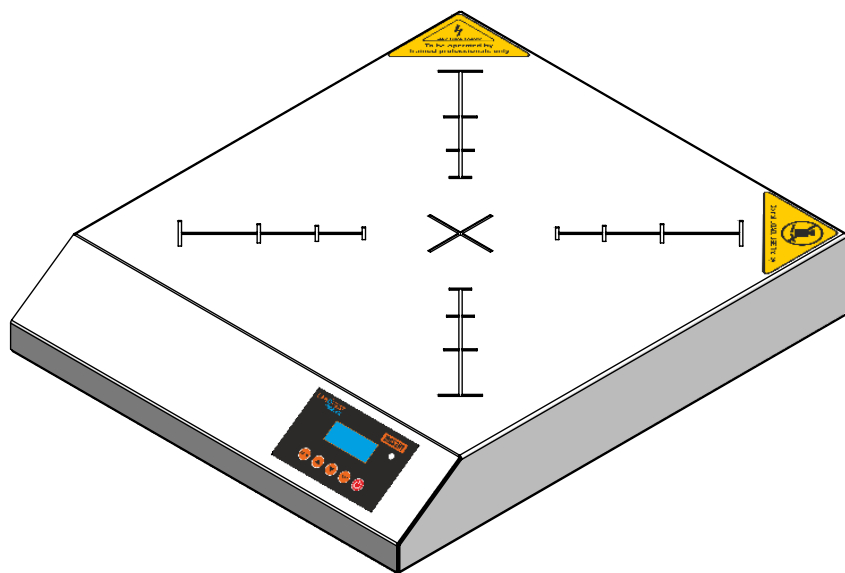


# MAGNETIC STIRRER

## OPERATING MANUAL MGS201



**DEALER :**



**THANK YOU NOTE**

*We Borosil, one of India's most customer oriented brands truly appreciate your business and express our gratitude for the trust you have placed on us.*

*We hope your choice serves you well in your scientific endeavors and aspire to have the pleasure of doing business with you for years to come.*



## TABLE OF CONTENTS

<b>Sr. No.</b>	<b>Particular</b>	<b>Page No.</b>
1.	Packing List.....	7
2.	Product Specification.....	8
3.	Safety And Warning.....	9
4.	Unboxing of The Product.....	10
5.	Product Installation.....	11
6.	Product Identification.....	12
7.	Description of Buttons & Functions.....	13
8.	Operations.....	14
9.	Settings.....	16
10.	Troubleshooting.....	19
11.	Warranty Registration.....	21
12.	Statement of Warranty.....	23
13.	Contact Information.....	24



## PACKING LIST

1. Industrial Stirrer MGS201 .....01No.
2. Power cable.....01No.
3. MGS Manual.....01No.

## PRODUCT SPECIFICATIONS

PARAMETERS	MG5201
SAP Code	BLFHMG520100000000
SAP Description	Industrial Stirrer 200LTR Loaded LED USB
No of Stirring Positions	1
Stirring Quantity	Upto 200L
Motor Type	BLDC 30 MOTOR
Stirring Bar Length	Recommended 130 mm length & 16 mm Dia
Material Housing	Flat, sturdy stainless steel
Display	7 Segment LED
Speed Range	100-600 rpm
Speed Error	±3% rpm
Timer	Infinite operation upto 999 mins only
Set-up Plate Dimensions	500 x 500 mm
Dimensions (W x D x H )	500 x 580 x 110 mm
Weight of The Product	20kg
Weight / Load (It Can Sustain)	<b>No direct loading above 70 kg</b>
Ramp Rate	0 - 3
Cycle ON/OFF	YES
Slip Detect	YES
USB Interface	YES
Permissible Ambient Temperature	10°C to 45°C
Power Input	AC 200 - 240 V, 50 Hz
Max Current	0.3 A
Power Consumption	60 W
Mains Voltage	200V - 240V AC
Warranty	1yr

## SAFETY AND WARNING



### Important Operating and Maintenance Instructions

Read the accompanying text carefully.



### Potential Electrical Hazards

Only qualified persons should perform procedures associated with this symbol.



### Lifting Hazard Warning

Take adequate safety measures when moving this device.

