

**MR 1000**  
**MR 3000 / MR 3000 D**



**Betriebsanleitung**  
**Instruction Manual**  
**Mode d'Emploi**  
**Instrucciones de**  
**Empleo**

**DEUTSCH**

**D**

**ENGLISH**

**E**

**FRANCAISE**

**F**

**ESPAGNOL**

**ES**

Thank you for purchasing a Heidolph Instruments product. This item has been designed, manufactured and inspected in compliance with DIN EN ISO 61010 for continuous operation and long life performance.

**SUMMARY**

SUMMARY ..... 9  
 STANDARD EQUIPMENT & ACCESSORIES ..... 9  
 GENERAL INFORMATION ..... 10  
 SAFETY INFORMATION ..... 10  
 SET-UP ..... 11  
 OPERATION AND CONTROLS ..... 11  
 CLEANING & SERVICING ..... 12  
 UNINSTALL, FORWARD & STORE ..... 12  
 DISPOSAL ..... 12  
 MALFUNCTION & REMEDY ..... 12  
 SPECIFICATIONS ..... 13  
 WARRANTY, LIABILITY & COPYRIGHT ..... 14  
 QUESTIONS / REPAIR WORK ..... 14  
 CE-DECLARATION OF CONFORMITY ..... 14

**STANDARD EQUIPMENT & ACCESSORIES**

**Standard Equipment**

product	quantity	P/N	
		230 V / 50/60 Hz	115 V / 60 Hz
MR 1000 or	1	503-02000-00	503-02000-01
MR 3000 or	1	504-00011-00	504-00011-01
MR 3000 D	1	504-03010-00	504-03010-01
Instruction Manual	1	01-005-002-93	01-005-002-93
power cord (MR 3000, MR 3000 D)	1	14-007-003-81	14-007-003-89

**Accessories (optional)**

product	P/N
magnetic stir bars (3 ea.), cylindrical, PTFE-coated	509-56000-00

## GENERAL INFORMATION



### Unpack your item carefully.

Inspect for damage and report such damage or missing parts to your supplier right away.



Read your Instruction Manual carefully. Take time to save time while working with your item. Make sure that every user has read and understood the Instruction Manual.



Please store the Instruction Manual in a place easily accessible to every user.

### IF ALL ELSE FAILS, READ THESE INSTRUCTIONS !



A so-called EURO-plug (DIN 49441 CEE 7/VII 10/ 16 A 250 V) is standard on MR 3000 and MR 3000 D appliances. For the Continental US they feature a US-standard plug (NEMA Pub.No.WDI.1961 ASA C 73.1 . 1961 page 8 15A 125V).

MR 1000 models feature a non-detachable power cord without protective ground terminal and with flat-type connector (EN 50075, type XVI 2.5 A 250 volts), protective class II.



When using the item in a country with deviating outlet / plug systems, we recommend to use approved adapters or to have an electrician replace the standard plug with one suiting your needs.



As shipped, the MR 3000 and MR 3000 D models are grounded. When replacing the original plug, make sure to reconnect this protective ground wire in the new plug !

## SAFETY INFORMATION



Please comply with all safety and accident-prevention regulations as in force for laboratory work !



Use extra care when working with flammable substances; refer to safety data sheets.



When connecting your item with your local power supply, please make sure your item is designed for your local voltage; go by data plate on the item.



Turn your power switch OFF whenever the item is not used, or before disconnecting the plug.



Repair work is restricted to technicians approved by Heidolph Instruments.



Use extra care when working in the vicinity of flammable and explosive substances. Motors are of non-sparking type, however, the item itself is not explosion proof



Please do not connect your appliance but with a protective-ground outlet. (not MR 1000, which is designed for protective class II)



Your item requires a solid stand.

## SET-UP

### Set-up

Please locate the item on a sturdy horizontal surface. For reasons of safety, keep the area around the stirrer module clear of other items



MR 1000



MR 3000



MR 3000 D

### Connect the MR 1000 with your outlet

Do the following checks before connecting:

- power switch (1) OFF ("0").
- speed control (2) in extreme left position (CCW)

Connect item's power cord with your mains.



**Note:** the appliance features protective insulation, no protective ground required.

### Connect the MR 3000 / MR 3000 D with your outlet

Do the following checks before connecting:

- power switch (1) OFF ("0"; when ON, toggle switch lights GREEN)
- speed control (2) in extreme left position (CCW).

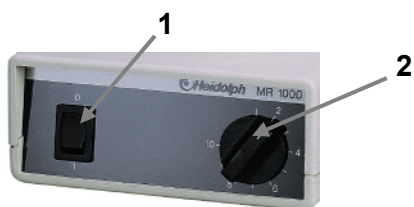
Connect item with mains by plugging the power cord in the plug connector (4) located in the items rear panel and your outlet.



## OPERATION AND CONTROLS

### Stirring action

Place your container with the magnetic stir bar and fluid on the active surface of your magnetic stirrer. Magnetic stir bars are available from Heidolph Instruments as an optional accessory.



MR 1000



MR 3000



MR 3000 D

Prior to turning the power switch (1) ON, rotate speed control (2) to its extreme left position (CCW). When turning the power switch ON, stirrer is going to start running at the speed so selected. Set required speed with the rotary speed control (2), go by the front panel scale marks. The **MR 3000 D** uses a 4-digit LED speed display (3).

## CLEANING & SERVICING

**Cleaning:** wipe housing clean with a damp cloth (add some sort of mild liquid soap).



### Note

To avoid damage to the surface finish, avoid using chlorine bleach, chlorine-based detergents, abrasive substances, ammonia, rags or cleaning agents containing metal particles.

