

Small Steam Sterilizer

Installation & Users' Manual

A11B



Revision: 04
Release date: 2026/03/02



Preface

Thank you for purchasing this HäTmed table-top steam sterilizer. This User Manual describes usage guidelines for the autoclaves A11B, (referred to as “autoclave” throughout the manual). These guidelines cover installation, initial commissioning, standard operation, safety precautions and maintenance requirements. For your safety and sterilization quality, please read this User Manual carefully before you start operation of the autoclave.

Intended Use





HäTmed A11B is suitable for use in medical facilities, such as general medical institutions or dental clinics. HäTmed sterilizers are designed and manufactured in strict compliance with EN 13060. A11B is B-class autoclaves that are designed for high standard sterilization of hollow instruments, packed instruments, geared instruments and textiles.












- Do not sterilize any liquids with this autoclave. Failure to follow this instruction may lead to damage of the instruments and this autoclave.

Symbols

Symbols and their meaning in this Manual:

Symbol	Indication	Explanation
	Risk to Health	Indicates a dangerous situation, such as high voltage or current, if not avoided, could cause life-threatening injuries.
	Danger of Burns	Indicates danger of burns, such as hot steam or surfaces.
	Critical Instructions	Indicates a critical instruction which, if not strictly followed, may lead to damage to the instruments or this autoclave.
	Important Information	Indicates important information.

Symbols on the device:

Symbol	Description
	Danger of Burns
	Manufacturer of this medical device
	Date of manufacture of the medical device
	Serial number of the medical device by the manufacturer
	EU Representative of the manufacturer of the medical device
	This User Manual contains important safety information. Failure to comply with the safety instructions could cause human injuries or material damage.
	Please read this User Manual carefully before using the device. The manual contains important safety information. The performance and life-span of this autoclave depends on the care accorded to it. Please store this User Manual carefully and in close proximity to the autoclave. It is a component of the product.
	In affixing this CE mark, the manufacturer declares that this medical device fulfills the requirements of the medical device directive. The 4-digit number confirms that this is monitored by an approved certification body.
	This symbol reminds the users to refer to the User Manual for important information.

Safety Instructions:



Only use this device for its intended use as described in this User Manual. While operating this autoclave, please make sure the safety instructions given below and in the individual chapters of this User Manual are strictly followed.

No Liquid	➤ Do not sterilize any liquids with this autoclave.
Qualified Personnel	➤ The sterilization of instruments and textiles using this autoclave may only be carried out by trained personnel.

<p>Power cable and power plug</p>	<ul style="list-style-type: none"> ➤ Never change the main cable or power plug. Never use a damaged power cable or plug. ➤ Never operate the device if the plug or power cable is damaged. The power cable and plug should only be replaced by authorized personnel. ➤ Never unplug by pulling on the power cable. Always take hold of the power plug itself. ➤ Ensure that the power cable is not jammed or knotted. ➤ Never place the cable close to a source of heat. ➤ Never fix the power cable with sharp objects.
<p>Setting up and installation</p>	<ul style="list-style-type: none"> ➤ Only have the autoclave setup, installed and started up by people authorized by the manufacturer. ➤ Never operate the autoclave in explosive atmospheres. ➤ The connections for electrical provision and water supply and draining must be set-up by trained personnel. ➤ The device is designed for use outside patient surroundings. It should be located at least 1.5 m away (radius) from the treatment area. ➤ If the device comes with a printer, the printer must be placed in such a way that it will not contact with liquids.
<p>Emergency Door Open</p>	<ul style="list-style-type: none"> ➤ Do not use this emergency device under normal circumstance.
<p>Decontamination and sterilization</p>	<ul style="list-style-type: none"> ➤ Follow the manufacturer instructions of instrument and textiles regarding their decontamination and sterilization. ➤ Observe the relevant standards and directives for the decontamination and sterilization of instruments and textile, e.g. RKI and DGSV. ➤ Only use packaging material and holders which have been approved by their manufacturer for steam sterilization.
<p>Program termination</p>	<ul style="list-style-type: none"> ➤ Please observe that depending on the time of the program abort, opening the door following a program abort can lead to hot steam leaving the chamber. ➤ Depending on the time of the program abort, it is possible that the load is unsterile. If necessary, rewrapping and sterilize the affected objects.
<p>Removal of the items sterilized</p>	<ul style="list-style-type: none"> ➤ Never use force to open the door. ➤ Use a tray holder to remove the tray. Never touch the sterilized items, the chamber or the door with bare hands. ➤ Check the wrapping of the sterilized objects for damage when removing them from the autoclave. If a wrapping is broken, re-pack the objects and re-sterilize it.

Transport and storage	<ul style="list-style-type: none"> ➤ The device should always be carried by 2 people. ➤ Use suitable carrying straps to carry the device. ➤ Install and operate the device in a frost-free environment.
Maintenance	<ul style="list-style-type: none"> ➤ Have the maintenance done only by authorized personnel. ➤ Comply with the predetermined maintenance intervals. ➤ Only original Hätmed spare parts may be used.
Errors	<ul style="list-style-type: none"> ➤ Should the device issue the same malfunction message repeatedly, turn off the device. ➤ Only have the device repaired by authorized personnel.

Sterilization Programs:

Program Name	GEN 134	GEN 121	QuickB	Quick S	134+	Prion	Fabric
Dynamic pressure test of the sterilization chamber	√	√	√	√	√	√	√
Air leak	√	√	√	√	√	√	√
Empty chamber	√	√	√	√	√	√	√
Solid load	√	√	√	√	√	√	
Solid and porous load	√	√			√	√	
Porous partial load	√	√			√	√	√
Porous full load	√	√			√	√	√
Hollow body B	√	√	√	√	√	√	
Hollow body A	√	√	√		√	√	
Simple wrapping	√	√	√	√	√	√	√
Multiple wrapping	√	√	√		√	√	√
Drying, solid load	√	√	√	√	√	√	
Drying, porous load	√	√			√	√	√
Sterilization temperature	134 °C	121 °C	134 °C	134 °C	134 °C	134 °C	121 °C
Sterilization pressure	2.1 bar	1.1 bar	2.1 bar	2.1 bar	2.1 bar	2.1 bar	1.1 bar
Sterilization time	5.5min	16min	3.5min	3.5min	5.5min	20min	20min
Note: √= Conformity with all applicable sections of the standard EN 13060							

Contents

1	Device Description	- 1 -
1.1	Scope of delivery	- 1 -
1.1.1	Standard accessories	- 1 -
1.1.2	Optional accessory	- 2 -
1.2	Views of the device	- 2 -
1.2.1	Front view	- 2 -
1.2.2	Side view	- 3 -
1.2.3	Rear	- 3 -
1.2.4	Interior view	- 4 -
1.3	Technical data	- 4 -
1.4	Mountings for the load	- 5 -
1.5	Smart Controller and Control Panel	- 5 -
1.5.1	Operation buttons and menu introduction	- 5 -
1.6	Emergency door opener	- 7 -
1.7	Device Workflow	- 7 -
1.7.1	Sterilization procedure	- 7 -
1.7.2	Vacuum test	- 8 -
2	Installation and Transportation	- 9 -
2.1	Unpacking the device	- 9 -
2.2	Set-up location requirements	- 9 -
2.3	Adjust height for the device	- 10 -
2.4	Connections required	- 10 -
2.4.1	Power connection	- 10 -
2.4.2	Feed water supply	- 10 -
2.4.3	Waste water draining	- 11 -
2.4.4	Printer connection (Optional)	- 11 -
2.5	Record of Installation	- 12 -
2.6	Transportation	- 12 -
3	First time using	- 13 -
3.1	start up	- 13 -
3.2	after booting	- 13 -
3.3	Switch door	- 15 -
3.4	Verification of sterilization effect	- 16 -
4	Sterilization	- 17 -
4.1	Load the autoclave	- 17 -
4.2	Select a sterilization program	- 17 -
4.3	Accessibility options	- 19 -
4.3.1	preheat setting	- 19 -
4.3.2	print automatically	- 19 -
4.3.3	extra dry	- 19 -
4.4	run a sterilization program	- 19 -
4.4.1	Start to sterilize	- 19 -
4.4.2	Program running process	- 20 -
4.5	manual stop	- 21 -
4.6	Sterilization program complete	- 23 -
4.7	Storage of sterile items	- 25 -
5	Function tests and other programs	- 26 -
5.1	Vacuum test	- 26 -
5.2	B &D testing	- 28 -
5.3	Helix test	- 29 -
5.4	Drainage procedure	- 29 -
6	Settings	- 30 -
6.1	Date and Time Settings	- 30 -
6.2	language settings	- 32 -
6.3	running information	- 33 -












7	User settings	- 34 -
7.1	automatic setting	- 35 -
7.1.1	Automatic preheat setting	- 35 -
7.1.2	Automatic print settings	- 36 -
7.1.3	Water quality testing settings	- 36 -
7.1.4	extra dry setting	- 36 -
7.2	system settings	- 38 -
7.2.1	Modify user password	- 38 -
7.2.2	system reset	- 40 -
7.3	Maintenance	- 42 -
8	Sterilization records	- 43 -
8.1	View history	- 43 -
8.2	Export history	- 44 -
8.3	Print history	- 45 -
8.4	Query history	- 45 -
8.5	Automatic record printing	- 47 -
8.6	Record interpretation	- 48 -
9	Maintenance	- 49 -
9.1	Cleaning and preparation of the sterilization load	- 49 -
9.2	Maintenance of the device	- 49 -
9.2.1	Cleaning	- 49 -
9.2.2	Maintenance	- 50 -
10	Maintenance of small steam sterilizer	- 51 -
10.1	Cleaning of Loaded Items before Sterilization	- 51 -
10.2	Maintenance of small steam sterilizer	- 51 -
10.2.1	Cleaning and maintenance	- 51 -
10.2.2	Regular maintenance	- 55 -
10.3	Water propertles/Characteristics	- 56 -
11	Troubleshooting and common problem handling	- 57 -
11.1	Display shows nothing	- 57 -
11.2	High consumption of distilled water	- 57 -
11.3	drying effect is not good	- 57 -
11.4	no distilled water	- 57 -
11.5	unable to open the door	- 58 -
11.6	Leakage at the door or water dripping from below	- 58 -
11.7	Fuse Replacement	- 58 -
Appendix 1	Safety mechanism	- 60 -
Appendix 2	Block diagram	- 61 -
Appendix 3	Electrical diagram	- 62 -

1 Device Description

1.1 Scope of delivery

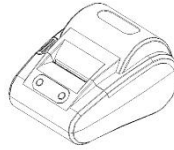
1.1.1 Standard accessories

Following accessories are supplied together with the autoclave.

STANDARD ACCESSORIES			
Accessory	Symbol	Quantity	Description
Gradient		1	Place it on top of the device while setting it up. Observe the gradient while adjusting the foot pads. Ensure that the front of the device is higher than the rear. A proper position is while the angle between the bottom of the device and table is about 30°C.
Tray		2	Perforated anodized aluminum tray
Tray holder		1	Tray holder for removing tray from the sterilization chamber
Mounting rack		1	Stainless steel rack to accommodate trays
Distilled water pipe		1	Φ4*6 2M transparent silicone pipe for feeding distilled water
Drain pipe		1	Heat-resist drain pipe with female thread connector
Fuse		2	F15A x H250V
Air filter		1	High efficiency air filter to block dust and bacteria from entering into the chamber
Clamp		1	For securing the pipeline installed after the drainage joint to prevent pipeline detachment
Power cord		1	Power supply for sterilizer
DOCUMENTS			
User Manual		1	This Manual
Notice		1	Common issues and things need users' attention

1.1.2 Optional accessory

Mini thermosensitive printer



Printer size :	151*120*92(mm)		
Printer weight :	0.8kg		
Button:	After the printer is powered on normally, press the FEED button to feed the paper, and release it to stop.		
Description of the lamp:	Green Light	Red Light	State
	Bright	Not Bright	Normal working state
	Bright	Blink slowly	Paper shortage status, resume normal operation after paper is available
	Bright	Blink quickly	The temperature of the thermal printing head is too high, and it automatically returns to normal operation after the temperature drops
	Not Bright	Not Bright	The power switch is not turned on or not connected to the power supply

