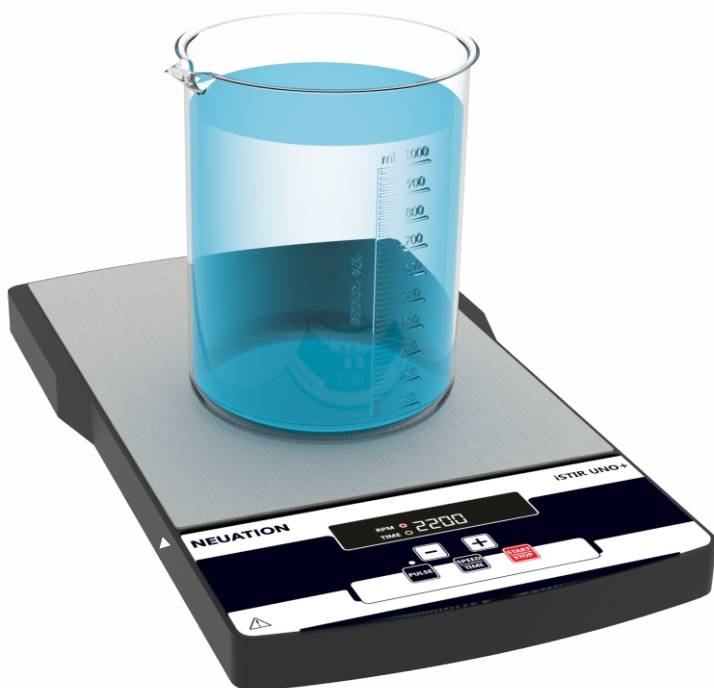


NEUATION

TECHNOLOGIES



iSTIR UNO+

PRODUCT USER MANUAL

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1. PRODUCT DESCRIPTION

This is an Ultra Slim Magnetic Stirrer with the 10-litre stirring capacity designed to give perfect homogeneous mixing of the sample. It comes with IP protection class (IP 44- Resistant to splashes). The setting of speed and time is simple & easy with a digital display. For better mixing, pulse mode is provided in which the stirring changes its motion between clockwise & counter-clockwise for every 30 seconds.

2. INTENDED USE

Applications include dissolving solids in liquids, stirring of volatile solutions, as well as other general Microbiology and Biochemistry applications that require light agitation or vigorous convulsing.

3. FEATURES

- Brushless DC motor for quiet operation and maintenance free long life
- Low aspect ratio (just 29 mm thick)
- Microprocessor controlled stirrer with variable speed and time setting and along with last run memory feature
- Adjustable speed from 200 to 2200 RPM in steps of 100 RPM
- Software driven gradual acceleration
- Timer range up to 999 mins
- Pulse mode for vigorous stirring in clockwise and counter-clockwise direction
- Universal power supply - small wall mount adaptor
- IP 44 compliant design
- Corrosion resistant SS top surface for better chemical resistance
- Includes a high strength magnetic stirrer bar (35 mm)

4. ACCESSORIES

Stirrer bar with PTFE coated.

Power Adaptor: Input Voltage - 100 - 240 VAC, 50 / 60 Hz

Output Voltage: 24 V  1.5 A

Note : This user guide is intended to assist with the operation and care of the unit only and not for its repair. The customer should not attempt to service or repair the unit. If repairs are required, please contact the supplier.

5. TECHNICAL SPECIFICATIONS

Motor Type	Brushless DC Motor
Stirred Quantity (Max) (Tested in H2O)	10 Litre
Number of Stirring Position	Single
Speed Range	200 - 2200 RPM
Speed Accuracy	± 100 RPM
Speed Steps	100 RPM
Time Range	1 to 999 mins
Auto Direction Change/Pulse Mode	Yes
Auto Direction Change Time Interval	30 seconds
Digital Display	Yes
Recommended Stirring Bar Length	35 mm
Set-up Plate Material	Stainless Steel
Dimensions (W x D x H)	333 x 200 x 29 mm
Protection Class According to DIN EN 60529	IP 44
Weight	2.5 Kg
Permissible Ambient Temperature	5 - 40°C
Input Voltage	24 V  1.5 A
Power Consumption	36 W

6. MAINTENANCE & SAFETY PRECAUTION

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

1. Do not place any steel or magnetic material on the base plate except the recommended magnetic stirring bar with a beaker or flask in between. Doing this can affect the magnetism of the device.
2. Place the device on a flat, stable, clean, non-slippery and fire-proof surface.
3. The base plate must be clean and intact.

