



OPERATING
MANUAL

slee solutions
for
pathology

TRANSFER SYSTEM
AQUATEC

FOR MICROTOMES
OF CUT SERIES

DESIGN &
MANUFACTURING
MADE IN GERMANY

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1 IMPORTANT INFORMATION

1.1 WARNING SIGNALS AND SYMBOLS

The installation and routine use of the Aquatec is easy and safe if the instructions in this manual are being observed.

However, the situations which might be risky for the personnel or equipment are specially marked in this manual with the following symbols and messages.

	<p>Special instructions regarding the operation of the device are marked by this symbol.</p>
	<p>Dangers, warnings and cautions are marked by this symbol.</p>
	<p>Hazard of hand injuries: Due to moving parts in connection also with the microtome blade, a danger area arises, which might lead to hand injuries in case of non-compliance with the safety features of the microtome and when disregarding the instruction manual.</p>
	<p>Caution: Surface may be hot.</p>
	<p>Separate taking back of electrical and electronic devices in the countries of the European Union: This is to be applied in the countries of the European Union and other European countries with a separate collecting system within the waste management. This product, being an electro and / or electronic device, must be treated separately within the waste management process (WEEE).</p>

1.2 SAFETY PRECAUTIONS AND IMPORTANT INFORMATION

Please observe the following general precautions during operation of this device. Failure to comply with these precautions violates safety standards and the intended use of the device. SLEE medical GmbH is not liable for misuse of the devices and failure to comply with basic safety requirements.

CAUTION: MAINS VOLTAGE

Never remove device covers during operation. Component replacements as well as adjustments must only be made by trained service personnel. Unplug the unit before removing or opening the covers.

DANGER IN EXPLOSIVE ENVIRONMENT

The device must not be operated in the presence of flammable gases.

WASTE DISPOSAL

All debris, waste as well as infectious contaminated material from operation must be disposed of in accordance with the respective regulations of the lab. Section waste must be disposed of according to the respective regulations for special waste.

1.3 INTENDED USE

The Aquatec system from SLEE is an additional device for SLEE rotary microtomes for the secure transfer of paraffin sections into an integrated waterbath.

Only skilled or specially trained personnel must operate the device, e.g. clamping the specimen, trimming and first cuts, sectioning and transferring sections onto a slide. The listed and marked safety measures as well as the regulations and hygiene measures of your respective lab must strictly be observed.



This instruction manual is part of the product. Always keep this manual near the device!

2 INTRODUCTION

2.1 DESCRIPTION OF THE SECTION TRANSFER SYSTEM AQUATEC

The Aquatec system consists of a special disposable blade holder AQ with integrated transfer bridge and a heated waterbath. It can be used along with all current rotary microtomes of the Slee series xx62. It takes a few minutes only to upgrade the microtome from the common paraffin sectioning technique to the Aquatec method.

The Aquatec is used solely for tissue specimens embedded in paraffin. During the sectioning process with the Aquatec, sections glide on a water film via the disposable blade holder AQ and the extended transfer bridge and are then transferred into the heated waterbath.

Water circulation is guaranteed by a pump, the capacity of which can be adjusted. The water temperature of the waterbath can be adjusted between ambient temperature and +50 °C. Use only use demineralized or distilled water!

Due to the use of the Aquatec compressions to the tissue sections can be diminished by gliding on the water flow. These sections are stretched. This way, extremely thin as well as high-quality sectioning results can be obtained. The common manual transfer of the sections into a waterbath is no longer necessary.

When the sections are generated, their quality can be checked immediately, e.g. when the ribbon or the individual sections are stretched on the water flow of the disposable blade holder AQ. The second quality check can be carried out in the waterbath facilitated by the integrated section illumination.

The sections which are not used, e.g. from trimming paraffin blocks, can be guided directly into a waste basket via the water flow on the disposable blade holder AQ by opening the transfer bridge into the water reservoir.

The waterbath, the waste basket as well as the waste filter of the Aquatec can easily be removed and cleaned. The integrated water reservoir for the pump circulation is freely accessible and allows easy cleaning.

Total overview



Fig. 1

2.2 ACCESSORIES

2.2.1 STANDARD EQUIPMENT



The Aquatec system is supplied with the following standard accessories:

Basic device incl. removable tray
Disposable blade holder AQ
Lightning
Waste tray
Holder for temperature sensor
Temperature sensor
2 x transfer inserts (1 x installed)
2 x suction filter (1 x installed)
Syringe
Drain screen
Manual


2.3 TECHNICAL DATA SECTION TRANSFER SYSTEM

Heated waterbath	up to +50 °C
Volume of heated waterbath	750 ml
Volume of pump reservoir	570 ml
Required liquid	demineralized or distilled water
Flow rate	0 - 500 ml / min.
Operating temperature range	+10 to +35 °C
Operating humidity	max. rel. 80 % non-condensing
Storage temperature range	+5 to +55 °C
Storage humidity	max. rel. 80 % non-condensing
Pollution degree	2
Overvoltage category	II
Power requirements	100 - 240 V / 50/60 Hz, 0.7 A + / -10 %
Weight	
basic device w/o transfer bridge, blade holder, incl. lid	5.0 kg
disposable blade holder AQ	2.4 kg
Dimensions (W x D x H) w/o transfer bridge, blade holder	
basic device mounted on microtome	300 x 235 x 128 mm
basic device unmounted on microtome	300 x 280 x 128 mm

3 OPERATING INSTRUCTIONS

	<p>The kind of the used examination materials and all special conditions for their processing, pre-treatment and, if necessary, storage as well as device controls for correct and safe operation is in the responsibility of the operator.</p> <p>The operator is also responsible for special equipment and materials and / or reagents for the operation of the device.</p>
	<p>Before turning on the device for the first time, please check if the power requirements indicated on the type plate correspond to the power supply voltage being used.</p>

3.1 INITIAL SETUP AT THE MICROTOME

	<p>The work sequence which is described in this part must be strictly observed.</p>
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The following preparations are necessary when using a rotary microtome together with an Aquatec:

- Remove the 3-component-disposable blade holder.
- Replace the original feet of the microtome by the supplied higher ones. Keep the spare parts. Insert the disposable blade holder AQ (fig. 2.2) onto the consoles of the rotary microtome (tools are provided).



