

Mini Magnetic Stirrer

By: Burrell Scientific



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OPERATIONS MANUAL

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Please read the User Manual carefully before use, and follow all operating and safety instructions!

OPERATING INSTRUCTIONS

WARNING:

Do not attempt to assemble, connect to power source, or operate the Burrell Mini Magnetic Stirrer without first reading these instructions.

Also assure that each person that will operate this unit becomes familiar with these operating instructions.

PROPER USE

The Mini Magnetic Stirrer is designed for mixing or stirring liquids in a wide range of industries including schools, pharmacies, laboratories or factories.

SAFE OPERATIONS

1. When operating this unit always wear safety eye protection and suitable safety apparel for the material being stirred.
2. Do not operate this unit unattended.
3. Set up the stirrer in a spacious area on a stable, clean, non-slip, dry, and fireproof surface. Do not operate the shaker in explosive atmospheres with hazardous substances.
4. Do not pour liquid over the unit. Never immerse unit underwater.
5. Do not modify this unit or attach any accessory that is not included with the Mini Magnetic Stirrer or is not an accessory manufactured by Burrell Scientific, LLC for this unit.
6. Do not use the stirrer if it, or its accessories, are damaged.
7. In all cases, stir vessels with closures or rubber stoppers.
8. Reduce the motor speed if the liquid splashes out of the vessel, the stirrer is not running smoothly, or the vessel moves on the base plate.
9. If the procedure you are using involves gases or creates a hazardous environment – perform such testing in a properly ventilated fume hood. Keep in mind that working with combustible or flammable materials may result in additional hazards. Only process liquids that will not react dangerously to the extra energy produced through stirring. This also applies to any extra energy produced in other ways, i.e. through light irradiation.
10. Beware of hazards due to combustible liquid with a low boiling temperature, incorrect container size or unsafe condition of container, and overfilling of liquid.
11. If any spill occurs, assure all liquids have been cleaned up in a safe manner and the area of the operation is completely dry to avoid an electrical hazard.
12. This product must only be used with the power cord (and AC adapter for international use) supplied.
13. Ensure that the operating voltage required as stated on the shaker and voltage in the supply network match.
14. Do not touch any moving parts of the stirrer.

15. Ensure the base plate is kept clean and intact prior to each use.
16. Do not cover the unit, even partially (ie: with metallic plates or film), as this will result in the unit overheating.
17. Protect the stirrer and accessories from bumps and impacts.
18. Keep away from high magnetic field.
19. This unit may heat up when in use.
20. Always disconnect the plug when the stirrer is not in use.



CAUTION – MAGNETISM!

Please take into account the effect of the magnetic field (i.e.: data storage media, cardiac pacemakers, etc.).

If you encounter any problems with the installation or initial operations of this unit, please contact us at: 412-747-2111 or 1-800-637-6074.

UNPACKING YOUR STIRRER

LISTING OF ITEMS

The packing includes the following items:

- The Burrell Mini Magnetic stirrer
- Power cord (adapter only included with international orders)
- Operating Manual
- 25 mm Stirring Bar

Unpack the stirrer carefully and check for any damages that may have occurred during shipment.

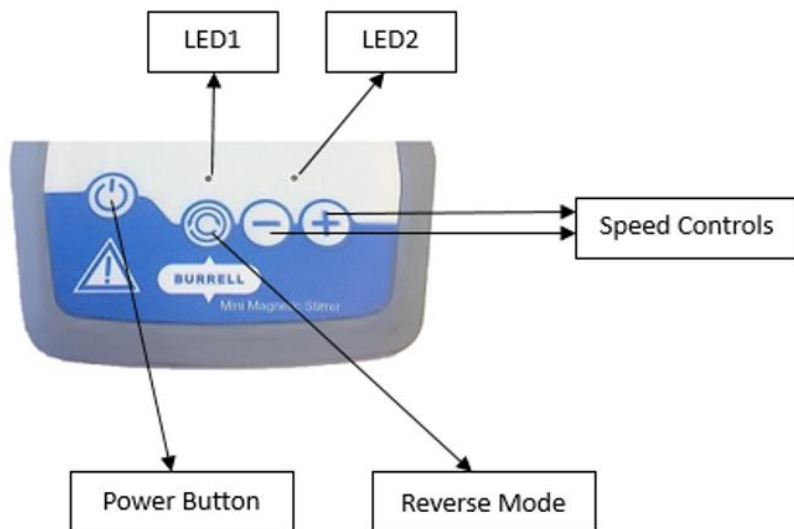
Should any damage occur in shipment, do not operate and notify Burrell Scientific Customer Service department at 1-800-637-6074.



