

USER MANUAL

Magnetic Stirrer For Cell Culture



SCIOGEX, LLC

www.scilogex.com

Before using the Magnetic Stirrer, please carefully read this user manual for efficient operation and safety.

Contents

Copyright:	1
Preface	2
Service	2
Warranty	2
1. Proper Use	4
2. Inspection	4
2.1 Receiving Inspection	4
2.2 Listing of Items	4
3. Control	5
3.1 Control elements	5
3.2 Control panel	6
3.3 LED indicator	7
4. Model Setting methods	7
4.1 Constant running mode	7
4.2 Cycle Stirring	7
4.3 Two Speed Stirring mode	9
4.4 Combination Cycle and two speed stirring mode	10
5. Running	10
6. Faults	10
7. Maintenance and Cleaning	11
8. Associated Standards and Regulations	11
9. Specifications	12
10. Ordering Information	13

Copyright:

No part of this manual may be reproduced or transmitted without prior written permission of SCIOLOGEX.

We can not be responsible to inform at real-time if the outline and specifications of centrifuge are subject to change for improvement.

VERSION 1.0

2015 June release

Preface

Welcome to the “Magnetic Stirrer For Cell Culture User Manual”. Users should read this Manual carefully, follow the instructions and procedures, and be aware of all the cautions when using this instrument.

Service

When help needed, you can always contact the Service Department of manufacturer for technical support in the following ways:

SCIOGEX, LLC

1275 Cromwell Ave.Suite C6

Rocky Hill, CT 06067 USA

Tel: +1(860) 436-9221

Fax: +1(860) 436-9745

info@scilogex.com

www.scilogex.com



Please provide the customer care representative with the following information:

- Serial number (on the rear panel)
- Certification
- Description of problem (i.e., hardware or software)
- Methods and procedures adopted to resolve the problems
- Your contact information

Warranty

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 claims under the warranty please contact your local supplier. You may also send the instrument directly to manufacturer, enclosing the invoice copy and by giving reasons for the claim.Safety Instructions

	<p>Warning!</p> <ul style="list-style-type: none">• Read the operating instructions carefully before use.• Ensure that only trained staff works with the instrument.
	<p>Protective ground contact !</p> <ul style="list-style-type: none">• Make sure that socket must be grounded (protective ground contact) before use.

- When working wear personal safety guards to avoid the risk from:

- Splashing and evaporation of liquids
- Release of toxic or combustible gases
- Set up the instrument in a spacious area on a stable, clean, non-slip, dry and fireproof surface. Do not operate the instrument in explosive atmospheres, with hazardous substances or under water.
- Gradually increase the speed, reduce the speed if:
 - Stirring bar breaks away due to high speed
 - The instrument is not running smoothly, or container moves on the base plate
- Be aware of hazards due to:
 - Overfilling of media
 - Unsafe container
- Process pathogenic materials only in closed vessels.
- If the case of the stirrer bar is PTFE, please note:
 - Elemental fluorine, three fluoride and alkali metals will corrode the PTFE and Halogen alkanes make it expansion at room temperature
 - Molten alkali, alkaline earth metals or their solution, as well as the powder in second and third ethnic of the Periodic Table of Elements will have chemical reaction with PTFE when temperature reaches 300 ~ 400 °C.
- Check the instrument and accessories prior to each use. Do not use damaged components. Safe operation is only guaranteed with the accessories described in the “Accessories” chapter. Accessories must be securely attached to the device and can not come off by themselves. Always disconnect the plug before fitting accessories.
- When the external temperature sensor 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 Stirrer. Do not cover the device.
- The instrument may only be opened by experts.
- Keep away from high magnetic field.
- This magnetic stirrer is low speed stirrer, which will need to use the suspension cell culture flask, or some specialized flasks.

1. 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)

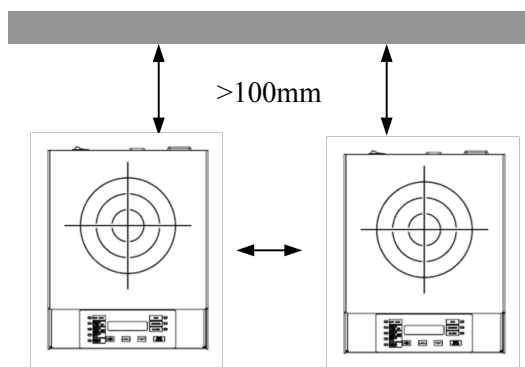


Figure 1

This device is not suitable for using in residential areas or other constraints mentioned in Chapter 1.