- Then evenly slide the Aquatec unit (fig. 2.1) towards the rotary microtome. Connect the power cable, temperature sensor cable and the cable for the illumination of the Aquatec, into the left rear side of the Aquatec housing (see image 3). Guide the power cable under the microtome and lead it to the rear side.



Fig. 3



See fig. 3: The power cable ends in an electrical connector. Insert this plug into the rear wall of the Aquatec as well as the LED power cord and the temperature sensor cord.

Place the waterbath (fig. 4.1) on the heating socket (fig. 4.2).



The water of the heating waterbath is only heated via heat transfer when placing the waterbath onto the heating plate.

Please connect the external temperature sensor with the Aquatec. Place the holder on the left side so the probe protrudes into the waterbath.

Place the waste basket onto the paraffin protection grid (fig. 4.3) into the front bearing surface of the pump reservoir (fig. 4.4).

Place the waste basket (fig. 4.5) for paraffin onto the waste plate directly below the transfer bridge.

The beveled edge of the waste basket must correspond with the beveled edge of the heated waterbath.

Now fill the water reservoir and the heated waterbath with distilled or demineralized water.

For this, fill the heating waterbath with approx. 750 ml water and the water reservoir with approx. 570 ml.

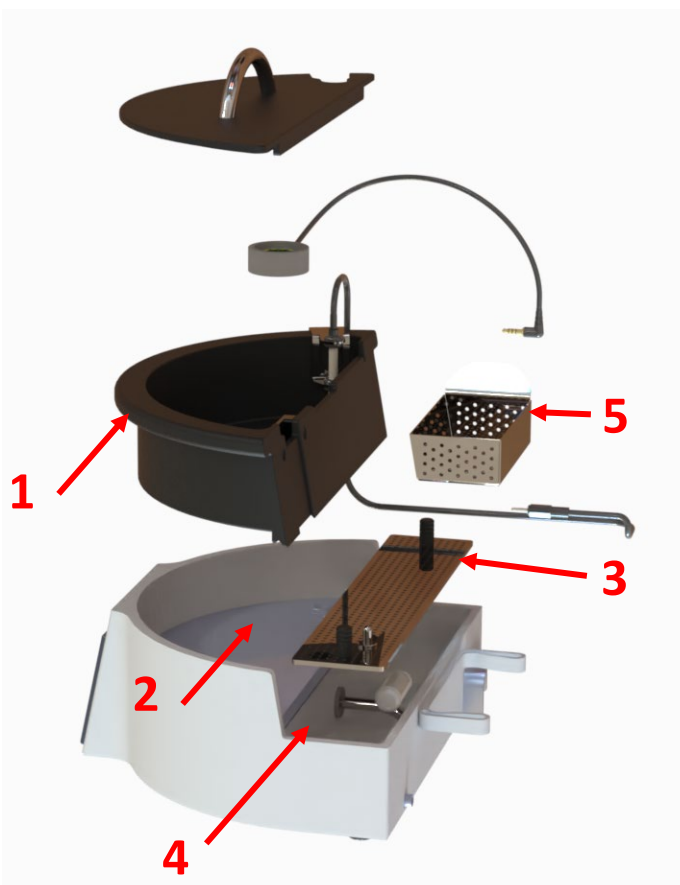


Fig. 4






Turning the Aquatec on, unlock the touchpad display: Press the key symbol for two seconds.

Set the water flow to minimum: Press the touchpad display water flow icon minus (fig. 6.1).



Fig. 5

3.2 DISPLAY SETTINGS:

Lighting	Temperature / Key lock	Pump - waterflow
		

Display samples:

Lighting off - heating on – pump on	
Lighting off – heating on - pump off	
Lighting on– pump on – heating on	

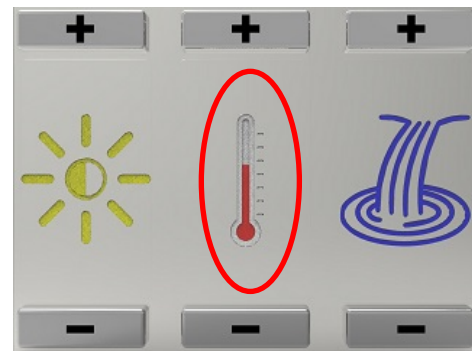
Settings can be done with the “-” and “+” icons at the touchpad display. The keylock can be activated by pressing the temperature symbol for two seconds. When the keylock is activated, the display goes into a standby mode after some seconds.

If no further action is taken in the start screen (key lock / figure 5) for a period of 2 seconds, the display darkens in 5 steps. This is a "power-saving mode", the pump shuts off, the heater and the LED lighting in the waterbath turn off.

To reactivate, simply touch the display for 1 second and press the on / off button -> then you will be back in the working screen.

Adjust the temperature of the heated waterbath on the display as follows:

1. Switch on the Aquatec by applying the plug of the delivered power supply into the rear left side of the Aquatec. connect the external temperature sensor with the Aquatec. Place the holder on the left side so the probe protrudes into the waterbath. Apply the illumination plug as well.
2. Unlock the touchpad display pressing the key symbol for two seconds.
3. Press the temperature icon for setting the temperature. The temperature can be adjusted using the plus / minus button.
4. After 30 - 35 minutes the water in the bowl has completely warmed up.



Via this hose, water will be pumped up to the blade and will flow down the section transfer system. Water which flows down behind the blade (due to a too high pump capacity) is guided back into the pump reservoir through the overflow hose.

