



OPERATING
MANUAL

slee solutions
for
pathology

STAINING SYSTEM
Staintec Mini

MINIMALIST AND
CONSTRAINT-FREE DEVICE

DESIGN &
MANUFACTURING
MADE IN GERMANY

Dear Customer,

thank you very much for your confidence in SLEE products!

Before you start operating the device, please read the operating instructions carefully to familiarize yourself with the proper operation and functions. The device should only be operated by specially trained and instructed staff. The specified safety measures as well as the regulations and hygiene standards of the respective laboratories must be respected.

Enjoy working with your new device!

Your team from SLEE medical GmbH

Please note:

Some of the images in this manual may show special equipment and / or accessories that are subject to a charge. The image may differ slightly from the product. Errors excepted.

We always try to keep our documents up-to-date and free of errors. However, should you notice any mistakes, we would be grateful if you could provide us with feedback. Comments on the actual content are also welcome at any time. Simply e-mail us at marketing@slee.de.

The information, numerical data and notes contained in this document represent the current state of scientific knowledge and state-of-the-art technology as we understand it following thorough investigation in this field. SLEE medical GmbH is under no obligation to update the present manual periodically and on an ongoing basis according to the latest technical developments, nor to provide our customers with additional copies, updates etc. of this document. To the extent permitted in accordance with the national legal system as applicable in each individual case, we shall not be held liable for erroneous statements, drawings, technical illustrations etc. contained in this document. In particular, no liability whatsoever is accepted for any financial loss or consequential damage caused by or related to compliance with statements or other information in this document. Statements, drawings, illustrations and other information regarding the contents or technical details are not to be considered warranted characteristics of our products. These are determined only by the contract provisions agreed between ourselves and our customers. SLEE medical GmbH reserves the right to change technical specifications as well as manufacturing processes without prior notice.

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1 INTRODUCTION

This manual shall help you handling the device. Please read the manual completely and follow the advice. Acquaint yourself to the control elements and their functionality by studying the figures. This way, an adequate use of the device is ensured.

1.1 Intended use

The Slee Staintec Mini is designed to automate your special staining, time consuming, hand-made in your laboratory. The number of cuvettes and slides are sized to minimize cost. Staintec Mini is a minimalist and constraint-free device, open to any stains. The touch screen tablet allows you to create and easily launch your staining.

The conditions for operation, maintenance and service mentioned in this instruction manual must be strictly observed.

	<p>To prevent damages to the device and specimens, only use accessories and spare parts which have been approved by SLEE medical GmbH.</p>
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1.2 Authorized operators

The Staintec Mini must be used only by those persons who have been authorized by the owner. In his working area, the operator is responsible with regard to third persons. The owner must give the operator access to this instruction manual and make sure that the operator has read and understood its contents.





1.3 Device type

All information provided in this manual applies only to the device type indicated on the title page. A name plate indicating the device serial number is attached to the rear panel of the device.