Equipment being maintained or serviced must be turned off and locked to prevent possible injury.



### CAUTION

- Always use proper protective equipments. (Clothing, gloves, goggles, etc.)
- Always follow good hygiene practices.
- Each individual is responsible for his / her own safety.
- Do not keep the unit on wet bench top or work areas.
- Do not wash the unit with water.
- Wipe the unit with dry cloth after usage.
- In case of fluid spillage on the equipment, wipe it with dry cloth.
- The unit should be plugged to standard AC 230V, 50Hz, 5A, 3 pin power cord.
- The unit should be plugged into power socket having proper earthing.



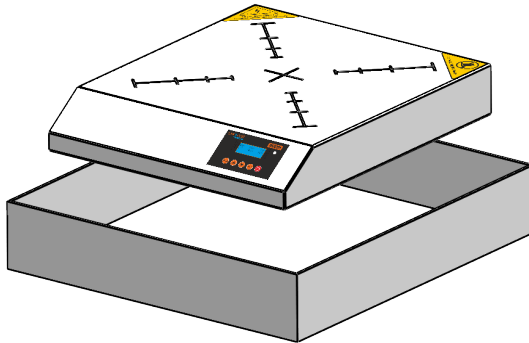
### WARNING

Inadequate earthing at the installation facility can lead to hazardous electrical shocks. The manufacturer is not liable for any injury or death resulting from electrical hazards due to faulty earthing in the lab.

## UNBOXING OF THE PRODUCT

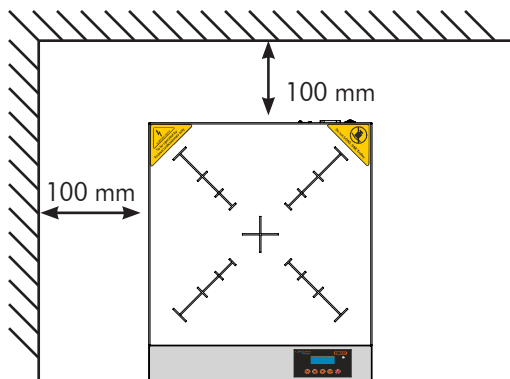
### Unpackaging Instruction:

1. Remove the unit from the box.
2. Remove the power cord.



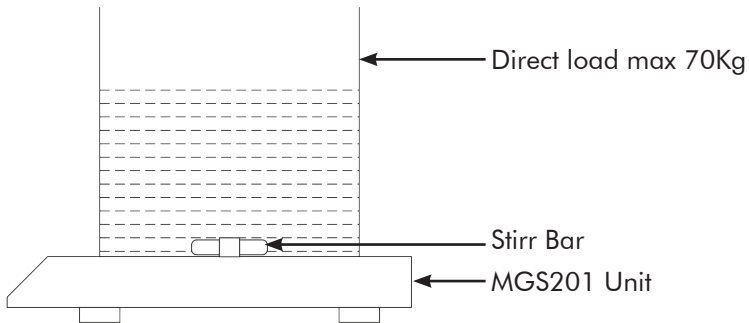
### Installation of Unit:

1. Plug the power cord to the unit & connect it to the wall socket of standard AC 230V, 50Hz, 5A.
2. Place the whole unit at the 100mm gap from side and from back on clean and dry place.