- Insert the blade from the side into the disposable blade holder AQ and clamp it.
- Fill pump and feeding line (fig. 7.2) to the disposable blade holder AQ via enclosed disposable syringe with water.
- For this, hold the feeding hose with inserted syringe over the drain screen (fig. 4.3).
- Pull on the syringe until water flows into the syringe. The pump and the hose are then evacuated.
- Please switch off the pump for a short moment when you remove the syringe. This prevents the water from flowing out unintentionally.
- Carefully put the hose onto the connecting piece (fig. 8.1) of the disposable blade holder AQ.
- Increase the pump capacity via the flow icon so there is an even water flow on the transfer surface (fig. 8.2).
- The pump capacity is too high, if water flows behind the blade on the disposable blade holder AQ. Pump capacity should be around 20.
- Adjust the pump capacity via the touch pad display so the water neither flows backwards into the hose nor drains from it (minimum pumping capacity).
- Insert the blade from the side into the disposable blade holder AQ and clamp it.

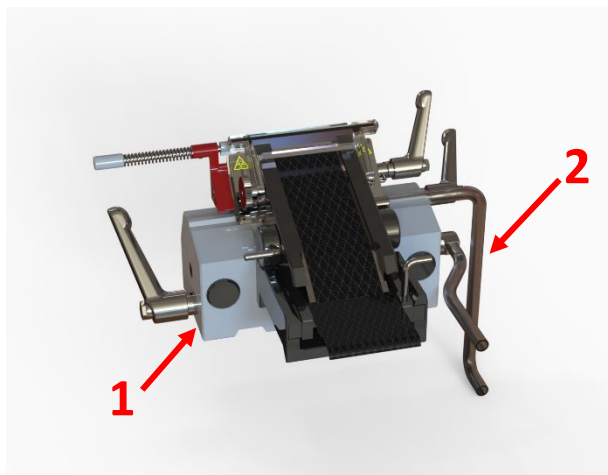


Fig. 7

First, water must flow on the dry transfer surface. By any means, it must be avoided that paraffin gets in contact with the dry transfer surface.

Only an even water flow on the transfer surface leads to optimal operation processes with the Aquatec. Use the brush to cover the surface with water and to maintain an even water flow.

Activate the detaching tongue (fig. 8.3) with the detaching lever (fig. 8.4). The transfer surface is moistened enough when the sections glide downwards on the water on the transfer surface with an even speed.

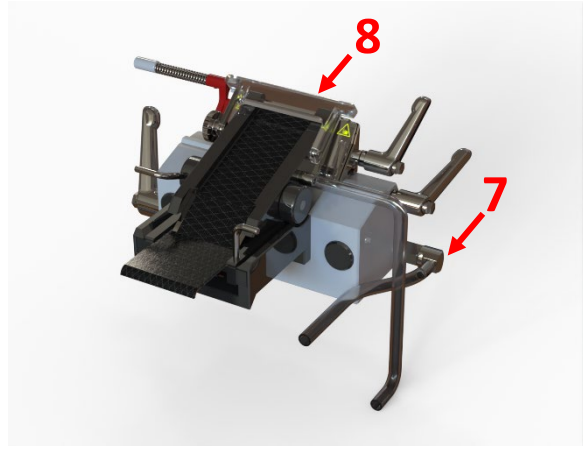
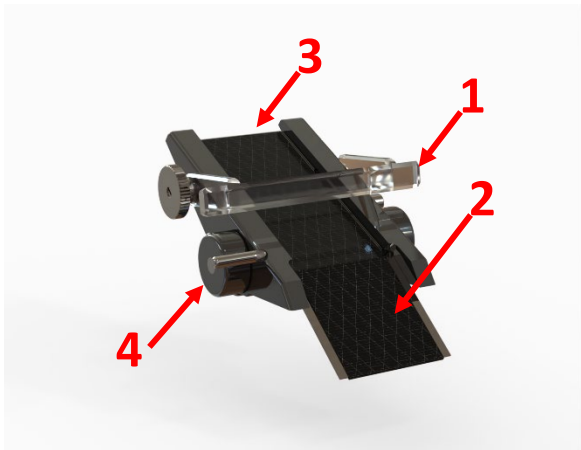
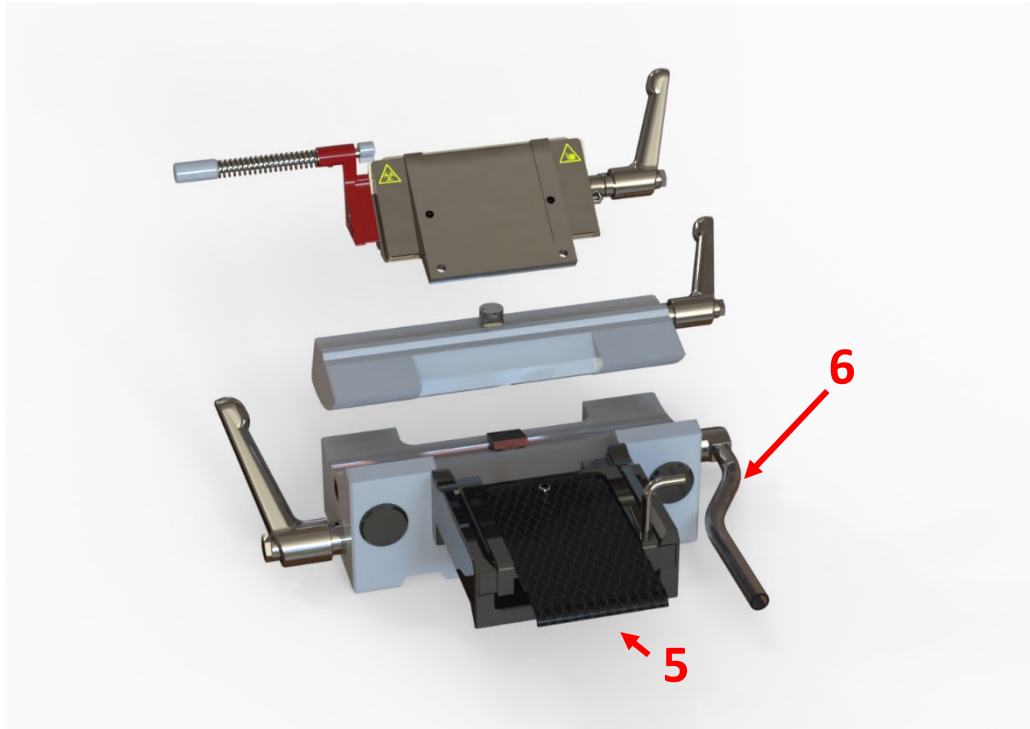