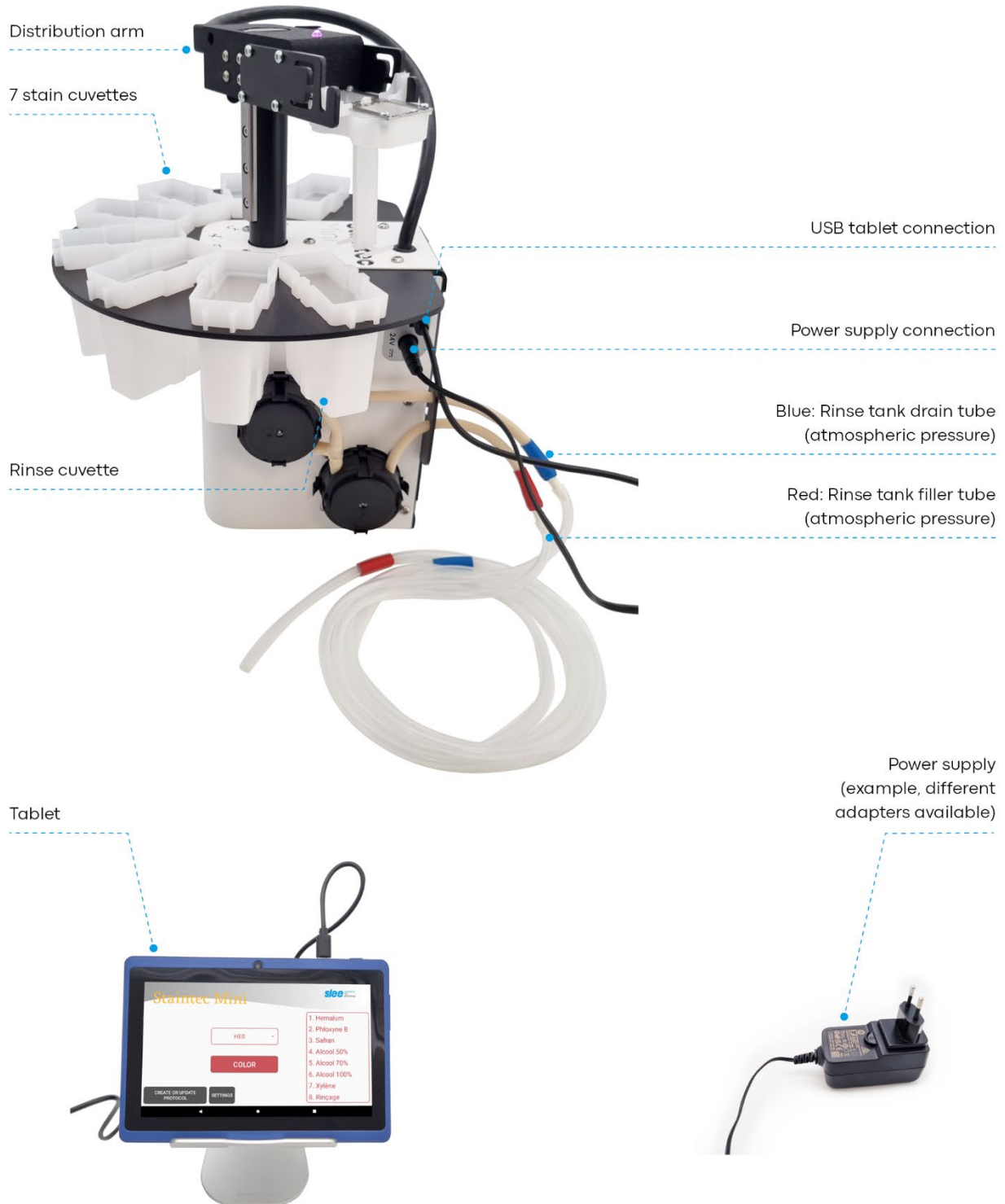


1.4 Safety instructions for working with the Staintec Mini and reagents

- Read this user manual attentively before you use the equipment for the first time. Slee is not liable if the equipment is not used in compliance with the user manual.
- For your safety, the equipment complies with the applicable standards and regulations (Low Voltage Directive, Electro-magnetic Compatibility, etc.).
- Staintec Mini is an electrical device and must be used under normal conditions of use. It is intended for professional use.
- Staintec Mini must only be powered by the power supply provided (24 V, 1.5 amps, 5.5 x 2.1 x 11 mm cylindrical connector, central positive terminal).
- The main voltage must be between 100 and 240 V.
- If the power supply cable is damaged, do not use it.
- Staintec Mini is designed so that water can be used for rinsing (osmose, distilled or standard water). Ask the manufacturer's advice before using an additive or another liquid.
- Only use the stain cuvettes provided by the manufacturer.
- To disconnect the equipment, remove the connector from the equipment or disconnect the mains plug.
- The limit values for exposure of the products to the stains do not require protective covers or special filtering (if the laboratory is equipped with a controlled mechanical ventilation system). However, it is recommended to use Staintec Mini under a laminar flow hood or in a well-ventilated location.
- Do not forget to check the liquid level in receptacles or waste containers: risk of overflows or poor staining. The cable connected to the distributor arm is mobile: If it is blocked, it may generate an operation fault. Do not place any object less than 10 cm from the edge of Staintec Mini.