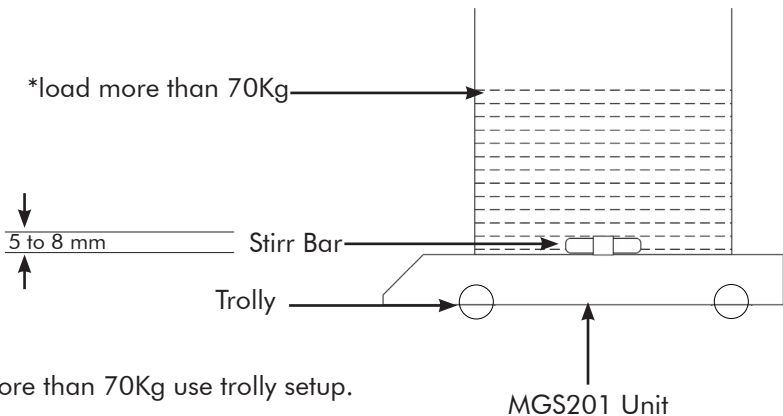
## PRODUCT INSTALLATION

### Direct load installation (below 70Kg)



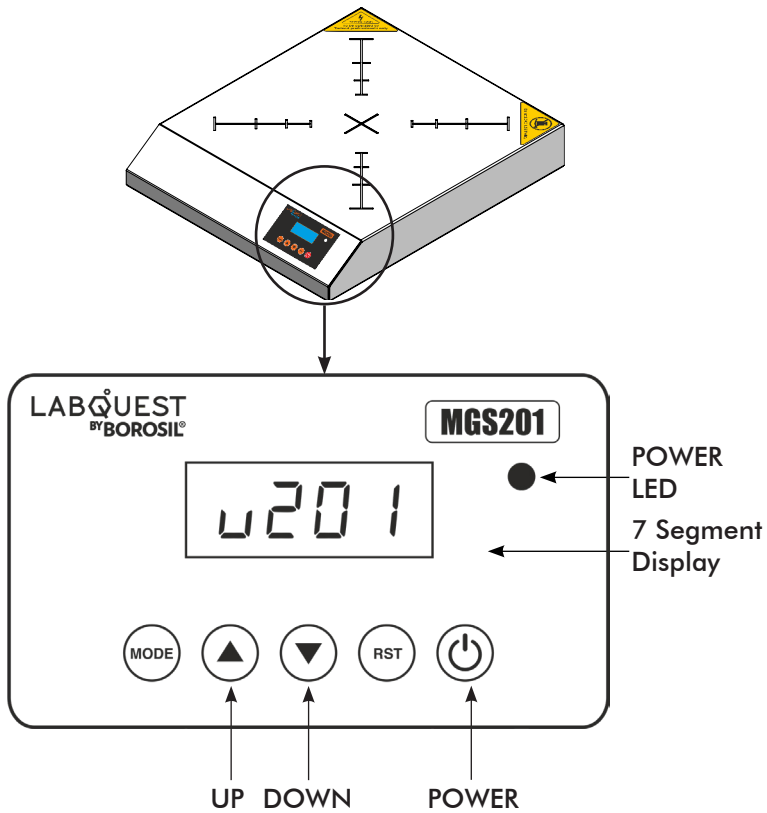
- \* During direct load max limit is 70Kg on the MGS201.
- \* Do not keep more than 70Kg load directly on MGS201.

### In direct load installation (above 70 kg)

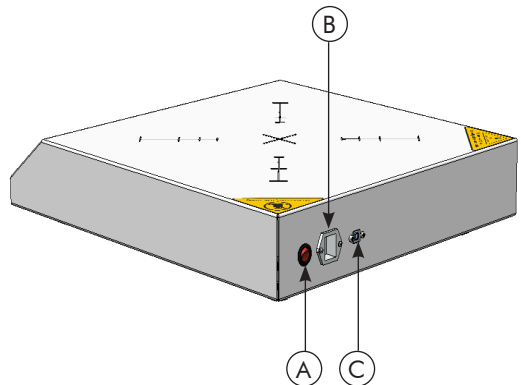


- \* For more than 70Kg use trolley setup.