Fig. 8

3.3 TRIM SECTIONING OF SPECIMENS

<p style="text-align: center; font-size: 2em; color: blue;">i</p>	<p>For the first cuts, approach specimen and disposable blade holder AQ as usual.</p> <ul style="list-style-type: none"> • Switch the Aquatec on. • Set the pump capacity to about 20. • Make sure the waterbath has reached the preset temperature. <p>The transfer bridge (fig. 8.5) must remain open during trimming, e.g. the lever of the transfer bridge (fig. 8.6) must be pushed towards the microtome.</p>
	<p>To minimize the hazard of being injured, the finger guard should be placed over the blade. It can remain in this position also during the sectioning.</p>

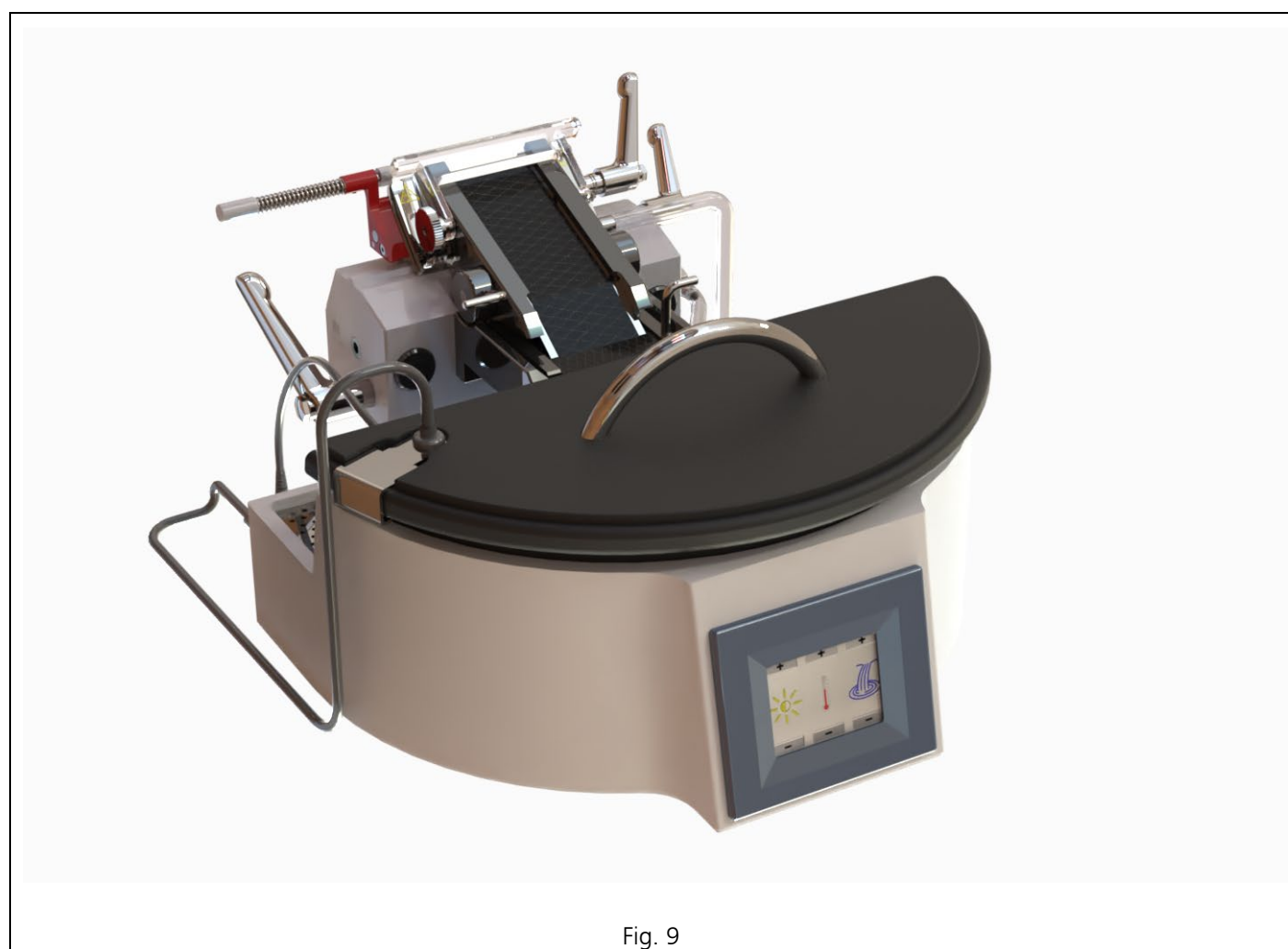


Fig. 9

The generated trim sections glide over the blade, the transfer surface and the open transfer bridge into the waste basket for paraffin waste. If necessary, trim sections must be removed from the blade edge via the detaching tongue (fig. 8.3).


Remove the basket with section waste and empty the waste into the intended waste container. Dispose of this waste container according to the respective lab regulations.



Before changing from trimming to fine sectioning, push or pull the lever (fig. 8.4) of the detaching tongue to dispose of trimming sections into the waste basket.


3.4 FINE SECTIONING OF SPECIMENS

In general, both single sections as well as ribbons can be generated with the Aquatec.

	<p>Ribbons can be generated when the upper and lower edge of the paraffin block is parallel and even.</p> <p>Ribbons are generated when the upper edge of the last section "clings" to the blade. The lower edge of the following section is then being pressed onto the upper edge of the previous section. This way, the sections stick together.</p>
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When cutting fine sections, the ribbons or single sections are guided directly into the heated waterbath via the extended transfer bridge (fig. 8.5):

- Pull the lever of the transfer bridge (fig. 8.5) towards the user until the bridge lies on the rim of the heated waterbath.
- Pull the lever (fig. 8.6) of the detaching tongue to loosen the sections and / or the ribbon.
- Sections and / or ribbons now glide on the water flow into the heated waterbath.
- In order to avoid a significant cooling of the waterbath, the transfer slide should be pushed back.
- If you intend to close the transfer bridge for a longer period of time, it must be taken into account that the water from the lower intake area must be heated up first. This is done by mixing with the already heated water.

