

AGITADOR MAGNÉTICO DIGITAL CON CALEFACCIÓN RSLAB-6C
DIGITAL MAGNETIC HOTPLATE STIRRER RSLAB-6C
AGITATEUR MAGNÉTIQUE DIGITAL AVEC CHAUFFAGE RSLAB-6C

Ref. | Code | Réf. LBD010



Este manual es parte inseparable del aparato por lo que debe estar disponible a todos los usuarios del equipo. Le recomendamos leer atentamente el presente manual y seguir rigurosamente los procedimientos de uso para obtener las máximas prestaciones y una mayor duración del mismo.

This manual should be available for all users of these equipments. To get the best results and a higher duration of this equipment it is advisable to read carefully this manual and follow the processes of use.

Ce manuel est une partie indissociable de l'appareil et doit être mis à la disposition de tous les utilisateurs de l'équipement. Nous vous recommandons de lire attentivement ce manuel et de suivre scrupuleusement les procédures d'utilisation afin d'obtenir des performances maximales et une plus longue durée de vie de l'appareil.

LANGUAGE INDEX

Spanish	1-9
English	10-17
French	18-25

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1. SAFETY INSTRUCTIONS



Warning!

- Read the operating instructions carefully before use.
- Ensure that only trained staff works with the instrument.



Risk of burn!

- Caution when touch the housing parts and the hotplate which can reach temperature of 500 °C.
- Pay attention to the residual heat after switching off.



Protective ground contact

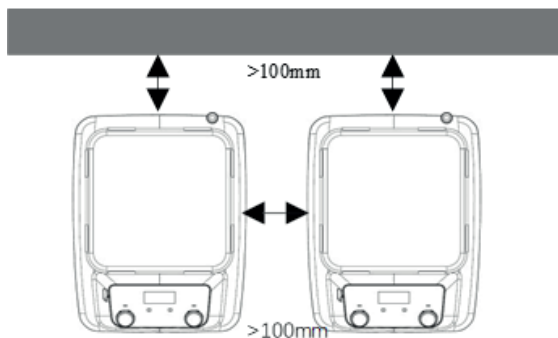
- Make sure that socket must be grounded (protective ground contact) before use.

- Workers wear personal safety guards to avoid the risk from:
 - evaporation of liquids
 - Release of toxic or combustible gases
- Set up the instrument on a stable, clean, non-slip, dry and fireproof surface. Do not operate the instrument in explosive atmosphere, with hazardous substances or under water.
- Gradually increase the speed, reduce the speed if:
 - The instrument is not running smoothly, or container moves on the base plate
- Temperature must always be set to at least 50 °C lower than the fire point of the media used.
- Be aware 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.
- Check the instrument and accessories prior to each use. Do not use damaged components. Accessories must be securely attached to the device and cannot come off by themselves. Always disconnect the plug before fitting accessories.
- When the external temperature sensor is needed, the tip of the measuring sensor must be at least 5-10mm from vessel bottom and wall.
- The instrument can only be disconnected from the main power supply by pulling out the main or the connector plug.
- The voltage stated on the label must correspond to the main power supply.
- Ensure that the main power supply cable does not touch the hotplate. Do not cover the device.
- Forbid putting pressure and overheating media on the surface of glass ceramic that can cause the surface to break.
- The instrument may only be opened by experts.
- Keep away from high magnetic field.
- Do not use this instrument in an explosive environment; This instrument has no explosion-proof function.