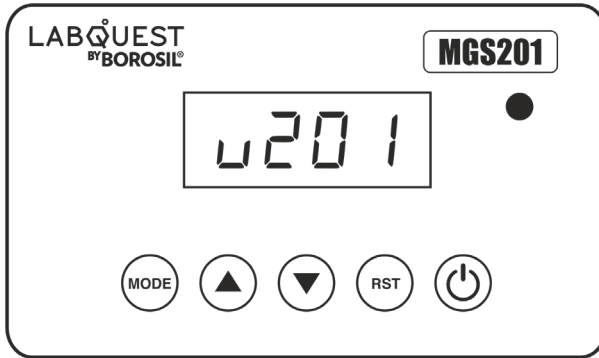
## PRODUCT IDENTIFICATION



- A. POWER SWITCH
- B. POWER SOCKET with fuse  
(5 Amp)
- C. USB

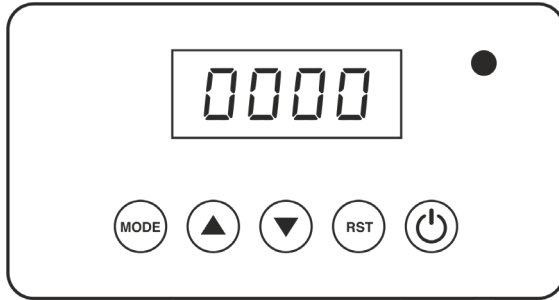


## DESCRIPTION OF BUTTONS & FUNCTIONS

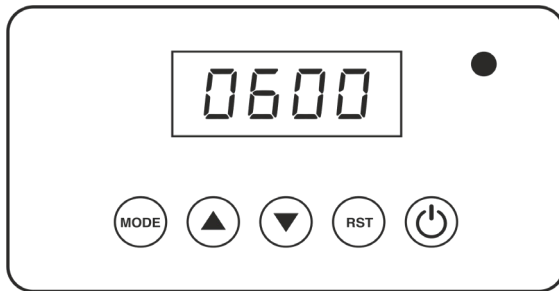


1. **MODE :**
  - Single press - It selects the parameter which needs to be set and also to start the process.
  - Long press - It is used to enter in to the setting mode.
2. **UP (▲) :**
  - It is used to increase the set point values and to navigate up the setting window.
3. **DOWN (▼) :**
  - It is used to decrease the set point values and to navigate down the setting window.
4. **RESET (RST) :**
  - Long press - It is used for exiting out of process.
5. **POWER (⏻) :**
  - It is used to power ON and OFF the system.  
(The buzzer will beep each time when the buttons are operated.)

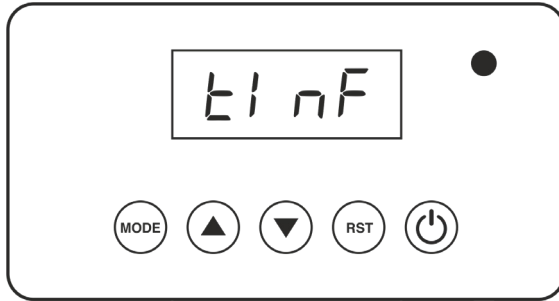
## OPERATIONS



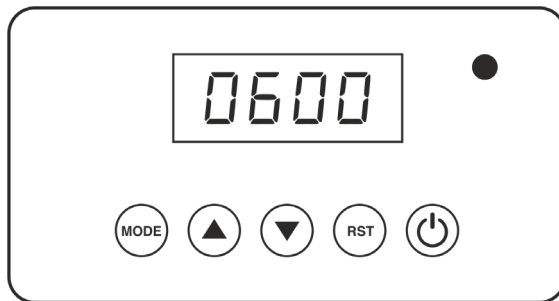
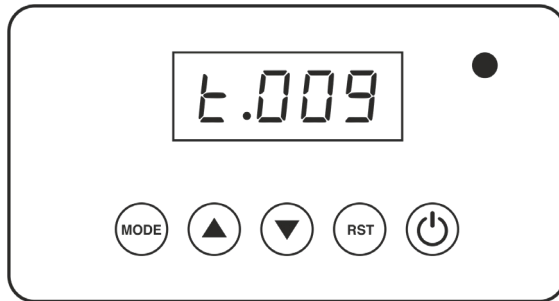
- Default power ON state .
- All parameters will be default set to 0.



- Use ▲ & ▼ buttons to increase and decrease RPM values.
- User can set Max. RPM upto 600.
- Press MODE key to set the time.
- User can set the Set time upto 999 mins, the process will be continued for set time.
- If the user wants the process for infinite duration, set time as  $t \infty$ .



- After setting the time press the MODE key to start the process.
- Once the process is started, the SET TIME and SET RPM window will be shown alternatively.
- User can change the SET RPM value by using ▲ & ▼ button, during the process.



