

NEUATION

TECHNOLOGIES



iSTIR 25L

PRODUCT USER MANUAL

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1. INTRODUCTION

This manual provides important safety information for this high capacity 25 liter stirrer. It should be kept near the stirrer for quick & easy reference. This stirrer is equipped with maintenance free brushless DC motor drive. This multipurpose digital display assist users by displaying various parameters like Speed, Time, Pulse mode etc. The space saving Stirrer is designed with utmost safety & stirrer is a concealed design meeting IP42 protection.

2. INTENDED USE

This stirrer is used for mixing the liquids with maximum stirring capacity of 25Ltr. It is designed for use in general laboratories, pharmacies, schools and universities.

3. FEATURES

- Brushless DC motor for maintenance free performance.
- Single stirring position with max stirring capacity of 25 liters.
- Pulse function of 30 seconds for better mixing.
- Variable speed setting from 200 to 2200 RPM.
- Variable time setting from 1 minute to 999 minutes, along with an infinite mode.
- Digital display for accurate setting of Speed and Time.
- Anti - skid pads.
- Water spill resistant design.
- RS 232 interface. (Optional)

NOTE: Before using the instrument, please read this user manual carefully. This user manual is intended to assist with the operation and care of the unit only and not its repair. For repair please contact the supplier.

4. TECHNICAL SPECIFICATIONS

Motor	Brushless DC
Number Of Stirrer positions	1
Stirred Quantity (Max) (Tested in H2O)	25L liters
Speed Range	200 - 2200 RPM
Speed Step	10 RPM
Time Range	1 - 999 mins & infinite
Auto Direction Change/Pulse Mode	Yes
Auto Direction Change Time Interval	Programmable for 30-99 sec
Digital Display	Yes
Recommended Stirring Bar Length	80 mm
Set-up Plate Material	Stainless Steel
Set-up Dimensions (L x W)	244 x 188 mm

4. TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	330 x 196 x 75 mm
Protection Class According to DIN EN 60529	IP 42
Permissible Ambient Temperature	5 - 40°C
Weight	2 Kg
Input Voltage	24V $\overline{\text{---}}$ 0.83A
Power Consumption	20 W
RS 232 interface	Optional

5. MAINTENANCE & SAFETY PRECAUTION

Read the following safety instruction before using this magnetic stirrer for your safety & the safety of the equipment.

- Do not place any steel or magnetic material on the base plate except the recommended magnetic stirring bar with a vessel or flask in between. Doing this can affect the magnetism of the device.
- Place the device on a flat, stable, clean, non-slippery and fire-proof surface.
- The base plate must be clean and intact.
- Do not try to mix liquid more than 25 liter with 60 mm magnetic stirring bar on a single stirring position. It may lead to improper mixing.
- Wear protective equipment in accordance with the hazardous category of the media to be processed. Otherwise, there is a risk from:
 - ☞ Splashing and evaporation of liquids.
 - ☞ Ejection of parts.
 - ☞ Release of toxic or combustible gases.
- Do not lift or hold the device from the power cable.
- Do not use a damaged beaker, flask, stirring bar or any other component for operation. It may affect the efficiency of the device.
- Reduce the speed:
 - ☞ If the medium splashes out of the vessel.
 - ☞ If the appliance is not running smoothly.
 - ☞ If the container moves on the base plate.
- Wear protective gloves while cleaning the device.
- Do not touch the base plate immediately after operation. The base plate may get warm after continuous usage.
- Process pathogenic materials only in a closed vessel under a suitable extractor hood. Do not operate the appliance in explosive atmospheres, with hazardous substances or under water.
- Only use liquid for mixing that will not react dangerously to the extra energy produced through processing. This also applies to any extra energy



