

10 Positions (Hotplate) Analog Magnetic Stirrer RSLAB-5C

User Manual

Reference LBB004



This manual should be available for all users of this equipment. Please read the User Manual carefully before use, and follow all operating and safety instructions!

Technical specifications and outline are subject to change without prior notice.

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Preface

Thank you for choosing this equipment. We sincerely wish that you enjoy your analogic magnetic stirrer with heating RSLAB-5C. We highly recommend looking after this equipment according to what is stated in this manual. RSLAB develops its products according to the CE marking regulations as well as emphasizing the ergonomics and security for its user. The correct using of the equipment and its good quality will allow you to enjoy this equipment for years.




Users should read this Manual carefully, follow the instructions and procedures, and beware of all the cautions when using this instrument. The improper use of the equipment can cause accidents and electric discharges, circuit shorts, fires, damages, etc. Please read the point of Maintenance, where safety notes are exposed.

Warranty

This instrument 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. It shall not apply to any product or parts which have been damaged on account of improper installation, improper connections, misuse, accident or abnormal conditions of operation.

For claims under the warranty please contact your local dealer. To send instrument to the technical service it is necessary to enclose an invoice copy and give reasons for the claim.

1 Safety Instructions

	<p>Warning!</p> <ul style="list-style-type: none"> • Read the operating instructions carefully before use. • Ensure only trained staff uses the instrument. • Forbid to heat substances with low-burning point or easy-volatile.
	<p>Risk of burn!</p> <ul style="list-style-type: none"> • Caution when touching the housing parts and the heating plate. The heating plate can reach temperatures of 120°C. • Pay attention to the residual heat after switching OFF the instrument.
	<p>Protective ground contact !</p> <ul style="list-style-type: none"> • Make sure the socket is grounded before use.

• Wear the personal safety items to avoid the risk from:

- Splashing and evaporation of liquids
- Release of toxic or combustible gases.
- Set up the instrument in a spacious area on a stable, clean, non-slip, dry and fireproof surface. Do not operate the instrument in explosive atmospheres, with hazardous
- Gradually increase the speed, reduce the speed if:

- The stirring bar breakaway because of too high speed
- The instrument is not running smoothly, or container moves on the base plate.

- Temperature must always be set to at least 25°C lower than the burning point of the media used.

- Beware of hazards due to:

- Flammable materials or media with a low boiling temperature

- Overfilling of media

- Unsafe container

- Process pathogenic materials only in closed vessels.

- If the case of the stirrer bar is PTFE, please note:

- Elemental fluorine, three fluoride and alkali metals will corrode the PTFE and Halogen alkanes make it expansion at room temperature.

- Molten alkali, alkaline earth metals or their solution, as well as the powder in second and third ethnic of the periodic table of elements will have chemical reaction with PTFE when temperature reaches 300 ~ 400°C.

- The voltage stated on the label must correspond to the main power supply.

- Ensure that the main power supply cable does not touch the heating base plate. Do not cover the device.

- The instrument can only be opened by trained experts.

- Keep away from high magnetic field.
- Observe the minimum distances between the devices, between the device and the wall and above the assembly (min. 100 mm).

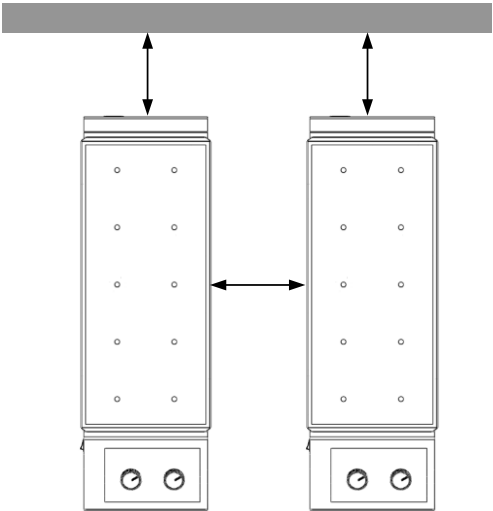


Figure 1

2 Proper Use

The instrument is designed for mixing and/or heating liquids in schools, laboratories or factories. This device

is not suitable for use in residential areas or other constraints mentioned in Chapter 1.

3 Inspection

3.1 Receiving Inspection

Unpack the equipment carefully and check for any damages which may have arisen during transport. If it happens, please contact manufacturer for technical support.



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

3.2 Listing of Items

The packing includes the following items:

Items	Qty
Main unit	1
Power cable	1
Stirrer bar	2
User manual	1

Table 1

4 Trial Run

- Make sure that the required operating voltage and power supply voltage match.
- Ensure that socket is earthed.
- Switch ON the instrument.
- Add the medium into the vessel with a stirring bar.
- Put the vessel on the spots on the plate.
- Set the stirring speed and temperature and start stirring

If these operations above are normal, the device is ready to operate. If these operations are not normal, the device may be damaged during transportation, please contact manufacturer for technical support.