1.2 Views of the device

1.2.1 Front view

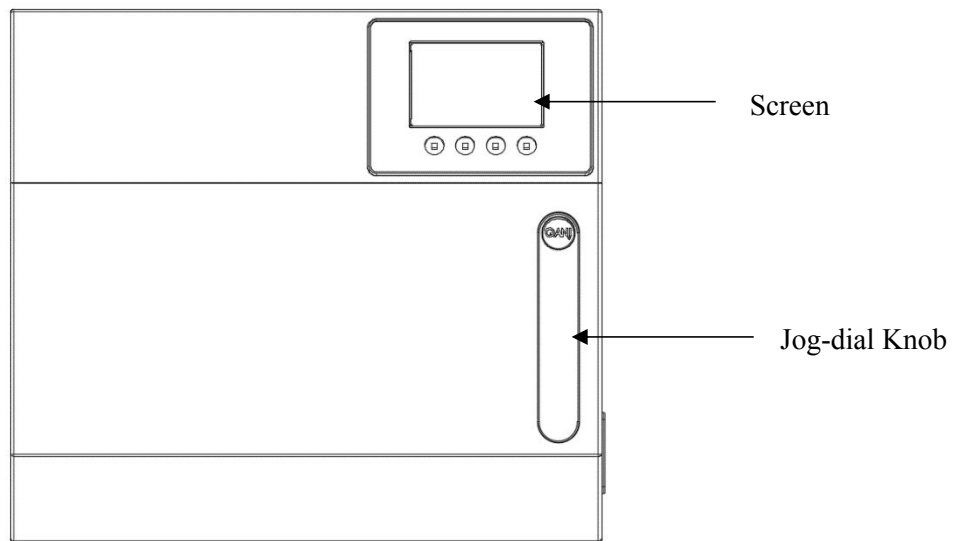


Figure 1.1 Front view

1.2.2 Side view

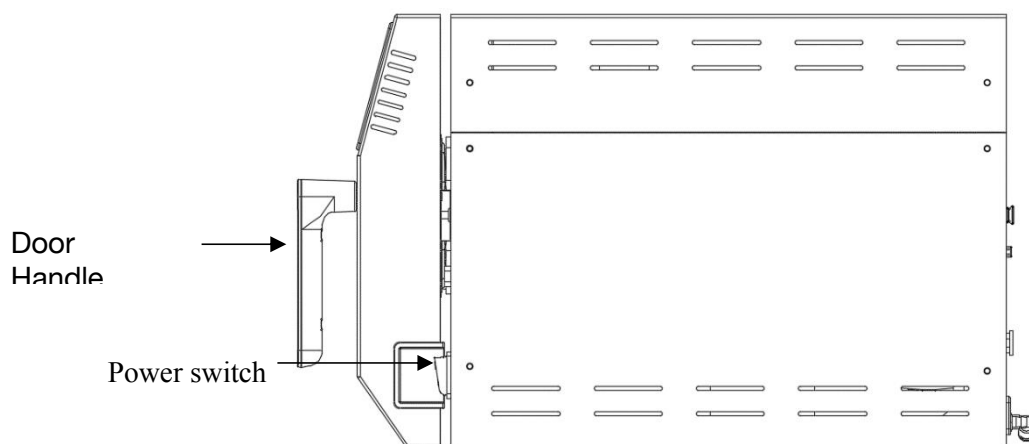


Figure 1.2 Side view

1.2.3 Rear

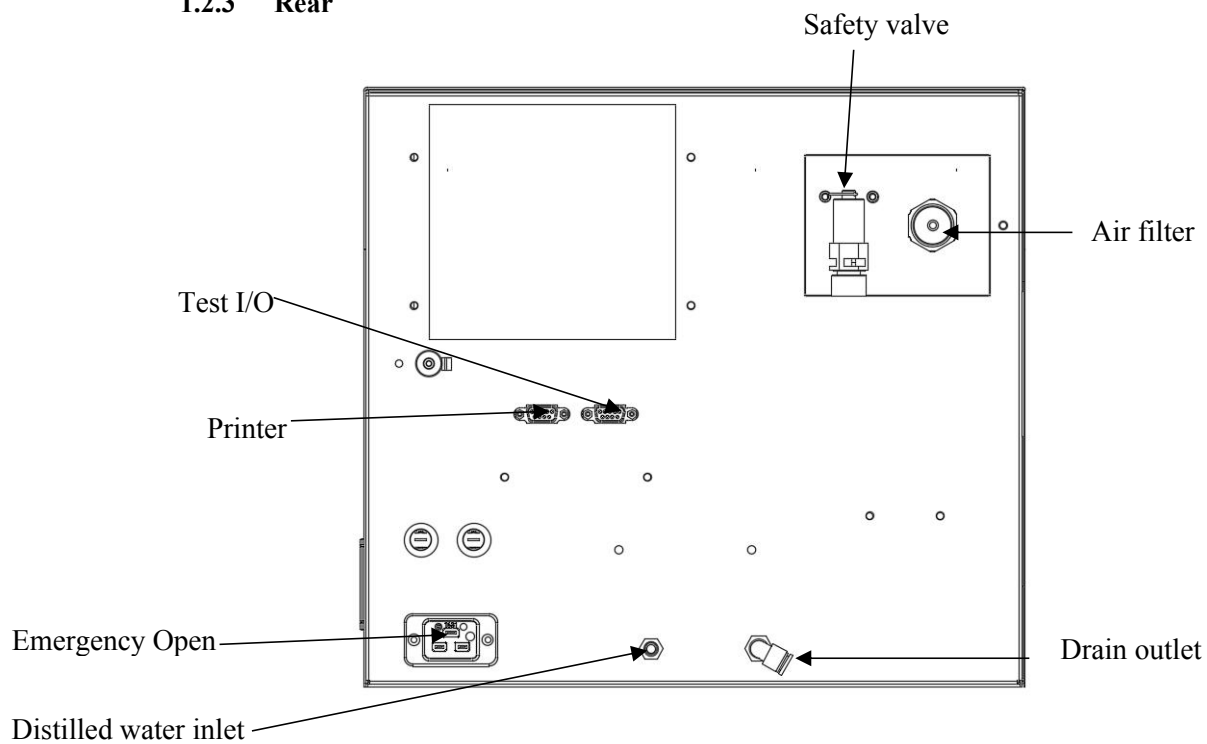


Figure 1.3. Rear view

1.2.4 Interior view



Figure 1.4 Interior view

1.3 Technical data

Device type	A11B
Device dimensions	560mm*375mm*340mm
Packaging dimensions	640mm*480mm*450mm
Chamber size	327mm*210mm*96mm
Chamber volume	5 L
Pressure vessel weight	4.5 kg
Device empty weight	36.4 kg
Display size	3.5-inch color screen
Gross weight of packaging	46 kg
Electricity supply	230V/50Hz
Power consumption	2800VA
Built-in fuses	F15A x H250V
Ambient pressure	70 Kpa ~ 106 Kpa
Ambient temperature	5 °C ~ 40 °C
Temperature for transport and storage	-20 °C ~ 55 °C
Humidity	≤ 85%
Max. instrument load	2.3 kg
Max. textile load	0.5 kg

Memory size	16M Byte
Distilled water quality	Distilled or demineralized water according to EN 13060 Appendix C
Distilled water pressure	≤ 30 Kpa
Max. distilled water consumption	625 ml
Max. waste water temperature	95 °C
Noise emission	70 dB(A)
IP rating	IPX0
IO input voltage	5V
Printer input voltage	230V/50Hz
Length of power cable	1.8 m
Electromagnetic Compatibility	Comply with IEC61326-1; No interference is caused by this device to its environment while it can continue to function in the presence of electromagnetic disturbances of specified level.
Conformity	EN13060; EN61010-1; EN61010-2-040
Note 1: The maximum voltage range is 200V ~ 250V	

1.4 Mountings for the load





The autoclave is delivered with a mounting rack. The space inside the mounting rack is the space that can be sterilized effectively. Hence the rack must be used while loading the autoclave. The mounting rack can hold 3 trays.

1.5 Smart Controller and Control Panel

The intelligent controller is the core of the small steam sterilizer. In addition to completing the rapid collection, processing, fault detection and control of the sterilization process of the real-time parameters of the system, the controller also intuitively draws the temperature and pressure in the cavity time-varying curve. The controller also undertakes the evaluation and monitoring of the program control process. During the program operation, the current operating parameters are compared with the standard parameters. Once the parameters deviate from the standard parameters, a fault message will be generated immediately to ensure safety and sterilization during the sterilization process. bacteria quality. realizes simple and efficient operation through an LCD screen and 4 buttons.

1.5.1 Operation buttons and menu introduction

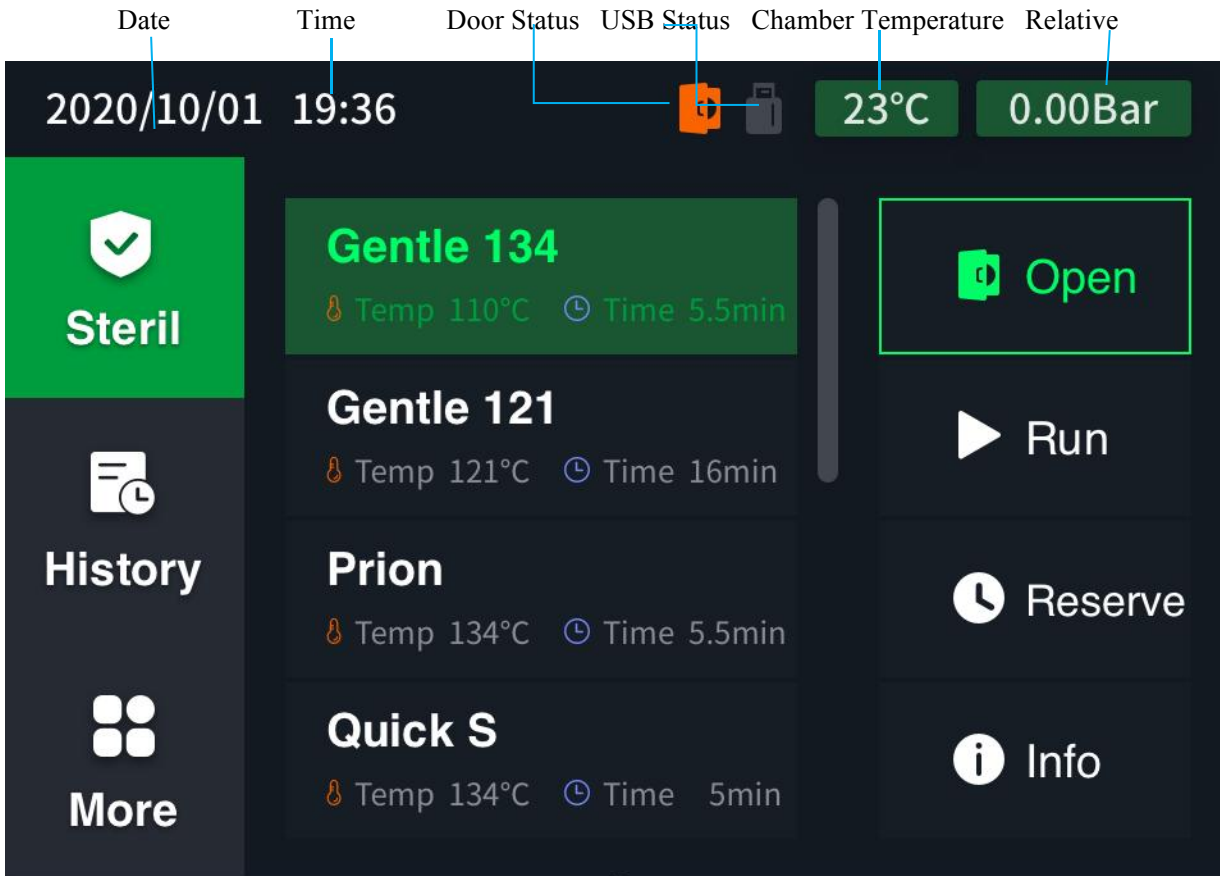
4 buttons in different situations is as follows :

button position (face up from left to right)	1	2	3	4
				
During program selection	return	previous option	next option	choose

standby mode				start up
program runtime				stop
when setting				Sure

Interface introduction:



Date Time Door Status USB Status Chamber Temperature Relative Pressure Chamber





A menu

Secondary menu



Level 3 menu

(The main page  can be switched between the three-level menus by pressing the button )

There is also a USB disk insertion mark in the interface to display the USB access status.

Status flag	Illustrate
 U disk status	Indicates the state of the U disk : inserted
 U disk status	Indicates the state of the U disk : not inserted

There is also a door lock mark on the interface to display the door lock status.

Status flag	Illustrate
 lock status	Indicates door lock status: open
 lock status	Indicates the door lock status: close

1.6 Emergency door opener

Unconventional door opening method used when the machine cannot be powered on or the safety door lock is faulty due to other reasons . Under normal circumstances, do not use this method to open the door. The specific operation method: unscrew the emergency device on the back of the product Open the protective cover with the screw on the protective cover, then grasp the white plastic disc inside the protective cover with your right hand , pull it gently (the stroke is about 1CM), and at the same time, lift the door handle up with your left hand to open the door .

1.7 Device Workflow

1.7.1 Sterilization procedure

The sterilization process includes three stages, namely pre-vacuum, sterilization, and drying. After the program starts, the user can see the stage indication of the program running on the sterilization interface. The interface also displays the real-time temperature and pressure in the cavity , and the estimated remaining program running time.

Process stage name	illustrate
1. Pre-vacuum	In the pre-vacuum stage, the process of evacuating and injecting steam is repeated, and the air content in the cavity is reduced to a minimum as the mixture of air and steam is continuously pumped out. The number of repetitions of this process varies according to the selected program, the standard sterilization program is repeated 3 times, the Helix program and the 134+ program are repeated 4 times.
2. Heating	The pre-vacuum is followed by a heating phase. Steam is continuously injected into the chamber, and the temperature and pressure in the chamber are continuously increased until reaching the specified values of the selected program.
3. Sterilization maintenance	After the temperature and pressure reach the set value of the selected program, the sterilization holding stage starts and maintains a stable temperature and pressure for a period of time to ensure that the sterilization effect meets the specification requirements.
4. Pressure relief	After the sterilization hold is over, the pressure in the cavity is released, and the steam in the steam generator is discharged at the same time.
5. Dry	Items are vacuum-dried after sterilization. Drying begins after the pressure is released. The air in the chamber is always sterile during the drying process thanks to the high-efficiency air filter.

6. Air intake	The drying process is also an air intake process, ensuring that the pressure in the chamber returns to ambient pressure at the end of the program.
---------------	--






1.7.2 Vacuum test

The purpose of the vacuum test is to test the leak rate of the equipment. During the process, the items in the cavity were not sterilized. Please run the vacuum test with a cold machine, dry chamber, and no load.

Process stage name	illustrate
1. Vacuuming	The air in the chamber is pumped out until the pressure in the chamber reaches the pressure setting value for the vacuum test.
2. Balance time	Then wait for 5 minutes to make the vacuum level in the cavity uniform.
3. Test hold time	The test hold time is 10 minutes. During this time the device continuously monitors the pressure in the chamber.
4. End of test	After the test, the screen displays the test results: vacuum degree and leak rate.

2 Installation and Transportation

2.1 Unpacking the device

	Only have the autoclave setup, installed and started up by people authorized by the manufacturer.
	If this autoclave had been kept in a different location from the installation site, wait for an appropriate time before installing and switching ON the autoclave. Autoclaves arriving from cold locations could contain moisture that affects the electrical parts and it could lead to unsafe operation for user and the device.
	The autoclave must be removed from the box and transported by 2 people. Total weight: A11B 36.4 kg;
	Check the external condition of the package and the autoclave. In case of any damage, contact the distributor or the transporter immediately.
	Please check all accessories in the box and the chamber of the autoclave according to the accessory table in Section 1.1 of this User Manual.

2.2 Set-up location requirements

Set up the autoclave in a dry and dust proof location. The air humidity should be lower than 85% and the ambient temperature 5 °C to 40 °C.



- Never setup or operate the autoclave in explosive atmospheres.



- The workbench must be able to support the device weight:
A11B 36.4 kg; The distance from each side of the autoclave to the surrounding surfaces must be at least 10 cm. Failure to follow these guidelines may lead to heat accumulation and adversely affect the function of the autoclave and could shorten the lifetime of the vacuum pump and increase cycle time.

2.3 Adjust height for the device

Find the gradient in the accessory bag and place it on top of the device. Observe the gradient while adjusting the two foot pads in front. Ensure that the front of the device is higher than the rear. A proper position is while the angle between the bottom of the device and table is about 30°C which is beneficial for drying of sterilization load and minimizing distilled water consumption.

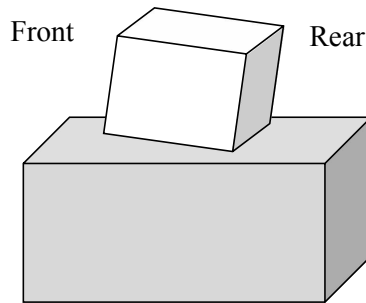


Figure 2.1 Adjust height for the device

2.4 Connections required

2.4.1 Power connection

- Power supply of 230V/50Hz. Max. voltage range of 200V ~ 250V
- Dedicated 16A power outlet. Protection from leakage current 30mA.
- Make sure the power cable is not knotted or jammed (e.g. between the doors or windows)
- Never unplug by pulling on the power cable. Always take hold of the power plug itself.
- Never lead the cable along a source of heat.
- Never use sharp objects to fix the cable.
- Never change the main cable or power plug. Never use a damaged power cable or plug.
- Never operate the device if the plug or power cable is damaged. The power cable and plug should only be replaced by authorized personnel.



2.4.2 Feed water supply

The autoclave does not come with internal water reservoirs. An external water container is needed. Take out the distilled water pipe from the accessory bag. Put the end with filter inside the distilled water container and connect the other end to the distilled water inlet at the rear of this autoclave (Fig. 1.3). Fill the contained with fresh distilled water before operating the autoclave.

- Use distilled or demineralized water that meets the requirements listed in EN 13060 Appendix C. Unqualified feed water may cause corrosion of instruments;
- Conductivity $\leq 20\mu\text{s}/\text{cm}$;
- Feed water pressure $\leq 30\text{ Kpa}$;
- A 12L container can supply distilled water to the autoclave for more than 20 cycles. Please pay attention to the water level in the container and fill it in time to avoid program abort due to no distilled water;
- The cap of the distilled water contained must always be screwed tight to ensure cleanness of the feed water;
- Please clean the container at least once in a month;
- This device has water quality monitor. When fed with unqualified water, the autoclave will not work properly and but give warnings about water quality. Please change high quality distilled water immediately upon seeing the warning message;
- Please consult the manufacturer before using a water treatment unit.
- All water pipes connected at the rear of the autoclave are recommended to face downward and fixed firmly without bend or knot.



2.4.3 Waste water draining

Take out the drain pipe from the accessory bag. Connect it to the waste water outlet at the rear of the autoclave (Fig.1.3) and fix it tightly. Put the other end to the waste water sink.

- All water pipes connected at the rear of the autoclave are recommended to face downward and fixed firmly without bend or knot.



2.4.4 Printer connection (Optional)

Take out the power cable and data line from the printer package. Connect the data line from the printer to the DB9 connector at the rear of the autoclave (Fig. 1.3) and screw it tightly. Connect the original power cable that comes with the printer to supply power. Load paper roll before switch on the printer. The power switch of the printer is at the rear side of the printer.



- Please use the original power cable that comes with the printer;
- Status light (Red) ON indicates lack of paper;



- The autoclave has built-in memory that can store up to 4000 sterilization records. Sterilization records can be exported to external portable storage device any time through USB I/O (Fig. 1.3)

2.5 Record of Installation



- As documentation of proper installation as well as for warranty claim, the record of installation must be filled by person responsible.

2.6 Transportation

This device must be stored and transported in an environment that has air humidity level lower than 85% and ambient temperature -20 °C ~ 55 °C.

Before moving the autoclave, please run the drain program first. Then take off all pipes at the rear of the device (distilled water pipe and waste water pipe). If a printer is connected, please disconnect the printer data line as well. If the mounting rack and trays are placed in the chamber during the move, please put foam between the rack and chamber door to avoid abrasion or damage.