5. MAINTENANCE & SAFETY PRECAUTION

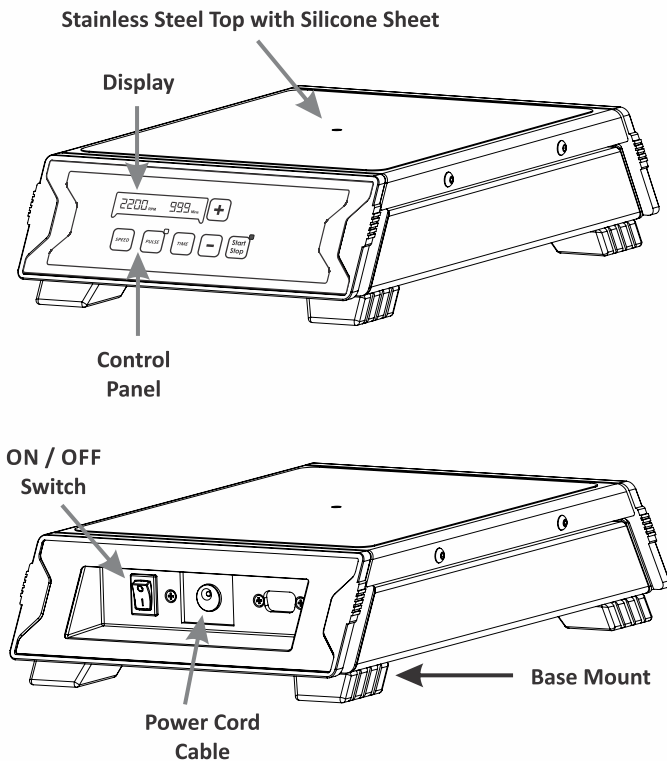
produced in other ways.

Examples included: through light irradiation, through surrounding temperature etc.

- Abrasion of the dispersion equipment or the rotating accessories can get into the medium you are working on.
- Chemical reaction of PTFE can occur when in contact with molten or dissolved alkaline earth metals, as well as with fine powders of metals from the 2nd 3rd group of the periodic table at temperatures above 300-400 °C. Only elementary fluorine, chlorine trifluoride, and alkaline metals attack PTFE. Halogen hydrocarbons have a reversible swelling effect.
- The temperature of the stirring media in the beaker and beaker itself should not be more than 45°C.
- The equipment will not restart, both in case of power interruption and in the case of any fault or mechanical interruption.
- Care should be taken based on the sample used for mixing.



6. STANDARD PART LISTING



7. ACCESSORIES

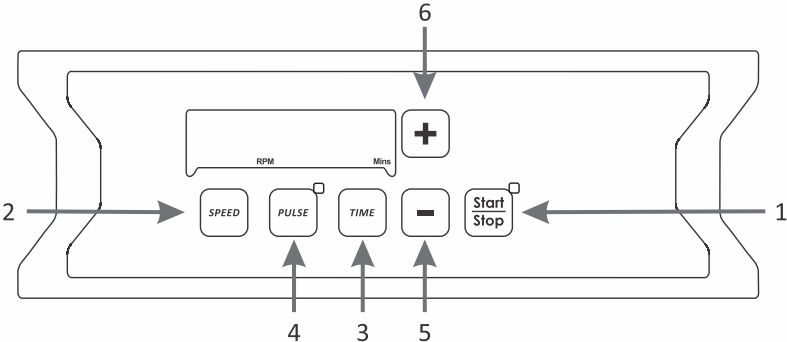
- Magnetic stirring bar.
- Power Adaptor: 100-240VAC 50/60Hz (Input), 24V $\overline{\sim}$ 1.5A (Output).
- User Manual and Warranty Card.

8. INSTALLATION

Gently remove the upper packaging and take out the stirrer by holding it from the bottom. When the stirrer is used for the first time, ensure that all the packaging and accessories are removed. Accessories and user manual are kept inside the box with this stirrer. Please keep all the packaging in safe storage for at least 2 years for warranty purpose.

9. USER INTERFACE AND DISPLAY

Below image & table shows the function of user interface buttons :



S.No	Buttons	Function
1	START/STOP	Press this button to turn ON the machine and press again to turn OFF the unit
2	SPEED	Press “Speed” to select speed value
3	TIME	Press this button to select time value
4	PULSE	Single press this button to activate pulse mode. LED blink to indicate
5	+	Press this button to increase SPEED/TIME value
6	-	Press this button to decrease SPEED/TIME value

10. OPERATION

- Connect the AC power adaptor to the main power supply.
- Fill the beaker or vessel with the medium or liquids to be processed. Then place the magnetic stirring bar in the beaker, or vessel.
- Place the vessel or beaker on the center of the base plate.
- Turn on the stirrer by pressing ON/OFF button.
- Set the speed at which the medium or liquids need to be processed. Minimum speed is 200 RPM and maximum speed is 2200 RPM.
- Set the time if required. Minimum time is 1 minute & maximum time is 999 minutes. By default time is always infinite.