	<p>The Aquatec offers two different possibilities to evaluate the quality of the sections produced and to make a selection:</p>
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First quality evaluation of sections:

Only after having evaluated the produced fine sections on the transfer surface for good quality, pull the detaching tongue to guide the sections via the closed transfer bridge into the waterbath.

Second quality evaluation of sections:

The stretched sections are illuminated in the waterbath by the section illumination from below. This way, evaluation is even better. Sections with the best quality can be picked up with a slide.

3.5 PUMP CAPACITY

We recommend a pump setting of 20. If this setting is not sufficient, the pump capacity can be increased as needed. Too high a setting can cause water to flow over the blade holder. Therefore, this increase should be slow and gradual.

3.6 DRAINING AND CLEANING THE HEATED WATERBATH AND THE WATER RESERVOIR



Caution: Surface may be hot. Make sure the waterbath is cooled down before removal.

Draining the heated waterbath:

- Remove the waterbath (fig. 10.1) from the heating contacts.
- Dispose of the contents of the heated waterbath according to the respective lab regulations.

Draining the pump reservoir:

- Pull the feed hose (fig. 11.1) off the disposable blade holder AQ.
- Pump the water into a collecting container (normal laboratory beaker with a minimum capacity of 570 ml).
- Never let the pump run dry for a long time, otherwise it will be damaged.

There is also another possibility to empty the pump reservoir:

- First remove the waterbath, the drain screen and the waste basket. Then pull off the cable as well as the feed hose on the disposable blade holder AQ. Then empty the contents of the water reservoir into a separate collecting container.



Fig. 10

Cleaning the heated waterbath and the water reservoir:

- Wipe them off dry or use commercially available, water-soluble disinfectants.

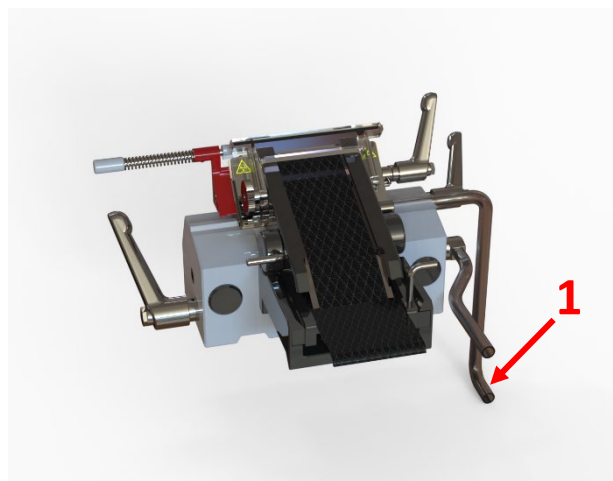


Fig. 11

3.7 CLEANING THE PUMP FILTER

- To clean the pump filter (fig. 13.1), pull it off.
- Brush down the coarse paraffin particles according to the respective lab regulations and dispose them of.
- Wipe off the finer paraffin particles with a cloth soaked in xylene or with water warmer than 60 °C.



Fig. 13



If the pump filter (fig.13.1) is obstructed, only a reduced volume of water is delivered.

3.8 DISPOSABLE BLADE HOLDER AQ

The disposable blade holder AQ is designed to take all commercially available low-profile disposable blades. Insert the blade into the slot from the right.

Move the finger guard (fig. 14.3) towards the blade.

Turn the clamping lever (fig. 14.1) towards the user. A small gap between rail and clamping plate can be seen. Insert the blade and push it from the right side to the middle.

Afterwards, return the clamping lever (fig. 14.1) towards the microtome, thus locking the blade in position.

Move the finger guard (fig. 14.3) again over the blade.

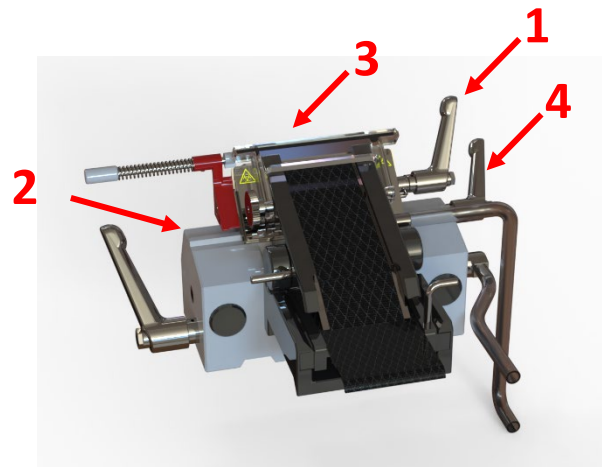


Fig. 14

If the transfer surface of the disposable blade holder AQ is damaged or used up, it must be replaced:

First remove the blade. Next remove the waterbath to have enough clearance to the replacement work. Pull the blade holder to the front end of the base plate. Now you can pull out the transfer surface to the upper end.



The transfer surface is glued on two aluminum sheets which differ in size. The smaller one projects over the lower end of the guide rail.

- This way the entire transfer surface can be pulled off the guide rail.
- The transfer surface is inserted in the same way until it locks in place.
- Then push back the guide rail into the upper part of the blade carrier.

Replacing the bridge part:

- To replace the bridge part of the transfer surface, first remove the waterbath to have enough clearance for the replacement work.
- Remove the transfer surface (see above).
- Use a screwdriver to remove the upper part of the bridge from the lower part of the bridge.
- For this, loosen and remove the screw.
- Pull the bridge towards the user until the guide rails are accessible.
- Then remove the bridge.
- Afterwards, install a new bridge part in reverse order.
- Place the waterbath back on the heating plate.

4 WORKING WITH THE SECTION TRANSFER SYSTEM

4.1 SECTIONING INSTRUCTIONS

To cut usable sections, the following points are of utmost importance:


Condition of the blade edge:

- Only use a sharp blade!
- For optimal sectioning, front and back of the blade must be clean.
- Especially paraffin waste must be thoroughly removed!