	<p>Many reagents' fluids and vapours are flammable. If you are not sure about using a reagent, please contact the manufacturer.</p>
	<p>Always wear protective clothes (e.g. laboratory coat, gloves, safety glasses) to prevent accidental contact with reagents!</p> <p>Do not eat, drink or otherwise consume reagents and/or reagent vapours! Do not eat, drink, smoke within the surrounding area of the device!</p> <p>In case of accidental eating or drinking of, or skin contact with a reagent or its vapours, immediately consult the correspondent safety data sheet and follow the instructions stated in the corresponding sections!</p>
	<p>Certain surfaces of the device are hot during operation and can cause burns if touched.</p>
	<p>If you have trouble understanding instruction, questions, or are not sure about the safety, please consult your sales representative first!</p>

2 OVERVIEW DEVICE



3 COMPONENTS

The Slee staining system Staintec Mini is provided with the following standard components:

Staintec Mini system
24 V power supply (different adapters available)
User manual
Tablet
Tablet holder
Stain cuvettes (7 pcs.)
Slide mount
USB / micro-USB cable
1 m silicone hose (2 pcs.)



StaintecMini.apk software is already installed on the tablet. If you replace the tablet, ask your distributor to provide the software. It will be forwarded free of charge.

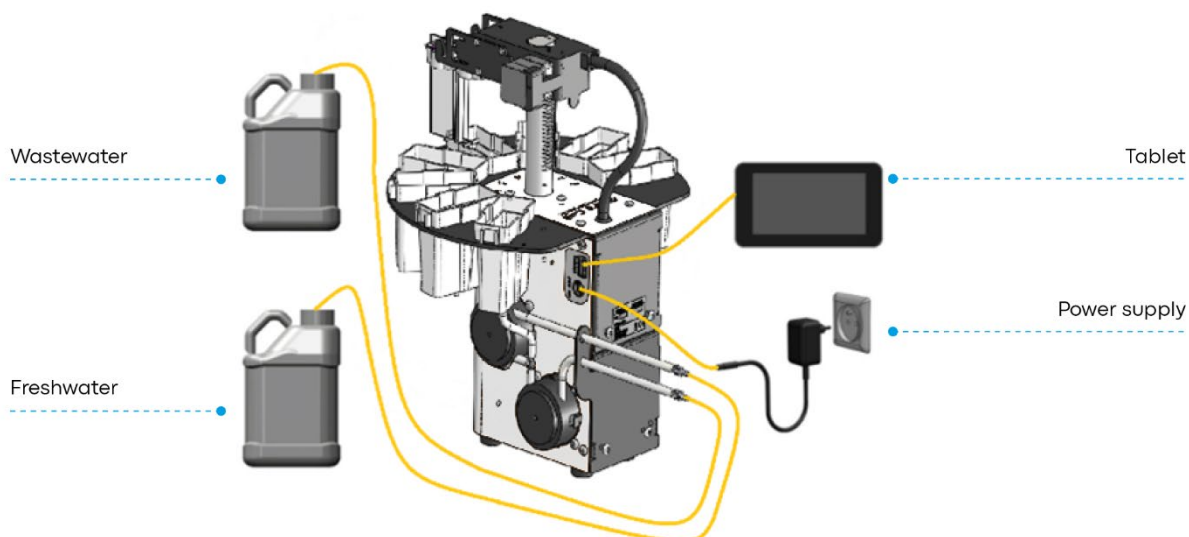
4 SPECIFICATIONS

Nominal Voltage	100 – 240 V AC
Nominal frequency	50 / 60 Hz
Dimensions (w x d x h)	250 x 250 x 300 mm
Weight unpacked (without accessories)	3.4 kg
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

5 SETTING UP THE DEVICE

5.1 Installation

Please set up the device as shown below:



Please note that 2 5 l tanks are required for setting up the device properly.

Those are not included in the package.

Usually, there are distilled water tanks available at your laboratory. If not, make sure you have them at hand before you start working with the device.