If the autoclave need to be transported for long distance, it must be put back to its original package. Please make sure the box is sealed carefully after loading the autoclave.



- Please run drain program to drain residue water in it before moving or transporting the device.

3 First time using

3.1 Start up

Toggle the power switch to turn it on. The power switch position is in the lower right corner of the internal view of the product.

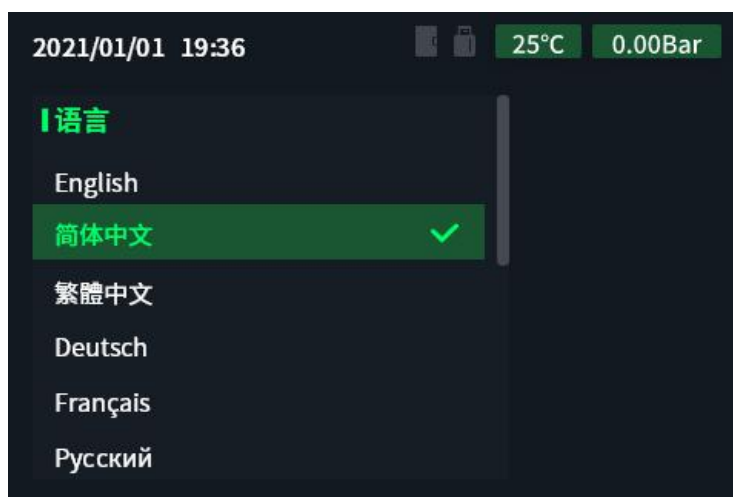





- Before using for the first time, please be sure to remove the latex plug at the air filter installation hole on the back of the product, and install the air filter included in the accessories.

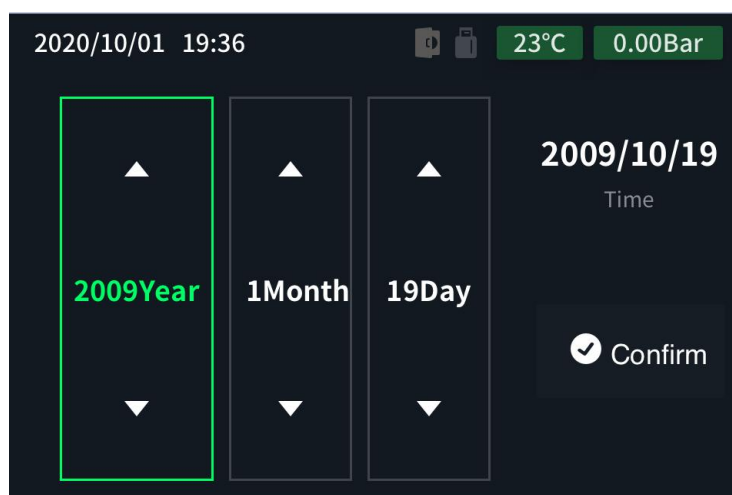
3.2 After booting





After turning on the device for the first time, please follow the automatic prompts of the system to set the language and time .

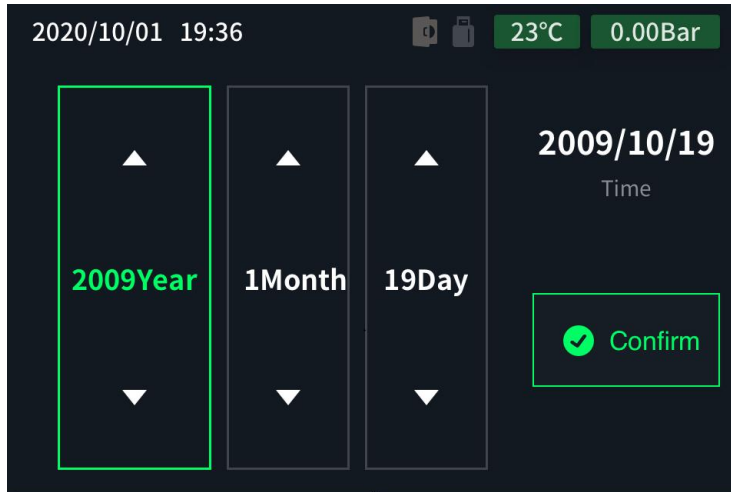
The first operation process is as follows:




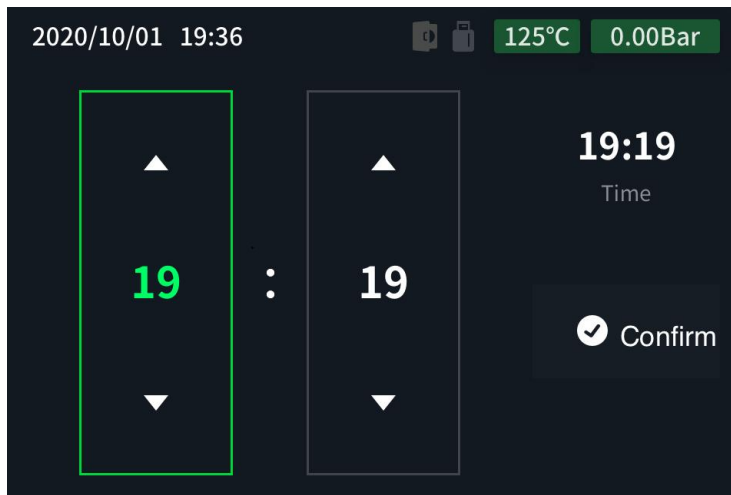
- Press  the or  key to select the language, and press the key to confirm. 






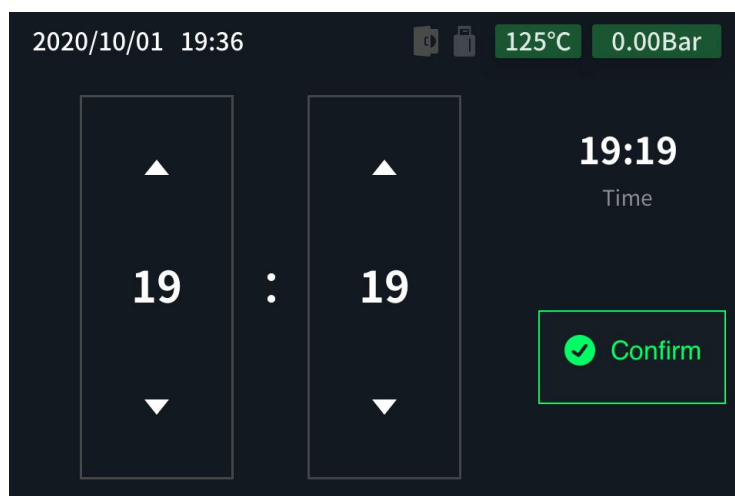
- Press  the or  key to adjust the year, press the key to confirm, and enter the month setting, and   press the key again to enter the day setting.



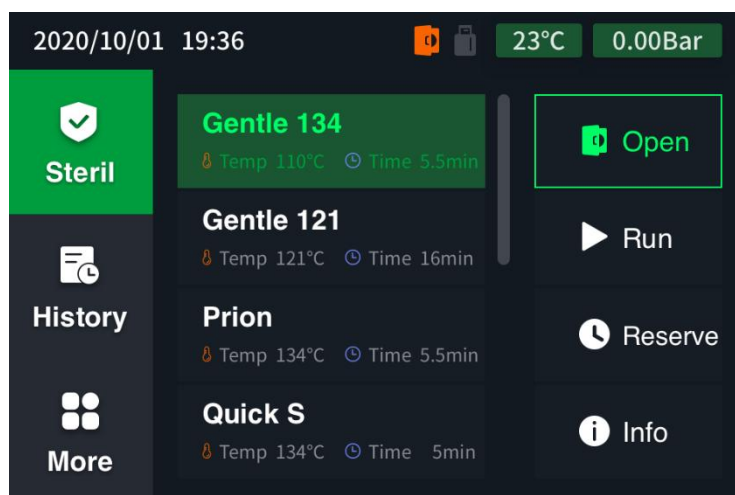
- After the date setting is completed, select the confirmation menu and press the key to enter the time setting. 




- Press  the or  key to adjust the time, and press the key to confirm. 



- Time setting complete
- After the time setting is saved, enter the system home page.



3.3 Switch door

Door opening operation: select the door opening menu in standby mode, click  the button to open the door , the door lock mark in the system status bar will change status, indicating that the door lock has been opened, at this time, open the door handle on the right side of the front door panel of the product upwards 90° C left and right, then pull the door outward.

Door closing operation: close the small steam sterilizer door, and turn the door handle down to the end.



- When closing the door, please press the door handle down to the bottom at one time, the required force may increase after a period of use.
- Do not slam the door hard at any time.
- Failure to comply with the above requirements may affect

the function and reliability of the door locking device.



- Only open the door when loading and unloading, and keep the door closed at other times to save energy.

3.4 Verification of sterilization effect

A small steam sterilizer is newly installed or used for 12 months or repaired, BD test should be carried out without load and physical monitoring, chemical monitoring and biological monitoring should be carried out at full load. It can be used normally only after the monitoring is qualified.

4 Sterilization

4.1 Load the autoclave

Mounting rack and trays are standard accessories that come with the autoclave. Only the space framed by the rack is effective sterilization space. The outer rim of the chamber is too close to the chamber wall, hence loads may get wet or scorched. Please use the original mounting rack and trays that have ventilation holes at the base.

Proper loading is the key to effective sterilization and good drying results. The below instructions must be followed carefully to load the autoclave properly:



- Only use packaging materials and systems which meet EN 868 standard;
- While sterilizing instruments wrapped in plastic paper pouches, the paper side must be facing upward;
- While sterilizing mixed loads, always place textiles at the top;
- Leave sufficient room between pouches;
- The total loaded space should not exceed 90% of the chamber space.




4.2 Select a sterilization program

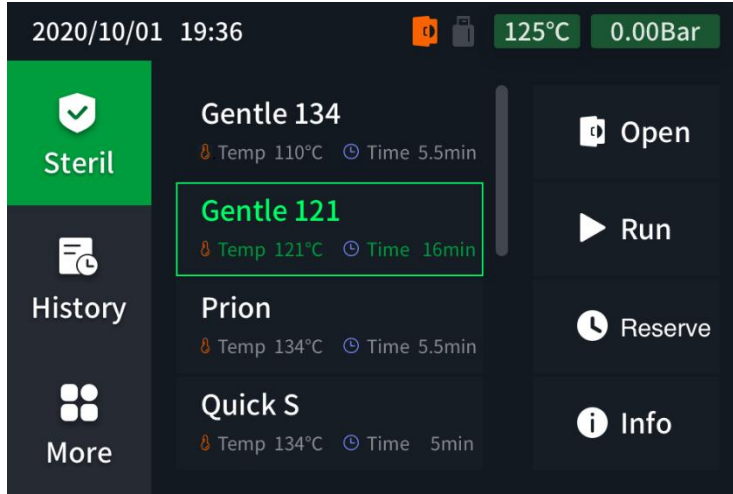
This product has 7 preset sterilization programs. Please select the appropriate sterilization program according to the load type and packaging material. The parameter setting and typical load description of the sterilization program are shown in the table below.




Table 3 -1Sterilization program and parameter settings

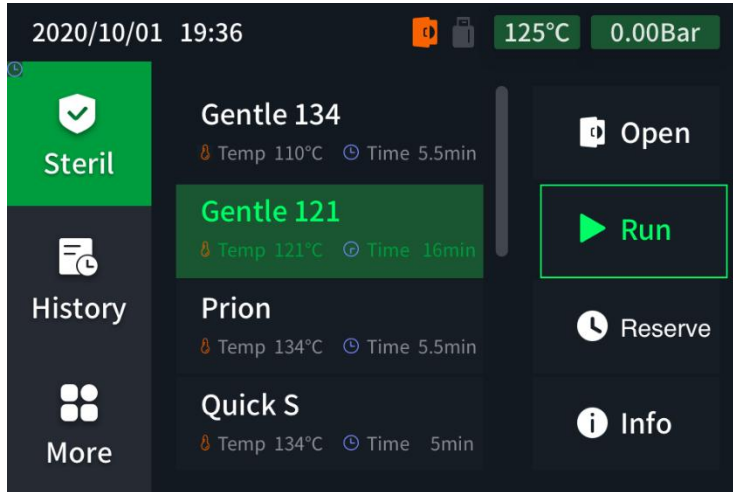
program name	temperature (°C)	hold time (minutes)	drying time (minutes)	Sterilization load
Standard 121 Procedure	121	> 15	1-99	Small amounts of fabric, heat-labile appliances
Standard 134 Procedure	134	> 3	1-99	Mixed loading, long-body hollow instruments and other complex instruments
134+ programs	134	> 3	1-99	Mixed loading, long-body hollow instruments and other complex instruments
quick procedure S	134	> 3	1-99	Simple solid instruments, transmission instruments, hollow instruments.
Express Procedure B	134	> 3	1-99	Packed instruments or unpacked simple solid instruments.
prions _ program	134	>20	1-99	Heat-resistant instruments suspected of being infected by prions
fabric program	121	> 15	1-99	the fabric

Select the sterilization program as follows:

Enter the second-level menu of sterilization on the home page, press  or  to select the desired sterilization program,  and press the key to enter the third-level menu of the selected sterilization program.



- Press  the or  key to select the sterilization program, press the key to enter the submenu .



4.3 Accessibility options

4.3.1 Preheat setting

The automatic preheating function can make the product reach the set temperature before the program starts, greatly reducing the time required for each sterilization.



After turning on the automatic preheat setting, the chamber will automatically heat up to 110°C. Please be careful of burns!

4.3.2 Print automatically


After the automatic printing function is turned on and the product is correctly connected to the printer, the product can automatically print the sterilization record after the program ends.

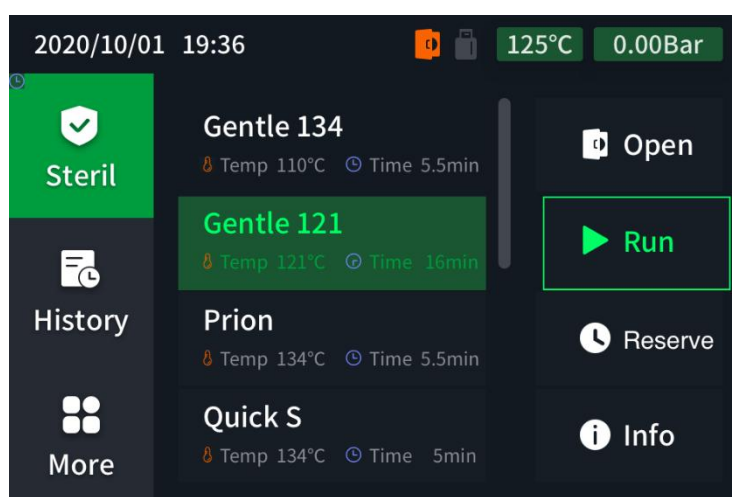
4.3.3 Extra dry


Additional drying settings can be made according to user preferences. On the basis of the drying time in Table 3-1 , the drying time of the preset sterilization program can be extended to achieve a good drying effect for the load, especially cotton fabrics.

4.4 Run a sterilization program

4.4.1 Start to sterilize

After selecting the sterilization program, select the run menu and click  the button to start the sterilization. The product will ensure the door is locked and monitor the distilled water quality after the program starts .

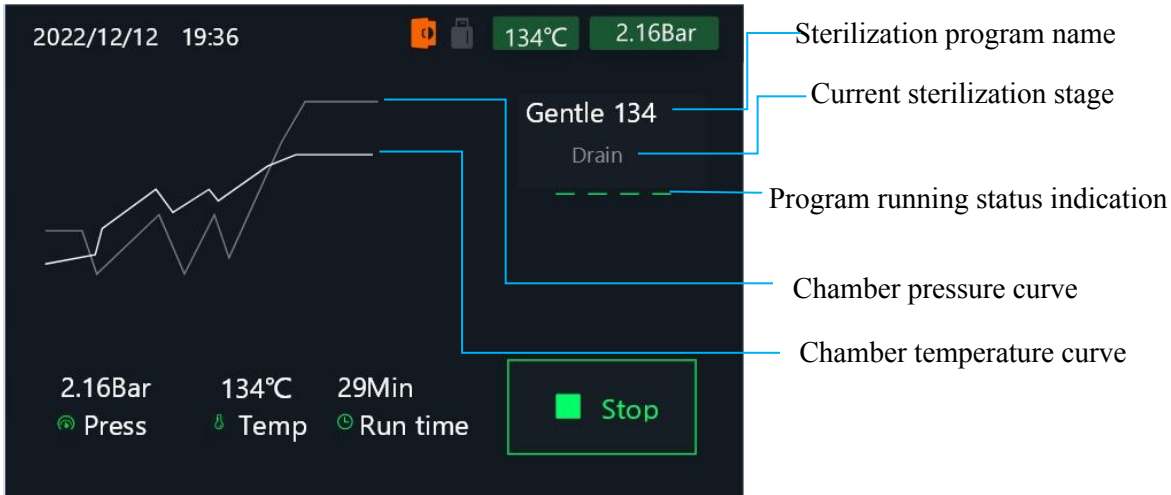


- Select the run menu and press the key to start  the sterilization.