2. Inspection

2.1 Receiving Inspection

Unpack the equipment carefully and check for any damages which may have arisen during transport.

Please contact manufacturer/supplier for technical support.



Note:

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

2.2 Listing of Items

The package includes the following items:

Items	Qty
Main stirrer	1
Power cable	1
User Manual	1

Table 1

3. Control

3.1 Control elements



Figure 1 One-channel

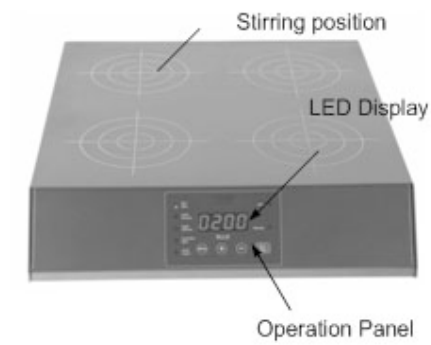


Figure 2 Four-channel

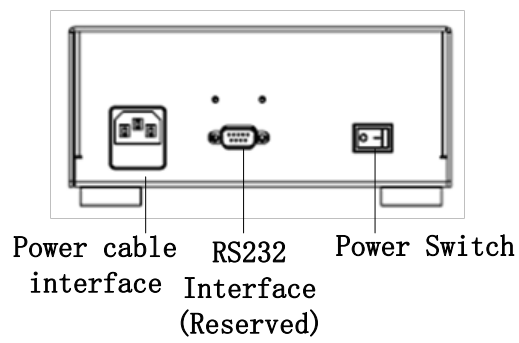


Figure 3

LED Display	Displays the setting speed
Operation Panel	Make the program, operate the stirrer
Stirring Position	Putting the flask
Power Cable Interface	Connect the power cable
Power Switch	Switch on/off
RS232 Interface	Reserved

Table 2

3.2 Control panel

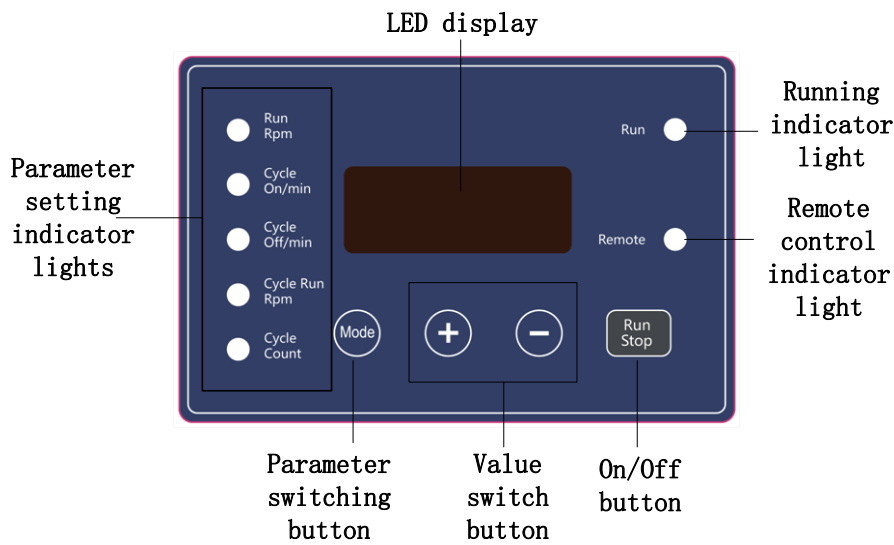


Figure 4 Control panel

LED display	Display the set parameter
Parameter setting indicator lights	When set the parameter, the corresponding indicator lights on
Parameter switching button	Switch different parameter setting
Value switch button	Increase or decrease value
On/Off button	Run/Stop operation
Remote control indicator light	Connect PC to remote control. When connected, the light is on(Obligated)
Running indicator light	When start running, the indicator lights on. The light will blink when the speed is up or down.