2. PROPER USE

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

- Observe the minimum distances between the devices, between the device and the wall and above the assembly (min. 100 mm)



3. INSPECTION

3.1. Receiving Inspection

■ Unpack the equipment carefully and check for any damage which may have arisen during transport. Please contact supplier 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 package includes the following items:

Items	Qty
Main unit	1
User Manual	1

Table 1

4. CONTROL

4.1. Control elements

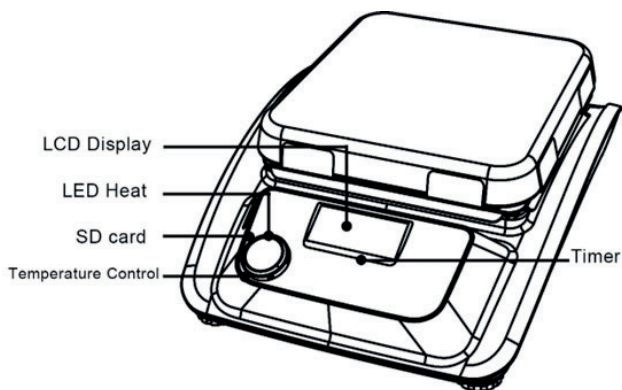


Figure 2

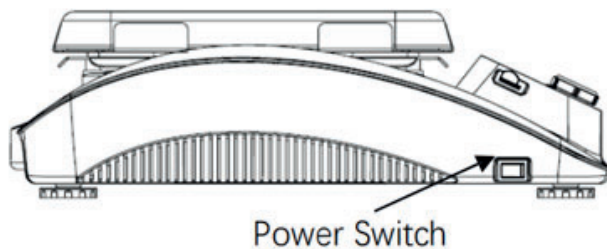


Figure 3

Items	Descriptions
Temperature control knob	The heating function is switched
Timer	Press the knob, and then press “-” or “+” can setting heating time value
LCD Display	If you rotate the heating knob, LCD displays the temperature setting value (right side) and real value (left side)
SD card	The SD card can save the data of test
Power Switch	Switch ON or OFF the instrument.

4.2. Display

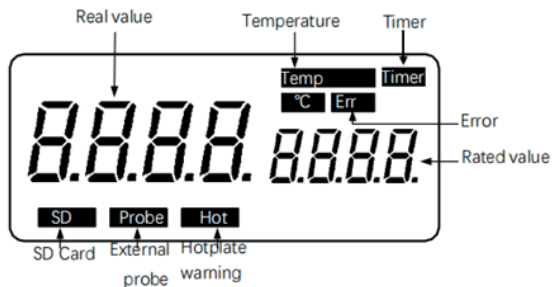


Figure 5 LCD digital model

Temp and T°C	Display temperature when the heating function is switched ON
Timer	Display Timer parameter when the timer function is switched ON
Err	Display in case of error happening
Hot	Display hot warning if the heating plate temperature is above 50 °C after switching OFF the heating function
Probe	Display when using external probe
SD	Display when using SD card
Rated value / Real value	Display values when heating or timer function is switched ON.

5. TRIAL RUN

- Make sure the required operating voltage and power supply voltage match.
- Ensure the socket is properly grounded.
- Plug in the power cable, ensure the power is on and begin initializing.
- Place vessel on the work plate.
- Set the target heating time.
- Set the target temperature and start heating.
- Stop the heating functions.

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 your local dealer /supplier.



Warning!

Forbid transferring the vessel when the instrument working.

6. WORKING WITH EXTERNAL TEMPERATURE SENSOR

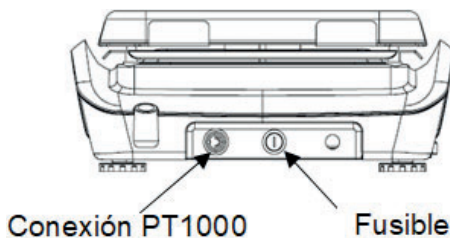
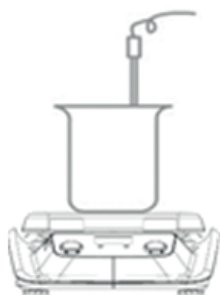


Figure 7

The external temperature sensor PT1000 is manufacturer's standard accessory. If the sensor is plugged in, "Probe" will be shown on the LCD digital display to indicate the sensor is operating. The setting value of external temperature sensor and actual temperature are displayed. Safe circuit controls hotplate temperature. Compared with the temperature control of the hotplate, the external temperature sensor can control the medium's temperature more precisely. The heating function will be stopped automatically under abnormal conditions. Please follow the instructions below:

- Switch OFF the instrument.
- Ensure the external temperature sensor is inserted in the media heated.
- Switch ON the instrument and run heating function. If the heating function does not work, please contact dealer/supplier for support.

