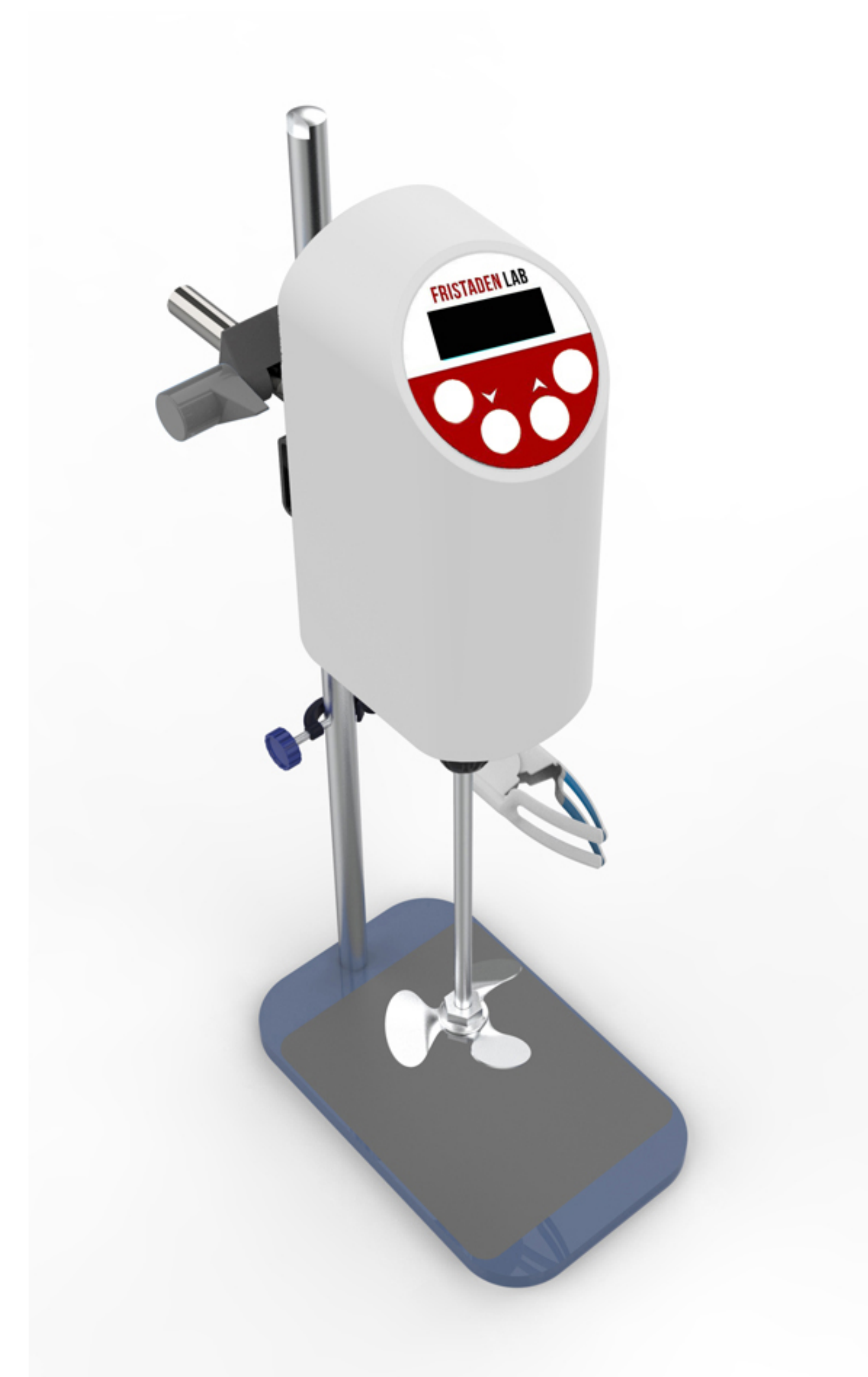


# FRISTADEN LAB

FristadenLab.com  
support@fristadenllc.com

## Overhead Stirrer User Manual

Model: OCS-20L  
20L Capacity  
LCD Display  
100 -2000 RPM



Made in China

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

# FRISTADEN LAB



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# Company Information

## WARRANTY

The Fristaden Lab Overhead Stirrer has a 1 Year Manufacturer's Warranty. Please contact Fristaden Lab's customer service at [support@fristadenllc.com](mailto: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 pressure 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

[FristadenLab.com](http://FristadenLab.com)  
[support@fristadenllc.com](mailto:support@fristadenllc.com)



## User Notes

**FRISTADEN LAB**

## Summary

### IMPORTANT!

Thank you for purchasing the Fristaden Lab Digital Overhead Stirrer. Please read the User Manual carefully and follow all operating and safety instructions!

