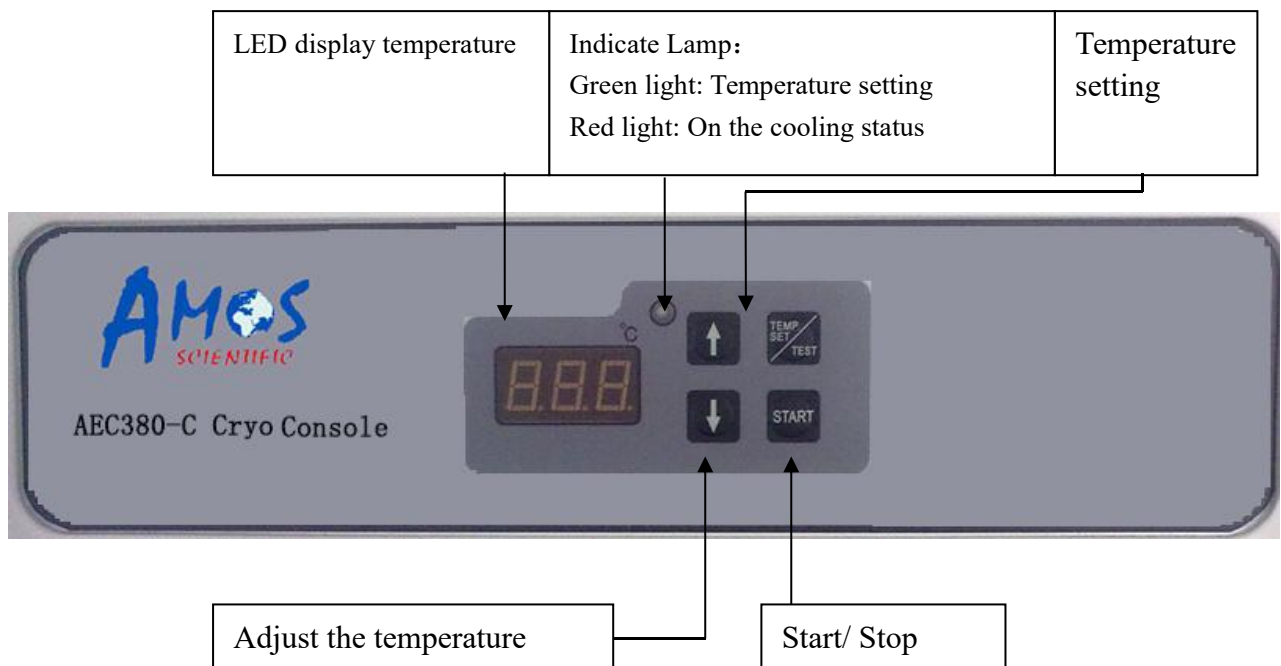
Width: 410mm

Depth: 602mm

Height: 410mm

Weight: about 24Kg

## 5. Operation



**Please switch on the cryo console 10 minutes before embedment.**

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

B. Press the **TEMP.SET** button (the green light will illuminate), and the screen will display the set temperature.

C. Use the **▲** and **▼** buttons to adjust the temperature.

\* If the temperature exceeds the set range, "OF" or "-OF" will be displayed as an alarm. "OF" indicates that the set temperature is 15°C above, while "-OF" indicates its 15°C below. Press **TEMP.SET** to adjust the set temperature accordingly.

D. Press **TEMP.SET** again (the red light will illuminate), and the screen will display the actual temperature.

E. Press **START** button to begin cooling, and the temperature will gradually reach the set temperature.

To stop operation, press the **START** button again to cease cooling, then switch off the power supply.

**Note:** The cryo console's set temperature ranges from +15°C to -15°C.



**Attention:**

- Avoid turning on the machine within five minutes after turning it off to allow the machine's temperature to return to ambient levels for better refrigeration effectiveness.
- Avoid leaving paraffin pieces on the table for extended periods to prevent cracking.
- Ensure there is adequate space provided at the rear of the table for efficient heat dissipation (at least 20 cm away from the wall).
- Promptly remove water resulting from ice dissolution.