5.2 System set-up

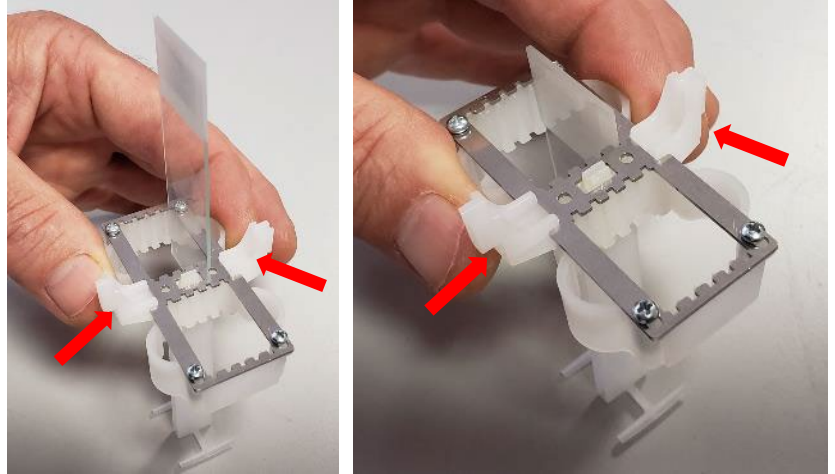
1. Turn on the tablet and then connect the tablet to the Staintec Mini using the included USB cable.
2. Connect the power supply to the device and then to the power outlet.
3. Place all the cuvettes on the machine, filled to the correct level with the stains required for desired staining.
4. Connect the Staintec Mini drain tube and the wastewater container (empty) with one of the supplied hoses. The waste tank should be below the level of the device.
5. Connect the Staintec Mini filler tube and the freshwater container (full) with one of the supplied hoses. The water tank should be at the level of the device.
6. Start a priming cycle (see software page).
7. Position the slide mount on the equipment.
8. Start the staining procedure (see software page).



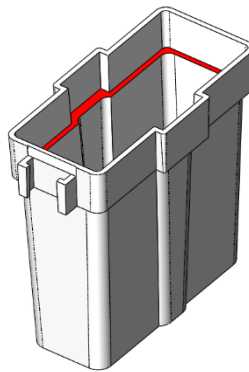
Caution: As soon as you turn on the power, the distribution arm will rise, and the application will start automatically.

5.3 General use

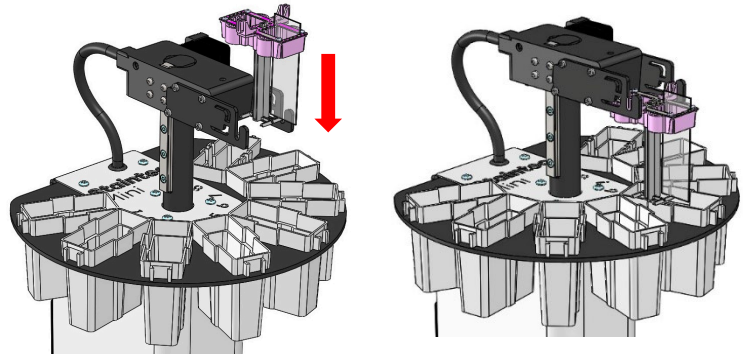
To insert or remove a slide:
Press on the ears.



Maximum liquid level (indicated in red).
Attention: Overflow risk!

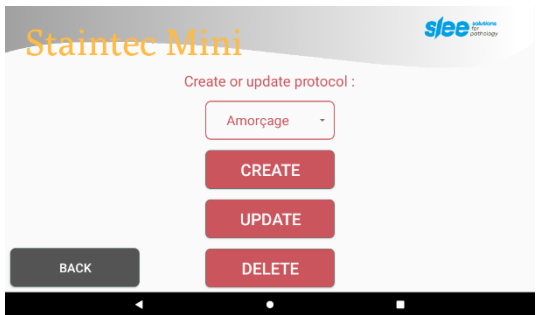
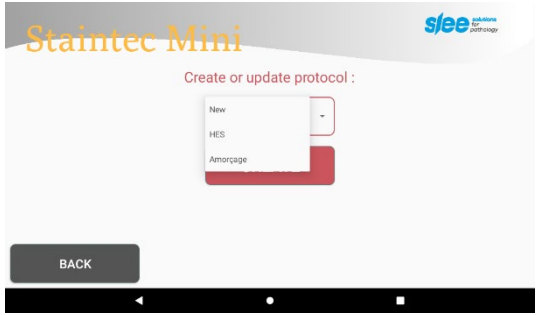
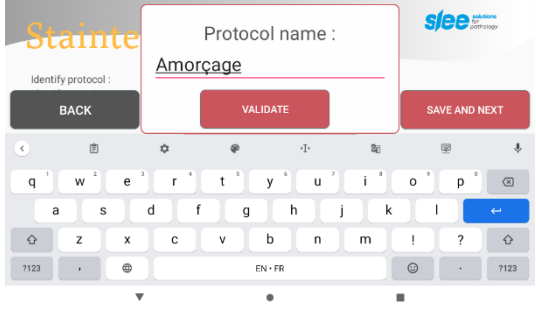



The arm dunks the slides into the cuvettes.