Table 3

3.3 LED indicator

The description of the LED indicators is as below:

Run Rpm	Indicates the final programmed constant stirring speed
Cycle On/min	Indicates the programmed running time of the stirrer
Cycle Off/min	Indicates the programmed idle time of the stirrer
Cycle Run/ Rpm	Indicates the programmed initial running/cycle speed of the stirrer
Cycle Count	Indicates the programmed number of cycles, including the run and idle step

Table 4

4. Model Setting methods

4.1 Constant running mode

- a. Press Mode button , when the “Run Rpm” indicator lights on, press “+” or “-” to set the required speed.
- b. Press Mode button, when the “Cycle on/min” indicator lights on, press “+” or “-” to set the required time.
- c. Press Run/Stop button to start/stop running the stirrer.
- d. Press “+” or “-” keys during constant speed running will change the set speed of the stirrer

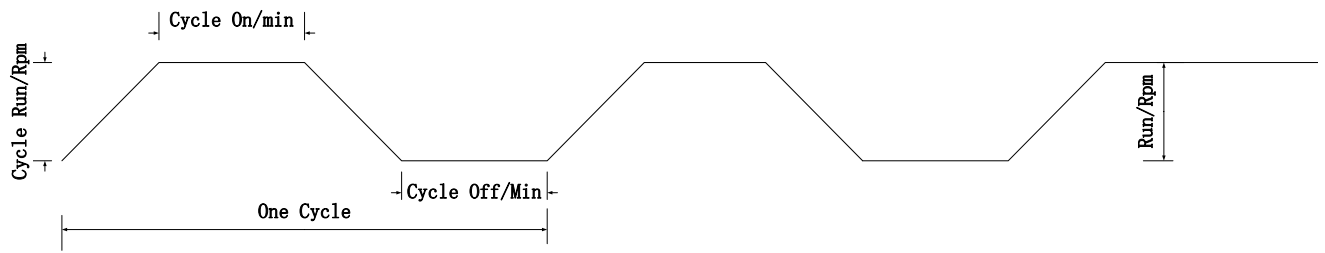
Note: the stirrer can increase the speed slowly.

While the stirrer starts to run, “Run” light is on. While it does not reach the required speed, “Run” light will blink

While the stirrer stop running and the speed does not come to 0, “Run” light will blink. While the speed reach to zero, the light will go off.

4.2 Cycle Stirring mode

The Cell Magnetic Stirrer can work by cycle stirring mode.



- a. Press Mode button, when the “Run/Rpm” indicator lights on, press “+” or “-” to adjust the constant speed
- b. Press Mode button when the “Cycle On/min” indicator lights on, press “+” or “-” to adjust the running time during the cycle running
- c. Press Mode button, when the “Cycle Off/min” indicator lights on, press “+” or “-” to adjust the idle time during the cycle running
- d. Press Mode button, when the “Cycle Run/Rpm” indicator lights on, press “+” or “-” to adjust the speed during the cycle running
- e. Press Mode button, when the “Cycle Count” indicator lights on, press “+” or “-” to adjust the number of cycles during the idle running
- f. Press Run/Stop button to stop the stirrer

Note:

In the Initial operation, the indicator light switches between the “Cycle on” and “Cycle Run Rpm”. The screen alternatively displays the rest of running time for “Cycle on” and the set speed for “Cycle Run”. Before reaching the target speed, "Run" light blinks. After reaching the target speed, "Run" light is on and start to count down.

When the rest time is zero, the stirrer starts to slow down and “Run” light blinks. When the speed reach zero, “Run” light goes off, the “Cycle Off” time starts to count down and the light alternates between “Cycle Off” and “Cycle Count”. The screen alternatively displays the rest time for “Cycle Off” and the rest numbers of cycle.

When running, press “+” or “-” is invalid.

After all the cycles finished, “Run Rpm” is on and the screen display the speed of Run Rpm. Before reaching the target speed, “Run” light blink. After reaching the target speed, “Run” light is on and start to count time. Then press “+” or “-” to adjust required speed. During the running, press “Run/Stop” can stop running.