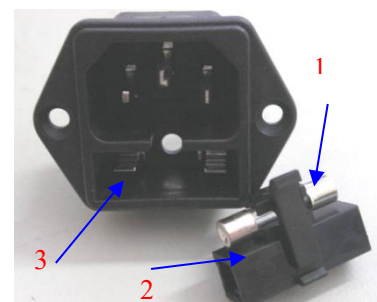
## 6. Trouble shooting

Type	Problem	Possible causes	Evaluation methods	Corrective action
No display	LED screen not displaying temperature	Fuse blown	Remove fuse and test resistance with multimeter. Infinite resistance indicates blown fuse	Replace fuse
		Power not plugged in properly	Check if power plug is inserted into external power supply, or if plug is loose	Replug power
		Power switch circuit interrupted	Check if power switch circuit is interrupted	Replace power switch
		Switching power supply no output	Test if switching power supply has output	Replace switching power supply
Not Cooling	Doesn't cool down after starting for some time	Fan malfunction	Check if the fan is rotating	Replace the fan
		Compressor overtemperature protection		
		Refrigerant loss	Please contact a refrigeration professional for repair	Please contact a refrigeration professional for repair
Alarm	No display upon startup and alarm sounding	Faulty sensor	Replace the sensor with a new one and check if it operates normally. If normal, the sensor is faulty.	Replace the sensor
If there are problems that cannot be resolved, please contact the manufacturer.				

## 7. Cleaning & Maintenance

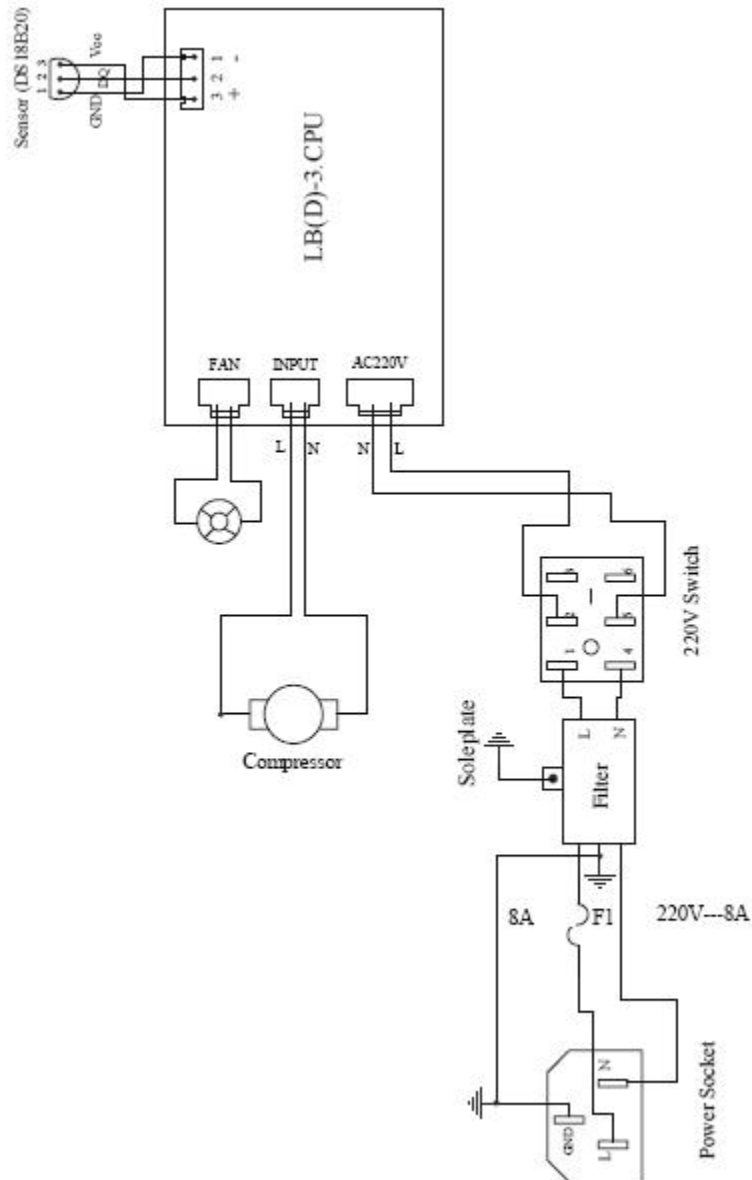
- Please carefully read the specifications when operating the machine according to the operation requirements.
- Keep the instrument clean, and after hours, please remove surface dirt and melted ice water from the freeze plate.
- Do not use sharp or hard objects that may damage the freeze plate.
- Insert the fuse (1) into the fuse socket (2) as shown in Fig. 10 and insert the entire assembly into the larger socket (3).
- Before replacing the fuse, make sure to turn off the power switch and disconnect the power supply.