5 Control Elements

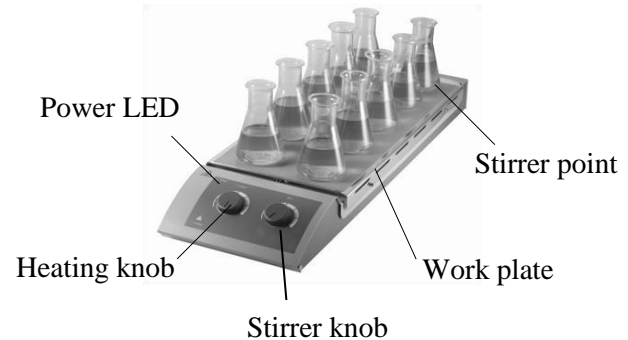


Figure 2

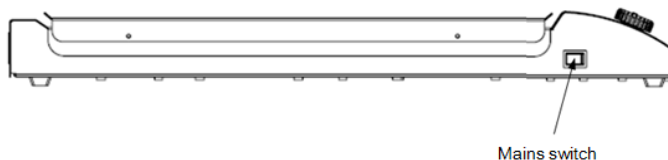


Figure 3

Items	Descriptions
Speed control knob	Set the stirring speed within the safe stirring range from 0 to 1100 rpm. The function “Stirring” is switched ON or OFF via the knob.
Temperature control knob	Set the temperature within the safe temperature range from room temperature to 120°C. The function “heating” is switched ON or OFF via the knob.
LED Power	When the device is switched ON, the LED power is lit.
Main switch	Switch ON or OFF.

Table 2

6 Operation

- Ensure the temperature control knob and the speed control knob are at the lowest position. Put the device on a stable and safe place and plug it in to the main power.
- Turn ON the power switch and LED power is lit.
- Turn the speed control knob to set the rotary speed within the safe speed range from 0 to 1100 rpm.
- Turn the temperature control knob to set the temperature within the safe limit from room temperature to 120°C.
- The device begins to work.

7 Faults

- If a unit fault happens, please switch OFF the instrument.
- Switch ON the unit again.
- The stirring function will continue to operate at the set speed before the fault took place.
- The heating function will continue to operate at the set point before the fault took place.
- If the problem is not solved, please contact the technical service department.

8 Maintenance and Cleaning

- Proper maintenance can keep instruments working in a good state and lengthen its lifetime.
- Be careful not to spray the cleanser into the instrument when cleaning.
- Unplug the power line when cleaning.
- Only use cleansers that are advised below:

Dyes	Isopropyl alcohol
Construction materials	Water containing tenside Isopropyl alcohol
Cosmetics	Water containing tenside Isopropyl alcohol
Foodstuffs	Water containing tenside
Fuels	Water containing tenside

Table 3

- Wear the proper protective gloves during cleaning of the instrument.
- Before using other method for cleaning or decontamination, the user must ascertain with the

manufacturer that this method does not damage the instrument.

- In the case of service, send the equipment back in the cardboard packaging. Storage packing is not sufficient for the back dispatch. Use additionally a suitable transportation packing.

9 Associated Standards and Regulations

Construction in accordance with the following safety Standards:

- EN 61010-1
- UL 3101-1
- CAN/CSA C22.2(1010-1)
- EN 61010-2-10

Construction in accordance with the following EMC standards:

- EN 61326-1

Associated EU guidelines: EMC-guidelines: 89/336/EWG Machine guidelines: 73/023/EWG

10 Specifications

Reference	LBB004
Model	10-Positions
Voltage [VAC]	200-240/100-120
Frequency [Hz]	50/60
Power [W]	490
Stirring point position	10
Max. stirring quantity of single Stirring	0.4
Stirring position interval [mm]	90
Single stirring position	5

Max. magnetic bar [mm]	30
Motor type	brushless motor
Motor rating input [W]	12
Motor rating output [W]	4
Speed range [rpm]	0 – 1100
Speed display	Scale
Heating Power[W]	470
Temperature range[°C]	RT~120
Temperature medium max. (dep. on vessel) [°C]	70
Temperature display[°C]	Scale
Dimension of Plate [mm]	180×450
Dimensions (W×L×H) [mm]	182×622×65
Weight [kg]	3.2

Permitted ambient temperature[°C]	5—40	5—40
Permitted relative humidity	80%	80%
Protection class acc. to DIN 60529	IP42	IP42