4.4.2 Program running process

The sterilization program operation process includes 3 stages, pre-vacuum, sterilization and drying. The controller monitors the operation of the equipment and the temperature and pressure in the cavity in real time, and displays relevant information on the screen.

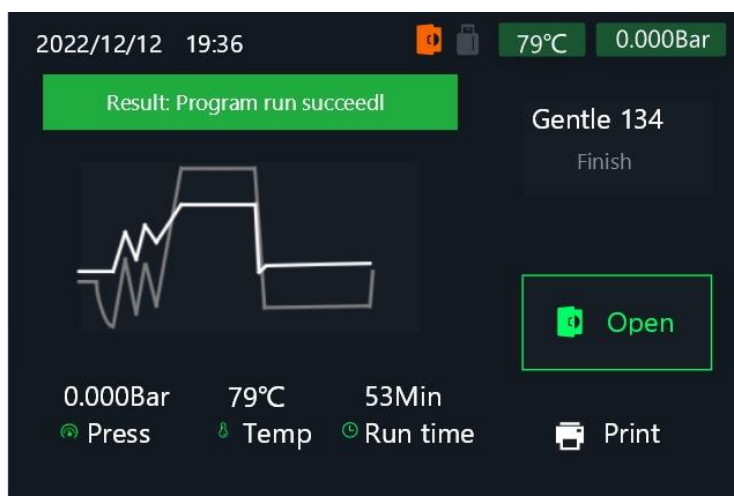
When the water quality is poor during the running of the program, the running interface will prompt the poor water quality



When the temperature of the main board is higher than 80° during program running, the running interface will display a high temperature prompt



After the program runs, the running result will be prompted



4.5 Manual stop

A running program can be stopped manually at any stage. If the sterilization process is stopped before drying begins, the load is not sterilized. If the sterilization process is stopped manually after drying has started, the load has been effectively sterilized but not sufficiently dried. For the case of full packaged items, the possibility of wet packs is very high, and these items will not be able to be stored, because aseptic storage requires high dryness of packaged items.

After the program has been manually stopped, hot steam may come out when the door is opened and cause burns!




- Do not touch the product , contents, cavity or door cover with bare hands;
- Always use the tray handles to grab loads.

Stopping the sterilization process manually at an early stage may lead to infection!





- When the sterilization process is manually stopped before drying begins, the load is not effectively sterilized and the use of these items may endanger the health of the operator and the patient;
- If necessary, the load should be repacked for sterilization.

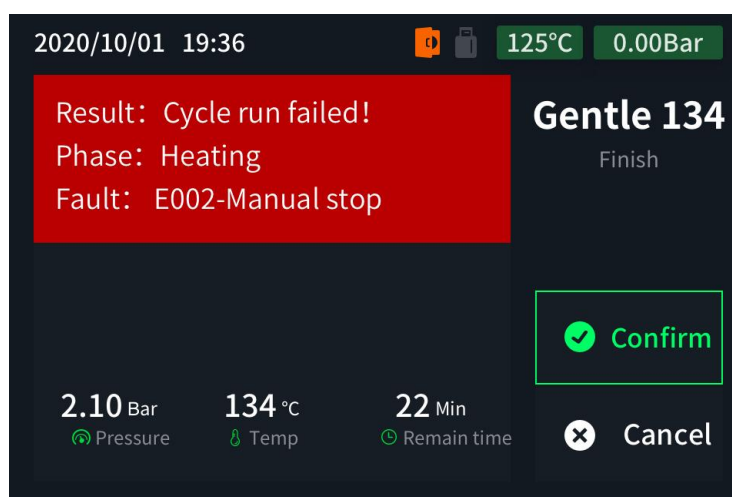
If it is determined that the current program needs to be stopped manually, in the sterilization interface,

please click  the key. After the manual stop, the screen displays the program end interface and manual stop fault information, and the intelligent controller immediately handles it according to the current situation, so that the inside of the cavity reaches a safe pressure, and other parts of the equipment also ensure a safe state. After the equipment reaches the safe state, the controller allows the

operation of the door open button. The time required and the program running state when the machine is manually stopped usually take a few minutes.




- 
 Select the confirmation menu and press the button to stop the sterilization
 



4.6 Sterilization program complete

The sterilization program ends normally, the screen displays the program end interface and the message of successful program operation. If the automatic printing function is set and a printer is

connected, the product will automatically print the sterilization record. Click  the key to open the door.

Be careful of burns!



- Do not force the door open. Failure to do so could result in damage to the product and/or hot steam rushing out of the cavity.
- After the sterilization, wait for a period of time until the product is fully cooled before opening the door;
- Do not touch any metal surface;
- Do not touch the sterilized loaded items, cavity and door

cover with bare hands to avoid burns;

- Always use the tray handles to remove loads;
- Balance the tray when removing it to prevent the contents from slipping off.

Instruments or items with damaged packaging may not have been effectively sterilized and contact with these items could endanger the health of the operator or patient.



- If damaged packaging is found, please repackage and sterilize the item.
- Waiting for 5 minutes after the sterilization is finished before taking out the loaded items is conducive to the drying of sterile items;
- 11th edition (2017) of the correct method of cleaning and disinfection of medical devices issued by the international authoritative organization AKI Germany recommends that the criterion for judging the wet package is that there are still residual water droplets on or in the package 15 minutes after the end of sterilization.



- Physical parameters should be monitored and process variables recorded and checked for each sterilization cycle. When the sterilization temperature set for this cycle is 121° C, the maintenance time should not be less than 15 minutes; when the sterilization temperature set for this cycle is 134° C, the maintenance time should not be less than 3 minutes.
- Chemical monitoring should be carried out for each sterilization cycle. By observing the color change of the chemical indicator, follow the information and requirements provided by the indicator manufacturer to determine whether the sterilization requirements are met.

4.7 Storage of sterile items

The storage time of sterile packs after sterilization varies with the packaging material and storage conditions. It can be stored for up to 6 months under the conditions of full compliance with specifications.

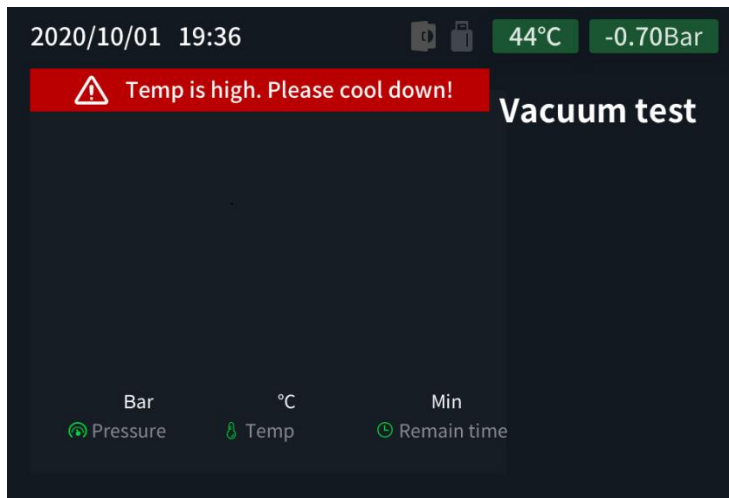


- Please follow the packaging material manufacturer 's recommendations or regulations for the storage time of the sterile pack;
- Do not store sterile items in contaminated areas;
- Sterile items must be stored in a dust-free, dry environment (except water , other liquids such as alcohol, disinfectants, etc. should also be avoided), and a suitable temperature environment.

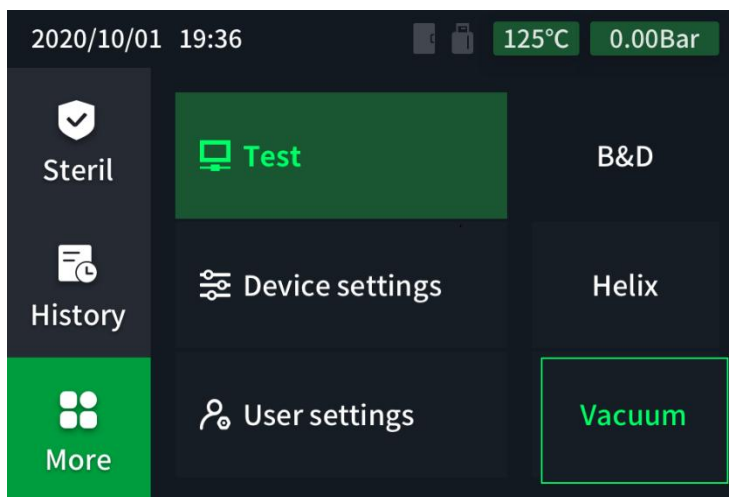
5 Function tests and other programs




5.1 Vacuum test

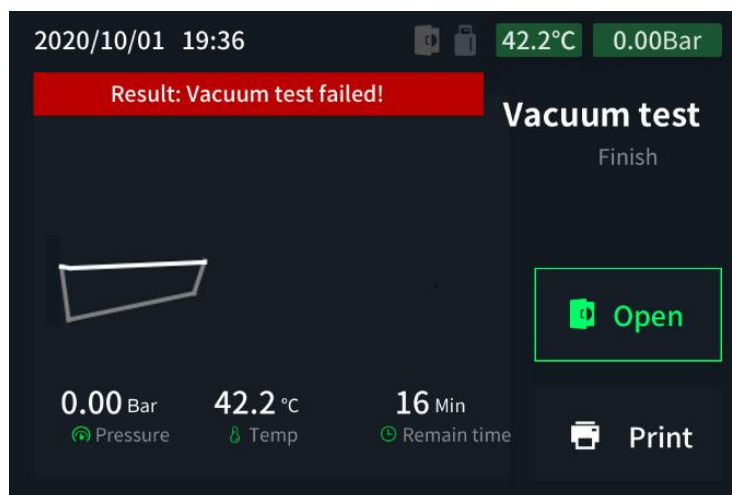
When installing for the first time, after a long period of non-use, after moving, or during regular inspections, it is recommended to perform a vacuum test to detect the degree of leakage of the product system. The Tester menu is located under the More menu. Before the vacuum test, make sure that the temperature in the cavity is lower than 45°, and if the temperature is too high, a relevant high temperature prompt will be given on the running interface.



The vacuum test operation is as follows,



Press  the or  key to select the vacuum test program, press the key to start 



- The vacuum test should be carried out when the system is cooled and the cavity is kept dry;
- In order for you to successfully complete the vacuum test procedure, please check that the product door is closed and the cooling water valve is open before starting the procedure.

After the vacuum test program is started, when the pressure in the sterilization container reaches the relative vacuum value specified in the standard, the vacuum system stops and a 5-minute balance time is started. After the balance time is over, a 10-minute vacuum test is started. After the test is completed, the system returns to to normal pressure.

After the vacuum test is over, the system will prompt the result on the program end interface and save the record in the memory. If the automatic printing function is set and a printer is connected, the test result will be printed at the same time.

When the vacuum test is passed, the prompt message on the interface is " Result: Vacuum test successful". It shows that the leakage rate of the system meets the requirements.



The print information is as follows:

Temperature: 37.0 +1.0/-0.9 ° C
 Leakage rate : 0.00 kPa/min Leakage rate : <0.13Kpa/min
 Leak Test: (0.13 max)-Pass!

When the vacuum test fails, the interface prompts the message " Result: Vacuum test failed". Indicates that the leakage rate of the system does not meet the requirements.

The print information is as follows:

Temperature: 37.0 +1.0/-0.9 ° C
 Leakage rate : 0.15 kPa/min Leakage rate : >0.13Kpa/min
 Leak Test: (0.13 max)-Pass!



- If the vacuum test fails, do not continue to use the product and contact the manufacturer or authorized dealer immediately.

5.2 B &D testing

B &D test is used to check the steam permeability of this product to porous porous loads, such as cotton fabrics. Select B &D test in the test program interface .



- Please follow the information and requirements provided by the test kit manufacturer for the test method and test result

judgment ;

5.3 Helix test

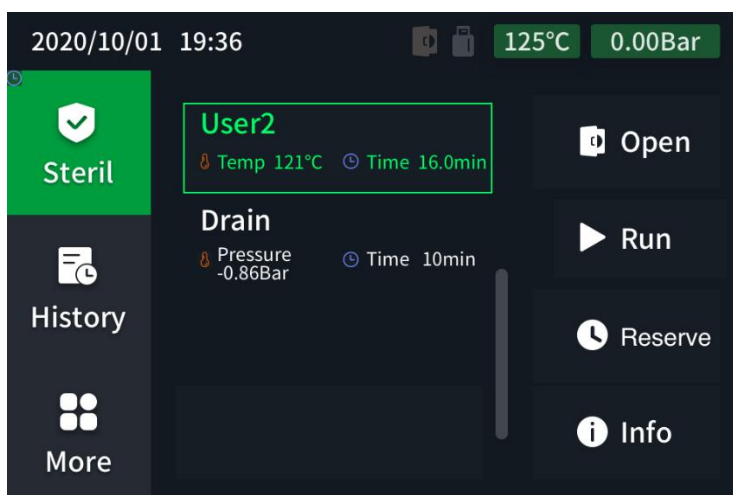
The Helix test is used to verify the steam penetration and saturation of this product for Class A lumen devices, such as dental handpieces. Select the Helix test in the test program interface .



- Please follow the information and requirements provided by the test kit manufacturer for the test method and test result judgment .

5.4 Drainage procedure

This product supports the user in performing the drain procedure when required. This program is used to drain residual water from small steam sterilizers. The Drain program menu is the last one in the Sterilization menu .

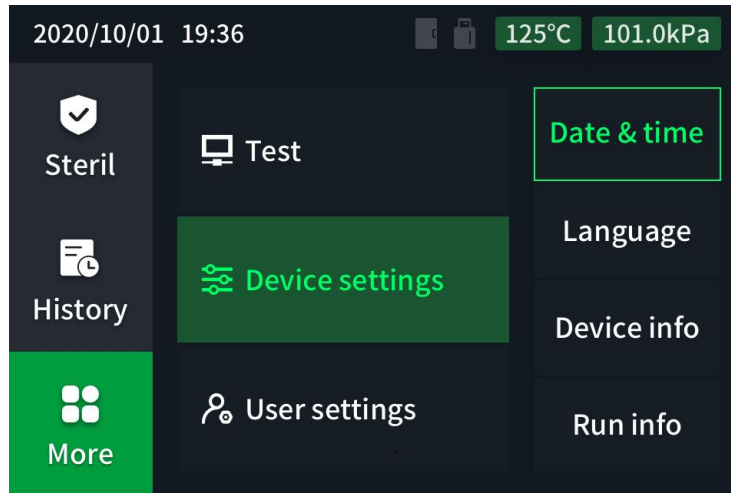


- When there is obviously water in the bucket after opening the door, it is recommended to use the drainage program before loading the items for sterilization, especially when the program is abnormally terminated, this situation is likely to occur, please open the door to check;
- Use the drain procedure before handling this product.