Specification of fuse: 3A (220V) ,5A(110V)

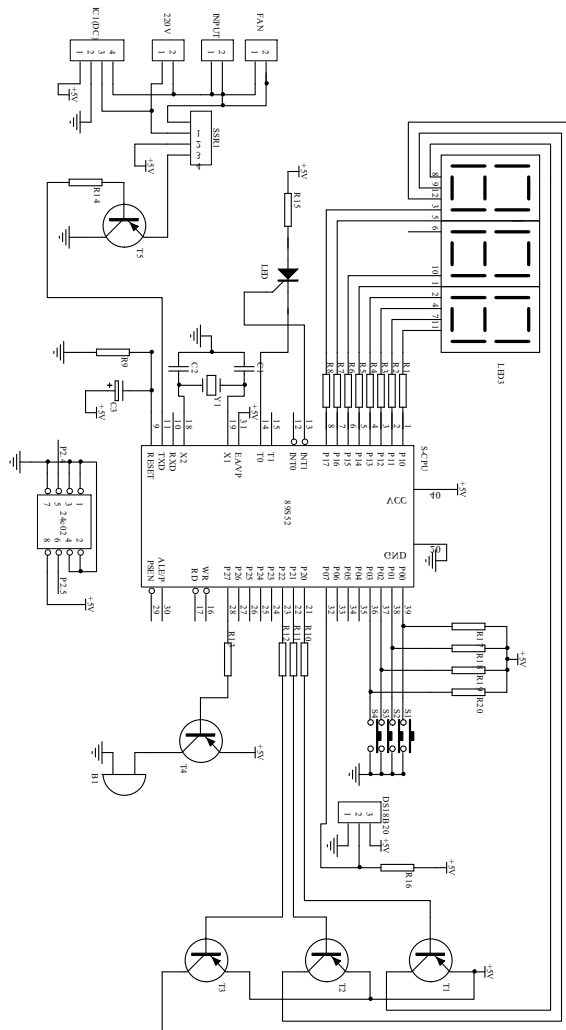




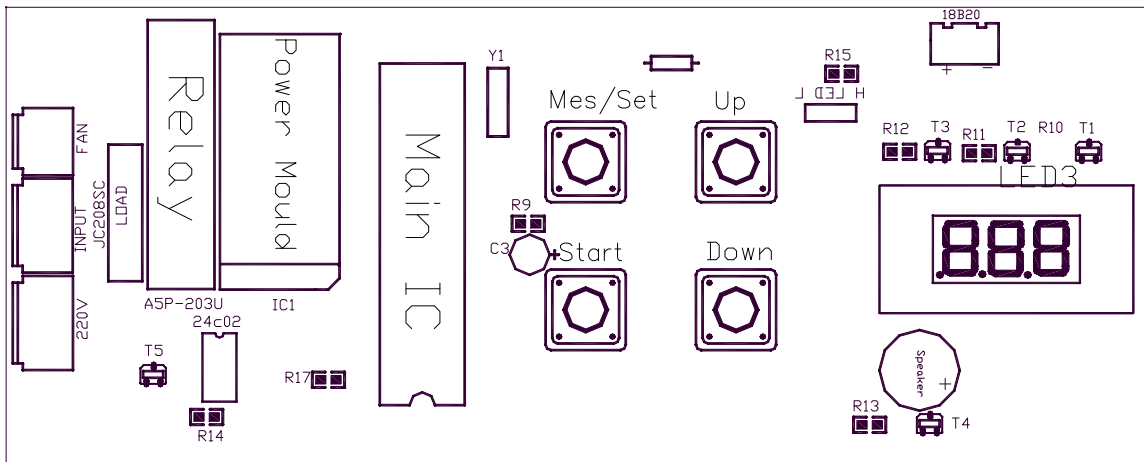
## 8 Wiring Diagram of Electrical Appliance



# 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	

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