

HumaTwist

| User Manual



Cat No. 17175/1

REVISION

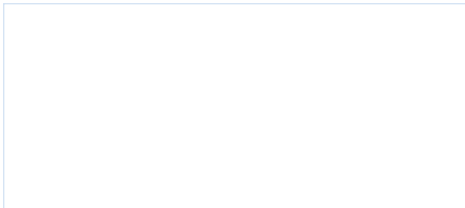
Revision History	
Rev./DATE	REVISION DESCRIPTION
01/2010-01	First Edition
02/2011-09	Correction dimensions

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Service und Support



CONTENTS

TABLE OF CONTENTS

1	SAFETY INSTRUCTIONS	7
1.1	Introduction	7
1.2	User Warranty	7
1.3	Intended Use of the Instrument	8
1.4	General Safety Warnings	8
1.5	Disposal Management Concept	10
1.6	Instrument Disinfection	11
1.7	Biohazard Warning	11
1.8	Servicing Note	12
2	SYSTEM DESCRIPTION	13
2.1	Receiving Inspection	13
2.2	Accessory list	13
2.3	Accessories optional	14
2.4	Test run	16
3	METHOD OF OPERATION	17
3.1	Continuous mode	17
3.2	Touch mode	18
4	MAINTENANCE AND CLEANING	19
5	APPENDIX	21
5.1	Technical data	21

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 or personal damages, 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.

! Read the operating instructions carefully before use. Ensure that only trained staff uses the instrument.

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 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.



Protective ground contact!

Make sure that socket is earthed (protective ground contact) before use.

The operating voltage required on the label and voltage supply network must match.

Wear protective gloves and take special attention to following abnormalities which could occur:

- Splashing of liquids.
- Mechanical vibration may leads to glass breakage.
- Being trapped of parts of the body, hair or pieces of clothing in the moving parts.

During manual manipulation.

- Keep medium vessels vertical as much as possible.
- Mix the medium in the minimum pressure required.

Set up the instrument in a spacious area on an even, stable, clean, non-slip, dry and fireproof surface. Do not operate the instrument in explosive atmospheres, with hazardous substances or under water.

Gradually increase the speed.

Reduce the speed if :

- The medium splashes out of the vessel because of too high speed.
- The instrument is not running smoothly or moves on the table

Safe operation is only guaranteed with the accessories described in the “Accessories” chapter.

Accessories must be securely attached to the instrument.

Place a vessel at the centre of the mixing head and in case a multi tube head is used distribute the tubes uniformly.

A sharp edged vessel can wear-out the mixing head.

Always disconnect the plug before fitting accessories.

The instrument may heat up when in use.

Protect the instrument and accessories from bumps and impacts. The instrument may only be opened by qualified and trained technician.

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 (auto-

claving, 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 of 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 Instrument Disinfection

Instruments or parts which may come in contact with biological samples (patient specimens, controls etc.) should be considered at least potentially infectious.

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/disinfected. Decontamination/disinfection should be performed by authorised well trained personnel, observing all necessary safety precautions. Instruments to be returned have to be accompanied by a disinfection certificate completed by the responsible laboratory manager. If a disinfection 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.

1.7 Biohazard Warning

Analytical instruments for use in the clinical laboratory environment may come into contact with human samples and controls which should be considered at least potentially in-

fectious. 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 recommend to label such instruments with the “BIOHAZARD” warning label below.

1.8 Servicing Note

Before doing any servicing on the instrument it is very important to thoroughly clean all possibly contaminated parts. If the instrument has come into contact with potentially infectious materials, it must be decontaminated before the instru-



ment is removed from the laboratory for disposal or servicing. 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.

2 SYSTEM DESCRIPTION

The instrument is designed for mixing liquids in laboratories or factories. This device is not suitable for use in residential areas or other areas that may cause danger to the user or instrument as mentioned in Chapter 1.

2.1 Receiving Inspection

Unpack the equipment carefully and check for any damages which may have arisen during transport.

! If there is any
● apparent damage to
the system, please do
not plug it into the
power line.

2.2 Accessory list

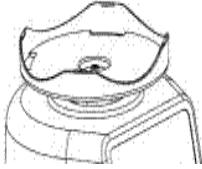
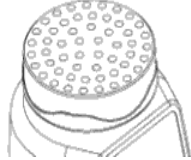
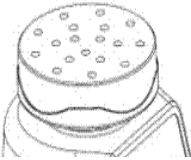
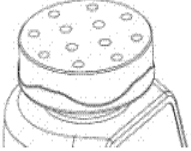
The HumaTwist includes the following items:

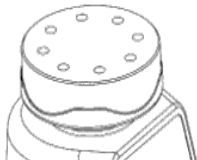
HumaTwist ¹⁾	1	REF: 17175
User Manual	1	REF: 17175/1

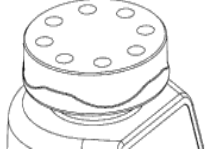
Please retain all packing materials.

