

INSTRUCTION MANUAL

V1.0

COUNTERTOP PRESSURE STEAM STERILIZER

AUTOCLAW

MODEL: LFSS03AA (TOUCH)



**IMPORTER
W POLSCE**

IMPORTER AND AUTHORIZED SERVICE POINT IN POLAND

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Warning: The device should be operated only by qualified personnel who have knowledge and appropriate training in the operation of this type of equipment. A suitable person should be designated to operate and maintain the device.

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SCOPE OF APPLICATION OF THE INSTRUCTIONS

These instructions apply to table top (countertop) pressure steam sterilizers manufactured by Ningbo Haishu Life Medical Technology Co., Ltd.

Model: LFSS03AA (TOUCH).

Before using the device, read this manual carefully to ensure safe operation of the device and its operator.

Retain the manual for the lifetime of the device. If the manufacturer makes any necessary updates, make sure that all updates received are kept as appendices to this manual.

In the event of a change in the place of use or the unit using the device, hand over or return this manual as part of the entire device.



Before using the device, read this manual carefully, absolutely familiarize with information regarding safety and correct use of the device. Use only the instructions provided by the manufacturer with the device as a basis for reference. Do not use other instructions.

The manufacturer reserves the right to change the design and/or technical specifications, if necessary, without prior notice. The information contained in this manual is current as of the time of publication.

USER MANUAL

To ensure the safe and reliable operation, and use of the device, pay attention to these instructions.

Precautions:

The device is equipped with the necessary protective measures (safety measures), in order to avoid causing damage. It is forbidden to interrupt or destroy these safety measures.

Important:

- Read these instructions carefully before using the device.
- The device must be operated and maintained only by qualified personnel who have been well trained for this purpose.
- To ensure proper working conditions, keep the device clean at all times. Do not flush or pour water over the device.
- Servicing of the device may only be carried out by personnel authorized by the manufacturer, who have received appropriate training from the manufacturer.
- Accessories and/or auxiliary equipment for the device can only be obtained from the manufacturer, otherwise safe and effective operation of the device cannot be guaranteed.

Emergency operation:

If an emergency situation is detected, proceed as follows:

- Switch the power button to the "0" position;
- Disconnect the plug from the electrical outlet.

Product liability:

Without written permission from the manufacturer, do not modify or use the device in any way beyond its intended use and the scope described in this manual. The manufacturer is not responsible for any damage or accidents resulting from improper handling or misuse of the device.

SYMBOL DESCRIPTION

Special attention should be paid to understanding the dangers, hazards, warnings and cautions/cautions contained in this manual.

 DANGER	Indicates potential danger/hazard to personnel and equipment, the information next to this symbol must be strictly followed.
 WARNING	Indicates potential danger/hazard to personnel and equipment, the information next to this symbol must be strictly observed.
 CAUTION	Indicates a potential hazard to the equipment which, if not taken seriously, may result in damage to the equipment.
	CE mark with the 4-digit number of the Notified Body (symbol indicating compliance of the equipment with the requirements of Directive 93/42/EEC).
	The symbol "Environmental Protection", means that used electrical equipment must not be disposed of with other municipal waste. Return the used device to the treatment facilities for waste electrical and electronic equipment, in accordance with local regulations.
	Type B application part.
	Protective grounding - equipment of protection class I.
	Caution: hot surface.
	Refer to the instruction manual. Read the instruction manual before use.
	Top, do not overturn
	Do not turn. Do not move by rolling (do not roll).
	Permissible number of stacking layers. Range of storage height (stacked maximum 3).
	Permissible temperature range: +5°C~ +40°C.
	Range of humidity (relative humidity ≤ 80%).
	Store in a dry place.