6 Settings

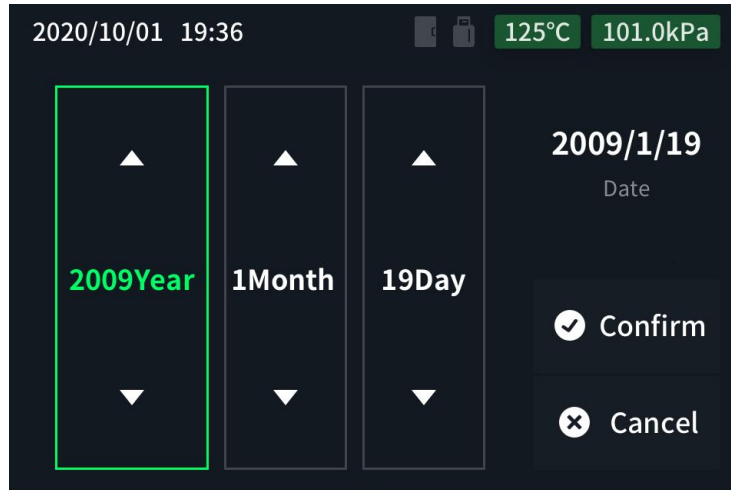
Enter the device setting interface to set the date and time , language setting , view device information and view machine operation information .





Entering the user setting menu needs to enter the user password.

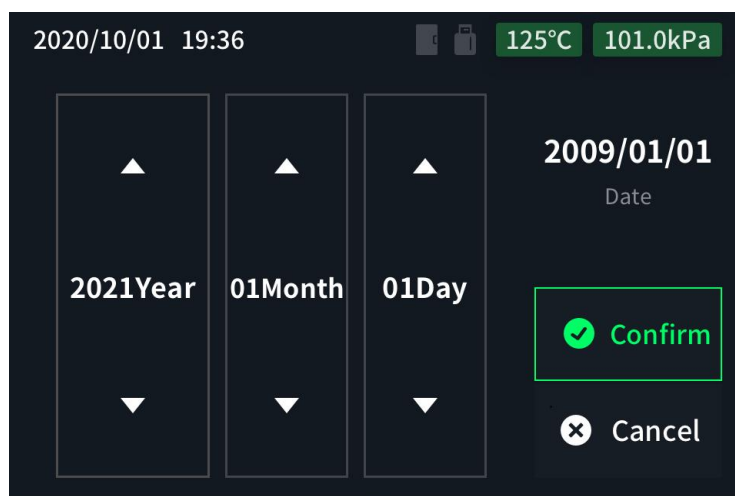



6.1 Date and Time Settings

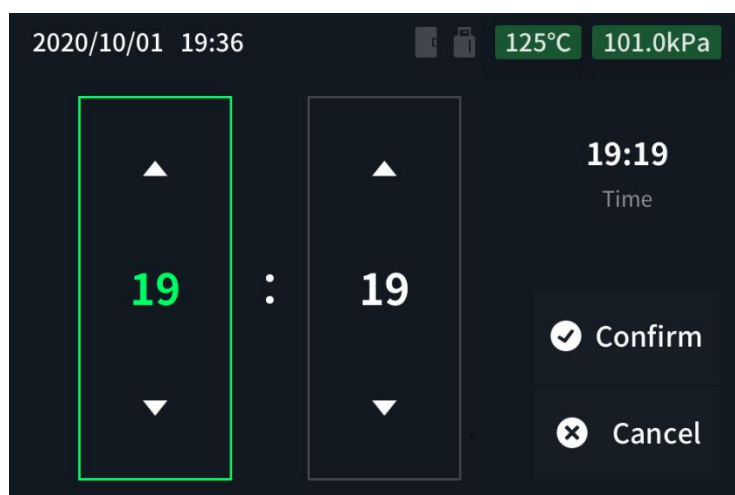
Enter the date setting menu, the date setting operation is as follows:







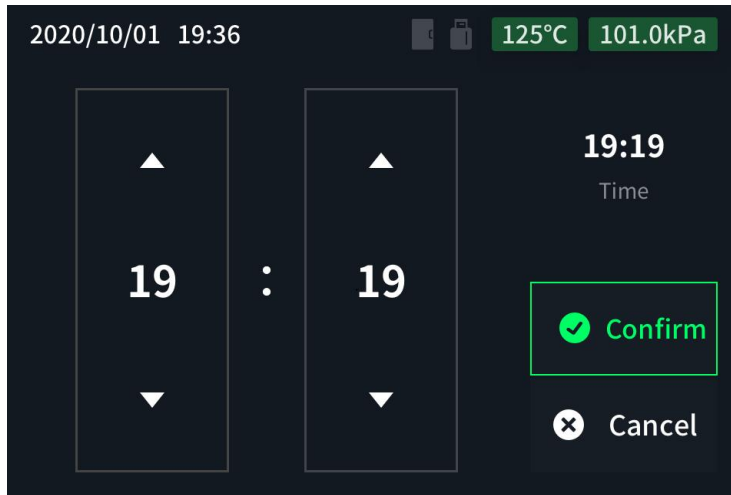
- At this time, press the  and  keys to add and subtract the date information, and press the  and  keys to switch between the year, month, and day.




- After the setting is completed, select the confirmation menu, press  the save date setting, and automatically enter the time setting.






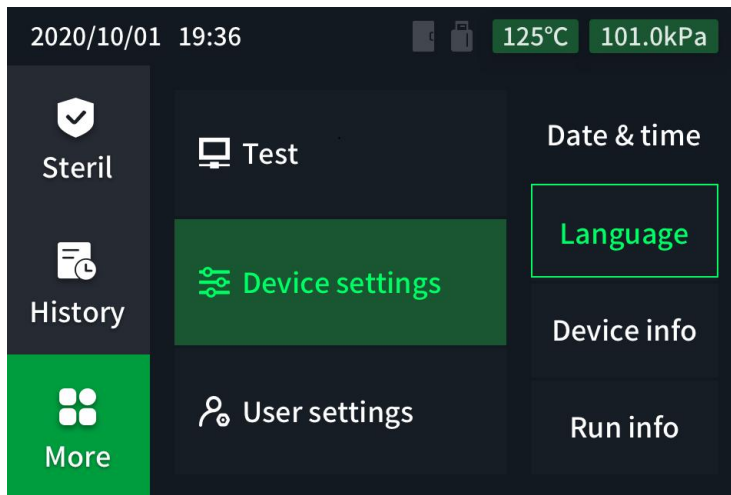
- At this time, press  and  keys to add and subtract time information, and press  and  keys to switch between hours and minutes.




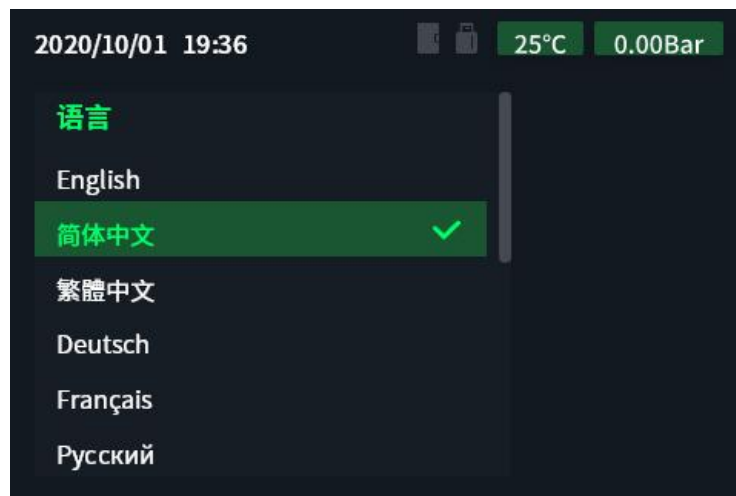
- After the setting is completed, select the confirmation menu and press  Save Time Setting.




6.2 language settings

Click the [**Language**] menu to enter the language setting interface, select the language  through  the and  keys , and click to complete the setting.

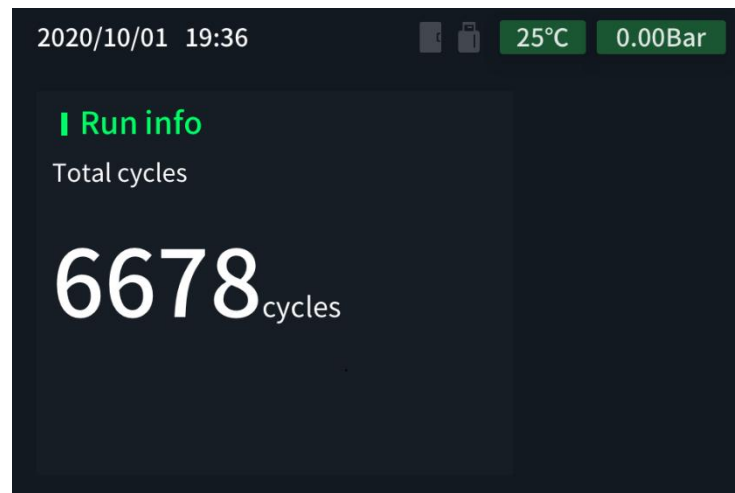


Select the language menu, press the key to enter the language setting. 



- At this time, press the  and  keys to select the language, and press to  exit the language setting after the setting is completed .

6.3 Running information

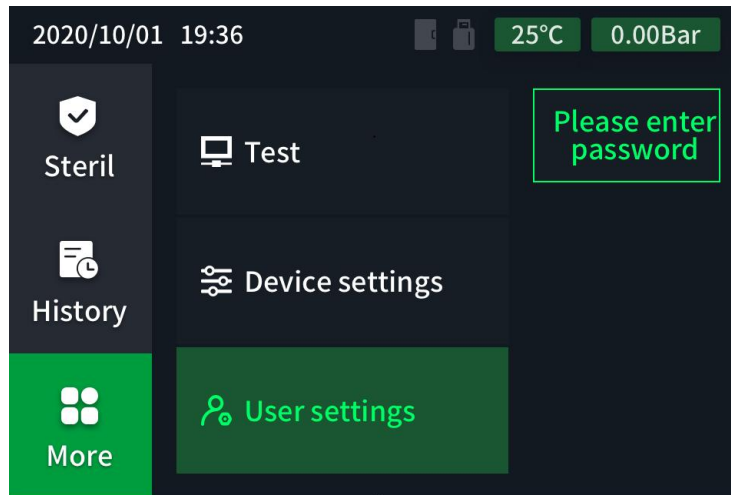



Running information can view the number of sterilizations that the equipment has currently run

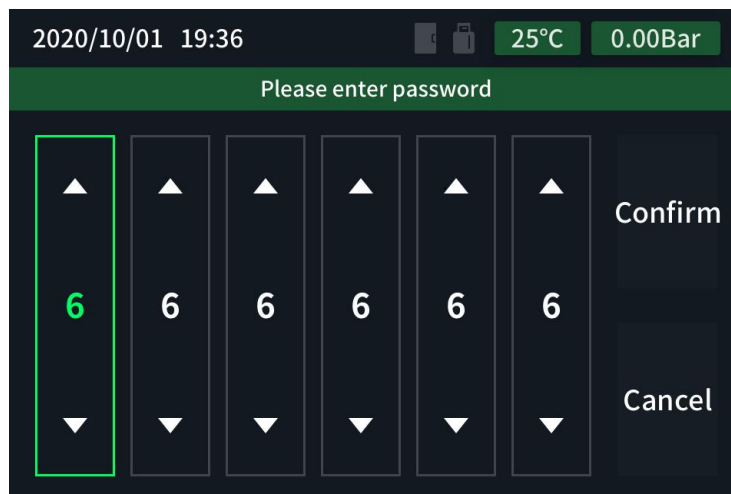
7 User settings





Enter the user setting interface to perform automatic preheating, automatic printing, water quality testing, additional drying settings and password settings, system reset, pressure calibration, maintenance information viewing, and custom program parameter settings .

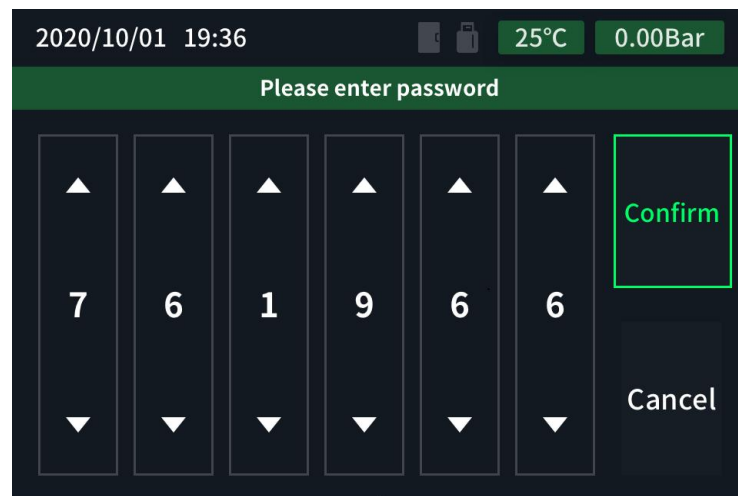
Entering the user setting menu needs to enter the user password.




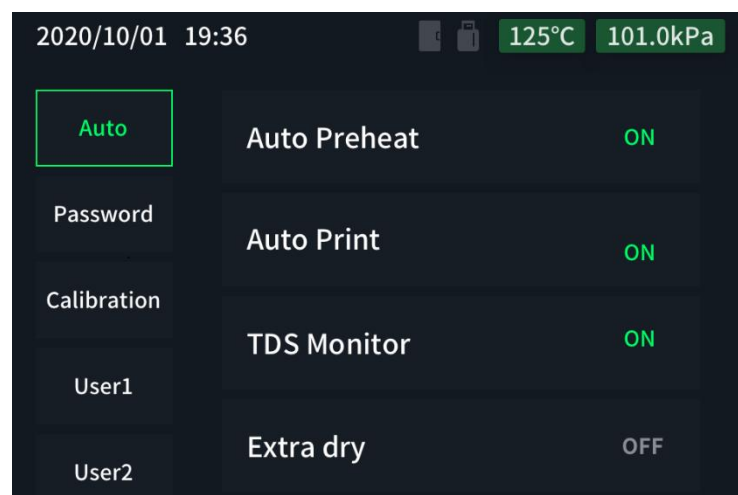
-  Press the key to enter the password input.



- Press  the or  key to adjust the password, press the key to enter the next one, and 
 press the key to return to the previous one.



- After entering the password, press the key to enter the user setting. 

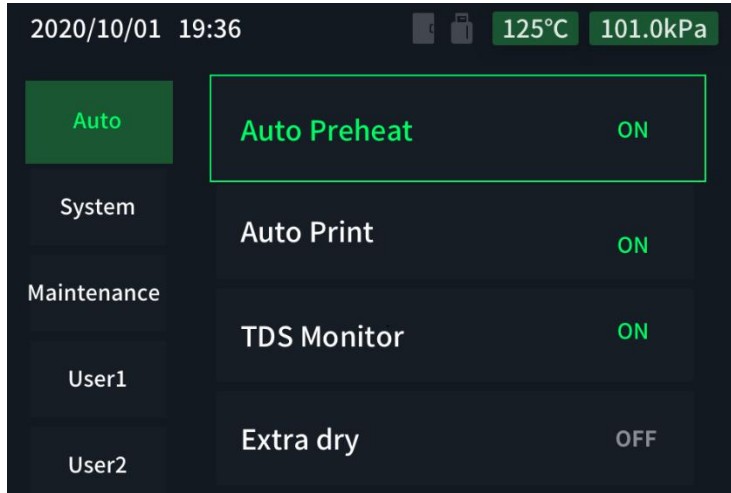



7.1 automatic setting

Automatic settings can configure some common control options of the device.

7.1.1 Automatic preheat setting

The automatic preheating setting operation is as follows:



- Select the automatic preheating menu, and press the button to turn on and off. 

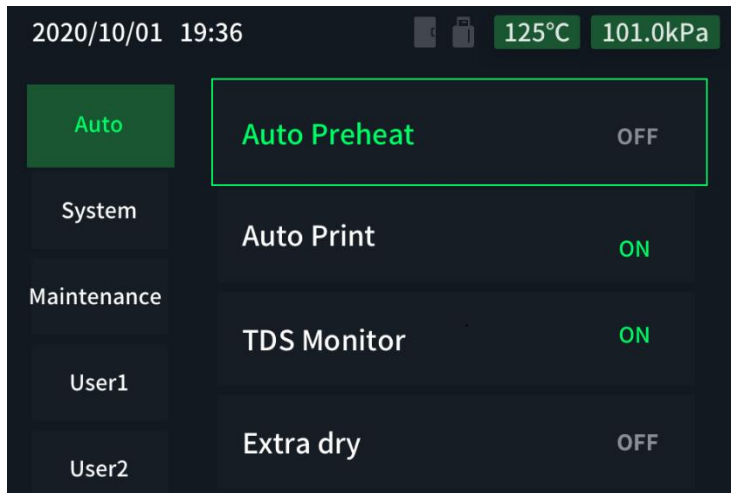


Figure 6.2 Automatic preheating setting



After turning on the automatic preheat setting, the chamber will automatically heat up to 110°C. Please be careful of burns!