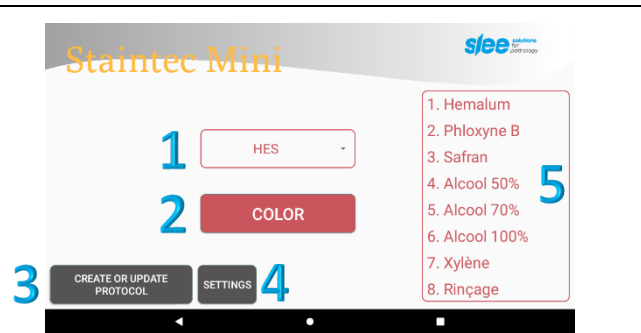
6 USING STAINTECMINI.APK SOFTWARE

6.1 Creating or altering a stain

<p>Press the "Create" or "Update" button.</p>	
<p>Select "New" from the scroll-down menu if you wish to create a new protocol or select the protocol to be altered.</p>	
<p>Enter the protocol title and the stain cuvettes (a keypad appears as soon as you press on the key-in zone), then press "Save and next".</p>	
	<p>At each stage, select the cuvette number, the immersion time and the required mixing mode. If you require a new stage, click on "new stage". Otherwise, click on "save and close" to complete creation of your protocol.</p> <p>The protocol will automatically be added to the scroll-down list in the home page.</p> <p>Possibility to add a pause time after soaking in order to avoid drip deposits.</p>

6.2 Staining

- Launch the Staintec Mini software.
- Select the desired stain from the scroll-down menu (1).
- Place the dyes on Staintec Mini in the order indicated in the list (5).
- Press "COLOR" (2).



6.3 Settings

To adjust the immersion positions:

Press "Start" (the distribution arm will move to find its reference positions), then move from one tank to another by pressing on the left / right cursors. Adjust the slide mount position in the tank by pressing on the + / - arrows, then save your settings.

To adjust the fill and drain times:

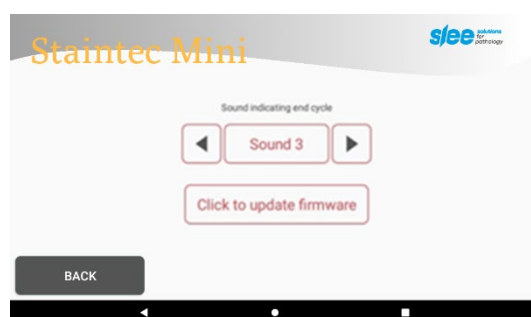
The speed of tank filling will depend on how far away the rinse water can be positioned.

Place the rinse cuvette in the selected location (avoid subsequently changing this position) then start the "Initiation" procedure. When the rinse tank is filling, check that the water reaches the correct level (see previous section). Otherwise adjust the level by increasing or reducing the fill time in the scroll-down menu.