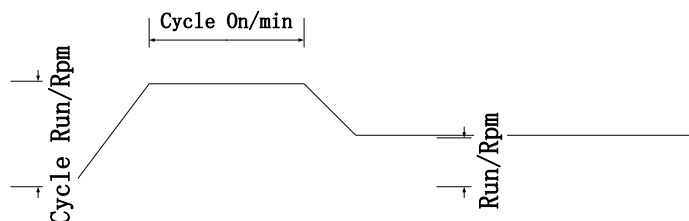
While setting “Cycle On” to be “00:00”, the stirrer is constant cycling status and the speed is the set value, while the light is on.

While setting the number of “Cycle Count” to be “0”, the stirrer is constant cycling status and the stirring speed is the set value while the light is on.

The speed of “Run Rpm” and “Cycle Run/Rpm” can be the same or different, they are just for different running modes.

4.3 Two Speed Stirring mode

The stirrer can be set to double-speed running mode by program.



- Press Mode button, when the “RunRpm” indicator lights on, press “+” or “-” to adjust the final constant running speed.
- Press Mode button, when the “Cycle On/min” lights on, press “+” or “-” to adjust the running time during the cycle running
- Press Mode button, when the “Cycle Off/min” lights on, press “+” or “-” to set time to 00:00
- Press Mode button, when the “Cycle Run/min” lights on, press “+” or “-” to adjust the initial running speed
- Press “Run/Stop” button to start running.

In the initial operation, the indicator light switches between the “Cycle on” and “Cycle Run Rpm”. The screen alternatively displays the rest of running time for “Cycle on” and the target speed for “Cycle Run”. Before reaching the target speed, "Run" light blinks. After reaching the target speed, "Run" light is on and start to count down.

During the running, press “+” or “-” is invalid.

While the rest time for “Cycle on” is 0, “Run Rpm” indicator light is on and the screen displays “Run Rpm” speed. Before reaching the target speed, "Run" light blinks. After reaching the target speed, "Run" light is on and start counting the time. During the running, press “+” or “-” can adjust setting speed.

During running, Press “Run/Stop” can stop running.

Note:

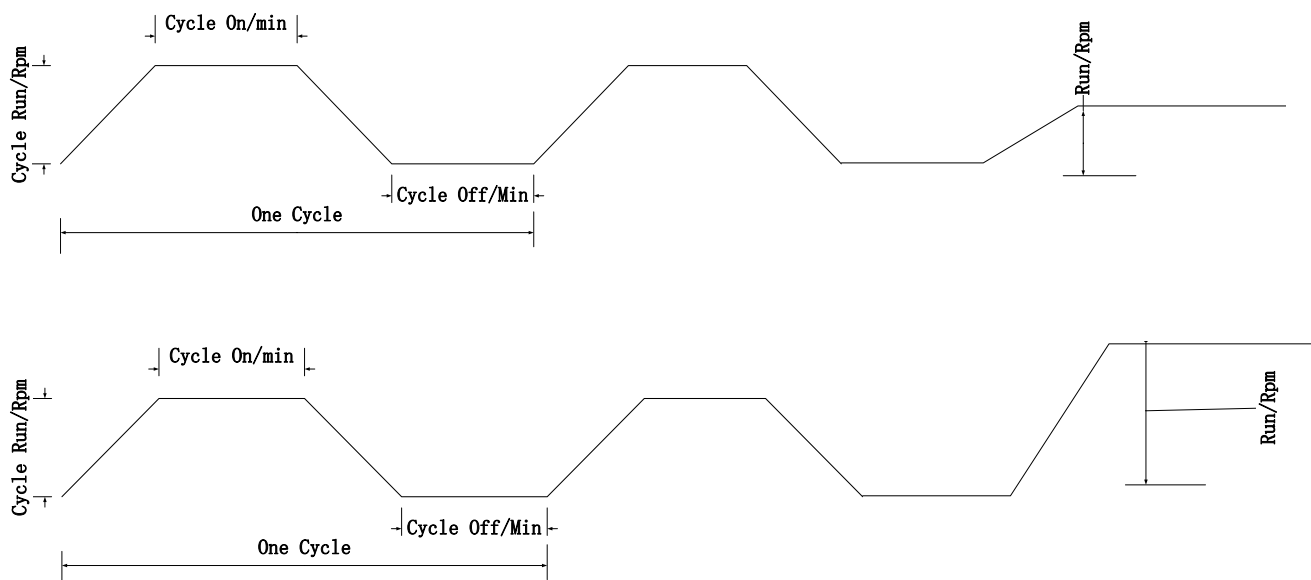
While setting “Cycle On” to be “00:00”, the stirrer is constant cycling status and the speed is the set value, while the light is on.