WARNINGS AND IMPORTANT SAFETY INFORMATION

 WARNING	Use the autoclave only to sterilize medical devices that are resistant to heat and moisture. Do not use oily materials and powders such as petroleum jelly, agar, etc. for sterilization.
 DANGER	The autoclave must not be used to sterilize liquids or liquids in closed vessels (especially glass vessels), as this may cause these vessels to burst, thus endangering the safety of persons and equipment.
 WARNING	Chloride ions are an important corrosive agent of stainless steel. If the autoclave will be used to sterilize items containing chloride ions, it is required that the sterilization chamber be rinsed with clean water after each cycle to prevent corrosion caused by the deposition of chloride ions chloride ions, and also to extend the life of the device.
 WARNING	If the symbol  , is visible anywhere on the device, it means that the temperature of this surface is high. Do not touch this surface to avoid burns,
 CAUTION	The device complies with the emission and immunity requirements of Class A equipment as specified in the standard GB/T 18268. If the device is used in a domestic or similar environment, it may cause interference with other equipment and appropriate protective measures are required.
 CAUTION	Before using the device, it is recommended to evaluate the electromagnetic environment. It is forbidden to use this device near strong sources of radiation (e.g.: radio-frequency equipment, unshielded), as strong electromagnetic fields may interfere with the normal operation of the device.
 WARNING	If an unexpected situation arises during the operation of the device, or if the device picks up a alarm or other abnormal events occur, immediately unplug the unit from the power source and check and troubleshoot the problem as described in Section 8.
 WARNING	Perform the necessary monitoring of the effectiveness of the sterilization process in accordance with relevant national and regional regulations. To do this, place an indicator (such as a chemical or biological indicator) inside the package, then run the sterilization effectiveness monitoring program and make an evaluation based on the result. In case of failure, find the cause or contact the manufacturer.
 WARNING	Connect the autoclave only to a triple grounded electrical outlet (AC 220V-240V/16A/50Hz). Always check that the outlet with the grounding pin is properly installed and connected. Do not place the autoclave in such a place where access to the electrical outlet will be difficult.
 WARNING	Do not connect to a power source with parameters other than those indicated in this manual and on the unit's nameplate.
 WARNING	Do not touch the socket and plug with wet or damp hands.
 WARNING	Do not damage, modify, pull, bend, coil or twist the power cord. Do not place any objects on the cord.
 DANGER	Do not place the autoclave on an unstable table. Place the unit on a flat, stable surface that is not tilted, subject to vibration or shock.
 CAUTION	Do not block or cover the autoclave's door, ventilation and heat dissipation openings.
 CAUTION	Do not remove the nameplate, any labels, warning and information stickers from the unit.

 CAUTION	Do not place any objects on the unit.
 CAUTION	If the autoclave will not be used for a long time for various reasons, unplug the power cord from the electrical outlet and place the unit in a dry and cool place.

1. BRIEF INTRODUCTION

The LF series high-pressure steam sterilizer is specially designed and manufactured for use in: clinics, hospital wards, laboratories and other facilities requiring frequent sterilization. It is intended for use only by professional users, i.e. doctors, technicians or other specialists. The device is controlled by a microprocessor with an intelligent control system and a user-friendly interface, making it safe, reliable and easy to use. Dynamic display of information such as status and operating parameters is enabled by the built-in LCD display. In the event of over-temperature or over-pressure, the autoclave will automatically perform error diagnostics and initiate protective measures (safeguards) to ensure the effectiveness of the sterilization and disinfection process.

1.1. Product category

The product is classified as a Class I, Type B device according to electrical safety requirements.

The product is classified as a type B device according to YY/T 0646 "Small steam sterilizers - automatically controlled".

This product is classified as a Class A device according to GB/T 18268.

This product is classified as a Class A device according to GB/T 18268 standard on electromagnetic compatibility.

1.2. Construction of the product

The device mainly consists of: sterilization chamber, sterilization chamber door and its seal, steam generator, condenser (condenser) and fan, vacuum pump, water pump, safety valve, sensor, heating elements, bacteriological filter, piping system, control and power supply system, and accessories (i.e. tray, tray stand, tray holder).

1.3. Anticipated application

The device is used to sterilize heat- and moisture-resistant medical instruments.



Do not sterilize liquids! Make sure that the equipment to be sterilized is resistant to high temperature and moisture.

1.4. Sterilization principle, the force of the main sterilizing agent

1.4.1. Sterilization principle

The device is equipped with a vacuum pump that sucks cold air out of the sterilization chamber and accepts saturated steam as the sterilizing agent, taking advantage of the properties, such as high latent heat value and high permeability of saturated steam, to sterilize items.

1.4.2. Sterilizing agent and its potency

- 1) The strength of the sterilizing agent in the sterilization process at 134°C:

