StonyLab®

High-Speed Centrifuge

(GS Series)

Operation Manual

(Please read the instruction carefully before you use the machine)

Contents

1. General Description

The High-Speed Centrifuge is a specialized instrument designed for the rapid separation of mixed solutions. It is widely applied in various fields of scientific research.

2. Operating Conditions

2.1 Ambient temperature: 5°C–40°C

2.2 Relative humidity: ≤80% (at 25°C)

2.3 The surrounding environment must be free of conductive dust, explosive gases, and corrosive gases.

2.4 Power supply requirements: 220V 50HZ, 110V 60HZ

3. Main Specifications and Functions

3.1 Capacity, maximum allowable speed, and maximum allowable RCF

Rotor No.	Capacity (ml)	Max speed(r/min)	Max RCF(×g)	Remark
1	50ml×6	10000	11000	optional
1	15ml×12	10000	11000	optional
1	10ml×24	10000	11000	optional
1	100ml×4	10000	11000	optional
1	10ml×12	10000	11000	optional

Table-1

3.2 Noise level: ≤70 dB

3.3 Temperature rise of tested solution: After operating for more than 20 minutes, the

solution temperature in the test tube will not increase by more than 10°C.

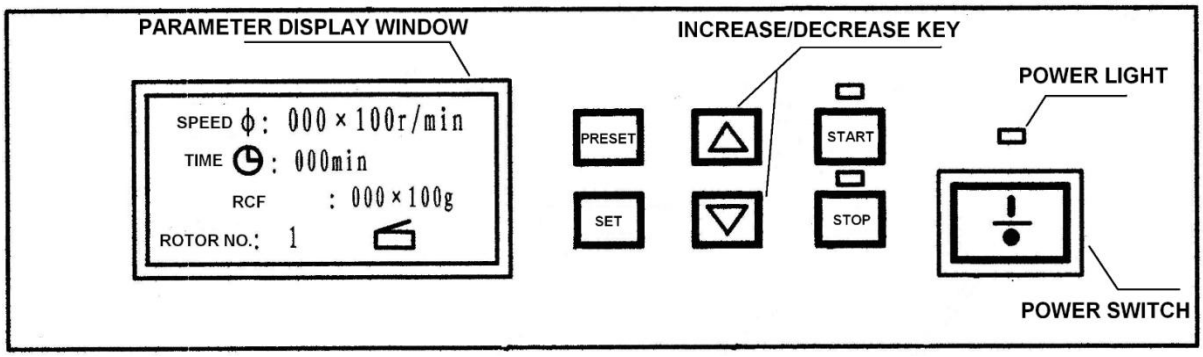
3.4 Vibration amplitude: ≤0.10 mm

3.5 Rotation direction: Counter-clockwise

3.6 Timer accuracy: ±10% tolerance

3.7 Gross weight: 36 kg

4. Operation Panel



4.1 Display Window

4.1.1 Speed Display: Shows the preset speed or actual speed.

4.1.2 Time Display: Shows the preset operation time or remaining time.

4.1.3 RCF Display: Shows the relative centrifugal force (RCF) of the preset or actual speed.

4.1.4 Rotor Number Display: Shows the rotor number according to the installed rotor.

4.1.5 Lid closed, lid not closed. The machine will not operate if the lid is not closed.

4.2 Preset Key

Pressing this key will make the corresponding parameter on the display blink. Use the Preset Key to select SPEED, TIME, RCF, or ROTOR NUMBER, then adjust the value using ▲/▼.

4.3 Set Key

Press this key to confirm the preset SPEED, TIME, RCF, or ROTOR NUMBER.

4.4 Start Key

Press this key to start the centrifuge. The START LIGHT will illuminate.

4.5 Stop Key
Press this key to stop the centrifuge. The STOP LIGHT will illuminate.

4.6 Power Switch
Press "｜" to turn on the power; press "○" to turn off the power.

4.7 Power Light
The light illuminates when the power is connected and turns off when the power is cut off.

4.8 Increase (▲) / Decrease (▼) Keys
Use these keys to adjust the SPEED or operation TIME.

5. Usage Method

5.1 Installing the Centrifuge

5.1.1 Place the centrifuge on a flat, stable surface and check that all accessories are complete.

5.1.2 Press the button on the right side of the machine to open the lid. Verify that the rotor is securely fixed and rotates smoothly.

5.1.3 Connect the plastic power cord to the socket at the back of the machine.

5.2 Sample Balancing

5.2.1 Make the solution volumes in the tubes visually equal and place the tubes symmetrically. (The visual difference should not exceed 2 g.)

5.2.2 If necessary, fill some tubes with water to maintain balance and symmetry.

5.3 Pre-Start Checks

5.3.1 Ensure the power supply meets voltage, current, and frequency requirements.

5.3.2 Confirm that the rotor and centrifuge tubes are properly installed and rotate smoothly. Ensure the rotor is securely fixed.