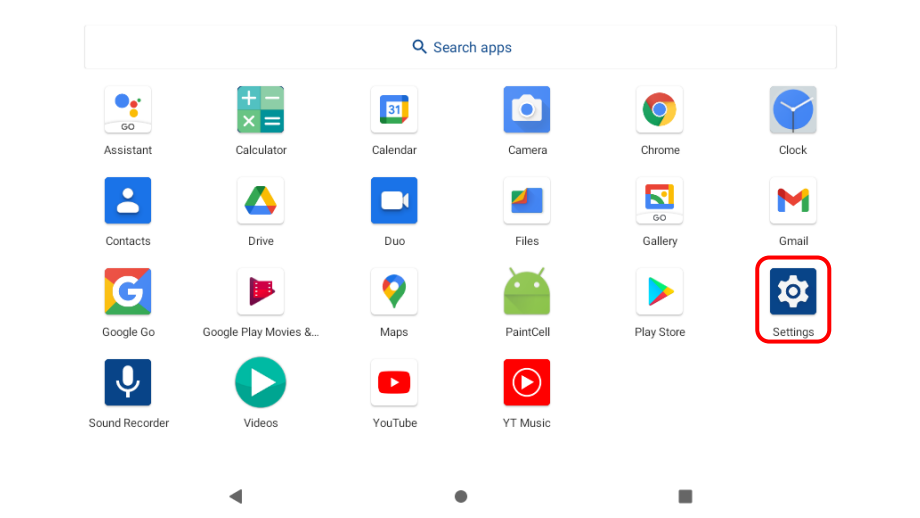
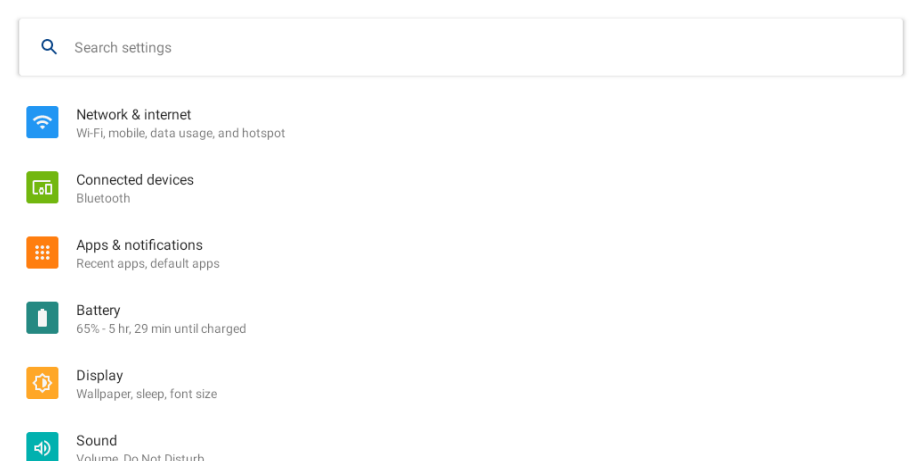
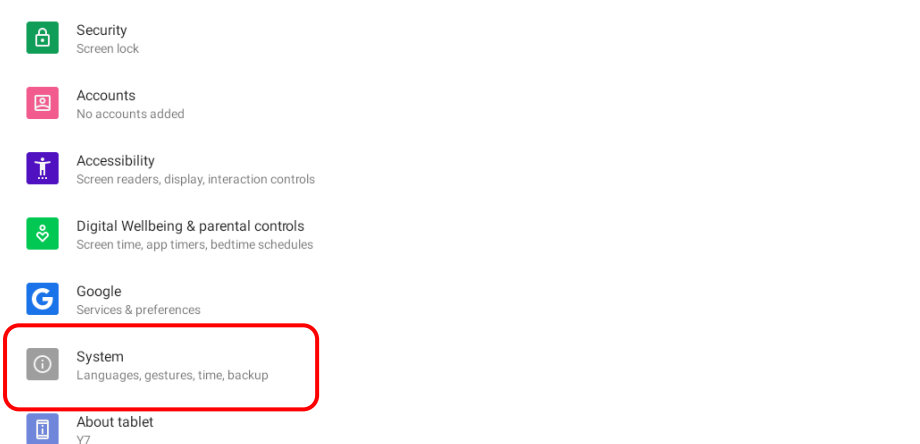
Once this operation is complete, change the drain time (it should be 2 seconds longer than the fill time).

