

ARGOLAB MS-D MAGNETIC STIRRER USER MANUAL



1. Safety instructions

	• Read the instructions carefully before using • Ensure that only qualified personnel use this tool
	• Before use, ensure that the instrument is connected to a grounded socket.

During use, personnel must prevent risks of:

- Splashes and/or evaporation of liquids and emissions of toxic or combustible gases;
- Place the instrument in a suitable area, on a stable, clean, non-slip, dry and fireproof surface;
- Do not use the instrument in explosive atmospheres, containing hazardous substances or under water;
- Pay close attention to risks due to: excessive filling of samples, unsafe and/or unsuitable containers for agitation;
- Use any pathogenic samples only in closed containers;
- Check that the instrument and accessories are in optimal condition before use. Never use damaged components. Optimal safety and operation are only guaranteed if the instrument and accessories described are in good working order. Any accessories must also be securely connected to the device;
- The instrument can be powered off by disconnecting it from the power supply or by disconnecting the cable from the instrument;
- The supply voltage indicated on the instrument label must correspond to that of the mains to which it is connected;
- Ensure that the power cable does not touch the plate.
- The instrument may only be opened by qualified technicians.
- Keep the instrument away from electromagnetic fields.
- Observe the minimum distance between devices and between the device and the wall (minimum 10 cm).

2. Controls and indicators

COMMAND	DESCRIPTION
Stirring knob	Set the required stirring speed between 200 and 1500 rpm by turning the knob. The stirring function is activated/deactivated by pressing the knob itself.
LED Display	The display shows the selected RPM number.
On/Off key	Switches the instrument on and off.

3. Functioning

- Place the instrument on a stable surface, ensure that the stirring control knob is set to minimum and connect the mains power supply;
- Switch on the instrument by pressing the On/Off button on the side;
- Place a container (max. 3 litres) with liquid, inside which a magnetic stir bar (supplied, max. 50 mm long) has already been placed;
- Turn the speed control knob to set the desired rotation speed;
- Press the knob to activate the agitation;
- The LED displays the speed value on the screen during agitation.

4. Cleaning and maintenance

- Proper maintenance of the instrument ensures its good condition and prolongs its life;
- Disconnect the power cable during cleaning;
- When cleaning, take care not to spray the detergent inside the instrument;
- Use only non-aggressive detergents that do not contain corrosive substances;
- Before proceeding with cleaning or decontamination, the user must ensure that the method used will not damage the instrument;
- Wear appropriate protective equipment when cleaning with chemicals;
- If the instrument needs to be sent for technical assistance, it must be properly cleaned and decontaminated of any pathogens. It is also advisable to place the instrument in its original packaging before sending it to the repair service.

5. Faulty operation

- In the event of a fault with the instrument, it is advisable to switch it off;
- Switch off the main On/Off switch for a few seconds and then switch the unit back on;
- Possible malfunctions displayed on the instrument:

Error code	Problem description	Cause	Solution
E01	No operational response (LED off)	No power supply	Check the power supply and then switch the instrument back on
		Power supply panel or motherboard failure	Replace the power supply panel or motherboard
E03	The instrument doesn't stir	The required speed has not been set	Set the speed you want and press the speed knob to turn on the indicator
		Unstable cable connection between the motherboard and the display panel	Reconnect the cable correctly
		Motherboard failure	Replace the motherboard
		Motor failure	Replace the motor
E05	Irregular speed control	Photoelectric switch connector disconnected or faulty	Reconnect or replace the photoelectric switch
		Potentiometer failure	Replace the potentiometer

If any of the problems mentioned occur, please contact technical support.

6. Related regulations

The instrument has been manufactured in compliance with the following safety standards:

EC Council Directive 2014/34/EU

Low Voltage Directive 2014/35/EU

The instrument has been manufactured in compliance with the following EMC standards:

EN 61326-1:2013

7. Technical specifications

Work surface size (Ø)	135 mm
Work surface material	Nylon + GF
Motor type	Brushless DC motor
Stirring positions	1
Max. stirring quantity (H₂O)	3 l
Max. magnetic bar (length)	50 mm
Speed range	200 – 1500 rpm
Display	LED
Protection class	IP42
Motor output power	3 W
Power	15 W
Voltage, frequency	100 – 240 V, 50 / 60 Hz
Size (W x D x H)	150 x 260 x 80 mm
Weight	1,8 kg
Permissible ambient temperature and humidity	10 – 40 °C, 80% RH

8. Disposal of electronic equipment



Electrical and electronic equipment bearing this symbol cannot be disposed of in public landfills. In accordance with the WEEE Directive 2012/19/EU, European users of electrical and electronic equipment have the option of returning used equipment to the Distributor or Manufacturer when purchasing new equipment. The illegal disposal of electrical and electronic equipment is punishable by a financial penalty.