Transfer track:

- Wet the section transfer surface, section transfer bridge and flexible part with water using a brush to guarantee an even flow of water.


4.2 HOW TO AVOID MALFUNCTIONS

	<p>Turn on the Aquatec only after having filled the system with distilled or demineralized water.</p> <p>To fill the system, only use distilled or demineralized water to keep calcification on the section transfer surface at a minimum.</p> <p>Avoid pollution of the pump reservoir and the heated waterbath, to protect the pump from malfunctions.</p> <p>The blade should be free of paraffin.</p> <p>Make sure that no debris or coarse sections are detached between tongue and blade.</p> <p>Carefully wet the transfer surface by using the enclosed brush. If necessary, wet the transfer surface again after a longer break.</p> <p>Avoid the blending of the water from the waterbath. The transfer bridge should not be connected the whole time so the water doesn't blend too much.</p> <p>Close the transfer bridge only when transferring sections.</p>
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4.3 POSSIBLE SOURCES OF ERRORS – CAUSE AND REMOVAL

Problem	Cause	Removal
Irregular water flow when turning on.	Pump cycle has not yet been evacuated. Surfaces have not been moistened enough.	Pull the pump hose off the blade holder. Insert the enclosed syringe on the hose and suck in water until the cycle is evacuated. Connect pump hose again.
Irregular water flow on blade.	Paraffin blocks outlet of water. Trimming process possibly carried out too fast and with a trimming thickness which is too thick. While cutting, use the detaching tongue.	Remove blade and transfer surface. Check the detaching tongue for damage and clean it. Remove paraffin. Insert transfer surface and blade again.
Section sticks to the transfer surface.	Water film is not sufficient. Circulating water is too warm.	Increase the pump volume. Moisten the complete surface of the transfer bridge. Cool down the water, replace it or apply ice-cubes. Keep the transfer bridge open as often as possible to minimize mixing up with warm water.
Water flows on the lateral rims over the blade. Water flows in the rear overflow.	Water flow too strong.	Slightly decrease the pump capacity. The default setting is 20. If necessary, remove transfer surface and clean the detaching tongue.
Insufficient water flow, even when the pump is set to a high speed.	Flow rate is limited by blockage, water reservoir empty.	Pull off the fine filter and clean it. Pull the pump hose off the disposable blade holder AQ. Place it in the section waste container. Insert fine filter again. Install pump hose again on disposable blade holder. Fill reservoir with water.
If the LED lamp is disconnected from the connector, the system reboots.	An electrical safety measure to protect the components from overcurrent.	Switch off the LED via the touch panel and then unplug or plug it in.
Error display "E01	The external temperature sensor has not been connected to the device or is defective.	Check the plug connection on the rear of the device to see if the plug has been inserted completely. Check whether the cable has been damaged. Pull the plug out of the device and clean the plug. Paraffin residue or water can also be the cause. If the error persists, please contact the service department.

<p>Error display "E02</p>	<p>Message about too big temperature difference between heating / water-bath and temperature sensor - safety function.</p>	<p>Could be the following errors:</p> <ol style="list-style-type: none"> 1. Water tray is not on the heating plate. 2. Temperature sensor is not in the water tray. 3. No water available – low level. 4. Dirt between heating plate and water tray.
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	<p>In case of malfunctions and / or service work, please turn off the device and contact your SLEE medical GmbH dealer / representative.</p>
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5 MAINTENANCE AND CARE

5.1 CLEANING AND CARE

Cleaning of the Aquatec depends on how frequently the system is used.

The heated waterbath as well as the water reservoir should be cleaned at least once a day.



Caution: Surface may be hot. Make sure the waterbath is cooled down before removal.

Cleaning should be done as follows:

- Remove the waterbath from the heating plate and dispose of the contents into a waste container.
- Pull the hose (fig. 16.1) off the blade holder and insert it into the hose support (fig. 15.3). This way, the water cannot drain out of the water reservoir.
- Remove the cover plate (fig. 15.1) and the waste basket (fig. 15.2) and empty the system.
- The complete bath of the Aquatec can be pulled off towards the front.



Fig. 15



Before removing the blade holder, take the blade out of the blade holder first. Loosen lever 0.

- Because of furring or other pollution, replace the two parts of the transfer surface with new ones.
- To clean the disposable blade holder AQ, loosen and remove it from the rails, with lever 2.
- Pull off the transfer surface on the lower end of the bridge with a downward movement. Insert the new transfer surface until noticing a locking point.
- To replace the bridge part of the transfer surface, first remove the waterbath to have enough clearance for the replacement work.
- Remove the transfer surface.
- Use a screwdriver to remove the upper part of the bridge from the lower part of the bridge.
- Loosen the screw.
- Pull the bridge towards the front until the lateral bars are accessible.
- Remove the bridge.
- Install a new bridge part in reverse order.
- Place the waterbath onto the heating plate.

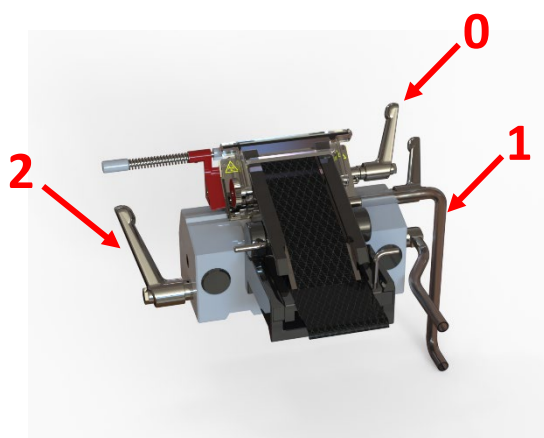


Fig. 16



In case other cleaning methods should be used, contact the manufacturer first.

Cleaning the heated waterbath and the water reservoir:

Wipe them off dry or use commercially available, water-soluble disinfectants.

Cleaning the inlet filter:

To clean the inlet filter (fig. 15.4), pull it off.

Brush down the coarse paraffin particles according to the respective lab regulations and dispose them of.