¹⁾See 5.1 for different types HumaTwist

2.3 Accessories optional

	Application	Tubes	Cat. No.
	Basic Attachment		17175/5
	6 mm tubes	48	17175/6
	10 mm tubes	18	17175/7
	12 mm tubes	12	17175/8

	16 mm tubes	8	17175/9
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	20 mm tubes	8	17175/10
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Changing attachment:

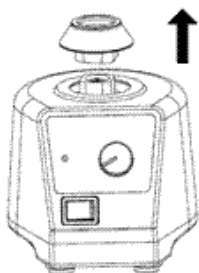


FIGURE 1

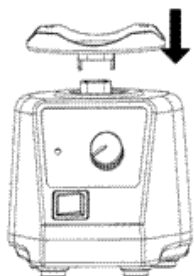
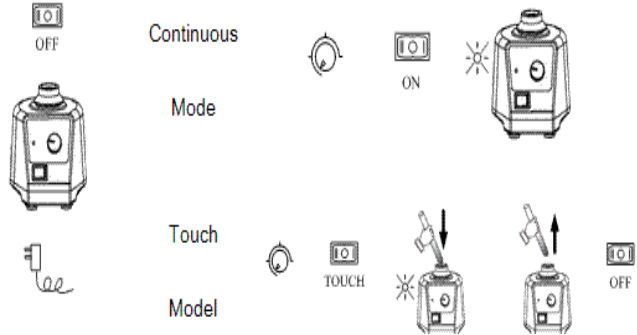


FIGURE 2

2.4 Test run

! Ensure that the
 ● two-direction switch
 is in the middle (off
 state) before powering
 on.



If these operations above are normal, the instrument is ready to operate as described in the “Method of Operation” chapter. If these operations are not normal, the instrument may be damaged.

3 METHOD OF OPERATION



FIGURE 3

3.1 Continuous mode

- Put the instrument on a stable and safe place and plug in the main power.
- Push the two-direction Main switch leftward, Power LED is on and the instrument begins to work.
- Turn the Speed regulation knob to set the rated speed.
- Push the Main switch gently rightward, Power LED is off and the instrument is turned off.
- To protect the instrument from overheating, do not operate the instrument over 30 min in continuous mode.

3.2 Touch mode

FIGURE 4



! Place vessels such as a test tube as vertical as possible into the centre of the mixing head in order to mix smoothly. Adjust the Speed regulation knob slowly in order to have the instrument work smoothly.

- Put the instrument on a stable and safe place and plug in the main power.
- Push the two-direction Main switch rightward to select the touch mode.
- Turn the Speed regulation knob to set the rated speed.
- If a test tube is pressed into the mixing head vertically, the instrument will begin to work and the Power LED will be on.
- Push the Main switch gently leftward and the instrument is turned off.

4 MAINTENANCE AND CLEANING

Use and maintain the instrument as recommended to keep it in good operating state in order to lengthen its life time and avoid damage to the instrument. Use only cleaning agents which have been approved by the manufacturer. (see table).

Contamination	Recommended cleaning agent
Dyes	isopropyl alcohol
Construction materials	water containing tenside / isopropyl alcohol
Cosmetics	water containing tenside / isopropyl alcohol
Foodstuffs	water containing tenside
Fuels	water containing tenside

- For materials which are not listed, please request information from your provider
- Wear appropriate protective gloves during cleaning of the instruments.
- Electrical instruments may not be placed in the cleansing agent for the purpose of cleaning.
- Before using another than the recommended method for cleaning or decontamination, the user must make sure with the manufacturer that this method does not destroy the instrument.
- Keep the instrument clean and prevent liquid from splashing into the instrument on order not to affect its life time.

5 APPENDIX

5.1 Technical data

Items	Parameters
HumaTwist	REF 17175 220 VAC/50 Hz
	REF 17176 220 VAC/60 Hz
	REF 17177 110 VAC/50 Hz
	REF 17178 110 VAC/60 Hz
Frequency [Hz]	50 / 60
Power [W]	60
Shaking movement	orbital
Orbital diameter [mm]	4
Motor type	Shaded-pole motor
Motor rating input [W]	58
Motor rating output [W]	10
Permissible ON time	30 min at 100% power
Speed range [rpm]	0-2500 (MX-S)
Speed display	Scale
Run type	Continuous/touch operation
Dimensions (WxDxH):	Instrument without any components: 15 x 15 x 15 cm Space required for routine use: 15 x 15 x 25 cm Packaging: 22 x 18 x 18.5 cm
Weight:	Gross: 2.5 kg, Net: 2.1 kg
Permitted ambient Temperature [°C]	5...40
Permitted relative humidity	80%
Protection class acc. to DIN°60529	IP21

! Switch OFF the instrument and keep it in a dry, clean, stable place at room temperature during long-term disuse.

HUMAN

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