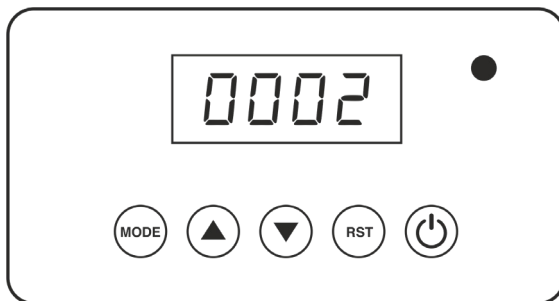
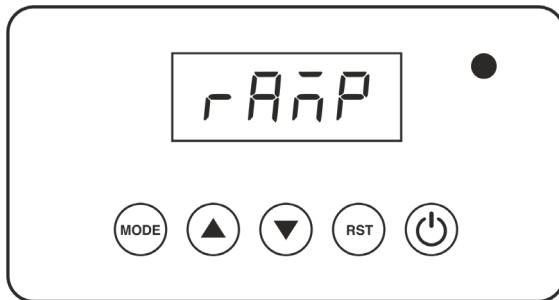
- Press RST button to stop or reset the process.
- If the user had already set the time, the process will be auto reset after reaching the given time limit and buzzer will beep.

## SETTINGS

- To Enter into MENU SETTING, Long press the MODE key.
- To Enter/ Exit into Sub-Menu, Single press the MODE key.

### RAMP SET

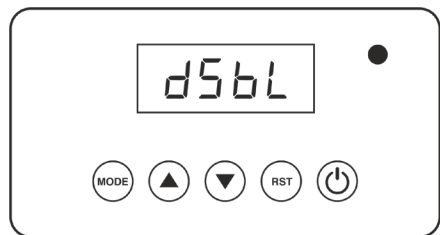
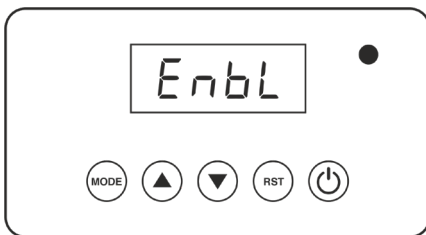
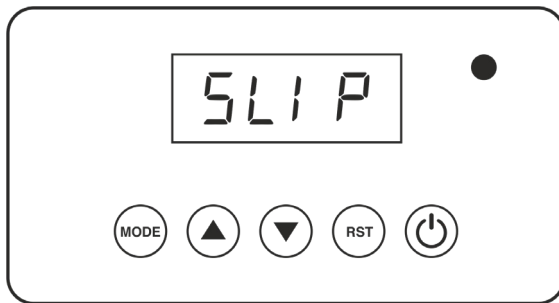
- User can set the ramp value from 0 to 3.
- When the ramp value is zero, the time taken to reach set value will be less.
- When the ramp value is maximum (3), the time taken to reach set value will be more (long).



**Note: Press MODE button to save changes and use UP & Down button to select the value of RAMP.**

## SLIP DETECT

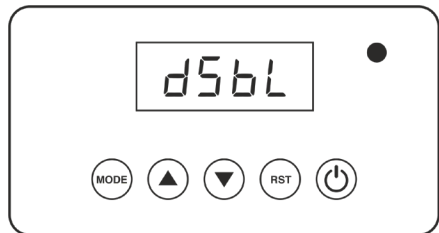
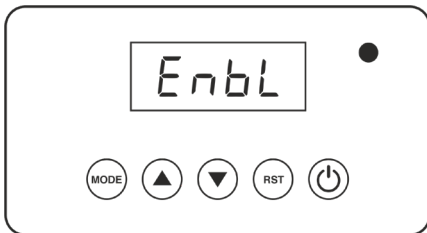
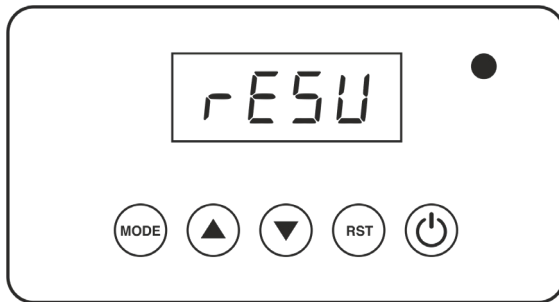
- Enable/ Disable the slip detect setting.
- Enable Mode:- It will enable the slip detection of magnetic stirr bar.
- Disable Mode:- It will OFF the auto slip detect mode of stirr bar.
- If slip detection is enabled and magnetic stirr bar slips during the process, "SLIP" will appear on the display.