7.1.2 Automatic print settings

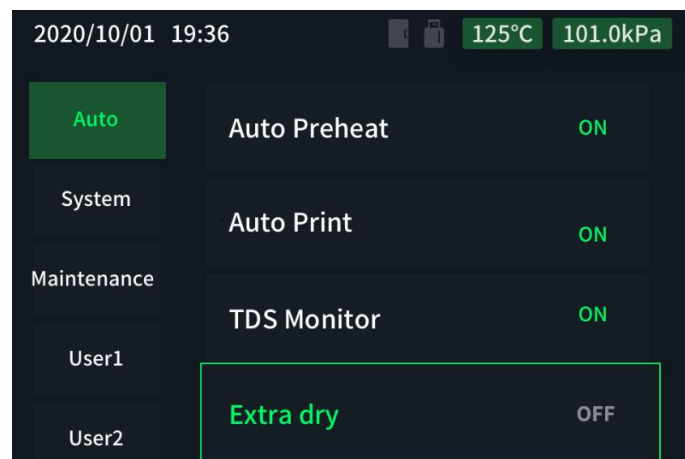
The automatic print setting operation is the same as the automatic preheating setting

7.1.3 Water quality testing settings

Water quality detection setting operation is the same as automatic preheating setting

7.1.4 Extra dry setting




The Extra Dry setting operates as follows:

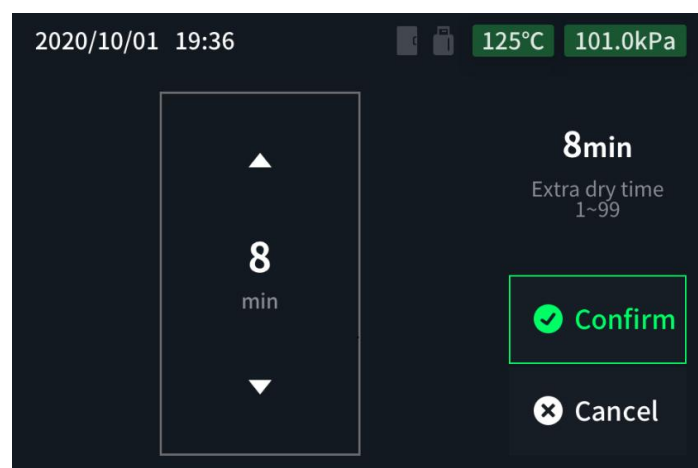


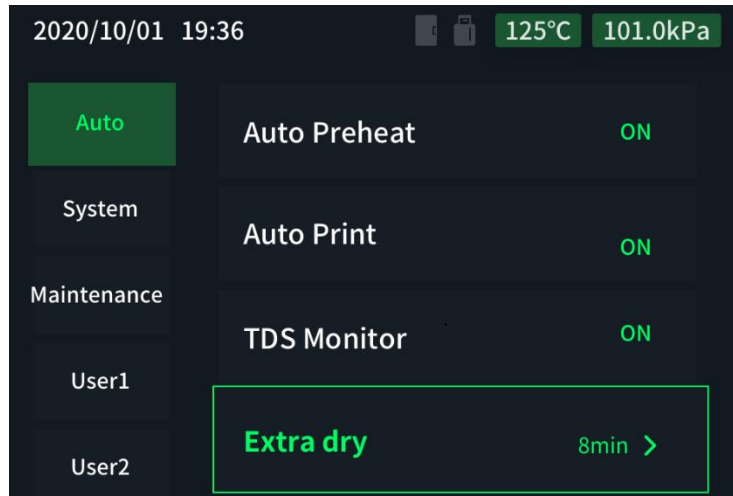
- Select the extra drying menu, press the button to start the operation, and automatically enter the




extra drying time setting after turning on.

- Press  the or  key to adjust the time, and press the key to return, which means the default value is 8 minutes. 

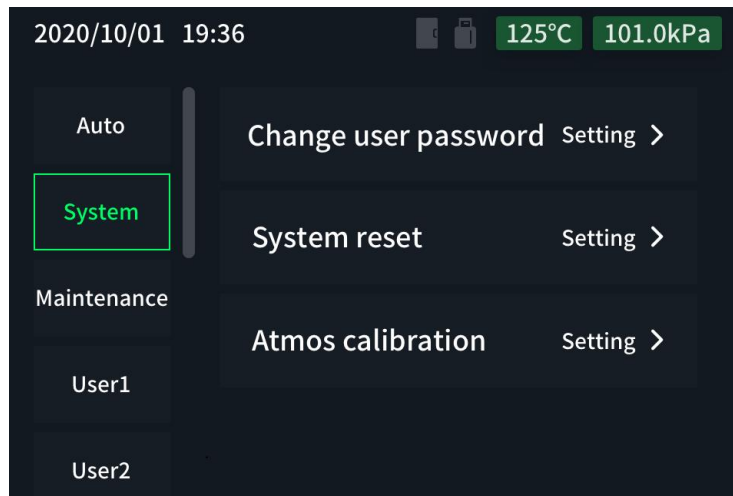




- After the setting is completed, select the confirmation menu and press Set .

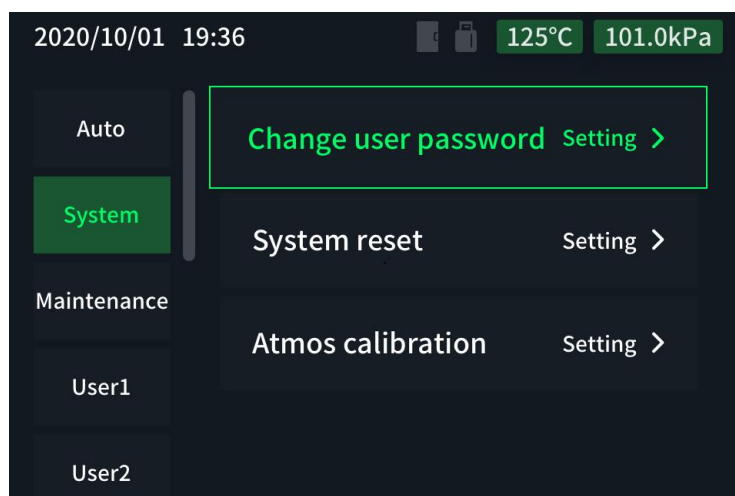
7.2 system settings


Enter the system setting interface to modify the user password , reset the system , and calibrate at normal pressure .

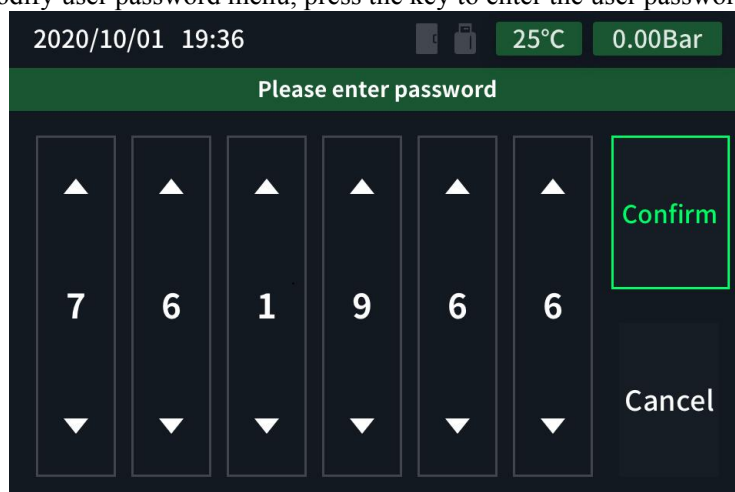









7.2.1 Modify user password

Modify the user password as follows:



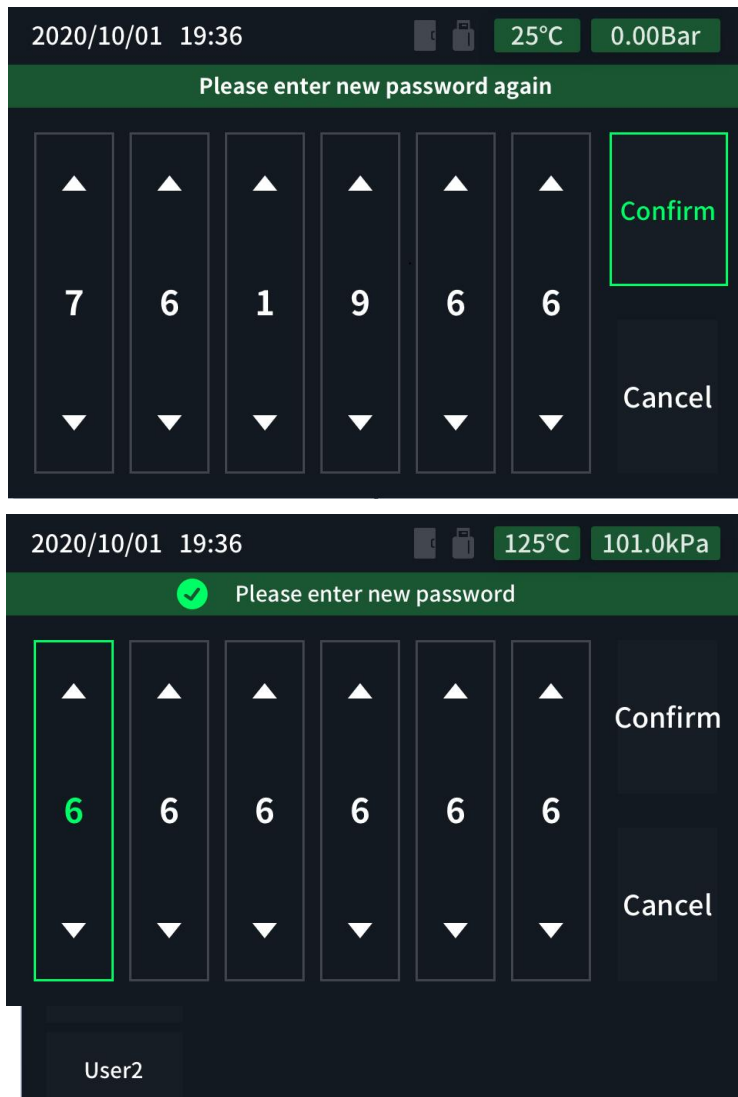
- Select the modify user password menu, press the key to enter the user password setting. 



- At this time, press the  and  keys to set the password, and press to  enter the next password setting after the setting is completed.
- At this time, press the  and  keys to set the password. After the setting is complete, select the confirmation menu and press the key  again to enter the new password.
- After entering the new password again, select the confirmation menu and press  to complete the password setting.

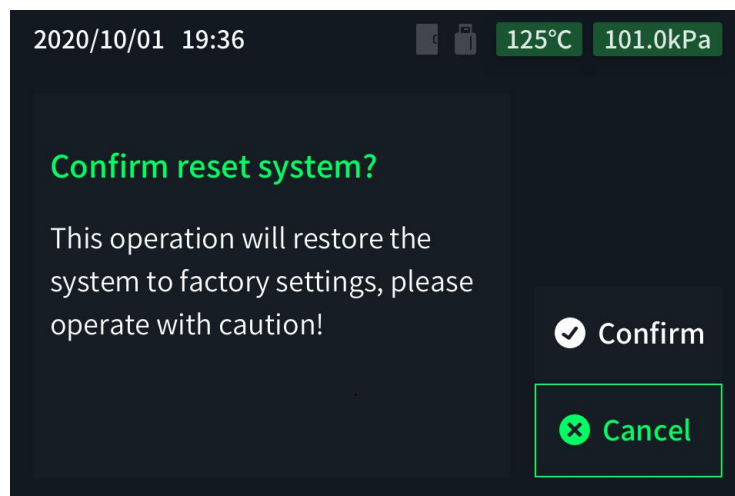
7.2.2 system reset



The system reset operation is as follows:

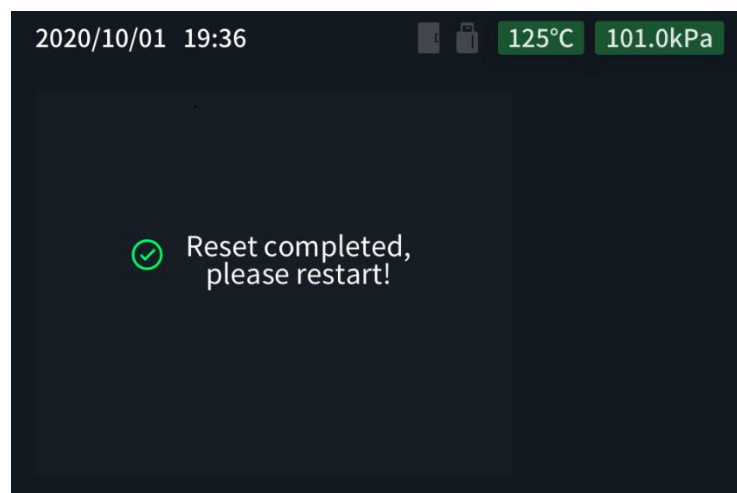


- Select the system reset menu and press the key to enter the system reset.



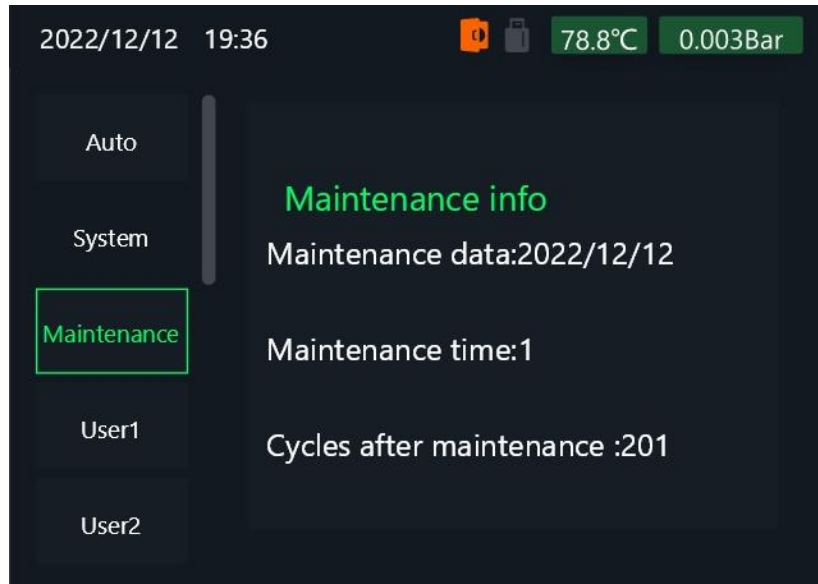


- At this time , press to select the confirmation menu, and press   to reset the system.



