

# RECIRCULATING BATH WITH CHILLER

IG-62CB



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## 1. INTRODUCTION

The Circulating Bath with chiller is extensively utilized across a range of fields including Petroleum, Chemical, Electronic, Instrumentation, Physics, Chemistry, Bioengineering, Medical and Health, Life Sciences, and Food Industries. It is essential for property testing and chemical analysis, serving research departments, universities, and quality inspection and production departments in enterprises.

## 2. WARNING

- **Electrical Hazard:** To prevent electric shock, do not operate this equipment in wet conditions. Ensure that all electrical installations comply with national and local codes. Disconnect power before servicing.
- **Chemical Exposure:** Use appropriate protective equipment when handling chemicals that are being cooled or heated in the chiller to avoid skin and eye contact.
- **Pressure Build-up:** Do not obstruct the flow of coolant in the circulation system. Blockages can cause pressure to build up, leading to equipment damage or personal injury.
- **Water Quality:** Use only clean, deionized water or other specified coolants to avoid scale buildup and corrosion, which could lead to leaks and system failure.
- **Improper Use:** This chiller is designed for specific cooling tasks. Using the Circulating Bath for applications outside its intended use may compromise safety and equipment performance.
- **Ventilation:** Ensure adequate ventilation around the Circulating Bath to prevent overheating and potential failure of the cooling system.

## 3. PRECAUTIONS FOR USE

- Before operation, ensure that the tank is filled with a liquid medium; operating without liquid is strictly prohibited. Note: the liquid should not contain acids or alkalis.
- The power supply should have a capacity greater than the total power of the instrument, and it must be properly grounded. Use a voltage according to the specifications listed in the technical parameter table.
- Position the instrument in a well-ventilated and dry area, ensuring at least 300 mm of clearance from any obstacles at the back and sides to facilitate good heat dissipation.
- After use, turn all switches to the off position, unplug the power cord, open the drain valve to remove the medium from the tank, and keep the tank dry and clean.

#### 4. FEATURES

- **Refrigeration System:** The unit uses a low-noise, air-cooled, fully enclosed compressor, which offers rapid cooling and excellent temperature stability.
- **Control System:** It incorporates the latest proprietary software and temperature control technologies, featuring a high-standard PT100 and top-quality imported electronic components.
- **Circulation System:** This system includes both internal and external circulation. External circulation allows the constant temperature liquid from the tank to be directed outside, creating a secondary temperature-controlled environment or serving as a cold source to cool experimental containers outside the machine. Internal circulation ensures uniform and stable liquid temperatures within the tank.
- **Protection System:** The refrigeration system is equipped with overheating and overcurrent protections, while the control system includes over-temperature alarms, settings for temperature limits, and automatic disconnection of the load in the event of excessive temperatures.
- **Display and Interface:** Features a high-end, large-screen LCD control instrument with a high resolution of 0.01°C, offering simple operational functions and robust temperature stability. PID control allows for automatic tuning or manual adjustment.
- **Temperature Accuracy:** Includes precise temperature correction up to 0.01°C, with maximum temperature fluctuations is  $\pm 0.02^\circ\text{C}$ .

#### 5. OPERATING STEPS

##### 5.1 Connecting the Circulating Pump (If Applicable)

- **Internal Circulation:** Connect the water outlet and water inlet directly using the hose supplied with the unit.
- **External Circulation:** Connect the water outlet to the inlet of an external container/equipment with a hose, and connect the water inlet to the outlet of the external container/equipment.

##### 5.2 Adding the Liquid Medium to the Tank

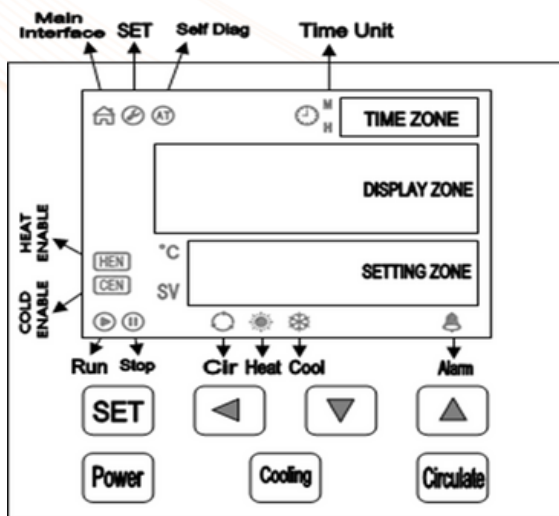
- Ensure the liquid level is no less than 20mm below the worktable to prevent damage from the heater drying out.
- Below 8°C: Use industrial alcohol or antifreeze.
- Between 8°C and 75°C: Use pure water. Generally selected for liquid media.
- Between 75°C and 100°C: Use dimethyl silicone oil with a viscosity of 5cs. Generally selected for liquid media.
- Between 101°C and 200°C: Use dimethyl silicone oil with a viscosity of 10cs. Generally selected for liquid media.
- Above 200°C: Use dimethyl silicone oil with a viscosity of 50cs. Generally selected for liquid media.

### 5.3 Powering the Instrument

- Plug in the power, turn on the "Main Power" switch located at the back of the instrument, and then press the "Power" button on the operation panel.

### 5.4 Instrument Operation: Perform the instrument operation as follows:

#### 5.4.1 Display Description:



#### 5.4.2 Description of Instrument Keys:

- Set Function Key
- Shift Key
- Decrease Key (▼)
- Increase Key (▲)

### 5.5 Setting of Temperature Parameters:

Press the Set function key to enter the temperature setting mode. The last value of the SV (Set Value) on the display will flash. First, press the shift key, then use the increase or decrease key to set the desired working temperature, and press the Set function key again. The last value of the timed shutdown time (min) "0000" in the upper right corner of the display will flash. If no change is needed, press the "Set" function key once more to exit the parameter setting mode and save the settings. The "PV" (Process Value) on the display will then show the current.

## 6. PACKING LIST

- Power Cable: 1 set
- Cover plates: 1 piece
- Specification sheets: 1 piece

## 7. SPECIFICATIONS

MODEL	IG-62CB
Temperature Range	-20°C to 100°C
Temperature Display Resolution	± 0.1°C
Temperature Fluctuation	± 0.2°C
Temperature Control	Microprocessor PID
Display	LCD
Refrigeration	Air Cooled refrigeration through the compressor.
Refrigerant	R-134a
Pump circulation	Internal & External
Pump flow rate	6 L /min
Bath Tank capacity	6 L
Tank size (Lx W x D)	180 x 290 x150 mm
Bath Opening	180 x 140 mm
Bath depth	150 mm
Power Requirements	220VAC/50Hz
Packing Dimensions (LxWxH)	530 x 450 x 800 mm
Weight	44 kg
Heating Capacity	2000 W

## 8. TROUBLESHOOTING

- Check the connection of power.
- Exchange the fuse, then reboot the instrument, if this problem persists, please contact the supplier.
- Reboot the instrument, if this problem persists, please contact the supplier. If you need repair, please contact our company in the given contact No: 18005720603 .



# CONNECT WITH US.

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