**Note: Press MODE button to save changes and use UP & Down button to toggle between enable/ disable.**

## AUTO RESUME

- Enable/ Disable the auto resume setting.
- Enable Mode:- It will enable auto resume mode.
- Disable Mode:- It will disable auto resume mode.
- When enable mode is selected and power is cut off during the process, the RPM and set time values will be saved. Upon power restoration, the motor will automatically resume its rotation at the saved RPM and time settings, which will also be displayed simultaneously.



**Note: Press MODE button to save changes and use UP & Down button to toggle between enable/ disable.**

## TROUBLESHOOTING

### 1. The unit is not turning **ON**.

- Check the power supply in AC mains.
- Make sure power cable is inserted to the socket properly.
- Check whether the main switch is **ON** or **OFF**.
- Check if the illuminated switch is **OFF**.
- Check if the unit is running and the switch is not illuminating, the switch needs to be replaced.

### 2. If the fuse is blown.

- Switch **OFF** the unit and remove power cable from AC mains.
- Remove the plastic tray present on the back of the unit on the power socket.
- Remove the glass tube fuse.
- Check if the fuse is blown.
- If the fuse is blown, replace it with a 2A glass tube fuse.





## WARRANTY REGISTRATION

Please handover this registration form to the distributor from where you have purchased this product. The warranty is valid only when this warranty registration form is received by us within 30 days from the date of purchase.

Product: MGS201

Product Sr. No.: \_\_\_\_\_

Date of Invoice : \_\_\_\_\_

Invoice No.: \_\_\_\_\_

### Customer name & address

Name : \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

E-mail: \_\_\_\_\_

### Customer sign & seal

### Dealer name & address

Name : \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

E-mail: \_\_\_\_\_

### Dealer sign & seal



# BOROSIL® Scientific

STATEMENT OF WARRANTY

Borosil confirms that this product has been manufactured in accordance with our technical specifications and quality requirements.

- Borosil warrants the product from manufacturing and workmanship defects for a period of 12 months from the date of invoice.
- Warranty is void, if apparatus is not operated as prescribed in the operating manual supplied along with the unit.
- To be covered under warranty.
  - » Units have to be connected to standard 230V, 50Hz, 15A wall sockets with proper earthing for MGS201.
  - » Wear and tear of the equipment surface due to handling will not be covered under warranty.
  - » Corrosion damage due to spillage of chemical will not be covered under warranty.
  - » Warranty does not cover rust and physical damage to metal parts due to corrosive environment in the lab.

**Terms:**

- » In the event of malfunction due to defect, the buyer will have to follow the Borosil’s service process.
- » Certain units can not be serviced/rectified at the buyer’s place and the units may have to be brought to Borosil’s service center as advised by Borosil’s representatives.
- » In no event shall Borosil be liable for consequential or incidental damages.

<b>INVOICE DATE</b>	<b>BUYER</b>	<b>AFFIX SERIAL NUMBER</b>
<b>INVOICE#</b>		
<b>Dealer name &amp; address</b>		<b>Dealer sign &amp; seal</b>

**BOROSIL SCIENTIFIC LIMITED**

Corporate Office : 1101, Crescenzo G-Block, Opp. MCA Club, Bandra Kurla Complex, Bandra (E), Mumbai-400051, India.



**: MANUFACTURED BY :**

**Borosil Scientific Limited**

Plot No.7, Sr. No. 234, 235 & 245,  
Indialand Global Industrial Park,  
Hinjewadi Phase 1, Pune - 411057

*Write to us on above address.*

**: MARKETED BY :**

**Borosil Scientific Limited**

1101, G-Block, Parinee Crescenzo,  
BKC, Bandra East, Mumbai - 51

Maharashtra, India

**: CUSTOMER CARE CONTACT :**

**Phone : 1800 22 4551 | Email : [lab.support@borosil.com](mailto:lab.support@borosil.com)**

**Website : [www.borosilscientific.com](http://www.borosilscientific.com)**