

HumaRock

| User Manual



CE

Cat No. 14570/1

Human

Diagnostics Worldwide

REVISION LIST OF THE MANUAL

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01/2014-07	First edition
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SYSTEM VERSION

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SERVICE AND SUPPORT



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1 SAFETY INSTRUCTIONS

1.1 Introduction

This manual is considered as a part of the instrument; it has to be at the operator's hand as well as at the maintenance operator's availability. For accurate installation, use and maintenance, please read the following instructions carefully. In order to avoid instrument damage or personal injury, carefully read the "GENERAL SAFETY WARNINGS", describing the suitable operating procedures. In case of breakdowns or any troubles with the instrument, apply to the local Technical Service.

1.2 User Warranty

HUMAN warrants that instruments sold by one of its authorised representatives shall be free of any defect in material or workmanship, provided that this warranty shall apply only to defects which become apparent within one year from the date of delivery of the new instrument to the purchaser.

The HUMAN representative shall replace or repair any defective item at no charge, except for transportation expenses to the point of repair.

This warranty excludes the HUMAN representative from liability to replace any item considered as expendable in the course of normal usage, e.g.: lamps, valves, syringes, glassware, fuses, diskettes, tubing etc.

The HUMAN representative shall be relieved of any liability under this warranty if the product is not used in accordance with the manufacturer's instructions, altered in any way not specified by HUMAN, not regularly maintained, used with equipment not approved by HUMAN or used for purposes for which it was not designed.

HUMAN shall be relieved of any obligation under this warranty, unless a completed installation/ warranty registration form is received by HUMAN within 15 days of installation of this product.

This warranty does not apply to damages incurred in shipment of goods. Any damage so incurred shall be reported to the freight carrier for settlement or claim.

1.3 Intended use of the instrument

The instrument is intended for diagnostic application by professional users. It has to be used for the expected purposes and in perfect technical conditions, by qualified personnel, in working conditions and maintenance operations as described in this manual, according to the GENERAL SAFETY WARNINGS. This manual contains instructions for professional qualified operators.

1.4 General safety warnings

Use only chemical reagents and accessories specified and supplied by HUMAN and/or mentioned in this manual. Place the product so that it has proper ventilation.

The instrument should be installed on a stationary flat working surface, free from vibrations.

Do not operate in area with excessive dust.

Work at room temperature and humidity, according to the specifications listed in this manual.

Do not operate this instrument with covers and panels removed.

Only use the power cord specified for this product, with the grounding conductor of the power cord connected to earth ground.

Use only the fuse type and rating specified by the manufacturer for this instrument, use of fuses with improper ratings may pose electrical and fire hazards. To avoid fire or shock hazard, observe all ratings and markings on the instrument.

Do not power the instrument in potentially explosive environment or at risk of fire.

Prior to cleaning and/or maintaining the instrument, switch off the instrument and remove the power cord.

For cleaning use only materials specified in this manual, otherwise parts may become damaged. It is recommended always to wear protective apparel and eye protection while using this instrument. Respective warning symbols, if appearing in this manual, should be carefully considered.

1.5 Disposal management concept

The currently valid local regulations governing disposal must be observed. It is in the responsibility of the user to arrange proper disposal of the individual components.

All parts which may comprise potentially infectious materials have to be disinfected by suitable validated procedures (autoclaving, chemical treatment) prior to disposal. Applicable local regulations for disposal have to be carefully observed.

The instruments and electronic accessories (without batteries, power packs etc.) must be disposed off according to the regulations for the disposal of electronic components.

Batteries, power packs and similar power source have to be dismantled from electric/ electronic parts and disposed off in accordance with applicable local regulations.

1.6 Biohazard warning

Analytical instruments for diagnostic application involve the handling of human samples and controls which should be considered at least potentially infectious. Therefore every part and accessory of the respective instrument which may have come into contact with such samples must equally be considered as potentially infectious.

For safety reasons, we have labeled instruments with the „BIOHAZARD“ warning label below.



FIGURE 1
Biological hazard symbol

1.7 Instrument disinfection

Before doing any servicing on the instrument it is very important to thoroughly disinfect all possibly contaminated parts. Before the instrument is removed from the laboratory for disposal or servicing, it must be decontaminated. Decontamination should be performed by authorised well-trained personnel only, observing all necessary safety precautions.

Instruments to be returned have to be accompanied by a decontamination certificate completed by the responsible laboratory manager.

If a decontamination certificate is not supplied, the returning laboratory will be responsible for charges resulting from non-acceptance of the instrument by the servicing centre, or from authority's interventions.

1.8 Symbols



Warning!

- Read the operating instructions carefully before use.
- Ensure that only trained staff works with the instrument.



Protective ground contact!

- Ensure the socket must be grounded (protective ground contact) before use.
-

2 DESCRIPTION

The instrument is designed for mixing sticky substance in schools, laboratories or factories. It can be installed on a variety of impeller, for different viscosity of the medium. This instrument is not suitable for using in residential areas or other constraints mentioned in chapter 1.

Do not use the accessories recommended by the manufacturer, or failure to use the instructions, may be caused unsafe situation. The HumaRock rocking shaker is manufactured in accordance with the following standards:

EN 61010-1,
EN 61326-1

2.1 Unpacking

2.1.1 Receiving inspection

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



Note:

If there is any apparent damage to the system, please do not connect to the power line.