SPEED SETTING

- Single press the “SPEED” button, to set RPM.
- Press increment (+) & decrement (-) button to modify & set speed value.
- Single press increment (+) or decrement (-) button to increase or decrease the speed value by 10 RPM on each press.
- Continuous press increment (+) or decrement (-) button to increase or decrease the speed value at faster pace.
- Speed value is seen in the digital display and is set after 3 blinks.
- On every restart, the stirrer will start with the last run speed.

TIME SETTING

- The default timer is set as infinite when stirrer starts. Single press the “TIME” button, to activate time mode. By default the timer will be infinite and will be seen as “ t ” in display.
- Once activated, single press increment (+) or decrement (-) button to increase or decrease time value by 1 minute on each press.
- Once activated, continuous press increment (+) or decrement (-) button to increase or decrease time value at faster pace.
- After modifying, wait for 3 blinks to set time.
- Speed can be modified at any point of time. The speed modified between on-going time will not affect the time & timer continuous to be countdown. Speed and time will display alternatively when speed reaches the set RPM.
- Press any button except the power button to start the stirring operation with last run speed and time.

PULSE MODE

The Pulse mode can be activated upon pressing the PULSE button after selecting the desired speed and time values.

When PULSE mode is activated, the power LED will start blinking giving indication of activated pulse mode.

10. OPERATION

This mode automatically alternates the stirring motion in a clockwise & counter clockwise direction every 30 seconds by default.

Pulse time can be changed by holding down the " PULSE" button and subsequently, the pulse LED will blink. Press the " + " OR " - " to increase or decrease pulse time between the range of 30 to 99 seconds. After having set the desired PULSE value, the set value will blink 3 times on the display and then stop which confirms that the PULSE value is saved.

11. WARRANTY STATEMENT

This product is warranted to be free from defects in material and workmanship for a period of two (2) years from date of purchase. Your product will be duly repaired upon prompt notification in compliance with the following conditions :

This warranty is valid only if the product is used for its intended purpose and within the guidelines specified in this instruction manual. This warranty does not cover damage caused by accident, neglect, misuse, improper service, natural forces or other causes not arising from defects in original material or workmanship.

This warranty does not cover any incidental or consequential damages, commercial loss or any other damages from the use of this product.

The warranty is invalidated by any non-factory modification, which will immediately terminate all liabilities on us for the products or damages caused by its use. The customer shall be responsible for the product or use of products as well as any supervision required for safety. If requested the products must be returned to the distributor in well packed and insured manner and all shipping charges must be paid.

NOTE: *Some states do not allow limitation on the length of implied warranties or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights. This warranty is given expressly in lieu of all other warranties, expressed or implied.*

The purchaser agrees that there is no warranty of merchantability or of fitness for any intended purpose and there are no other remedies or warranties, implied, which extend beyond the description on the face of the agreement. This warranty is only applicable to the original purchaser.

Products received without proper authorization will not be processed for warranty or service. All items returned for service should be sent with postage prepaid in the original packaging or other suitable packaging, padded to avoid damage. We will not be responsible for damage incurred by improper packaging.

NOTE: *This warranty is valid only if the warranty is registered with the supplier within 30 days from the date of purchase.*

11. WARRANTY STATEMENT

For you reference, make a note of serial number, date of purchase and supplier here.	
Serial No.:	Purchase Date:
Supplier:	

12. PRODUCT DISPOSAL



In case the product is to be disposed of, the relevant legal regulations are to be observed.

Information on the disposal of electrical and electronic devices in the European Community

The disposal of electrical devices is regulated within the European Community by national regulations based on EU Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). According to these regulations, any devices supplied after 13.06.05 in the business to business sphere, to which this product is assigned, may no longer be disposed off in municipal or domestic waste. They are marked with the following symbol to indicate this.

As disposal regulations within the EU may vary from country to country, please contact your supplier if necessary.

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