USER MANUAL

MAGENTIC STIRRER

PCE-MSR 1600

ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:
www.pce-instruments.com

INTRODUCTION

The digital magnetic stirrer adopts magnetic stirrer mixing technology and is designed with humanized operation. This product is mainly used in the fields of medicine, bioengineering, chemistry, medicine, food, and other research fields. It is a routine instrument necessary for the biological laboratory to stir and mix various reagents, solutions and chemical substances.

FEATURES

1. Can stir 50ml-20L standard or non-standard reaction bottles.
2. Equiped with silicone pad upon the working surface, the shell is made of metal, high strength, high temperature resistance, corrosion resistance.
3. Exquisite and compact design of the whole machine, 30°bevel control panel is suitable for sitting and standing viewing angles. Digital display speed and time.
4. High magnetic flux design, strong mixing ability, adopt no motor drive mode, low noise.

SPECIFICATIONS

The Normal Operation Condition	
Ambient Temperature	4 °C ... 45 °C
Relative Humidity	≤70%
Power	AC220V ... 50

The Basic Parameters and Specifications

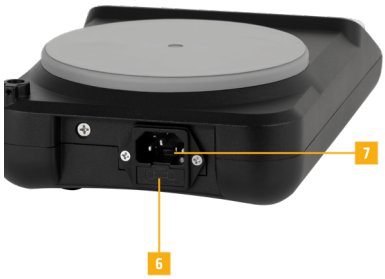
Parameter	
Operation Plate Size	φ 137 mm
Operation Plate Material	Silicone pad
Speed Range	200 ... 1600 rpm
Timing range	0 ... 99h59 min
Quantity of Stirrer Point	1 point
Max. Stirrer Capacity (H20)	20 L
Motor Type	DC Brushless Motor
Voltage	100 ... 240 V
Frequency	50/60 Hz
Power Input	20W
Fuse	250V, 1A, Φ5x20
Dimension (WxDxH)	160*270*70 mm
Net Weight	1.88kgs

PREPARATION

This chapter mainly describes the instrument's mechanical structure, the keyboard and functions of each key, as well as preparations before power on. Please learn this chapter well before the orbital shaker is to be operated at the first time.

Structure Description





1. PLattform
2. Host cover
3. Panel
4. Knob of speed adjustment
5. Knob of temperature setting
6. Fuse
7. Power input jack

KEYBOARD AND DISPLAY PANEL

Knob instructions

- Clockwise rotate the left knob to increase the setting time, anticlockwise rotate the knob to decrease the setting time.
- Rotate the right knob clockwise to increase the setting speed of the instrument, rotate the counter clockwise to decrease the setting speed, press the right knob to start operation, press again it will stop operation.

Power Connection
Put the instrument on a horizontal and even working table. Connect power as below figure. DC socket is on the rear part of the instrument. Voltage should be AC220V.

OPERATION GUIDE

Speed and Time Setting
- Turn on the power switch, the screen displays one by one, and the instrument enters initialization.
- The display at Speed shows 700, which indicates that the speed of the last instrument operation was 700 rpm. The right knob increases the setting value clockwise, and the right knob decreases the setting value counterclockwise. To change the setting value to 800RPM, turn the right knob clockwise until the display window value is 800 and stop turning.
- The The display screen at Time shows 00:35, indicating that the set Time of last operation is 35 minutes. The left knob increases the set value clockwise, decreases the set value counterclockwise. To change the setting value to 50min, turn the left knob clockwise until the display window value is 00:50 and stop rotating.

NOTICE: The timing value displays 00:00 means running timing is

Stop / Start

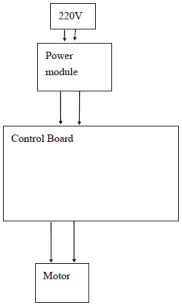
- Click the speed knob once to run the current program. The timer ends and the operation stops. The buzzer beeps.
- After the operation is completed, the buzzer will sound an alarm, and the instrument waits for instructions at the end interface. At this time, turning the SPEED or TIME knob can reset the speed or time; directly click the Speed knob to start the program according to the last set speed time parameter.
- During the operation, click the Speed knob to stop the instrument. Press again to restart the operation.

FAILURE ANALYSIS AND TROUBLE SHOOTING

No.	Phenomenon	Possible Causes	Processing Procedure
1	No signal display when power on.	No power	Check the power
		Broken switch	Exchange the switch
		Others	Contact with the seller
2	Motor does not work	Motor damaged	Contact with the seller
3	Knob does not work	Broken knob	Contact with the seller
4	Actual speed and displayed speed are not matching	Broken controller	Contact with the seller

APPENDIX A

Wiring Diagram



DISPOSAL

For the disposal of batteries in the EU, the (EU) 2023/1542 directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

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