



- 24-Place Microhematocrit Centrifuge
- Results in Less Than 5 Minutes

CLMA recommends that your hematocrit centrifuge PVC accuracy be calibrated quarterly using the HemataCHEK reference control kit. Refer to HemataCHEK product insert for calibration procedures.

Visit www.LWScientific.com to order or contact your distributor.



Introduction

Spin hematocrits in less than 5 minutes at 12,000 rpm. The M24 has a microhematocrit reader disk provided with every unit. Read the tubes directly on the rotor without picking them up.

Features

15-minute timer, 24 capillary capacity (75mm), lid safety switch (lifting of the lid turns the centrifuge off), metal construction. Maximum speed is 12,000 rpms (+/- 5% or 600rpm).

Installation & Setup

- 1 Remove the centrifuge from the shipping container and inspect for any possible shipping damage. If the centrifuge appears to be damaged, please contact your distributor immediately.
- 2 Register your product at www.LWScientific.com/warranty_form.
- 3 Place the centrifuge on a sturdy, level surface. Verify that there are no loose objects or packing material in the tube chamber. *To open lid, push down first and then pull lid to open.
- 4 Verify that the rotor cover is securely tightened.
- 5 Close the lid firmly.
- 6 Verify that the timer is in the "OFF" position and plug the unit into an approved and properly grounded AC outlet.
- 7 Do not insert capillary tubes at this time! Turn the centrifuge on. If there is a smooth whirring sound and the unit accelerates with little or no vibration, your M24 centrifuge is ready to operate. If there are loud or unusual sounds, or if you experience excessive vibration, DO NOT OPERATE -- contact your dealer or LW Scientific, Inc.

Operation

- 1 Spin only balanced loads. Make sure that capillary tubes are placed opposite each other. Proper sample balancing will improve sample separation and will extend the life of the centrifuge. Out of balance loads may damage the centrifuge.
- 2 Set timer for desired time. Unit will begin spinning at full speed (12,000rpm).

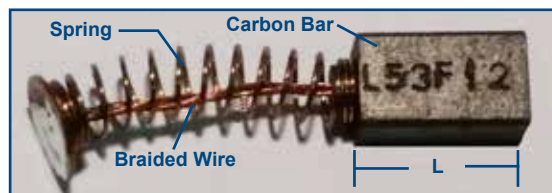
Care & Maintenance

With proper care and maintenance, the M24 centrifuge will provide years of service. Please follow these guidelines:

- 1 Use only 75mm capillary tubes. Never force a tube into the holder.
- 2 Clean the inside of the centrifuge regularly. Whenever there is a tube breakage or spill, it is recommended that the inside of the centrifuge be cleaned, and if possible, disinfected (do not immerse the electrical components in any liquid).
- 3 If the centrifuge will no longer maintain speed, inspect and/or replace the brushes. The life of the brushes depends upon several factors (speed, load, duty cycle, etc.). To ensure optimum performance, we recommend you check the motor brushes every 6 months. This will help you recognize your typical wear pattern and ensure the motor brushes are serviced properly.

When new, the carbon bar of the motor brushes measures approximately 1/2" in length (see image below). The brushes wear and should be replaced when the carbon bar reaches 1/4" in length. Operating your centrifuge with a carbon bar that has worn beyond this point can damage the centrifuge motor.

When inspecting/replacing brushes, we recommend you blow out the motor/brush area with canned air. Excessive dust, dirt, and hair can interrupt the brush contact and decrease performance.



The electrical components were designed for high reliability and should not need regular service. However, if repairs or replacement brushes are needed, please contact LW Scientific, Inc.

Because of the safety issues with high g-forces in a centrifuge, it is recommended that rotors be inspected every 6 months for corrosion and fatigue. If there is any indication of wear, the rotor should be removed from service. Contact LW Scientific for return instructions, so the rotor can be evaluated by an LW Scientific technician for repair or replacement. It is also recommended that after 2 years of service rotors be returned to LW Scientific for inspection. Following these procedures will ensure safety of lab personnel as well as extend the life of the centrifuge.

NOTE: Plastic tube shields should be replaced at least once a year. Tube shields should be inspected once a month for wear or damage. Tubes that are being used in high volume applications should be replaced every three months or sooner.

Reading Hematocrits

Your M24 includes a Reader Disc, which allows hematocrit tubes to be directly read from the rotor.

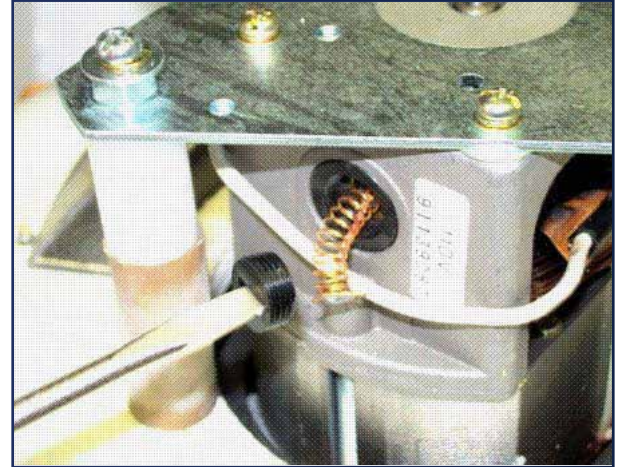
- 1 After rotor is stopped, remove the cover plate by unscrewing the chrome thumbscrew and lifting the cover plate straight up.
- 2 Place the reader disc over the hematocrit tubes, and adjust the disc until the 0% line is lined up with the bottom of the fluid in the tube to be read.
- 3 While keeping the 0% line positional at the bottom of the fluid, turn the disc until the 100% line aligns with the top of the fluid.
- 4 Read the separation line in the middle for your hematocrit result. Follow the same steps to read each tube.

Troubleshooting

- 1 **Light comes on but will not spin:** Check to make sure the lid safety switch (near back right lid hinge) is engaged. With the power on and the timer set, depress the button with your finger. If the rotor spins, turn the safety switch button counter-clockwise to raise the height and allow it to contact the lid when closed.
- 2 **No spin, no light:** Confirm that your power source is working. Check the 8 amp fuse and replace if necessary. (A good fuse will have an intact metal filament through the center; a burnt fuse will have a broken filament.)

Brush Replacement

- 1 Unplug the centrifuge, and turn it on its side.
- 2 Remove the feet and all Phillips head screws holding the metal base plate.
- 3 Using a flat head screwdriver, remove the two black caps on the bottom part of the motor.
- 4 Using your fingers, pull the brush out of the recessed hole that the black caps were removed from. The brushes consist of springs with a graphite bar on them.
- 5 Place the new brushes in the recessed hole, and replace the black caps (See image, right).
- 6 Replace the metal base plate and the feet.
- 7 Your M24 is now ready to use.



Specifications

Nominal speed:	12,000 RPM (+/- 5% or 600rpm)*
Max. Volume:	24 - 75mm capillary tubes
Input Voltage:	110V or 220V
Height:	8.7 inches
Width:	10.6 inches
Depth:	12.5 inches
Weight:	15.8 lbs
Boxed dimensions:	11.5 x 10 x 7 inches
Boxed weight:	23 lbs.

*These are average speeds, which may vary slightly between units and with load size. Please use a tachometer for actual rpm on your unit, and for calibration purposes.