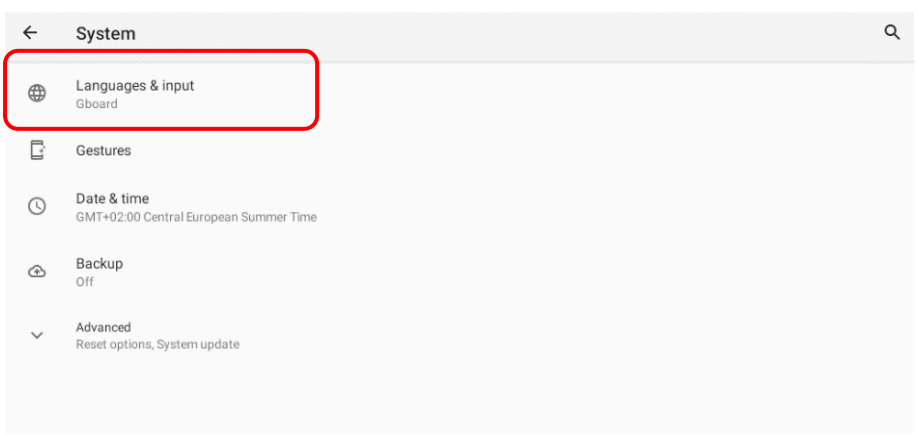
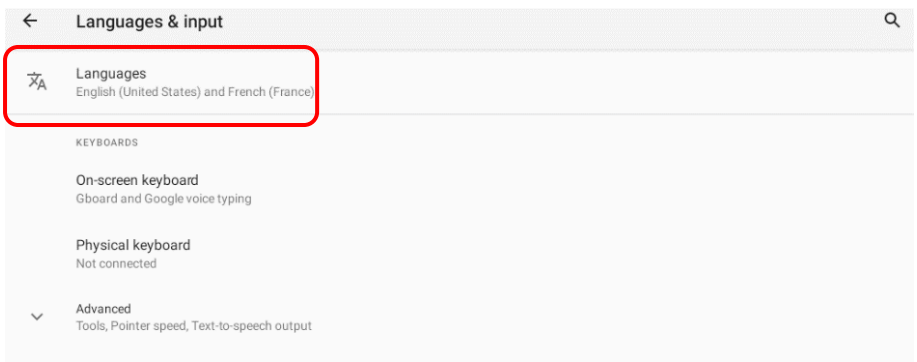
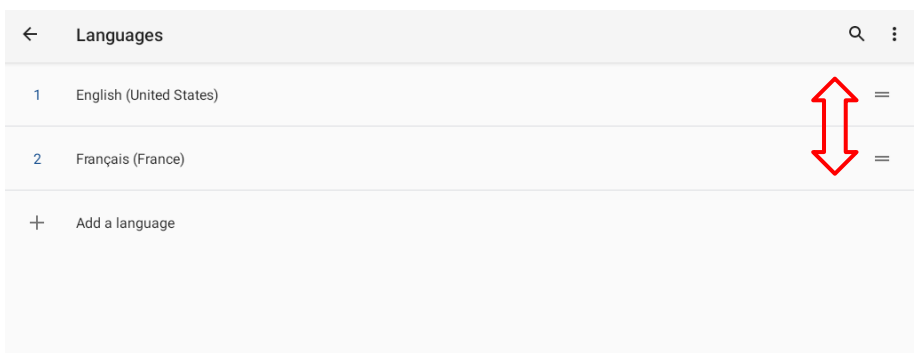
To change the end-of-cycle melody:

On the Settings page, click "Next" and then choose the desired sound using the arrows. Press the sound number to play it on the tablet.

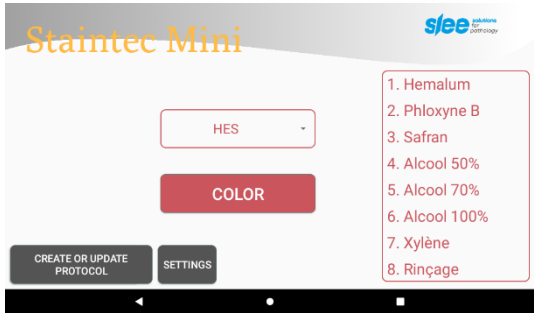
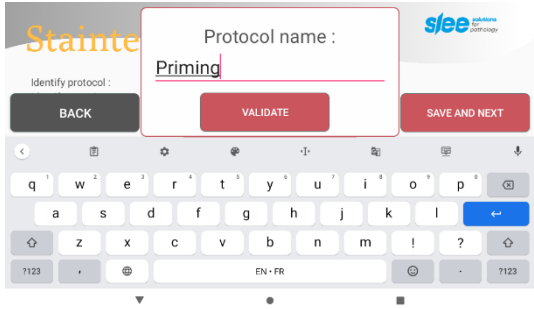
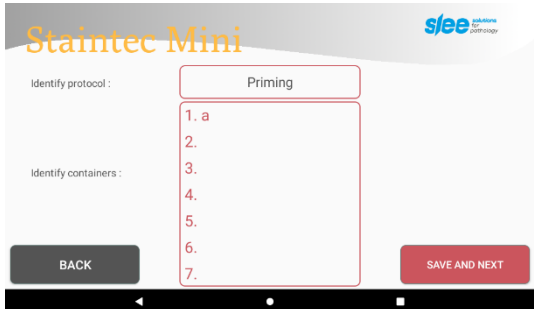

