

AGITADOR DE VARILLA DIGITAL MODELO 687
DIGITAL OVERHEAD STIRRER MODEL 687
AGITATEUR DIGITAL À TIGE MODÈLE 687



REFERENCIA - CODE - RÉFÉRENCE LLB007



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.

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PREFACE

Thank you for purchasing this overhead stirrer. Users should read this manual carefully, follow the instructions and procedures, and beware of all the cautions when using this instrument.

WARRANTY

You have purchased a quality device. This instrument is warranted to be free from defects in materials and workmanship under normal use and service, for a period of 24 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 claim under the warranty please contact with your distributor.

1. SAFETY INSTRUCTIONS



Connect the device to an earthed power supply to ensure safety of machine and experiment; connect the power as the machine required.



This equipment is forbidden to be used in inflammable and explosive, poisonous and strong corrosive experiments.



Make sure horizontal installation.



Non-professionals are not allowed to disassemble and repair this machine.



Read this manual before operation.

- When working, wear personal protection equipment to protect yourself against splashing of liquids.
- Set up the device in a spacious area, on a stable, clean, non-slip and dry surface.
- Do not operate the device in explosive atmospheres, with hazardous substances or under water.
- Check the equipment and accessories for damage before each use.
- The voltage stated on the label must correspond to the main power supply.

2. INTENDED USE

The device is designed for stirring liquids in schools, laboratories or factories. This stirrer is not suitable for using in residential areas.

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 your distributor.



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

3.2 Listing of items

The packing includes the following items:

- 1 x Overhead stirrer
- 1 x AC/DC Adapter
- 1 x Stand (1 plate + 1 rod)
- 1 x rod to be screwed to the stirrer body
- 1 x stirring rod
- 1 x spanner for tightening the stirring rod on the rotation head
- 1 x bosshead
- 1 x spanner 17/19
- 2 x washer
- 1 x User Manual

If you find there is something missing, please contact your distributor.

4. MAIN TECHNICAL PARAMETERS

Model	687
Reference	LLB007
Power supply	100-240VAC, 50/60Hz
Power (W)	80
Motor type	Brushless motor
Screen	LCD
Max. stirring capacity (L)	40
Speed range (rpm)	100-2500
Speed accuracy (rpm)	±1
Max. viscosity (mPas)	15000
Stand plate size (mm)	200 x 300

5. OPERATION

5.1 Mounting the stirrer

- Mount the stand.
- Screw the rod into the stirrer body.
- Fix the stirrer on the stand bar with the help of the bosshead.
- Insert the stirring rod into the rotation head and tighten it using the spanner.
- Immerse the stirring rod in the liquid.
- Connect the power cable to the mains.

5.2 Operation without timing

- Turn ON the power switch in the control panel.



- Press the adjustment button to set the speed.
- Set the required speed by turning the adjustment button.
- Press the button to confirm.
- Press the RUN/STOP key to start the stirring.
- Press again the RUN/STOP key to finish the stirring.

5.3 Operation with timing

- Keep pressed the adjustment button for 3 seconds to enter the internal parameters.
- The screen shows the parameter Lc (the password).
- Turn the adjustment button and set the Lc value to 103.
- Press the button to confirm.
- The screen shows the parameter ET (timing selection). This parameter can have 2 values: 0 (disable timing) and 1 (enable timing).
- Turn the adjustment button and set the ET value to 1.
- Press the button to confirm.
- The screen shows the parameter Hn (timing mode). This parameter can have 2 values: 0 (minute timing) and 1 (hour timing).
- If you wish minute timing keep pressed the adjustment button to confirm and exit internal parameters.
- If you wish hour timing, turn the adjustment button and set the Hn value to 1.
- Keep pressed the adjustment button to confirm and exit internal parameters.
- Press the adjustment button to set the speed.

- Set the required speed by turning the adjustment button.
- Press the button to confirm.
- Set the required time by turning the adjustment button.
- Press the button to confirm.
- Press the RUN STOP key to start the stirring.
- After the set time has elapsed, the stirrer will stop.

5.4 Selection of rotation direction

Clockwise rotation

This is the rotation mode by default. If the stirrer is set in other rotation mode, to establish the clockwise rotation mode follow the steps below.

- Keep pressed the adjustment button for 3 seconds to enter the internal parameters.
- The screen shows the parameter Lc (the password).
- Turn the adjustment button and set the Lc value to 9.
- Press the button to confirm.
- Repeatedly press the button until the parameter Fr (motor rotation direction) appears on the display.
- Turn the adjustment button and set the Fr value to 0.
- Keep pressed the adjustment button to confirm and exit internal parameters.

Counterclockwise rotation

- Keep pressed the adjustment button for 3 seconds to enter the internal parameters.
- The screen shows the parameter Lc (the password).
- Turn the adjustment button and set the Lc value to 9.
- Press the button to confirm.
- Repeatedly press the button until the parameter Fr appears on the display.
- Turn the adjustment button and set the Fr value to 1.
- Keep pressed the adjustment button to confirm and exit internal parameters.

Clockwise/Counterclockwise alternate rotation

Before setting this rotation mode, please enable the operation with timing (see section 5.3).

- Keep pressed the adjustment button for 3 seconds to enter the internal parameters.
- The screen shows the parameter Lc (the password).
- Turn the adjustment button and set the Lc value to 9.
- Press the button to confirm.
- Repeatedly press the button until the parameter Fr appears on the display.
- Turn the adjustment button and set the Fr value to 2.
- Keep pressed the adjustment button to confirm and exit internal parameters.
- Press the adjustment button. SP appears on the display. Set the required speed by turning the adjustment button.
- Press the button to confirm.
- ST appears on the display. By turning the adjustment button set the total time for the operation in the mode Clockwise/Counterclockwise alternate rotation.
- Press the button to confirm.
- FT appears on the display. By turning the adjustment button set the time of the interval in which the stirrer will run clockwise.

- Press the button to confirm.
- PT appears on the display. By turning the adjustment button set the time of the interval, after the clockwise/counterclockwise rotation, in which the stirrer will be stopped. If a stop is not desired, set the time to 0.
- Press the button to confirm.
- rT appears on the display. By turning the adjustment button set the time of the interval in which the stirrer will run counterclockwise.
- Press the button to confirm.
- Press the RUN/STOP key to start functioning.
- When operation is complete, Time End appears on the display.
- Press the RUN/STOP key to repeat the operation in the mode Clockwise/Counterclockwise alternate rotation.