SCI-120HS & SCI-S10 Hotplate/Magnetic Stirrer

User Manual

SCI-120HS 10-Channel Analog Hotplate Magnetic Stirrer

SCI-S10 10-Channel Analog Hotplate Magnetic Stirrer

Please read the User Manual and the related Video of this instrument on our website carefully before use, and follow all operating and safety instructions!

The website www.scilogex.com

SCILOGEX

Cat No.12300136

Contents

Preface

Welcome to the “10-Channel Analog Hotplate Magnetic Stirrer User Manual”. Users should read this Manual carefully, follow the instructions and procedures, and beware of all the cautions when using this instrument.

Service

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

SCILOGEX, LLC

1275 Cromwell AveSuite C6, Rocky Hill, CT 06067 USA

Tel：1- (860) 436-9221

Fax：1- (860) 436-9745

info@scilogex.com

www.scilogex.com"

- Serial Number（on the rear panel）

Please provide the customer care representative with the

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

Warranty

You have purchased a scilogex instrument. 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 dealer. You may also send the instrument direct to our works, enclosing the invoice copy and by giving reasons for the claim. You would be solely liable for freight costs.

1 Safety Instructions

	Warning! • Read the operating instructions carefully before using the instrument. • Ensure that only trained staff work with the instrument. • Forbid to heat the substances with low-burning point or easy-volatile（MS-H-S10）
	Risk of burn! • Caution when touching the housing parts and the heating plate. The heating plate can reach temperatures of 120 ℃. • Pay attention to the residual heat after switching OFF the instrument.
	Protective ground contact! • Make sure that socket must be earthed (protective ground contact) before use.

• When work , wear the personal guard 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 an 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 :
  - The stirring bar breakaway because of too high speed
  - The instrument is not running smoothly, or container moves on the base plate.
• Temperature must always be set to at least 25 ℃ lower than the burning point of the media used.
• Beware of hazards due to:
  - Flammable materials or media with a low boiling temperature
  - 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 ℃ .
• The voltage stated on the label must correspond to the main power supply.

• Ensure that the mains power supply cable does not touch the heating base plate. Do not cover the device.
• The instrument may only be opened by trained experts
• Keep away from high magnetic field.
• Observe the minimum distances between the devices, between the device and the wall and above the assembly (min. 100 mm).

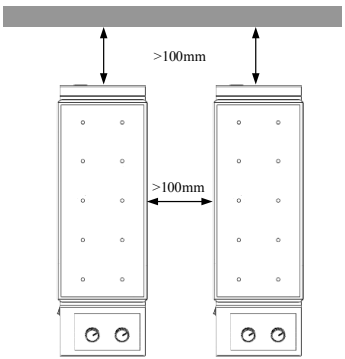

Figure 1

2 Proper use

The instrument is designed for mixing and/or heating liquids in schools, laboratories or factories. This device is not suitable for using in residential areas or other constraints mentioned in Chapter 1.

3 Inspection

3.1 Receiving Inspection

Unpack the equipment carefully and check for any damages which may have arisen during transport. If it happens, please contact manufacturer for technical support.

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

3.2 Listing of Items

The packing includes the following items:

Items	Qty
Main unit	1
Power cable	1
Stirrer bar	2
User manual	1

Table 1

4 Trial run

- Make sure the required operating voltage and power supply voltage match.
- Ensure the socket must be earthed.
- Ensure the power be off and the speed control knob and the temperature control knob at the lowest position
- Plug in the power cable，ensure the power be ON（Figure 3）
- Add the medium into the vessel with a stirring bar.
- Put the vessel above spots on the plate.
- Turn the speed control knob slowly to the ideal scale
- Turn the temperature control knob slowly to the ideal scale（）
- Keep the temperature control knob and the speed control knob slowly to the lowest position to turn off the function.

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 for technical support.