7.3 Maintenance

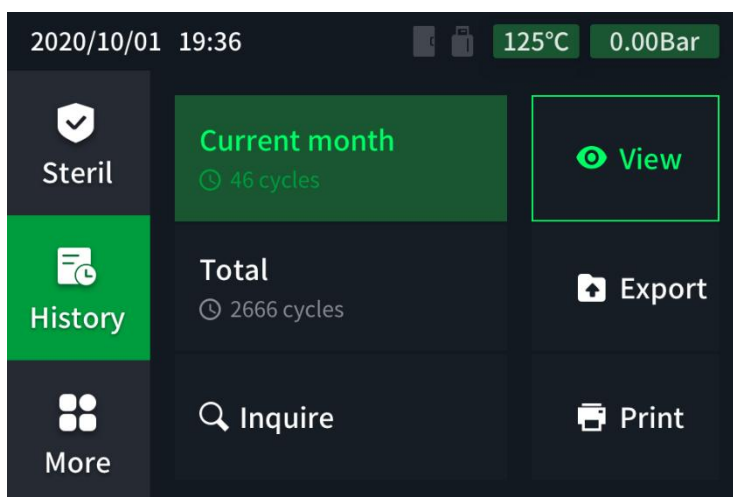
In the maintenance menu, you can check the date of the latest maintenance of the machine, the number of maintenance times, and the number of sterilization operations after maintenance



8 Sterilization records

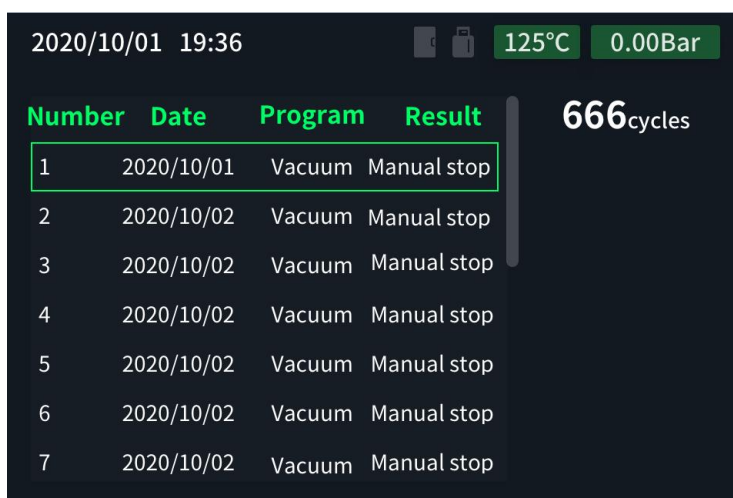
Sterilization records document and store real-time data at each stage of the sterilization process. The memory of this product can store up to two years of sterilization records. Sterilization records are named with serial numbers, such as: 0001.TXT , which can be exported through the USB interface or printed out through a micro-printer.




The historical records can operate the records of the current month, all records, or view the historical records within a certain period of time.

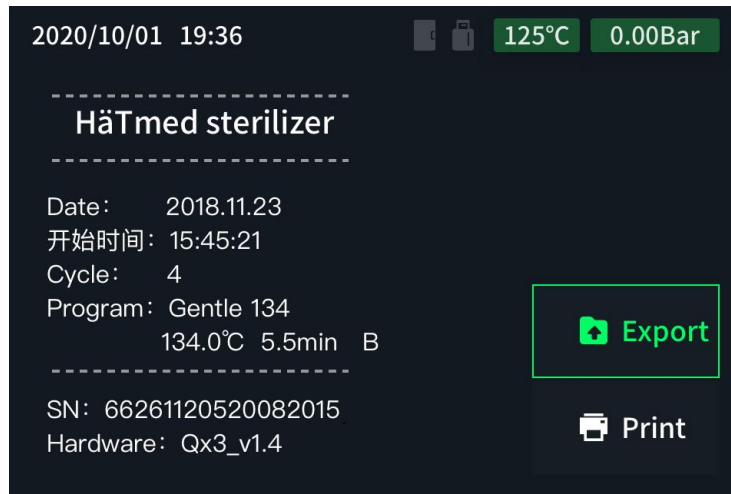






8.1 View history

- Select the View menu press  to enter the history list.



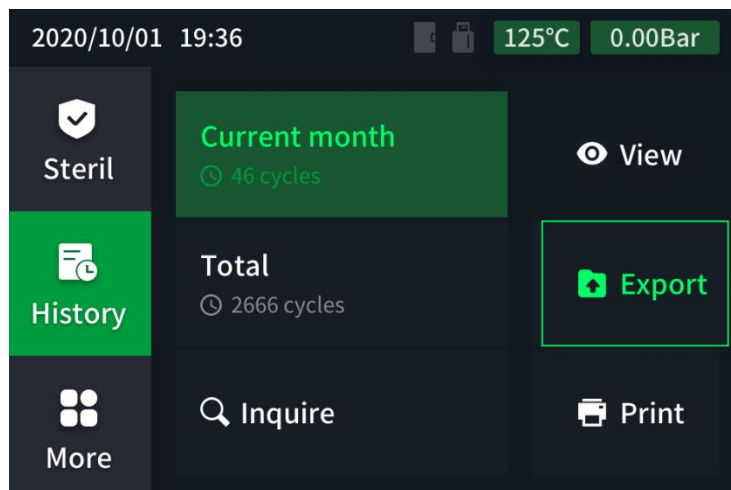
- At this time, press  and  keys to select the historical record to be viewed, and press  to view the detailed information of the record.




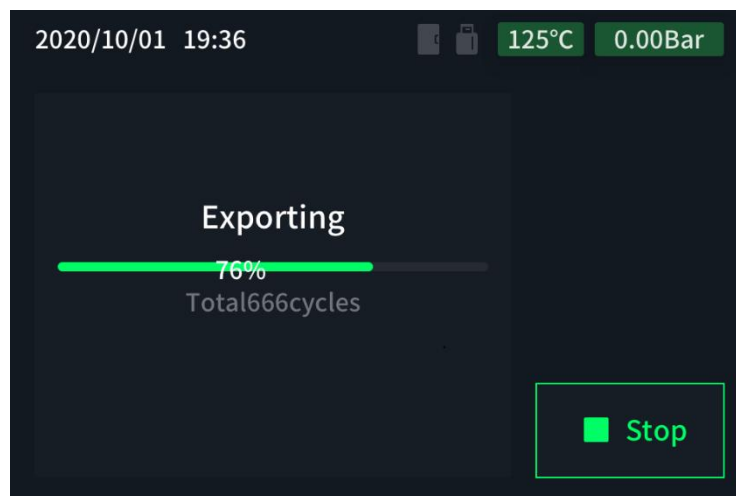
- Press  and to turn up and  down records, press  to select the export and print menu, press  to print and export a current historical record.


8.2 Export history

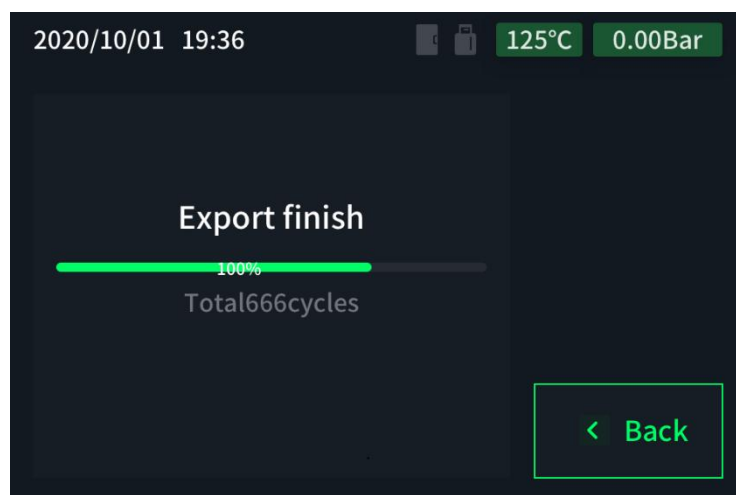
In order to keep the sterilization records for a long time, the sterilization records can be exported to the computer or portable storage device through the USB interface. Specific operation: Insert the U disk into the USB interface, export the records according to the following process, after the export is completed, the interface will display the prompt of export completion, and you can remove the U disk at this time.



- Select the Export menu button to export the records. 



- Press the key during the export process to stop the export. 

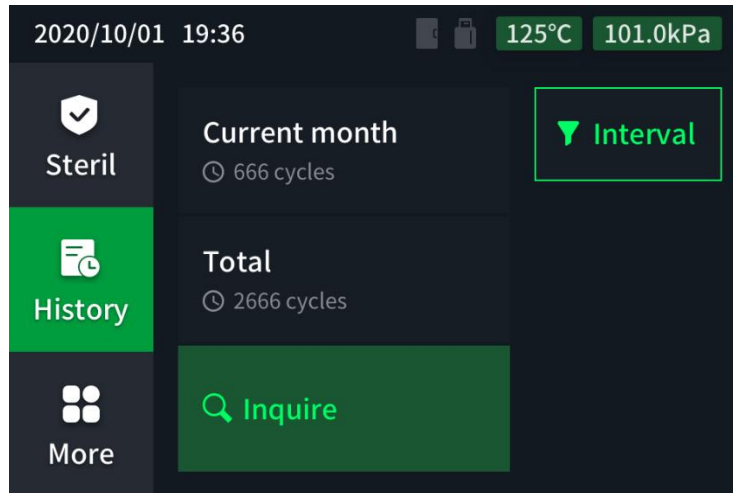






8.3 Print history

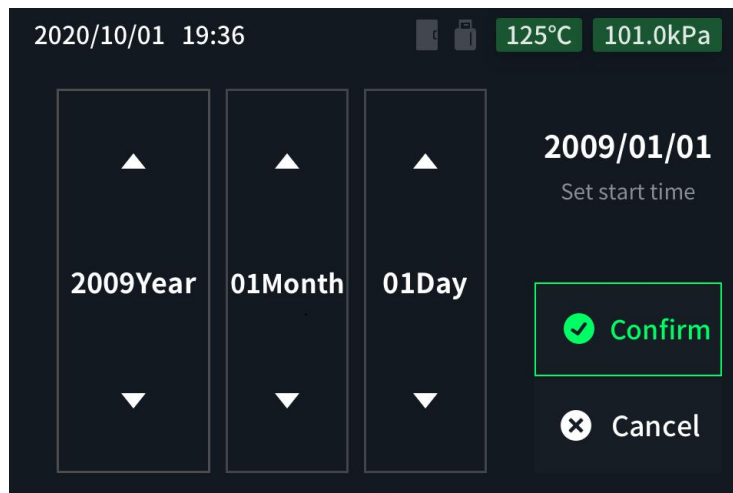
The operation of printing records is the same as exporting history records.

8.4 Query history

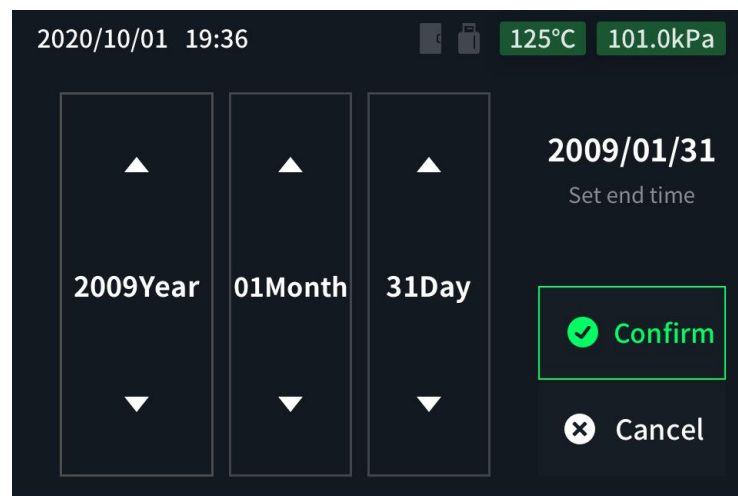
A time interval can be set to query historical data within this time period.




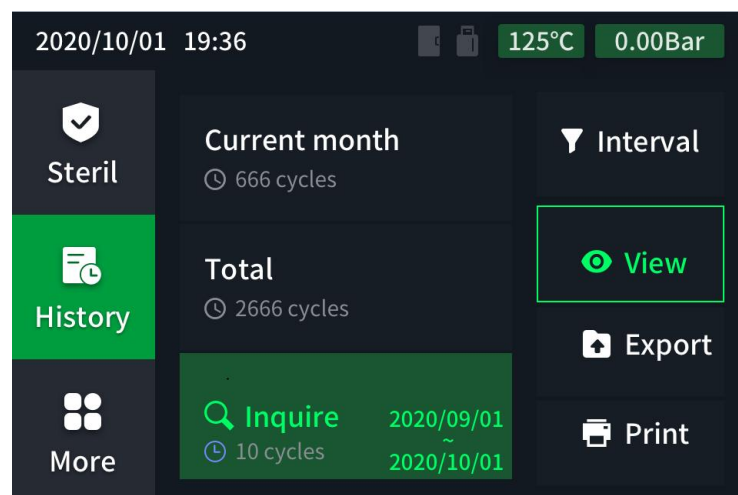
- Select the setting interval menu, press the key to enter and query the time setting. 
- Press  and  to adjust the time, press  to enter the next setting.



- After the start time is set, press  to enter the end time setting.



- After the end time is set, press  OK.



8.5 Automatic record printing

After the automatic printing function is turned on and the product is correctly connected to the printer, the sterilization record can be automatically printed after the program ends.

8.6 Record interpretation

The formats for printer output and sterilization records stored in internal memory are as follows

<pre> - - - - - - GANJ Sterilizer - - - - - - Cycle Date : 2023.04.17 Start Time : 12:57:27 Cycle No. : 3 Program : Gentle 134 program - - - - - - SN : 632603105230317AT Hardware Ver : GJx_V1.5 Software Ver : 01.00.03.31 Paramete Ver : PGJx_V01.3 - - - - - - Extern Temp : 111.6°C - - - - - - Stage Press Temp Time (bar) (°C) (H:M:S) Start : 0.004 78.6 0:00:00 1.Vacuum :-0.848 71.7 0:02:34 1.Steam : 0.304 104.3 0:04:57 2.Vacuum :-0.706 76.0 0:07:37 2.Steam : 0.314 106.3 0:09:45 3.Vacuum :-0.506 82.3 0:11:17 3.Steam : 1.545 127.0 0:15:15 - - - - - - Steril Sta: 2.202 135.0 0:18:21 Steril End: 2.193 135.1 0:23:51 Drain End : 0.019 102.3 </pre>	<p>Product number Date start time run times program Program</p> <p>The serial number of the machine</p> <p>The serial number of the machine</p> <p>initial cavity temperature</p> <p>3 times vacuuming, record pressure, temperature and time information</p> <p>Sterilization Hold Phase Sterilization Hold Complete Pressure Release Drying Start Drying Complete Inlet Sterilization Complete</p> <p>Final report, record sterilization temperature, pressure, time consumption and water conductivity</p>
--	---

9 Maintenance

9.1 Cleaning and preparation of the sterilization load

- Items to be sterilized such as hand-piece must be cleaned thoroughly before sterilization;
- Dust and other contaminants separated from the sterilization loads will clog the filters, valves and pipes in the autoclave. Hence, load not cleaned properly are not allowed to be sterilized in the chamber;
- It is recommended to clean the sterilization loads such as scissor with cleaning solutions or by ultrasonic cleaning machine according to manufacturer's instructions.
- Follow their manufacturers' instructions for reprocessing of the medical instruments and textiles.




9.2 Maintenance of the device

9.2.1 Cleaning

Regular cleaning and care are essential for prolong the lifespan of the device and ensuring quality of sterilization.

Table 8-1 Cleaning and maintenance intervals

Maintenance	Maintenance period	Tool	Operation
Replace the seal ring	1000 sterilization cycles		Open the door, check whether the seal is deformed or wrinkled, and replace it if so.
Sealing ring Maintenance	Two weeks		Take off the sealing ring, use wet clean cloth to clean the sealing ring inside out. Then use dry clean cloth to dry the sealing ring. Put the sealing ring back to the autoclave. Note: the narrower side of the sealing ring should be close to the lid and the wider side of the sealing ring towards to chamber

Lock Maintenance	100 sterilization cycles	Lubricating oil	<p>Spray some oil into the “A” spot at the left side of the lid, clean the outside with a rag.</p> 
Clean the distilled water tank	300 sterilization cycles		Wash it with clean water
Clean the filter attached to the distilled water pipe	300 sterilization cycles		Wash it with clean water
Clean the filters at both ends of the cooling water pipe	100 sterilization cycles		Take off the nuts at both ends of the cooling water pipe, wash it with clean water
Clean the filter at the bottom of the chamber	200 sterilization cycles	Flat screw driver	Remove the filter with a wrench, and wash it with clean water.
Clean the trays	100 sterilization cycles		Wash it with clean water, use toothpaste to clean the stains.
Door Shaft	Two weeks	Lubricating Oil	Spray few drops of lubricating oil
Sterilization Chamber	One week		Clean and try the chamber with medical cotton cloth

9.2.2 Maintenance



Failure to follow these guidelines may lead to damage of the autoclave and to injury of health!

- Comply with the predetermined maintenance intervals in Table 8-1;
- Have maintenance carried out only by authorized personnel.