The item is maintenance-free. Repair work is limited to technicians authorized or appointed by Heidolph Instruments. Please call your local Heidolph Instruments Dealer or a Heidolph Instruments Field Representative (also refer to page 14).

## UNINSTALL, FORWARD & STORE

### Uninstall

Turn the item OFF and disconnect mains plug.

### Forward & Store

1. We recommend to store the item and its components in its original box, or a similar container that offers adequate protection against damage in transit. Tape the box securely.
2. Store the item in a dry place.



### Caution

Do not jolt or shake the item during transport.

## DISPOSAL

For disposal, please comply with your local or national regulations.

Split by metal, plastic, etc.

Packing material to be treated as described above (material split).

## MALFUNCTION & REMEDY

### MR 1000 / MR 3000 / MR 3000D

1. power switch dim:
  - check power supply and power cord
2. won't stir:
  - no magnetic stir bar in container
  - speed control knob in extreme left position (CCW)

In case of a malfunction and you cannot repair as described above, contact your authorized Heidolph Instruments Dealer.

## SPECIFICATIONS

### MR 1000

<b>stirrer drive</b>	split-pole motor, electronic speed control, overheat protection
<b>speed range</b>	0 – 2200 rpm
<b>speed control</b>	scale marks
<b>supply voltage</b>	230 volts / 50 Hz; 115 volts / 60 Hz (optional)
<b>protective class</b>	II (protective insulation)
<b>power dissipation</b>	7 watts
<b>weight</b>	1.2 kg
<b>dimensions (w x d x h)</b>	120 mm x 140 mm x 80 mm
<b>ambient specifications</b>	0 – 50 °C at 80 % rel. humidity
<b>chemical resistance</b>	housing: polyamide; top plate PVDF

### MR 3000 / MR 3000 D

<b>stirrer drive</b>	condenser motor, electronic speed control, thermal circuit breaker
<b>speed range</b>	0 – 1250 rpm
<b>speed control</b>	MR 3000: scale marks MR 3000 D: digital, 4-digit LED display, green
<b>top plate</b>	made of chromium steel (1.4301)
<b>supply voltage</b>	230 volts 50 / 60 Hz; 115 volts / 60 Hz (optional)
<b>protective class</b>	I (protective ground terminal)
<b>power dissipation</b>	MR 3000: 25 watts MR 3000 D: 30 watts
<b>weight</b>	MR 3000: 2.4 kg MR 3000 D: 2.6 kg
<b>dimensions (w x d x h)</b>	240 mm x 155 mm x 120 mm
<b>protection class</b>	IP 30
<b>ambient specifications</b>	0 – 40 °C at 80 % rel. Humidity
<b>chemical resistance</b>	housing: polyamide-coat, encapsulated, active surface: 1.4301 (V2A), front panel: polyester

## WARRANTY, LIABILITY & COPYRIGHT

### Warranty

Heidolph Instruments warrants that the present product shall be free from defects in material (except wear parts) and workmanship for 3 years from the date shipped off the manufacturer's warehouse.

Transit damage is excluded from this warranty.

To obtain such warranty service, contact Heidolph Instruments (phone: +49 – 9122 - 9920-67) or your local Heidolph Instruments Dealer. If defects in material or workmanship are found, your item will be repaired or replaced at no charge.

Misuse, abuse, neglect or improper installation are not covered by this warranty promise..

Alterations to the present warranty promise need Heidolph Instruments' consent in writing.

### Exclusion Clause

Heidolph Instruments cannot be held liable for damage from improper use or misuse. Remedy for consequential damage is excluded.

### Copyright

Copyright in pictures and wording of the present Instruction Manual is held by Heidolph Instruments.

## QUESTIONS / REPAIR WORK

If any **aspect** of installation, operation or maintenance remains unanswered in the present Manual, please contact us at the following address:

For equipment repairs, please call Heidolph Instruments (phone: +49 – 9122 - 9920-67) or your local authorized Heidolph Instruments Dealer.



### Note

You will receive clearance for sending your defective item to the following address:

**Heidolph Instruments GmbH & Co. KG**

**Lab Equipment Sales**

**Walpersdorfer Str. 12**

**D-91126 Schwabach / Germany**

**Tel.: +49 – 9122 - 9920-68**

**Fax: +49 – 9122 - 9920-65**

**E-Mail: sales@heidolph.de**



### Safety Information

When shipping items for repair that may have been contaminated by hazardous substances, please:

- advise exact *substance*
- take adequate *protective* action to harm our parts receiving and service personnel
- *mark* the pack IAW Hazardous Materials Act



## CE-DECLARATION OF CONFORMITY

We herewith declare that the present product complies with the following standards and harmonized documents:

### EMC-guideline:

EN 61326: 1997 + A1:1998 + A2:2001+ A3 2003

EN 61000-3-2: 2000

EN 61000-3-3: 1995 + 1997 + A1:2001

EN 61326: 1997 + A1:1998 + A2: 2001+ A3 2003

EN 61000-4-3:2002 +A1:2002

EN 61000-4-5:1995 +A1:2001

EN 61000-4-6:1996 +A1:2001

EN 61000-4-8: 1993

EN 61000-4-11:1994 + A1:2001

### Low-voltage guideline (73/23/EWG):

EN 61010-1 + EN 61010-2-051



01-005-002-93-0 12/2004

© Heidolph Instruments GmbH & Co. KG

Technische Änderungen sind ohne vorherige  
Ankündigung vorbehalten.

Technical changes reserved. Publication not  
mandatory.

Sous réserve de modifications techniques sans  
notification préalable.

Nos reservamos el derecho de introducir  
modificaciones técnicas sin previo aviso.