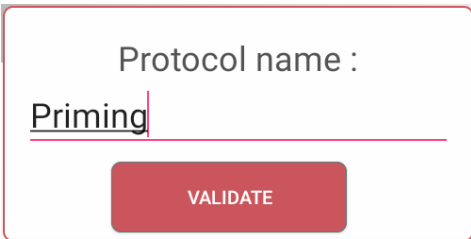
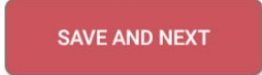



6.4 Set language

<p>Turn the tablet on, select "Settings" in the menu.</p>	
<p>Slide the page up to go to the end of the menu.</p>	
<p>Select "System".</p>	

<p>Select "Languages & input".</p>	
<p>Select "Languages".</p>	
<p>Slide the desired language to position no 1.</p> <p>Exit the "Settings" page to save your choice.</p>	

6.5 Programming Protocols

<p>Run the "Staintec Mini" application. If the desired language is English, then select the drop-down menu of the tab at launch "HES".</p>	
<p>Select "New", then "Create or update a protocol", e.g. Priming.</p>	
<p>Reselect the new program (e.g. Priming) from the drop-down menu.</p>	
<p>Click on "Update".</p>	
<p>Click on the new program (e.g. Priming) tab to modify the title.</p>	
<p>Click "Save and next".</p>	
<p>Click "Save and close".</p>	

6.6 Errors

Problem	Possible cause	Solution
The machine does not react when you press on "Color".	Equipment is not connected, or the cable is faulty.	Disconnect and reconnect the cable: a message should appear (e.g. "machine connected").
The stain overflows. The slides are streaked with stain after the staining process.	There is too much stain in the cuvettes.	Comply with the maximum level indicated with the red line in the description of the cuvettes.
The machine does not react when the power supply is connected.	Power supply fault or machine electronic fault.	If the diode on the distribution arm is not lit, the electronic board is faulty.
The rinse tank is over-full or not sufficiently full.	Incorrect fill time setting.	Please refer to the "Settings" paragraph in the respective chapter.
The rinse tank fills up correctly, but the rinse water overflows.	Filling is correct, but the drain time is not sufficiently long.	The drain time must be set to be at least 2 seconds longer than the fill time.
Liquid seeps out from the inside of the machine.	Tube blockage.	Make sure that air enters the drain and rinse water canisters.
The filler pump and drain pump flow rates suddenly drop.	Partial blockage in pump.	The rinse water must be clean and must not contain any particles.


7 OPTIONAL ACCESSORIES

Article	Item-No.
Staining cuvette set (7 pcs.)	17005001
Rinsing cuvette	17005002
Silicone cap for staining cuvette	17005003
Cuvette area cover	17005005
Slide rack	17005006

8 CLEANING

8.1 Maintenance

- Wash the cuvettes regularly with bleach or detergent. The cuvettes are made of polypropylene.
- Change the rinse water regularly.
- The equipment base may be cleaned with a cloth dampened with a diluted bleach or alcohol solution, once the power supply and the tablet have been disconnected. Clean the electrical parts with a dry cloth ONLY.
- The distribution may be cleaned with a damp cloth.

	<p>IMPORTANT: Do not use an alcohol-based solvent, an acetone-based product or a spray - risk of damage to the equipment.</p>
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9 SERVICE

The device 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,
- location of device and name of user,
- purpose of service call,
- delivery date of the device.

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

If the device or parts thereof are sent back in a dirty or non-disinfected condition, we reserve the right to not accept the delivery of the device.

10 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 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.

11 DISPOSAL

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

Notes

Notes



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