10 Maintenance of small steam sterilizer

10.1 Cleaning of Loaded Items before Sterilization



- Before sterilization, the sterilization load such as mobile phones must be thoroughly cleaned;
- The dust and pollutants separated in the sterilized load will cause blockage of filters, valves and pipelines, so the unwashed sterilized load is not allowed to enter the product for sterilization ;
- all product cleaning, disinfection, and sterilization protocols provided by the device manufacturer .

10.2 Maintenance of small steam sterilizer

10.2.1 Cleaning and maintenance



To assure proper operation and maximum autoclave life, carefully follow all recommendations for periodic maintenance.



One of the MOST important steps you can take to prevent problems with your sterilizer is to use ONLY distilled water.

Maintenance item	maintenance cycle	maintenance operations
Clean Chamber, trays, door seal and tray Rack	Every 2 weeks	<ol style="list-style-type: none"> 1. Wet the surfaces to be cleaned completely with the distilled water. 2. Use a mild soap cleaning. 3. Spread the cleaning fluid evenly with a non-fuzzing cloth. 4. Allow the cleaning fluid to act and evaporate for a sufficient time. 5. Using a new non-fuzzing cloth, spread ample amounts of distilled water over the cleaned surfaces. 6. Wipe the surfaces thoroughly to remove cleaning residues. Repeat this process as necessary after wringing out the cloth. 7. Allow the cleaned areas to dry completely. This may take a few minutes. 8. Finally, wipe the cleaned surfaces with a dry, non-fuzzing microfibre cloth. <p>Note: Do not use bleaching agents or any abrasive materials / substances in chamber. Failure to comply may result in damage to the chamber and/or other components.</p> <p style="text-align: right;">Caution: To prevent burns, allow unit to cool before</p>

cleaning gaskets and mating surfaces.



<p>Replace the door seal</p>	<p>Number of Cycles: Every 1000 times</p>	<ol style="list-style-type: none"> 1. Open the chamber door. Remove the door seal ring carefully by hand. 2. Insert the new door seal in the groove in such a way that the wider seal face points towards the chamber side. and press in sequence as follows: 
<p>Replace bacteriological filter</p>	<p>Number of Cycles: Every 500 times</p>	<ol style="list-style-type: none"> 1. The bacteriological filter is in the back of the sterilizer. Unscrew the filter by hand anti-clockwise. 2. Place the new bacteriological filter: Screw the new filter by hand clockwise.  <p>The bacteriological filter should not be reused and replaced with a new one after the replacement cycle.</p>

		
<p>Door lock maintenance</p>	<p>Number of Cycles: Every 100 times</p>	<p>Spray a small amount of lube in the hole on the left side of the lid (as shown in the picture below) and wipe the outer surface with a paper towel.</p> 
<p>Cleaning the filter</p>	<p>Number of</p>	<p>1. Unscrew and remove the filter (anti-clockwise).</p>

in the chamber	Cycles: Every 200 times	<ol style="list-style-type: none"> 2. Wet the surfaces to be cleaned completely with the distilled water. 3. Use a mild soap cleaning. 4. Spread the cleaning fluid evenly with a non-fuzzing cloth. 5. Allow the cleaning fluid to act and evaporate for a sufficient time. 6. Clean the internal surface with a small soft brush for the areas that are difficult to reach using . 7. Rinse it with distilled water at least 3 times. 8. Allow the cleaned areas to dry completely. This may take a few minutes. 9. Finally, wipe the cleaned surfaces with a dry, non-fuzzing microfibre cloth. 10. Screw in the filter into the opening in a clockwise direction.
----------------	----------------------------	--

10.2.2 Regular maintenance



- A comprehensive maintenance of the small steam sterilizer should be carried out every year to ensure good equipment working condition and sterilization effect;
- The maintenance and maintenance of this product must be carried out by professionals authorized by the manufacturer .

10.3 Water properties/Characteristics

Description	Feed water	Condensate
Evaporate residue	≤ 10mg/l	≤ 1.0mg/kg
Silicium oxide sio2	≤ 1mg/l	≤ 1.0mg/kg
Iron	≤ 0.2mg/l	≤ 0.1mg/kg
Cadmiun	≤ 0.005mg/l	≤ 0.05mg/kg
Lead	≤ 0.05mg/l	≤ 0.1mg/kg
Rest of heavy metals	≤ 0.1mg/l	≤ 0.1mg/kg
Chloride	≤ 2mg/l	≤ 0.1mg/kg
Phosphates	≤ 0.5 mg/l	≤ 0.1mg/kg
Conductivity	≤ 15µs/cm	≤3 µs/cm
PH Value	5-7.5	5-7
Appearance	Colorless, clean	Colorless, clean
Hardness	0.02 mmol / l	0.02mmol / l

11 Troubleshooting and common problem handling

11.1 Display shows nothing

Phenomenon: After turning on the power of this product , the display screen cannot be turned on normally.

Solution:

- ✧ Check whether the main power socket has electricity;
- ✧ Check whether the power plug of this product is plugged in;
- ✧ If the screen still does not display, please contact an authorized hatmed dealer.

11.2 High consumption of distilled water

Phenomenon: The distilled water consumption is much more than the specified amount.

Solution:

- ✧ Check whether the foot pads of this product are adjusted correctly. Under normal circumstances, the front is slightly higher than the back;
- ✧ Open the door of this product to check whether the filter at the bottom of the sterilization container is blocked;
- ✧ None of the above operations can help reduce the consumption of distilled water, please contact the authorized distributor of H ä Tmed .

11.3 drying effect is not good

Phenomenon: drying can not achieve satisfactory results.

Solution:

- ✧ Check whether the foot pads of this product are adjusted correctly, the front is slightly higher than the back;
- ✧ Open the product door to check whether the filter at the bottom of the sterilization container is blocked;
- ✧ Check that the maximum load is not exceeded (especially textiles), that the sterilized load is placed correctly (not in direct contact with the pressure vessel wall), and that the standard tray and tray rack are used for loading;
- ✧ Activate automatic preheating;
- ✧ Open the left cover and check if the filter is clogged;
- ✧ If none of the above operations can help dry well, please contact an authorized H ä Tmed dealer.

11.4 no distilled water

Phenomenon: No distilled water.

Solution:

- ✧ Check whether there is water in the distilled water tank;
- ✧ Check that the distilled water tube is not bent, kinked and inserted in place .

11.5 unable to open the door

Phenomenon: The door cannot be opened even through the emergency door opening button.

Solution:

- ✧ Check if the air filter installation hole on the back is blocked;
- ✧ Disconnect the side panel, unplug the silicone tube connected to the air filter solenoid valve , and discharge the negative pressure in the cavity ;
- ✧ When the exhaust sound gradually weakens until it disappears, the door can be opened ;
- ✧ Connect the silicone tube back to the original place, and tighten the clamp, turn on the machine and do a vacuum test to check for leaks.

11.6 Leakage at the door or water dripping from below

Phenomenon: There is obvious air leakage or water dripping.

Solution:

- ✧ Check whether the sealing ring is installed correctly (the long side with " H " is exposed);
- ✧ Check the sealing ring for damage.

11.7 Fuse Replacement

- ✧ Symptom: Fuse blown
- ✧ A blown fuse at the power switch or on the motherboard will cause the display to malfunction .

Solution:

- ✧ **Step 1:** For safety reasons, it is recommended that you disconnect the power cord and use a multimeter in the continuity mode (the one that beeps when the two test leads are connected) to check for continuity. First, test for continuity from the live wire (L) of the power plug to the live wire of the power fuse. Then, test for continuity from the neutral wire (N) of the power plug to the neutral wire of the power fuse.
- ✧ **Step 2:** If continuity is not achieved (no beeping sound), If the power cord is disconnected (beeping), disassemble the fuse and check if it is blown, as shown in the figure below. If so, replace the fuse.
- ✧ **Step 3:** If this section is clear, measure the live (L) and neutral (N) wires from the fuse to the surge protector. If not, replace the surge protector.
- ✧ **Step 4:** If clear, turn on the power switch (without power) and check if the line from the surge protector to the power switch is clear. If not, replace the power switch.
- ✧ **Step 5:** After troubleshooting the above issues, check if the motherboard power fuse is

blown. If so, replace the fuse.

Appendix 1 Safety mechanism

To ensure that the device is safe and reliable, a series of protective mechanism are implemented.

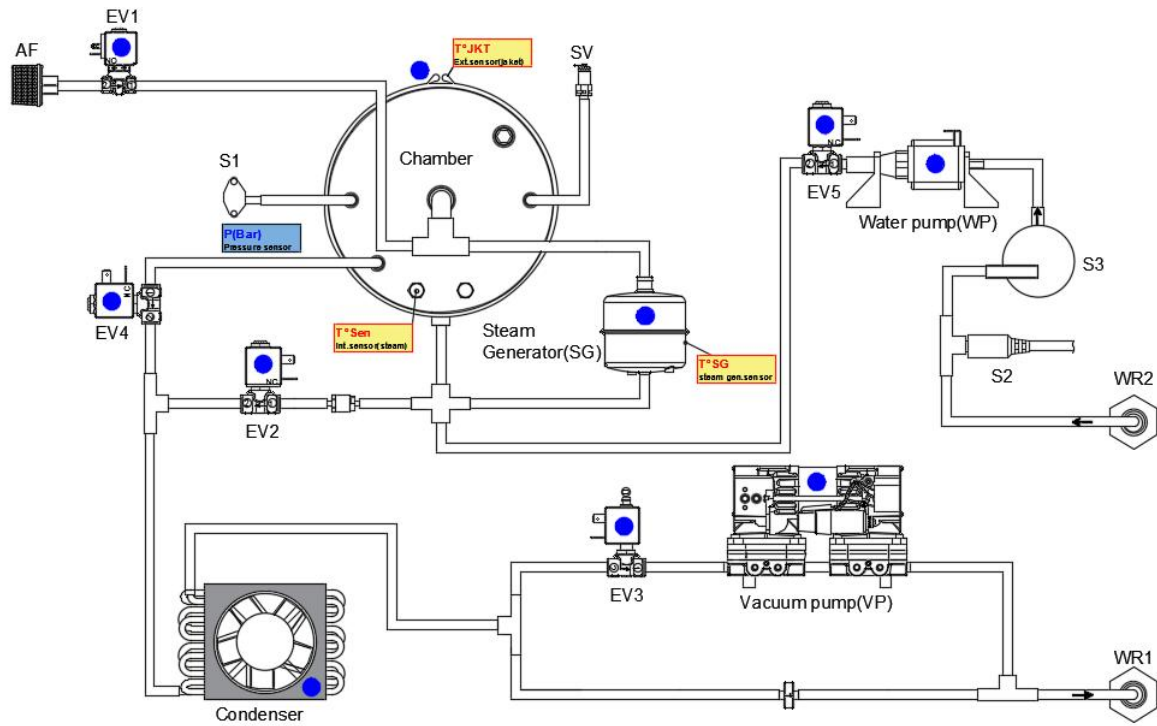
Preheating system over-temperature protection switch: There is an over-temperature protection switch in the preheating system. When the temperature exceeds the threshold of the over-temperature protection switch, the power supply circuit of the preheating system will be automatically cut off to protect the preheating system.

Steam generator over-temperature protection switch: There is an over-temperature protection switch under the steam generator. When the temperature of the steam generator exceeds the threshold of the over-temperature protection switch, the power supply circuit of the steam generator will be automatically cut off to protect the steam generator.

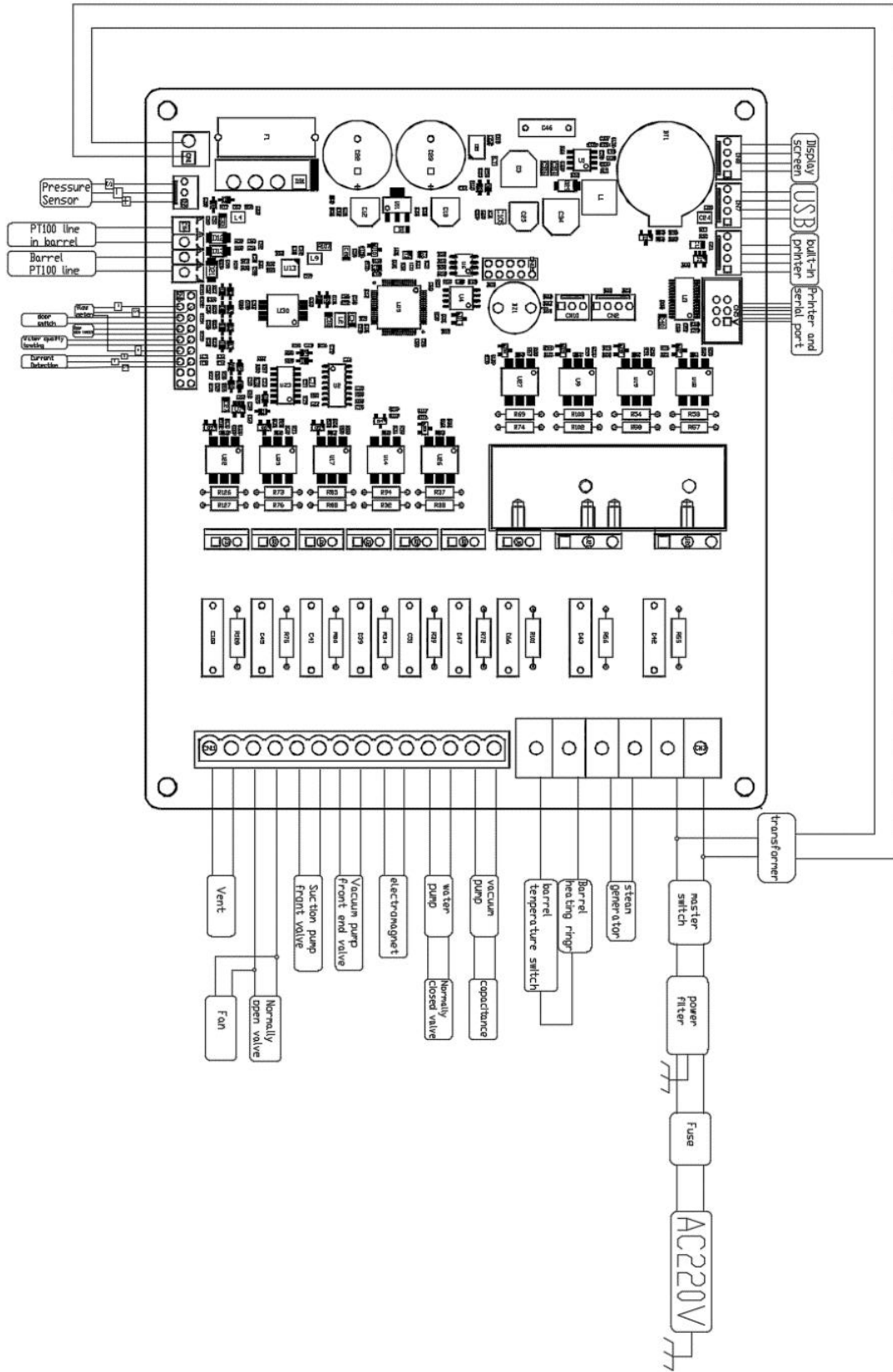
The safety valve for the chamber: When the pressure in the chamber reaches the safety threshold, the safety valve opens automatically to keep pressure in the chamber in safe range.

The safety valve for the steam generator: When the pressure in the steam generator reaches the safety threshold, the safety valve opens automatically to keep pressure in the steam generator in safe range.

Appendix 2 Block diagram



Appendix 3 Electrical diagram



Registrant/Manufacturer: **HaeTmed(Wuxi) Co., Ltd.**

Registrant/manufacturer address: 6F,C7,NO.1699 Huishan Road,Wuxi
JiangSu,China.

Production address: 6F,C7,NO.1699 Huishan Road,Wuxi JiangSu,China.


Manufacturing Date: See product label

Recommended lifespan: 8 years


Zip code: 214174

Tel: 0510-66682078 Fax: 0510-66682079

Email: info@haetmed.de Website: www.haetmed.de

: HaeTmed(Wuxi) Co., Ltd.

6F,C7,No.1699,Huishan Road, Wuxi,
Jiangsu,China.

: Shanghai International Holding Corp. GmbH

(Europe)

Eiffestrasse 80, 20537 Hamburg, Germany



2460