5.3.3 Keep the interior of the machine clean to reduce noise. When using personal tubes, ensure proper installation.

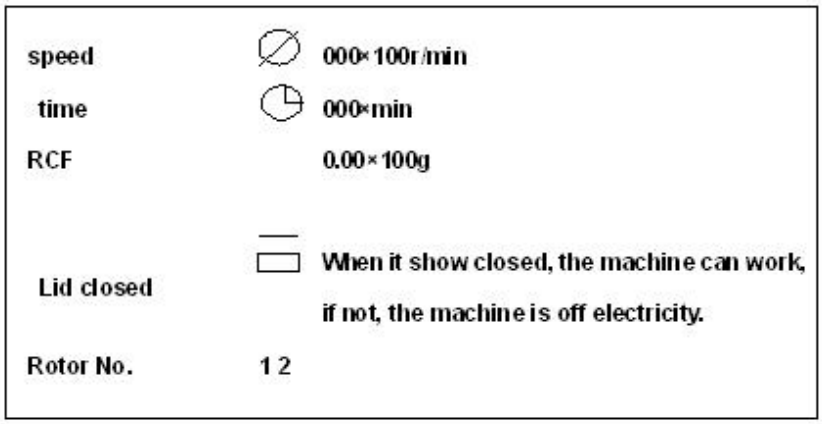
5.3.4 Make sure all samples have equal amounts, are balanced, and arranged symmetrically.

5.3.5 Ensure solution density is ≤1.2 g/cm³.

5.4 Centrifuge Operation

5.4.1 Press the button on the right side of the machine to open the lid. Place the samples in the rotor and close the lid securely.

5.4.2 Connect the power and turn on the switch. The power light and stop light will illuminate, and the parameter display will turn on.



5.4.3 Set the rotor number: press the “Preset” key until the “Rotor No.” blinks, then use ▲▼ to select the rotor number according to Section 3.1.

5.4.4 Set the speed (RCF): press “Preset” until the speed value blinks, then use ▲▼ to select the desired speed. After 3 seconds (or after pressing “Start”), the actual speed will display. If “Start” is not pressed, the display will show “000”.

5.4.5 Set the time: press “Preset” until the time value blinks, then use ▲▼ to select the desired run time. Press “Start” to begin countdown. (Time range: 0–999 min)

5.4.6 Start: press “Start”. The START LIGHT will turn on and the STOP LIGHT will turn off. The centrifuge will accelerate to the preset speed automatically. To change speed during operation, follow Step 5.4.4.

5.4.7 Stop: the machine will stop automatically when the countdown reaches “0000,” and the STOP LIGHT will turn on. Press “Stop” during operation to stop immediately.

5.4.8 When the speed display shows “000,” an alarm will sound. Open the lid and remove the samples. For repeated runs with the same speed and time, simply press “Start.”

5.4.9 After completing the operation, turn off the power using the ○ switch, unplug the machine, and clean it.

5.4.10 Protection and alarm: if the rotor stalls or the speed exceeds the maximum allowed by 300 rpm, the machine will stop and alarm. Turn off the power, then restart and reset the parameters.

5.5 Attention and Reminders

5.5.1 The centrifuge should be operated only by trained personnel who have carefully read the manual.

5.5.2 Each rotor has a specific maximum speed. Do not exceed the maximum speed listed in Table-1.

5.5.3 Ensure reliable grounding of the power supply.

5.5.4 Check that the rotor is securely fixed before each use.

5.5.5 In case of any error, turn off the machine immediately. Maintenance should be performed by trained personnel, or contact the manufacturer for assistance.

6. Maintenance

6.1 Keep the centrifuge clean and dry.

6.2 Before use, clean the rotor, centrifuge tubes, and other accessories with a dry cloth, and ensure that none of the accessories are damaged. Remove the rotor monthly, clean the central hole and drive shaft, and apply a small amount of grease to ensure proper operation.

6.3 Fuse replacement: Turn off the power, then unscrew the fuse box cover located at the bottom rear of the centrifuge. Replace the fuse with a new one.

6.4 Store the centrifuge in a dry location.

7. Transport and Storage Conditions

7.1 Temperature range: -40°C to 70°C

7.2 Relative humidity: ≤80%

7.3 Atmospheric pressure range: 500–1060 hPa

8. Warranty

Warranty is effective from the date of purchase and is non-transferable.
For more details about the warranty, please refer to the link below:
stonylab.com/pages/warranty

For any inquiries or assistance, feel free to contact us:
Company: StonyLab Inc.
Email: support@stonylab.com
Phone: 631-406-6080
Website: stonylab.com

This instruction manual is subject to change without prior notice.