4. Do not try to mix liquid more than 10 litre with 35 mm magnetic stirring bar on a single stirring position. It may lead to improper mixing.
5. 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.
6. Do not lift or hold the device from the power cable.
7. Do not use a damaged beaker, flask, stirring bar or any other component for operation. It may affect the efficiency of the device.
8. 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.
9. Wear protective gloves while cleaning the device.
10. Do not touch the base plate immediately after operation. The base plate may get warm after continuous usage. 
11. 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.
12. Only use liquid for mixing that will not react dangerously to the extra energy produced through processing. This also applies to any extra energy produced in other ways. Examples included: through light irradiation, through surrounding temperature etc. 
13. Abrasion of the dispersion equipment or the rotating accessories can get into the medium you are working on.
14. The temperature of the stirring media in the beaker and beaker itself should not be more than 45° C.
15. The equipment will not restart, both in case of power interruption and in the case of any fault or mechanical interruption.
16. Care should be taken based on the sample used for mixing.

7. INSTALLATION & OPERATION

Open the box, then remove the packaging and gently place the device on a firm and leveled surface. Gently unpack and do not pull the power adaptor as it is attached to the device. The user manual should be kept near the device. Please keep all packaging in safe storage for at least two years for warranty purpose.

Below table shows the function of user interface buttons.

Buttons	Buttons Name	Function
	START/STOP	Press this button to either turn ON or turn OFF the unit.
	SPEED & TIME	Single press to switch between time & speed setting (indicated by LED)
	Increment	Press button to increase speed/time value.
	Decrement	Press button to decrease Speed / Time value.
	Pulse & LED	Press 'Pulse' to start pulse operation and press it again to stop pulse mode. Pulse LED will glow indicating that Pulse is activated.

- 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 magnetic stirrer by pressing ON/OFF button.
- Set the speed at which the medium or liquids need to be processed. The minimum speed is 200 RPM and maximum speed is 2200 RPM.
- Set the time if required. The minimum time is 1 minute & maximum time is 999 minutes.

SPEED SETTING

- Single press "SPEED/TIME" to feed value of RPM.
- Single press increment (+) or decrement (-) button to increase or decrease speed value by 100 RPM on each press.
- Once activated, continuous press increment (+) or decrement (-) button to

increase or decrease time value at a faster pace.

- After modifying, wait for multiple blinks to set time.

TIME SETTING

- Press the SPEED / TIME” button, to activate time mode.
- 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 a faster pace.
- After modifying, wait for multiple 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 a 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

- Press “PULSE” to activate Pulse mode. In pulse mode, the stirring direction is reversed for every 30 seconds.
- In order to select the pulse mode press the pulse mode once.
- First set the required speed & then single press the pulse button to start the stirring process in pulse mode. LED at the top of pulse button will blink to indicate activation of pulse mode.

Example: User has set RPM of 2200 and operational time of 35 mins. After activating Pulse mode, press START to initiate stirring. For 30 secs stirring will be Clockwise direction followed by 5 sec pause and then 30 secs stirring in Counterclockwise direction.

- Press the ON/OFF button again to stop the on going operation as well as to switch OFF the stirrer.
- After every restart (ON/OFF), stirrer will start operating at last run speed & time values.

NOTE: *In the case of slippage, first turn OFF and turn ON again. If slippage still occurs, then reduce the speed for efficient operation.*

8. WARRANTY STATEMENT

This product is warranted to be free from defects in material and workmanship for a period of two (2) years from the 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 another suitable packaging, padded to avoid damage. We will not be responsible for damage incurred by improper packaging.

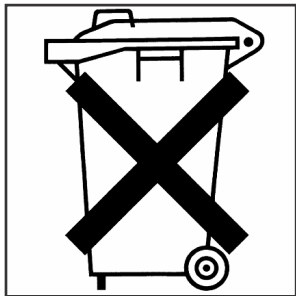
Note: This warranty is valid only if the warranty is registered with the supplier within 30 days from the date of purchase.

9. 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 electronics equipment (WEEE). According to these regulations, any devices supplied after 13.06.05 in the business to a business sphere, to which this product is assigned, may no longer be disposed of 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.

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

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