Wipe off the finer paraffin particles with a cloth soaked in Xylene



If the inlet filter (fig. 15.4) is obstructed, only a reduced volume of water is delivered.

The transfer sheet should be drawn down regularly to prevent accumulation of impurities. These can adversely affect the function of the cutting tongue. Furthermore, the lateral guide channels should also be cleaned so that a laminar flow of water is always guaranteed (the picture shows the blade holder with blade protection strip).

Aquatec cleaning recommendations

1. comply with Good Laboratory Practices
2. handle with care
3. mind the built-in fragile parts
4. mind the blades in the blade holder
5. activate finger guard during assembly and disassembly
6. supporting tools / equipment: drawing-brush, nail brush, forceps, screwdriver, heating incubator, dishwasher, kim-wipe, dishwashing detergent, 80 % ethanol

Cleaning the waste basket on a daily basis

1. handle with care
2. remove coarse paraffin particles with the help of a brush and / or forceps
3. put the basket into a dishwasher, max 70 °C
4. dry afterwards in a heating-incubator
5. before next use apply a disposable paper tissue (needs to be permeable for water, like kimwipe) to the bottom of the basket
6. repeat changing the tissue during the following working days
7. reapply the basket

Cleaning the sieve / cover plate on a daily basis

1. handle with care
2. remove the sieve
3. keep it over sink / bin
4. remove coarse paraffin particles with the help of a brush or forceps
5. take a nailbrush and softly brush the sieve using dishwashing detergent
6. rinse it with water
7. repeat 4 - 5 times
8. dry afterwards in a heating-incubator

Cleaning the waterbath including pump / pump reservoir on a daily basis

1. handle with care
2. switch off the Aquatec
3. disconnect the two electrical plugs on the left rear side of the Aquatec
4. disconnect the transparent water hose coming from the Aquatec pump heading in the Aquatec blade holder on the rear right side of the Aquatec
5. remove the sieve, the waste basket and the heating waterbath
6. now you can handle the waterbath easily and remove the used water
7. wipe out with tissue soaked in 80 % ethanol or detergent
8. thoroughly remove liquids of detergent
9. fill up with fresh distilled water up to the sieve

Cleaning the pump filter on a daily basis

1. handle with care
2. disconnect the filter from tubing in the waterbath
3. take it to a sink
4. brush it with a nail brush and a household detergent
5. thoroughly remove liquids of detergent
6. reconnect it to the hose system of Aquatec

Cleaning the heating waterbath frequently per day

1. handle with care
2. take out illumination
3. remove heatable waterbath from Aquatec
4. remove the used water
5. wipe out with tissue soaked in 80 % ethanol or detergent, thoroughly remove liquids
6. reassemble waterbath into Aquatec
7. fill up to the sieve with fresh distilled water
8. cover with lid when the device is not in use

Cleaning the transfer surfaces upon demand

1. remove the Aquatec
2. remove bigger particles of paraffin from transfer surface with a brush
3. manually pull the long transfer surface downward
4. if needed take a screw driver to coarse the screw to remove the short transfer surface
5. prepare boiling water
6. go to sink and pour hot water over transfer surfaces
7. in very obstinately cases use a brush to help

Cleaning the blade holder AQ and detaching tongue on a daily basis

1. with the help of a drawing brush, you can remove almost all of the paraffin particles
2. a tissue soaked with 80 % of ethanol is an adequate medium to remove paraffin residues on the front as well as in the rear
3. control lever of detaching tongue: the movement of the lever should be slightly uniform, no paraffin residuals should appear
4. if paraffin residuals appear remove transfer surface

Cleaning the water filter in the back on a daily basis

1. handle with care
2. remove the sieve
3. keep it over sink / bin
4. remove coarse paraffin particles with the help of a brush or forceps
5. take a nailbrush and softly brush the sieve using dishwashing detergent
6. rinse it with water
7. repeat 4 - 5 times
8. dry afterwards in a heating-incubator

5.2 MAINTENANCE

Annual routine maintenance

To secure section quality and functioning of the Aquatec, it is recommended that a routine maintenance is performed by a trained service technician once a year.

Service contract

SLEE medical GmbH offers a service contract which guarantees that your Aquatec is always in perfect condition. For more information, please contact the nearest SLEE medical GmbH sales representative.




We strongly recommend to not carry out any repair by yourself. All warranties and guarantees would then be void! Repair work must only be carried out by an authorized SLEE medical GmbH service technician.

6 CONDITIONS FOR THE TRANSPORTATION OF THE DEVICE

6.1 RETURNING THE DEVICE FOR REPAIR OR ROUTINE MAINTENANCE

Repair or maintenance work are normally carried out at the site of installation. If this is not possible for some specific reasons, the device can be returned to Slee. The contact address can be found at the end of this manual.



- To guarantee a trouble-free function of the device after transportation, please note the below-mentioned measures for transportation preparations.
- The conditions for storage and transportation mentioned in chapter 2 - 3 must be observed during the entire transportation.

	<p>Any shipping of the device requires original packaging materials! Damages caused by shipping with non-conform packaging are not covered by the manufacturer warranty! Any damage repairs resulting in non-conforming package are fully charged to the sending party. We reserve the right depending on seriousness of damage NOT to repair. To order original packaging materials, please contact Slee or your local Slee authorized dealer.</p>
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Measures for taking the device out of operation:

- Turn off the mains switch of the device.
- Remove blade and store it in a safe place.
- Empty the device and dispose of it in an appropriate way.
- Also drain the hose lines or seal them against leakage of residual water.
- Disconnect the mains cable from the Aquatec.

In case the device or parts of the devices are sent to Slee or to one of its representatives in such a condition that there might be a potential danger of infection, the device and / or the part(s) will be returned to the customer in an unrepaired status. Costs for this are to be borne by the customers.

	<p>The user must ensure a clean and safe condition of the device when returning it to an appropriate service provider.</p>
	<p>If the original packaging is no longer available, please contact your local Slee representation.</p>

For transportation outside closed buildings, please observe the following measures:

- Turn off the mains switch of the device.
- Remove blade and store it in a safe place.
- Empty the device and dispose of it in an appropriate way.
- Disconnect the cable from the control unit.
- Pack the device into the original packing as it offers best preconditions for transportation without damage.



