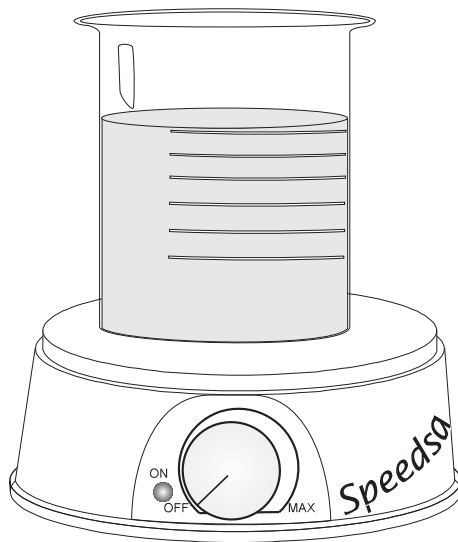


Instruction Manual

HI 180 Magnetic Stirrer



 **HANNA**
instruments
<http://www.hannacan.com>

CE
These Instruments are in
Compliance with the CE Directives

Dear Customer,

Thank you for choosing a Hanna product. This manual will provide you with the necessary information for a correct operation. Please read it carefully before using the controller. If you need additional technical information, do not hesitate to e-mail us at techserv@hannacan.com. These instruments are in compliance with the CE directives EN 50081-1 and EN 50082-1.

PRELIMINARY EXAMINATION

Remove the instrument from the packing material and examine it carefully. If any damage has occurred during shipment, immediately notify your Dealer or the nearest Hanna Customer Service Center.

Note: Conserve all packing material until the instrument has been observed to function correctly. Any defective items must be returned to the Dealer in its original packing.

GENERAL DESCRIPTION

HI 180 is a compact and lightweight magnetic stirrer. Lack of laboratory bench space is no longer a concern.

It incorporates electronic controls that allow the user to regulate the speed with greater precision.

In addition to speed control, the Speedsafe™ system will assure that the maximum speed (1000 rpm) is never exceeded.

Several HI 180 stirrers can be placed on the laboratory bench and the colors will help in recognizing the different samples.

The plastic cover of these stirrers will resist the harmful effects of any accidentally spilled chemical.

Each stirrer is supplied with a 25 mm long (7 mm as diameter), Teflon® coated, magnetic stir bar.

Speedsafe™ is a Trademark of "Hanna Instruments".

HI 180 stirrers are available in two voltage versions ("D" = 220/240V and "U" = 110/115V) and in nine colors as follows:

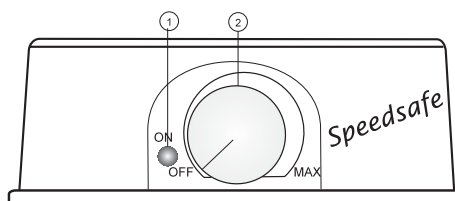
MODEL	COLOR
HI 180 A	yellow
HI 180 B	light sea-green
HI 180 C	light blue
HI 180 D	citron
HI 180 E	green
HI 180 F	dark blue
HI 180 G	red
HI 180 H	grey
HI 180 I	ivory

SPECIFICATIONS

HI 180	
Maximum Stirring Capacity	1 Liter (0.26 gallons)
Speed Range	
Min.	100 rpm
Max.	1000 rpm
Power Supply	
HI 180/U	110/115V, 50/60 Hz
HI 180/D	220/240V, 50/60 Hz
Installation Category	II
Cover Material	ABS plastic
Environment	0 to 50°C (32 to 122°F) 95% RH max.
Dimensions	dia. 137 mm x 51 mm (h) (5.39 x 2")
Weight	640 g (1.4 lb.)

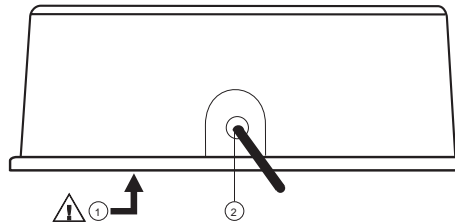
FUNCTIONAL DESCRIPTION

THE FRONT PANEL




1. Power indication (LED lights up when there is power supply)
2. Speed knob (for rpm setting with ON/OFF) continuously variable up to the maximum

THE REAR PANEL

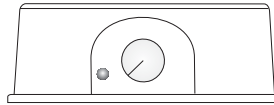


- 1) Fuse holder for 200 - 250V fuse
- 2) AC power cord.