2.1.2 Listing of items

TABLE 1

Items	Qty
Main unit	1
Power supply with EU adapter	1
UK adapter	1
US adapter	1
User manual	1
Large size dish attachment with non-slip mat 30 x 23 cm	1

2.2 Control

FIGURE 2
Instrument overview

- 1 Shaking table
- 2 Speed display
- 3 Time display
- 4 Mode switch button
- 5 Parameter adjusting knob

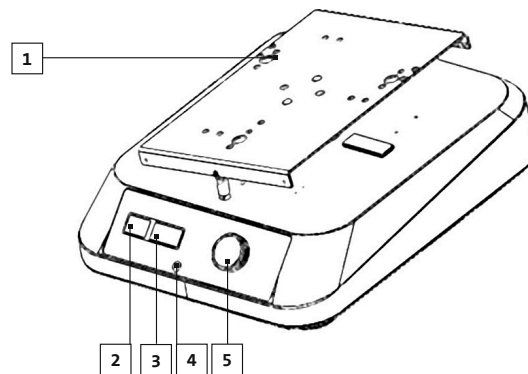
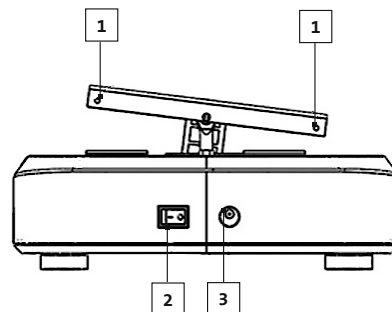


FIGURE 3

- 1 Screws
- 2 Power switch
- 3 Power interface



Items	Default settings
Mode switch button mode	Shift speed and time setup mode
Parameter adjusting knob	Set speed and time by rotating the knob. Push on/off to start/ stop rotating function.
Speed display	Display the set speed values.
Time display	Display the set time values
Power switch I/ O	Switch ON or OFF the instrument
Shaking table	Shaking
Screw	Install the platform

TABLE 2

2.3 Abbreviations

rpm	revolutions per minute
w	watt
v	volt
Hz	Hertz
kg	kilogram
mm	millimeter
cm	centimeter
ml	mililiter
dB	decibel

TABLE 3

3 ROUTINE UTILIZATION

3.1 Operation

- Place the instrument in safe and stable surface, ensure the required operating voltage and power supply voltage matched.
- Connect the power cable.
- Install the platform.
- Switch ON the instrument.
- The instrument begins self-checking.
- When initialization is over, LED displays the last running values of speed and timer.
- Rotate the speed/timer control knob to set target speed.
 - A. Press the mode switch button to choose the speed or timer setup interface. When the character of LED display is flashing, rotate the parameter adjusting knob to set the target parameter. Press the knob to start the motion.
 - B. During operation, motion can be stopped at any time by pressing the parameter adjusting knob. If the knob is pressed again, motion will start again and the timer will continue to countdown. When the timer reaches zero, the unit will be automatically halted.
 - C. When the timer is set to be 00:00, start the continuous motion.
- Switch OFF the instrument.

If these operations above are normal, the instrument is ready to operate. If not, the instrument may be damaged during transportation, please contact your technical support.



Note:
The speed value can be altered during shaking.

4 MAINTENANCE

- Proper maintenance can keep instrument working properly and lengthen its lifetime.
- Do not spray cleanser into the instrument when cleaning.
- Do not remove the power line when cleaning. Only use recommended cleansers:

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 4

Before using other method for cleaning or decontamination, the user must ascertain with the manufacturer that this method will not damage the instrument. Wear the proper protective gloves during cleaning of the instrument.



Note:

- Electronic device cannot clean with cleanser.
- If you require maintenance service, must be cleaned the instrument in advance to avoid pollution of hazardous substances, and to send back into original packing.
- If the instrument will not use for a long time, please switch off and place in a dry, clean, room temperature and stable location.

5 TROUBLESHOOTING

When switched ON, the instrument does not work:

- check whether the power cable is connected,
- motor speed cannot reach set value,
- check whether it is overloaded.

6 APPENDIX

6.1 Specification

Technical specification	HumaRock
Voltage [VAC]	100- 240
Frequency [Hz]	50/ 60
Power consumption	< 25 watt
Tile angel [o]	± 7°
Operation type	Continuous/ timed
Timer setting range	1 min - 19 h 59 min
Max. shaking weight [kg]	3
Motor type	DC motor
Speed range [rpm]	10- 80
Dimensions [W × H × D mm]	330 x 270 x 120
Weight [kg]	3.2
Permissible ambient temperature [°C]	5- 40
Permissible relative humidity	80 %
Protection class acc. DIN EN60529	IP21
Maximum altitude	4000 m
Noise level	< 50 dB

TABLE 5

6.2 Accessories and consumables

Cat. No.	Descriptions
14570	HumaRock, analogue rocking shaker, see-saw wave, angle 7, US/ UK/ EU plug, 100 V- 240 V, 50 Hz/ 60 Hz

Accessories	Cat. No.	Descriptions
	14570/10	Universal attachment with 3 bars
	14570/20	Special workplate LIA
	14570/12	Lengthways roller attachment
	14570/14	Bar for 14570/10 universal attachment, black

TABLE 6

HUMAN

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