If the original packaging is no longer available, please contact your local Slee representation.

6.2 DISPOSAL OF THE DEVICE AFTER FINAL SHUTDOWN

After the final shutdown of the device, we recommend to contact a local recycling company for the disposal according to the national applicable regulations.



To be applied in the countries of the European Union and other European countries with a separate collecting system within the waste management.

The marking of the product and / or the respective literature indicates that, after its final shutdown, it must not be disposed of together with ordinary domestic waste.

- Please dispose of your device separately from other waste to not harm our environment and / or human health by uncontrolled waste disposal.
- Recycle your device to support the sustainable recycling of material resources.
- Industrial users should contact their suppliers and observe the conditions of the contract. This product must not be disposed of together with other commercial waste.
- Please contact your supplier!

7 SERVICE

Internal components should only be serviced by technicians authorized by SLEE medical GmbH.

If technical service or spare parts are necessary, please contact your local SLEE medical GmbH distributor. Please have the following information available:

- Complete contact details
- Type of device and serial number
- Place of device and name of user
- Purpose of service call
- Delivery date of the unit

If it is necessary to return the device, it must be cleaned and disinfected before delivery. It must be returned in its original packing, to avoid transport damage.

If the device or parts thereof are sent back in a dirty or non-disinfected condition, SLEE medical GmbH reserves the right to return the parts to the debit of the customer without carrying out repairs or maintenance.

8 WARRANTY

SLEE medical GmbH guarantees that the product delivered has been subjected to a comprehensive quality control procedure, and that the product is faultless and complies with all technical specifications and / or agreed characteristics warranted.

SLEE medical GmbH guarantees that the device is manufactured under an ISO 9001:2015 and ISO 13485:2016 quality management system.

Unauthorized modification or repair by third party persons will void the warranty.

Only original SLEE medical GmbH spare parts must be used.

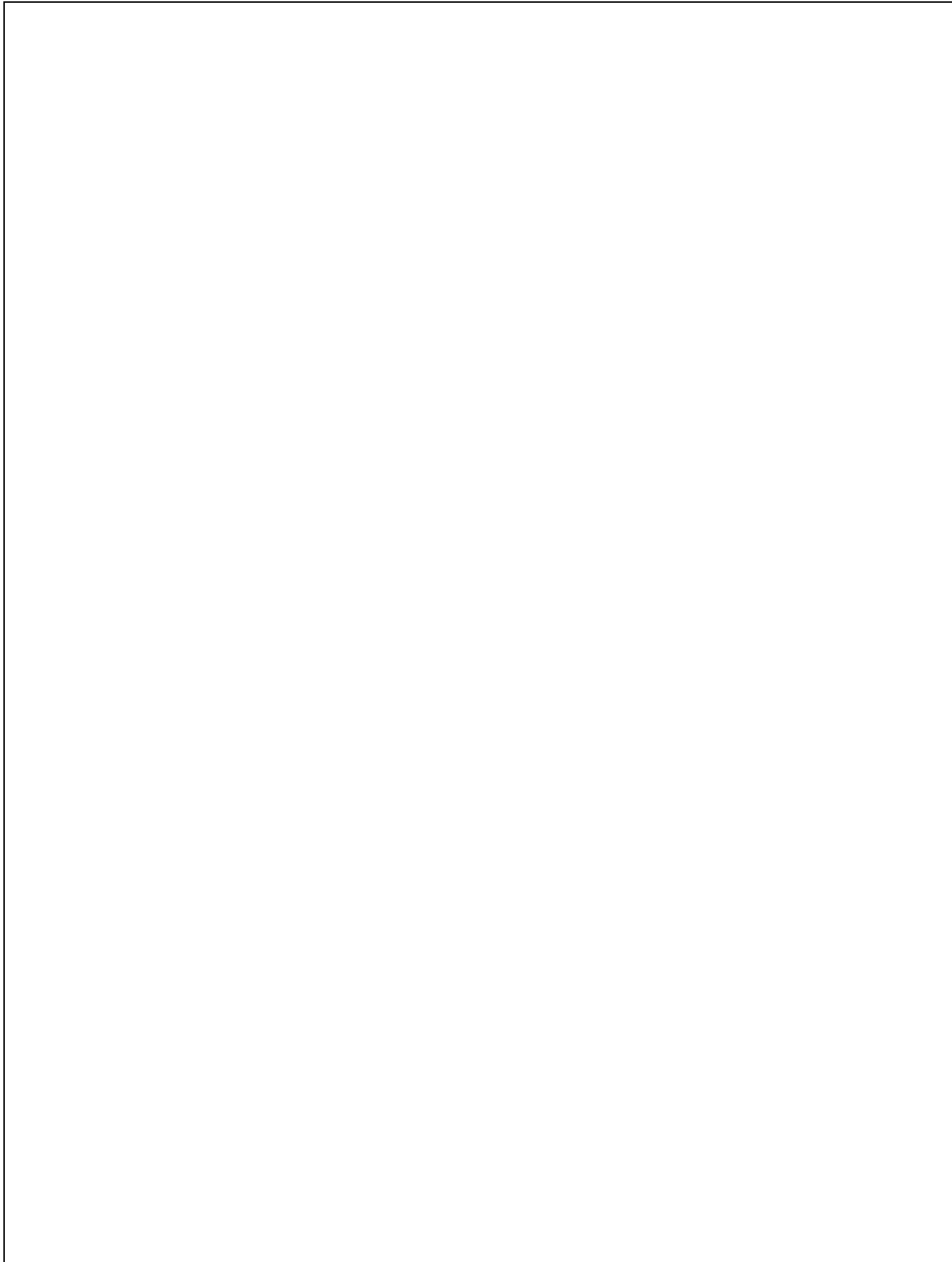
Guarantee claims can be put forward only if the device is used according to this manual and for the purpose described.

Mistakes and errors which occur because of improper use cannot be accepted.

9 DISPOSAL

The device or parts of the device must be disposed of according to existing local applicable regulations.

Notes





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