### SPECIFICATIONS

Model	OCS-20L
Display	LCD
Capacity (L)	20
Motor input power[W]	200
Motor output power[W]	180
Voltage [VAC]	100-240
Frequency [Hz]	50/60
Power [W]	210
Speed (RPM)	100 -2000
Speed Increment (RPM)	20
Speed Display Resolution (RPM)	±1
Maximum Torque [N.cm]	90
Overload Protection	Automatic stop
Maximum Viscosity [mPas]	50,000
Drill Chuck Diameter [mm]	0.5-10
Dimensions [mm]	450*350*160
Weight [kg]	9.45
DIN EN60529 Protection Mode	IP42
Ambient temperature [°C]	5-40
Ambient humidity [%]	80



## Safety

### WARNING!

- DANGER: The overhead stirrer operates at high speeds. Do not touch any moving parts while in use.
- 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.

### IMPORTANT!!

- Only use the machine in a safe environment away from hazards.
- Operate the machine in a safe, dry and well ventilated environment. The environment temperature should not exceed 5-40°C.
- 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 match that of the machine.
- Place the machine on a flat and spacious work surface.
- Always power off and unplug the machine when not in use. Store it in a safe place away from hazards
- Keep the machine away from children, pets and other potential hazards.
- Place the machine on a flat and spacious work surface.
- Do not cover the machine (continued).

## Other Products from Fristaden Lab

### SH-3 Magnetic Stirrer Hot Plate



### 1000g \* 0.01g Precision Balance



### Vortex Mixer



### SH-2 Magnetic Stirrer Hot Plate





## Operation

### USING THE MACHINE (CONTINUED)

- Use the UP and DOWN buttons to select the operation time.
- Press “set” to save the mode.
- Press the POWER button to start or pause the machine.
- *For timed use, the timer will begin once the stirrer reaches the chosen speed.*
- *The selection for each mode will be saved for future use.*
- Press and hold the POWER button to shut down the machine.

## Maintenance

### MAINTENANCE AND STORAGE

- Always turn off and unplug before cleaning or storing.
- Do not clean the machine with elements that may corrode the machine.
- Do not immerse the machine in water or other liquids.
- Use proper safety gear (e.g. gloves, eyewear, etc.) when cleaning the machine to avoid injury.

## Safety

### IMPORTANT!! (CONTINUED)

- Do not use a cracked or broken liquid container. Do not overfill the liquid container.
- DAMAGE: Do not use the machine if the machine or any parts are broken. Contact the manufacturer and do not attempt to repair it yourself.
- DAMAGE: Do not replace power cables, plugs or other parts unless they are directly from the manufacturer.

## Display and Controls

### DISPLAY



### CONTROLS

set	Select the Mode of operation.
(UP/DOWN)	Increase/decrease speed or time.
(POWER)	Turn the machine on or off (by holding). OR Start or pause the stirrer when in operation (press once).



# Operation

## PACKING LIST

- Machine Head
- Base Plate
- 2x Support Pole
- German cross clamp
- Cross clamp
- Flask Clamp
- Three-blade stirring rod
- Power adapter
- Power cable
- 12-14 open end wrench

## 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 the base plate on a flat, stable working platform.
- Connect the two 30cm support rods.
- Screw the connected rods into the base (using the 14" wrench if needed).
- Tightly fasten the German Cross Clamp to the support rods.
- Tightly fasten the rod on the motor head to the German cross clamp.
- Attach the stirring rod to the motor head (continued).

# Operation

## INSTALLATION (CONTINUED)

- Adjust the motor head so that the stirring rod is an appropriate height for stirring the solution.
- *If needed, connect the smaller cross clamp to the support rods.*
- *Connect the flask clamp to the cross clamp.*
- Plug in the machine head

## USING THE MACHINE

The machine can store three custom Modes at once. You can customize the stirring speed and time in each mode. This feature allows you to easily reuse the same parameters with out resetting the machine.

- Place on a flat, stable surface.
- Press and hold the POWER button (far right) to turn on the machine.
- To select the the setting, press "set". "Mode" will flash on the display.
- Use the UP and DOWN buttons to choose from three different modes (depending on speed and time).
- Once the mode is selected, press "set". "RPM" will flash on the display.
- Use the UP and DOWN buttons to select the speed (in RPM).
- Once the speed is selected, press "set". "Min" will flash on the display (continued).