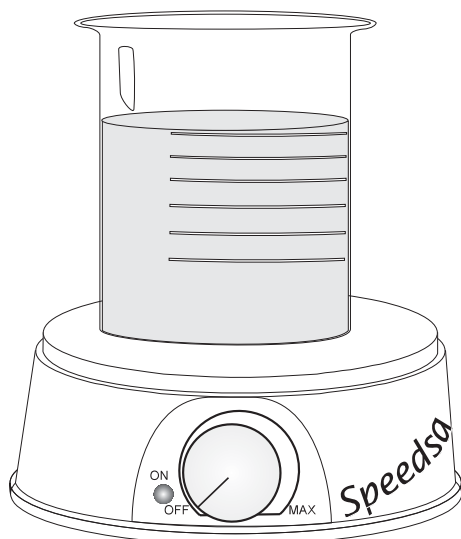


Instruction Manual

HI 180 Distinctive, Compact Magnetic Stirrers



HANNA[®]
instruments
www.hannainst.com

Dear Customer,
Thank you for choosing a Hanna product.
Please read carefully this instruction manual before using the instrument. If you need additional technical information, do not hesitate to e-mail us at tech@hannainst.com.
These instruments are in compliance with the CE directives.

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 are compact and lightweight magnetic stirrers. Lack of laboratory bench space is no longer a concern.

They incorporate electronic controls that allow the user to regulate the speed with greater precision.

In addition to speed control, the *Speedsafe*[™] system assures 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. Their plastic cover will resist the harmful effects of any accidentally spilled chemical.

Each stirrer is supplied with a magnetic stir bar (L 25 x dia 7 mm).

Speedsafe[™] is a Trademark of Hanna Instruments.

HI 180 stirrers are available in two voltage versions (220/240 Vac and 110/115 Vac), and in nine colors as follows:

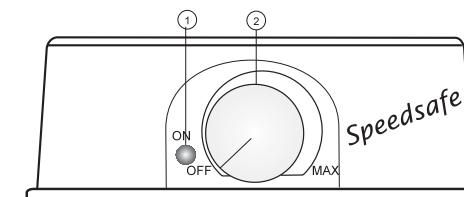
MODEL	COLOR
HI 180 A	light yellow
HI 180 B	light sea-green
HI 180 C	light blue
HI 180 D	yellow
HI 180 E	green
HI 180 F	dark blue
HI 180 G	red
HI 180 H	grey
HI 180 I	ivory

SPECIFICATIONS

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

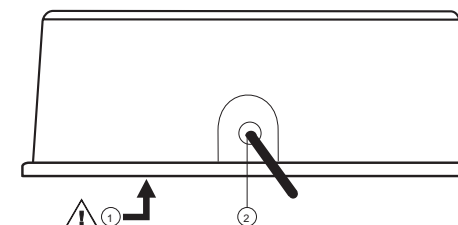
FUNCTIONAL DESCRIPTION

FRONT PANEL




1. Power indicator (LED lights up when the stirrer is powered)
2. ON/OFF/Speed knob, to turn the stirrer ON and OFF, and set the stirring speed (continuously variable up to the maximum)

REAR PANEL

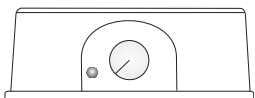


- 1) Fuse holder for 400 mA/250 V fuse
- 2) AC power cord.

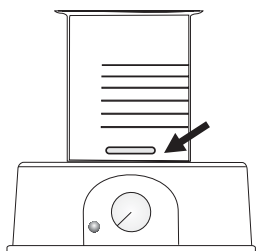
 Unplug the stirrer from the power supply before replacing the fuse.

OPERATIONAL GUIDE

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

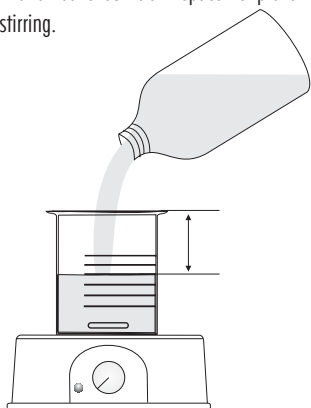


- Place a beaker or glass container on the top of the stirrer and place the stirring bar at the center of the beaker

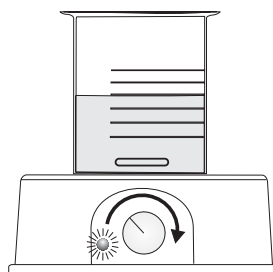


base.

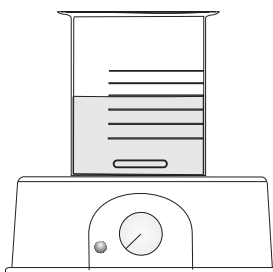
- Pour the liquids to be mixed into the beaker. Do not fill the brim and leave sufficient space to prevent spillage during stirring.



- 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 DECLARATION OF CONFORMITY	
We Hanna Instruments Italia Srl via E. Fermi, 10 35050 Sarmeola di Rubano - PD ITALY	
herewith certify that the magnetic stirrer:	
HI 180	
has been tested and found to be in compliance with EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC according to the following applicable normative:	
EN 50082-1: Electromagnetic Compatibility - Generic Immunity Standard	IEC 801-2 Electrostatic Discharge
EN 50081-1: Electromagnetic Compatibility - Generic Emission Standard	IEC 801-3 RF Radiated
EN 55022: Radiated, Class B	IEC 801-4 Fast Transient
EN 61010-1: Safety requirements for electrical equipment for measurement, control and laboratory use	
Date of Issue: 12-11-1998	 P. Cesa - Technical Director On behalf of Hanna Instruments S.r.l.

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.

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