7. RESIDUAL HEAT WARNING (HOT)

To prevent the risk of burns from the hotplate, the unit has a residual heat warning function. When the heating function is switched off and the heating plate temperature is still above 50 °C, "Hot" will flash to warn that there is a hazard of burns from the hotplate. When the hotplate temperature drops to below 50 °C, the unit will automatically switch off. If users want to turn off the LCD screen immediately, just pull out the plug directly. When the power OFF, the residual heat warning function cannot be run.

8. LOGGING FUNCTION

The data can be saved by SD card. The process is as follows: With the power switch turned off, insert the SD card into the slot on the left side of the panel.

After inserting it, turn on the power switch and operate the heating as described above. Set temperature at 1-minute intervals.

The current temperature will be logged automatically.

The logged data can be checked in Excel format by connecting the SD card to a personal computer.

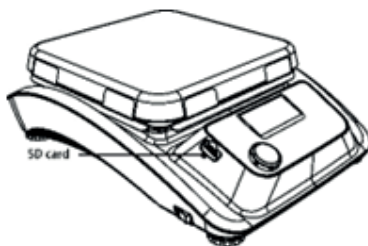


Figure 7



Note:

The logging function starts automatically when you press the temperature control knob and stops when you press it again.

Be sure to turn off the power switch when removing the SD card. It may cause a malfunction.

9. FAULTS

- Instruments can't be power ON
 - Check whether the power line is unplugged
 - Check whether the fuse is broken or loose
- Fault in power ON self-test
 - Switch OFF the unit, then switch ON and reset the instruments to factory default setting.
- Unit cannot be powered OFF when switched OFF.
 - Check if the residual heat warning function is still ON and hotplate temperature is above 50 °C (the LCD screen still work and "Hot" flash).

If these faults are not resolved, please contact supplier.

10. MAINTENANCE AND CLEANING

- Proper maintenance can keep instruments working properly and lengthen their lifetime.
- Do not spray cleanser into the instrument when cleaning.
- Unplug the power line when cleaning.
- Only use recommended cleansers:

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

- Wear the proper protective gloves during cleaning of the instrument.
- Before using other methods for cleaning or decontamination, the user must ascertain with the manufacturer that this method will not harm the instrument.
- Send the case of service the instrument back in the packaging carton. Storage packing is not sufficient for the back dispatch. Use additionally a suitable transportation package.
- The enamel makes the hotplate easier to care for and more resistant to acids and bases. Because of it, however, the hotplate is also more susceptible to extreme fluctuations in temperature and the force of impact. This can result in cracks forming or the coating flaking off.

11. SPECIFICATION

Work plate Dimension [W x D]	254x254mm (10 inch)
Work plate material	Glass ceramic
Heating position	1
Heating temperature range	Room Temp.-500 °C, increment 1 °C
Temperature control accuracy	±1 C (<100 °C)±1%(>100 °C)
Safety temperature	540 °C
Temperature, time display	LCD
Timer function	1min-99h59min
Temperature display accuracy	±0.1 °C
External temperature sensor	PT1000(±0.2 °C)
"Hot" warning	50 °C
Protection class	IP21
Power	1400W
Heating output	1350W
Voltage Frequency	100-120/200-240V 50/60Hz
Dimension [WxDxH]	328x424x138 mm
Weight	7.2kg
Permissible ambient T°C and humidity	5-40°C, 80%HR