



[Manuals.plus](#) /

> [KGK GK](#) /

> KGK GK LD-4 Desktop Laboratory Centrifuge User Manual

KGK GK LD-4

KGK GK LD-4 Desktop Laboratory Centrifuge User Manual

Model: LD-4

1. INTRODUCTION

The KGK GK LD-4 Desktop Laboratory Centrifuge is designed for efficient separation of substances in laboratory settings. This device is suitable for qualitative analysis of serum, plasma, and urea in various applications, including pharmaceutical research, blood banks, clinical trials, and biochemical laboratories. Its compact design, stable performance, and adjustable speed make it a versatile tool for experimental use.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the centrifuge. Failure to follow these guidelines may result in injury or damage to the equipment.

- Ensure the centrifuge is placed on a stable, level surface to prevent vibration and movement during operation.
- Do not operate the centrifuge with an unbalanced rotor. Always balance tubes of equal weight opposite each other.
- Keep the lid closed during operation. Do not open the lid until the rotor has completely stopped.
- Do not exceed the maximum speed or capacity specified for the rotor and tubes.
- Use only compatible centrifuge tubes and accessories.
- Disconnect power before cleaning or performing any maintenance.
- Avoid spilling liquids into the control panel or motor area.
- Operate in a well-ventilated area.

3. PRODUCT OVERVIEW

The KGK GK LD-4 centrifuge features a robust design with intuitive controls for ease of use.



Figure 3.1: Front View of Centrifuge. This image displays the front of the KGKGK LD-4 Desktop Centrifuge, highlighting the control panel with speed and timer knobs, and the power switch.



Figure 3.2: Centrifuge with Lid Open. This image shows the KGK GK LD-4 Desktop Centrifuge with its transparent lid open, revealing the rotor assembly inside, equipped with orange sample tube caps.

3.1 Components

- **Main Unit:** Houses the motor, control electronics, and rotor chamber.
- **Lid:** Transparent lid for observation and safety, designed to reduce noise.
- **Rotor:** Removable component that holds sample tubes. Available in 50ml*6 and 100ml*4 configurations.
- **Control Panel:** Features knobs for speed and time adjustment, and a power switch.
- **Power Cord:** For connecting the unit to an electrical outlet.



Figure 3.3: Rotor with Sample Tubes. A detailed view of the centrifuge rotor, showing six positions, each occupied by an orange-capped sample tube, ready for centrifugation.



Figure 3.4: Detached Rotor. This image shows the metallic rotor component detached from the centrifuge, highlighting its design with multiple slots for sample tubes.

4. SETUP

1. **Unpacking:** Carefully remove the centrifuge from its packaging. Inspect for any signs of damage during transit. Retain packaging for future transport or storage.
2. **Placement:** Place the centrifuge on a sturdy, level, and vibration-free workbench. Ensure there is adequate clearance around the unit for ventilation and safe operation. Avoid direct sunlight or areas with extreme temperature fluctuations.
3. **Power Connection:** Connect the power cord to the centrifuge's power inlet at the rear of the unit. Then, plug the power cord into a grounded electrical outlet with the correct voltage (refer to specifications).
4. **Rotor Installation:** Ensure the rotor is correctly seated on the motor shaft. The rotor should fit snugly and securely.



Figure 4.1: Rear View with Power Connection. This image displays the rear of the KGKGK LD-4 Desktop Centrifuge, showing the power inlet and the attached power cord, ready for connection to an electrical supply.

5. OPERATION

5.1 Preparing Samples

- Prepare your samples in appropriate centrifuge tubes.
- Ensure all tubes are sealed properly to prevent leakage during centrifugation.
- **Balance the Rotor:** It is critical to balance the rotor. Place tubes of equal weight directly opposite each other in the rotor. If centrifuging an odd number of samples, use a balance tube filled with water to match the weight of a sample tube.

5.2 Loading the Rotor

1. Open the centrifuge lid.

2. Carefully place the balanced sample tubes into the rotor slots.
3. Close the centrifuge lid securely.

5.3 Setting Speed and Time

1. Turn on the main power switch located on the front panel.
2. Use the **Speed Adjustment Knob** to set the desired rotational speed (RPM). The maximum speed is 6000 r/min.
3. Use the **Timer Adjustment Knob** to set the desired centrifugation duration.

5.4 Starting and Stopping

1. Once speed and time are set, the centrifuge will typically start automatically or by pressing a start button (if present, otherwise it starts when power is on and settings are applied).
2. The centrifuge will run for the set duration and then automatically stop.
3. Wait for the rotor to come to a complete stop before attempting to open the lid. Do not manually brake the rotor.

5.5 Unloading Samples

1. Once the rotor has completely stopped, open the lid.
2. Carefully remove the centrifuged sample tubes.
3. Close the lid after use to prevent dust accumulation.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your centrifuge.

- **Cleaning:**
 - Disconnect the power cord before cleaning.
 - Wipe the exterior surfaces with a soft, damp cloth and a mild detergent. Avoid abrasive cleaners or solvents.
 - Clean the rotor and rotor chamber regularly to remove any spills or debris. Ensure they are dry before reassembly or next use.
 - Do not immerse the unit in water.
- **Rotor Care:** Inspect the rotor for any signs of corrosion or damage. Replace damaged rotors immediately.
- **Lid:** Keep the lid clean and free from scratches to maintain visibility and ensure proper sealing.
- **Storage:** When not in use for extended periods, store the centrifuge in a clean, dry environment.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your centrifuge.

Problem	Possible Cause	Solution
Centrifuge does not start.	No power supply. Lid not closed properly.	Check power cord connection and outlet. Ensure lid is securely latched.
Excessive vibration or noise.	Unbalanced rotor. Centrifuge not on a level surface. Damaged rotor.	Ensure tubes are balanced by weight. Relocate centrifuge to a stable, level surface. Inspect rotor for damage; replace if necessary.

Problem	Possible Cause	Solution
Rotor does not reach set speed.	Overloaded rotor. Motor issue.	Reduce sample volume or number of tubes (within capacity). Contact customer support if issue persists.
Lid cannot be opened after run.	Rotor still spinning. Lid lock malfunction.	Wait for rotor to come to a complete stop. If rotor has stopped and lid remains locked, contact customer support.

8. SPECIFICATIONS

Feature	Detail
Model	LD-4
Item Model Number	247944487
Brand	KGK GK
Structure Type	Desktop
Motor Power	0.025 kW (25W)
Overall Dimensions (L×W×H)	320 × 280 × 240 mm (approx. 12.6 x 11.0 x 9.4 inches)
Weight	20 kg (approx. 44.09 lbs)
Drum Speed (Max)	6000 r/min
Rotor Capacity Options	6 x 50ml tubes, 4 x 100ml tubes
Loading Limit	100 (unit unspecified, refer to rotor capacity for practical limits)
Degree of Automation	Fully Automatic (for run cycle)
Application Areas	Pharmaceutical, Blood Stations, Clinical Trials, Biochemical Laboratories

© 2024 KGK GK. All rights reserved.

For technical support or inquiries, please refer to your purchase documentation or contact your supplier.