# LCD Digital (Enhanced) Overhead Stirrer



## **Safety Instructions:**

- Ensure to wear personal protective equipment in hazardous medium processing and avoid the risk of splashing.
- Read the operating instructions before the unit set-up, follow the occupational health safety guidelines, and accident prevention regulations.
- Don't touch any rotating parts of the instrument during operation.
- Set up the device in a spacious area on an even, stable, clean, non-slip, dry and fireproof surface.
- When setting the rotation speed of the instrument, please be aware of the container under the stirring paddle to avoid splatter of samples. If the instrument runs unsteadily, please

lower the motor speed.

- The stirring paddle must be secured tightly to the main unit and place the container properly and avoid any possible danger.
- The preparation of flammable samples might result in danger. Only prepare samples that will not incur any dangerous reaction during operation.
- Only professionals can open the instrument. Please pull out the power plug before opening the instrument.
- Ensure that the label indicated the correct voltage before connecting the device to power supply.
- Do not cover the instrument during operation. Avoid the instrument and its accessories from impacted or extruded.
- Keep away from high magnetic field effects.

#### Note:

- 1. The overhead stirrer is a high-speed device and corresponding parts must be tightened in each step of the system assembly. Avoid the movement of the main unit or the stirring paddle from causing damaging injury to personnel or vicinity of the system.
- 2. The standard support is a supporting device for the overhead stirrer. When assembling, tighten each connecting part and avoid damaging injury caused by loosened connection.
- 3. Be careful while adjusting the height of the main unit and the falloff protective device.

## **Operating Procedure:**

- 1. Place the overhead stirrer main unit on sturdy platform. Connect the power cord to the unit in the socket provided.
- 2. Turn on the power switch 1/O on the instrument panel, and the power switch LED indicator turns green.
- 3. The instrument starts to self-check.
- 4. If the display area flashes with "Set", it indicates that the instrument is in adjustment mode. When the system initially runs, LCD displays the current motor speed value. If the **Mode** key is pressed, LCD displays the current motor torque value.
- 5. Turn the speed adjustment button Speed to set the stirring speed.

Note: The speed/torque display indicator RPM/Torque enables to distinguish between the speed/torque values. If the LED indicator is green, it indicates that the actual rotational speed and if the LED indicator is in red then it indicates the displayed value is the current torque value.

- 6. Press the speed adjustment knob to confirm the set values and the instrument is no longer in adjustment mode. The characters "Set" disappear and the stirring function is turned ON.
- 7. Press the speed adjustment knob again to stop stirring. The characters "Set" appear and the stirring function is turned OFF.

### **Motor Protection and Overload Protection**

The overhead stirrer is continuously operated, and the motor enables overload protection via the electronic current-limiting safety circuit. The overload protection is activated when the instrument torque reaches the limit value and it is indicated by an **Overload** protection lamp.

- When the target speed does match the current medium viscosity, the overload protection is activated.
- When the motor output shaft is jammed, the motor protection is activated.

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