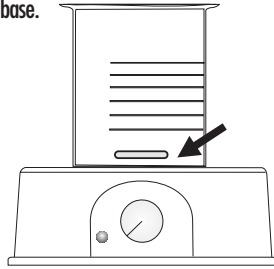
 Unplug the stirrers from the power supply before replacing the fuse.

OPERATIONAL GUIDE

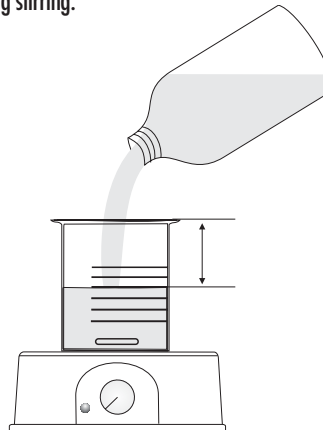
- Make sure that the SPEED knob is in the OFF position.



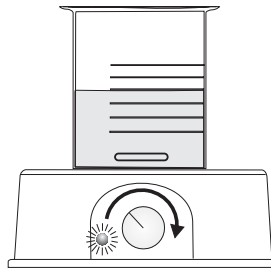
- Place a beaker or glass container on the top of the stirrer and place the stirring bar at the center of the beaker base.



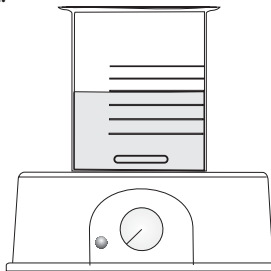
- Pour the liquids to be mixed into the beaker. Do not fill the brim and leave sufficient space to prevent spillage during stirring.



- Connect the power cord to the mains.
- Adjust the SPEED knob slowly until the required stirring speed is achieved.



- Allow sufficient time for the mixing operation to attain uniform rotational flow.
- After stirring is complete, turn the SPEED knob to OFF position.





- If no further stirring is required, disconnect the power supply.

ACCESSORIES

HI 731319 Micro stir bar (10 each)

CE DECLARATION OF CONFORMITY

 CE <i>DECLARATION OF CONFORMITY</i>								
We Hanna Instruments Srl v. E.Fermi, 10 35030 Sarmeola di Rubano (PD) ITALY herewith certify that the magnetic stirrer HI 180 has been tested and found to be in compliance with the following regulations: <table><tr><td>IEC 801-2</td><td>Electrostatic Discharge</td></tr><tr><td>IEC 801-3</td><td>RF Radiated</td></tr><tr><td>IEC 801-4</td><td>Fast Transient</td></tr><tr><td>EN 55022</td><td>Radiated, Class B</td></tr></table> Date of Issue: 31-07-1996  D. Volpato - Engineering Manager On behalf of Hanna Instruments S.r.l.	IEC 801-2	Electrostatic Discharge	IEC 801-3	RF Radiated	IEC 801-4	Fast Transient	EN 55022	Radiated, Class B
IEC 801-2	Electrostatic Discharge							
IEC 801-3	RF Radiated							
IEC 801-4	Fast Transient							
EN 55022	Radiated, Class B							

Recommendations for Users

Before using these products, make sure that they are entirely suitable for the environment in which they are used.

Operation of these instruments in residential areas could cause unacceptable interferences to radio and TV equipment.

Any variation introduced by the user to the supplied equipment may degrade the instrument's EMC performance.

WARRANTY

All Hanna Instruments stirrers are warranted for two years against defects in workmanship and materials when used for their intended purpose and maintained according to the instructions. Damages due to accident, misuse, tampering or lack of prescribed maintenance are not covered. This warranty is limited to repair or replacement free of charge. If service is required, contact the dealer from whom you purchased the instrument. If under warranty, report the model number, date of purchase, serial number and the nature of the failure. If the repair is not covered by the warranty, you will be notified of the charge for repair or replacement. If the instrument is to be returned to Hanna Instruments, obtain a Return Goods Authorization from the Customer Service Department first and then send it with shipment cost prepaid. When shipping any instrument, make sure it is properly packaged for complete protection. To validate your warranty, fill out and return the enclosed warranty card within 14 days from the date of purchase.

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Hanna Instruments reserves the right to modify the design, construction and appearance of its products without advance notice.