Note: If there is any apparent damage to the system, please do not plug it into the power line.

USING YOUR STIRRER

- Put the stirrer on a stable and safe place. Plug in the mains power.
- Turn ON the mains switch, which is the button on the left.
- The minus sign will decrease the number of revolutions. When the minimum is reached, the LED light on the right will permanently shine.
- Place the magnetic rod inside a vessel which is penetrable for magnetic field lines. Then fill the vessel with the liquid to be stirred.
- Place the vessel on the center of the set-up surface.
- Set the speed using the plus and minus sign buttons. While setting the speed, the LED light on the right will flash.
- To operate the reverse mode and invert the direction of stirring at regular intervals, press the reverse button located to the left of the minus sign button. In reverse mode, the stirring direction will be inverted every 50 seconds. The LED light on the left will flash when the reverse mode is active.
- The speed setting and reverse mode selection will remain unchanged when the instrument is unplugged.



MAINTENANCE AND CLEANING

Only use these cleaning agents, which have been approved by the manufacturer, to clean the shaker:

Dyes	Isopropyl alcohol
Construction Materials	Water and mild detergent/isopropyl alcohol
Cosmetics	Water and mild detergent/isopropyl alcohol
Foodstuffs	Water and mild detergent
Fuels	Water and mild detergent

Please contact Burrell Scientific prior to using any other cleaning or decontamination method to ascertain that this method will not destroy the stirrer. Wear the proper protective gloves during the cleaning of the stirrer.

Please Note:

- Do not allow moisture to get into the unit when cleaning. The stirrer must not be placed in the cleaning agent for the purpose of cleaning. Spot clean only.
- The stirrer must be cleaned and put into the original packaging carton before sending out for service or repair.
- Switch the stirrer to the OFF position and store in a dry, clean, and stable place at room temperature when not in use.

ACCESSORIES

- 25mm Stirring Bar

SERVICE

If assistance is needed, please contact Burrell Scientific for technical support. Please provide us with the following information: serial number, certification, description of problem (hardware or software), methods and procedures used to resolve the issue, and your contact information

WARRANTY

This stirrer is warranted to be free from defects in materials and workmanship under normal use and service, for a period of 12 months from the date of invoice. The warranty is extended only to the original purchaser. Warranty will not apply to any product or parts which have been damaged on account of improper installation, improper connections, misuse, accident or abnormal conditions of operations. Stirrers can only be returned after receiving a return authorization # from Burrell Scientific.

TECHNICAL DATA

ITEMS	SPECIFICATIONS
Rated Voltage	100 – 240 VAC
Rated Frequency	50 / 60 Hz
Output Voltage	12 VDC
Output Power	Min 3 W

MAGNETIC STIRRER:	Coil Drive
Speed Range:	15 – 1500 rpm
Stirred Quantity (max):	500 ml (at 1500 rpm w/ stirring bar)
Operating time:	100 %
Protection Class:	II
Pollution Degree:	2
Overvoltage Category:	II
EN 60529 Protection Class:	IP 65
Ambient Humidity (Relative):	80 %
Ambient Temperature:	5 to 40 °C (in the operation)
Transport Temperature:	-25 to +70 °C
Storage Temperature:	-10 to +70 °C
Material: Front membrane sheet:	Polyester
Weight:	0.35 kg
Installed Weight (max):	2 kg
Set-up surface:	Φ 100 mm
Dimensions: (W x D x H)	115 x 175 x 12 mm



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