“Cycle Run/Rpm” speed can be higher or lower than the “Run/Rpm” value.

4.4 Combination Cycle and two speed stirring mode

In this model, the cycle run/Rpm speed is different from the constant Run/Rpm speed.

Please refer to the method of the Cycle stirring model setting, but set a different Run/Rpm speed.



5. Running

- Make sure the required operating voltage and power supply voltage match.
- Ensure the socket must be properly grounded.
- Plug in the power cable, ensure the power is on and begin initializing.
- Add the medium into the vessel.
- Place vessel on the work plate.
- Set the program and begin.
- Observe the stirring bar and LED display
- Stop the stirring 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 manufacturer/supplier for technical support.



Warning !

Forbid to transfer the vessel when the instrument working.

6. 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 stirrer, then switch ON and reset the instruments to factory default setting.
- Stir speed cannot reach set point

- Excessive medium viscosity may cause abnormal speed reduction of the motor

If these faults are not resolved, please contact manufacturer/supplier.

7. Maintenance and Cleaning

- Proper maintenance can keep instruments working properly and lengthen its 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

- Before using other method for cleaning or decontamination, the user must ascertain with the manufacturer that this method will not harm the instrument. Wear the proper protective gloves during cleaning of the instrument.



Note:

- Electronic device can not clean with cleanser.
- If you require maintenance service, must be cleaned the instrument in advance to avoid pollution of hazardous substances, and to send back into original packing.
- If the instrument will not use for a long time, please switch off and place in a dry, clean, room temperature and stable location.

8. Associated Standards and Regulations

Construction in accordance with the following safety standards:

EN 61010-1
 UL 3101-1
 CAN/CSA C22.2(1010-1)
 EN 61010-2-10

Construction in accordance with the following EMC standards:

EN 61326-1

Associated EU guidelines:

EMC-guidelines: 89/336/EWG

Instrument guidelines: 73/023/EWG

Changes or modifications not expressly approved by the party responsible for compliance could void the

user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

9. Specifications

Items	Specifications	
	One-channel	Four-channel
Voltage [VAC]	100-240	100-240
Frequency [Hz]	50/60	50/60
Stirring point position quantity	1	4
Max. stirring bottle [L]	3	3
Motor type	Stepper motor	
Speed range [rpm]	5-200, increment: 1	
Rotary speed display	LED	
Plate material	Stainless steel	
Dimensions (mm)	205×250×90	395×450×90
Permitted ambient temperature [°C]	5-40	
Permitted relative humidity	80%	

Table 4

10. Ordering Information

Cat No.	Descriptions
816512019999	One-channel magnetic stirrer for cell culture, USA plug, 100V-240V, 50Hz/60Hz
816512029999	One-channel magnetic stirrer for cell culture, Cn plug, 100V-240V, 50Hz/60Hz
816512039999	One-channel magnetic stirrer for cell culture, Euro plug, 100V-240V, 50Hz/60Hz
816512049999	One-channel magnetic stirrer for cell culture, UK plug, 100V-240V, 50Hz/60Hz
816312019999	Four-channel magnetic stirrer for cell culture, USA plug, 100V-240V, 50Hz/60Hz
816312029999	Four -channel magnetic stirrer for cell culture, Cn plug, 100V-240V, 50Hz/60Hz
816312039999	Four -channel magnetic stirrer for cell culture, Euro plug, 100V-240V, 50Hz/60Hz
816312049999	Four -channel magnetic stirrer for cell culture, UK plug, 100V-240V, 50Hz/60Hz

Table 5

SCIOGEX, LLC

1275 Cromwell Ave.

Suite C6

Rocky Hill, CT 06067 USA

Tel: +1(860) 436-9221

Fax: +1(860) 436-9745

info@scilogex.com

www.scilogex.com