

FRISTADEN LAB

FristadenLab.com
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Owned and operated by
Fristaden & Company, LLC
401 Ryland Street, Suite 200-A
Reno NV, 89502 USA

Centrifuge User Manual

Model: LSC-50H
6x 50mL Tube Capacity
200-4000 RPM
LCD Display



Made in China

FRISTADEN LAB

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Company Information

WARRANTY

The centrifuge has a 1 Year Manufacturer's Warranty. Please contact the Fristaden Lab's customer service department at support@fristadenllc.com for more information.

ABOUT US

Fristaden Lab is a lab and scientific equipment retailer established in 2013 in Chicago, Illinois.

We sell an array of popular products, including analytical balances, centrifuges, glassware, hematology counters, hot plates, magnetic stirrers, pH meters, pipettes and pumps.

We stand behind all of our products, offering a 1-2 year warranty, 30-day returns, and a responsive customer service team committed to solving any questions or issues you may have.

CONTACT

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Maintenance

MAINTENANCE AND STORAGE

- The centrifuge is a precise instrument and should be handled carefully.
- Do not disassemble the centrifuge.
- Power off and unplug before cleaning or storing it.
- Do not clean the machine with elements that may corrode the machine. Use a mild detergent and a wet, smooth cloth to clean.
- Make sure no liquid enters the centrifuge.
- Store away from humidity, dust, direct sunlight, magnetic forces or heat.

Summary

IMPORTANT!

Thank you for purchasing the centrifuge. Please read the User Manual carefully before use and follow all operating and safety instructions!

PRODUCT FEATURES

DIGITAL DISPLAY: The centrifuge features a bright LCD display and easy-to-use controls. Set the operation time to the second (1-99 minutes). Select either the speed (0-4000 RPM) or centrifugal force (0-2100 XG). When the centrifuge machine is running you can easily see the time remaining and the current speed or force. The Fristaden Lab centrifuge's precise, independent controls are well suited for the lab, clinic or classroom.

HIGH CAPACITY FOR THE KITCHEN OR LAB: Enterprising chefs and bartenders now use lab centrifuges to separate juices and sauces to produce more concentrated colors and flavors. With a large max. capacity of 300 milliliters (about 1 1/4 cups) and a powerful centrifugal force of 2100 XG, the culinary centrifuge is practical for fast-paced bars and kitchens. The instrument can be used for both cooking and research (food-safe tubes not included).

KNOW YOUR RELATIVE CENTRIFUGAL FORCE: Two centrifuges with the same speed (RPM) can have much different forces (and thus separation times) depending on their radius.

Summary

PRODUCT FEATURES

The lab centrifuge allows you to directly program and view relative centrifugal force (in 1XG increments) or speed (in 10RPM increments). Knowing the exact force used to separate your liquids saves time doing calculations and ensures more accurate, replicable data.

ROBUST DESIGN, QUIET OPERATION: The benchtop centrifuge is built with tough, lab quality materials to handle hard, everyday use, year after year. This includes a powerful 200W motor, LCD display and aluminum alloy rotor. The centrifuge stays firmly in place with suction cup feet. Even while operating at high speeds, the centrifuge machine operates quietly. The centrifuge can be set up in under 5 minutes and comes with a detailed, user-friendly instruction manual.

Summary

SPECIFICATIONS

| | |
|---------------------------------|-------------------------------------|
| Brand | Fristaden Lab |
| Model | LSC-50H |
| Speed (RPM) | 200-4000 |
| Timer Range | 0-99 minutes (minimum unit: second) |
| Relative Centrifugal Force (XG) | 0-2100 |
| Angle Rotor | 6*50mL |

Operation

SELECT SPEED/FORCE

*NOTE: The centrifuge speed can be measured and adjusted in either RPM or Relative Centrifugal Force (XG).

RPM

- Press the center, (rotation) button. If "SPEED" and rpm are not displayed, hold for 3 seconds until they appear.
- Use the UP and DOWN Arrow buttons to adjust the speed from 200-4000 RPM (in increments of 10 RPM).

Relative Centrifugal Force (XG)

- Press the center, (rotation) button. If the rotation icon is not displayed, hold for 3 seconds until it appears.
- Use the UP and DOWN Arrow buttons to adjust the force from 0-2100 XG (in increments of 1 XG).

ADJUST TIMER

- Press the (clock) button.
- Use the UP and DOWN Arrow buttons to adjust the time from 0-99 minutes.

Operation

INSTALLATION

CHECK FOR DAMAGE - Open the package and ensure no parts were damaged during delivery. Make sure all parts shown in the packing list are included.

- Place centrifuge on a flat, stable working platform.
- Install rotor,
- Attach power cord and plug in device.
- The scale accepts a voltage of 100-240V. Please confirm the correct voltage before using the product.

GETTING STARTED

- Place centrifuge tubes in rotor so they are balanced.



- To prevent samples from overflowing, the test tube volume should be $\leq 80\%$ of the total capacity.
- Close the lid.
- Select the speed/force.
- Select the time.
- Press the Power button.
- The centrifuge will run until the timer expires; the power button is pressed; or the lid is opened.
- The display will show "Working" when in use and "Stop" when idle.

Summary

SPECIFICATIONS (CONTINUED)

| | |
|--------------------------------------|---|
| Tube Size | 50ml: inner diameter=30mm; outer diameter=32mm; length=96mm |
| Centrifugal Radius | 120mm |
| Speed Increment | 10 RPM |
| Relative Centrifugal Force Increment | 1XG |
| Rotor Material | Modified aluminum alloy |
| Machine Power (W) | 200 |
| Display | LCD |
| Machine Dimensions | 300 x 360 x 360mm |
| Package Dimensions | 410 x 355 x 315mm |
| Net Weight (kg) | 11 |
| Package Weight (kg) | 13 |
| Noise (db) | ≤ 55 |
| Voltage | 100-240V American Plug |

Safety

WARNING!

Ensure everyone operating the machine reads the user manual and understands the operating instructions, cautions and dangers associated with the machine. Only trained staff should operate the machine.

Safety

IMPORTANT!!

- Operate the machine in a safe environment away from hazards. Do not operate in a flammable, magnetic or dangerous environment. Keep the machine away from magnetic parts (e.g. watches, pacemakers, etc.)
- Check the machine and accessories prior to each use for damage. Do not use the machine if damaged. Contact the manufacturer.
- Before plugging the machine into an electrical outlet, make sure the voltage and frequency matches that of the machine.
- Place the machine on a flat and spacious work surface.
- Operate the machine in a safe, dry and well ventilated environment.
- Always power off and unplug the machine when not in use. Store it in a safe place away from hazards.
- Store away from humidity, dust, direct sunlight, magnetic forces or heat.
- Do not attempt to dismantle or the repair the instrument. Please contact manufacturer first.

Display and Controls

DISPLAY



CONTROLS

- | | |
|--------------|---|
| (Up Arrow) | Increase Speed or Time. |
| (Down Arrow) | Decrease Speed or Time. |
| (Rotation) | Switch between RPM and Relative Centrifugal Force Modes (press and hold for 3 seconds). |
| (Clock) | Set Timer |
| (Power) | ON/OFF |

Operation

PACKING LIST

- Fristaden Lab Centrifuge
- Power Adapter
- Rotor
- Six 50mL Centrifuge Tubes
- User Manual