5 Control elements

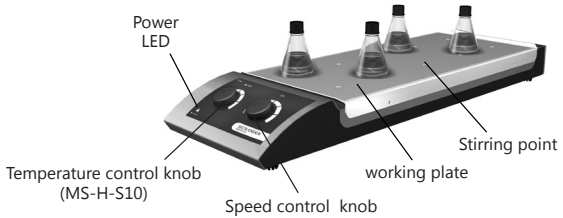

Figure 2

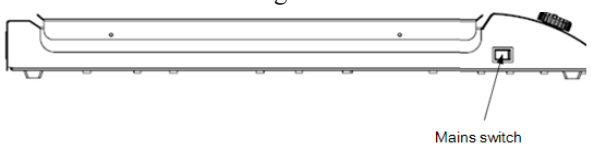

Figure 3

Items	Descriptions
Speed control knob	Set the rated rotary speed in the safe stirring range from 0 to 1100 rpm. The function “Stirring” is switched ON or OFF via the knob.
Temperature control knob	Set the rated temperature in the safe temperature range from room temperature to 120℃. The function “heating” is switched ON or OFF via the knob.

LED Power	When the device is switched ON, the LED power is lit.
Mains switch	Switch ON or OFF.

Table 2

6 Operation

• Ensure the temperature control knob and the speed Control knob at the lowest position .Put the device on the stable and safe place and plug in the mains power.
• Turn ON the power switch and LED power is lit.
• Turn the speed control knob to set the rated rotary speed in the safe speed limit from 0 to 1100 rpm.
• Turn the temperature control knob to set the rated temperature in the safe limit from room temperature to 120℃(MS-H-S10).
• The device begins to work.

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

7 Faults

• If a unit fault happens, please power down the instrument.
• Switch ON the unit again.
• The stirring function will continue to operate at the speed set point before the fault took place.
• The heating function will continue to operate at the set point before the fault took place.
• If the problem is not solved, please contact the technical service center.

8 Maintenance and Cleaning

• Proper use and maintenance can keep instruments working in a good state and lengthen its life time.
• Be careful not spray the cleanser into the instrument when cleaning.
• Unplug the power line when cleaning.
• Only use cleanser that we advised as below:

Dyes	Isopropyl alcohol
Construction materials	Water containing tenside / isopropyl alcohol
Cosmetics	Water containing tenside / isopropyl alcohol
Foodstuffs	Water containing tenside
Fuels	Water containing tenside

Table 3

• Other method ,please contact manufacturer.
• Wear the proper protective gloves during cleaning of the instrument.

• Before using other method for cleaning or decontamination, the user must contact the manufacturer ascertain that this method does not destroy the instrument.
• The instrument must be cleaned and put it into the initial packaging carton before sending to service for repair, avoiding the contamination of hazardous.
• Use the instrument in a dry clean room and temperature stable environment.

9 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
Machine guidelines: 73/023/EWG

10 Technical data

Items	Parameters
Voltage [VAC]	200-240/100-120
Frequency [Hz]	50/60
Power [W]	20(MS-M-S10) 490(MS-H-S10)
Stirring point position quantity	10
Max. stirring quantity of single stirring position(H_2O) [L]	0.4
Stirring position interval [mm]	90
Single stirring position speed error [%]	5
Max. stirring quantity (H_2O) [L]	4
Max. magnetic bar [mm]	30
Motor type	External rotor brushless motor
Motor rating input [W]	12
Motor rating output [W]	4
Speed range [rpm]	0 – 1100
Speed display	Scale
Heating Power[W]	470(MS-H-S10)
Tempeature range[℃]	RT~120(MS-H-S10)
Temperature display[℃]	Scale(MS-H-S10)

Material of plate	Silicone Films
Dimension of plate [mm]	180 × 450
Dimensions (W × D × H) [mm]	182 × 552 × 65
Weight [kg]	3.2
Permitted ambient temperature[℃]	5 – 40
Permitted relative humidity	80%
Protection class acc. to DIN 60529	IP42

Table 4

Accessories

Cat.No	Description
18900006	Stirring bars（10mm x 6mm），1pcs/pk
18900007	Stirring bars（15mm x 8mm），1pcs/pk

18900008	Stirring bars（20mm x 8mm），1pcs/pk
18900009	Stirring bars（25mm x 8mm），1pcs/pk
12500005	Stirring bars（30mm x 6mm），1pcs/pk
18900011	Stirring bars（40mm x 8mm），1pcs/pk
18900015	Stirring bar mover，1pc

Table 5

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