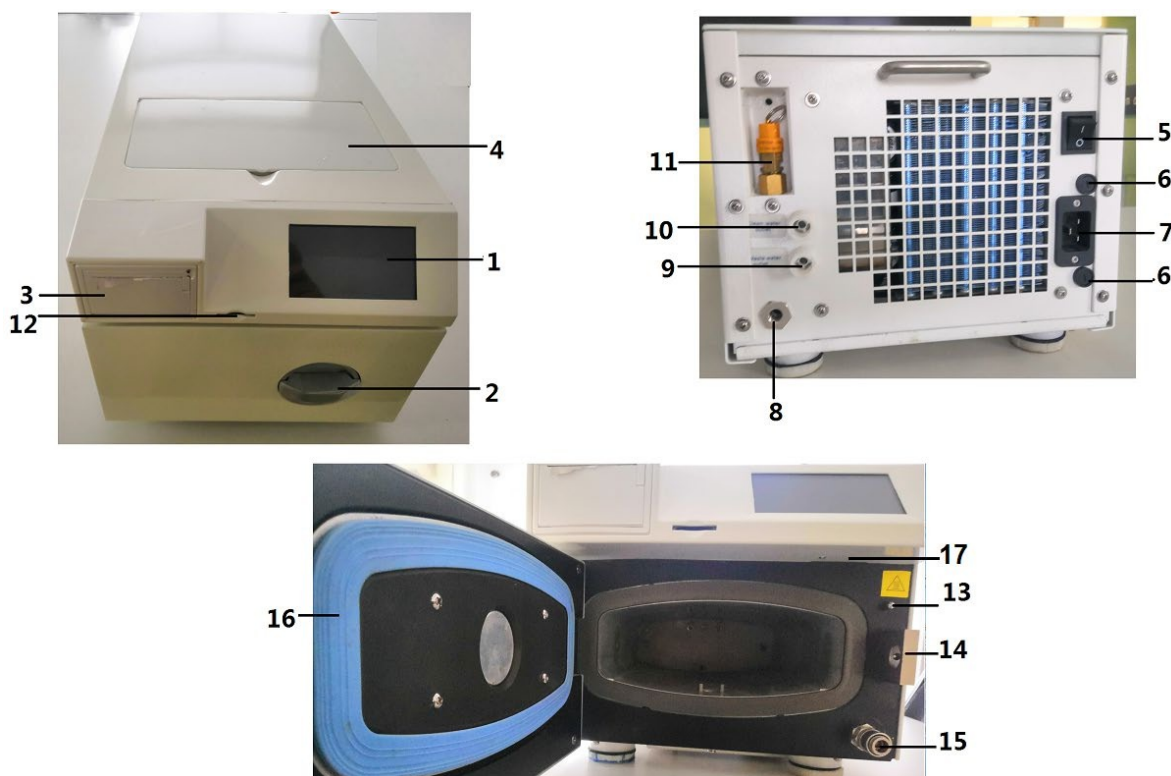
The saturated steam temperature is between 134°C and 137°C, and the temperature difference between different points in the sterilization chamber, at the same time, does not exceed 2°C, and the holding time is 4 minutes.

- 2) The strength of the sterilizing agent in the sterilization process at 121°C:

The saturated steam temperature is between 121°C and 124°C, and the temperature difference between different points in the sterilization chamber, at the same time, does not exceed 2°C, and the holding time is 20 minutes.

1.5. Construction of the device - general view

No.	Name of the component	No.	Name of the element	No.	Name of the element
1.	Touch screen display	7.	Power socket	13.	Door opening sensor
2.	Swivel handle	8.	Vent	14.	Door lock
3.	Printer	9.	Outlet valve drain valve For drainage of used water	15.	Drain valve for waste water discharge draining of used water
4.	Tank for clean water	10.	Outlet valve drain For discharge of clean water	16.	Door seal
5.	Power button	11.	Safety valve	17.	Cover chamber for battery control panel
6.	Fuse	12.	SD memory card port		

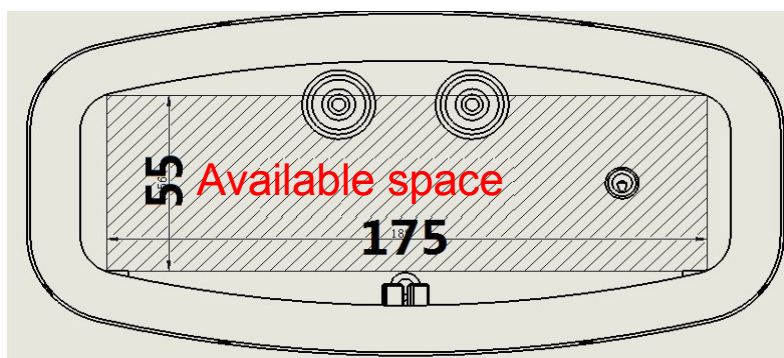


2. SPECIFICATION

2.1. Chamber specifications

Dimensions of available space:

Model:	Dimensions (nominal diameter x depth mm)
LFSS03AA (TOUCH)	Dep.= 175, H.= 55, W.= 280



2.2. Chamber parameters

Design pressure: -0.1 / 0.27 MPa Design

temperature: 140 C°

2.3. Device parameters

Maximum operating temperature: 137° C

Maximum operating pressure: 0.24 MPa

Safety valve set pressure: 0.24 MPa; Safety valve opening pressure 0.24 MPa~ 0.26 MPa Clean water tank capacity: 1L

Used water tank capacity: 0.8L Power

consumption: 220V - 240V, 50 Hz, 2900W

Lifetime: 5 years.

2.4. Operating environment

Ambient temperature: +5°C~ +40°C

Relative humidity: ≤ 85%

Atmospheric pressure: 80 kPa~ 106 kPa

The following table shows the requirements that the water used for the device must meet:

Residue after evaporation	Silica (SiO ₂)	Iron	Cadmium	Lead	Other metals Heavy
≤ 10 mg/L	≤ 1 mg/L	≤ 0.2 mg/L	≤ 0.005 mg/L	≤ 0.05 mg/L	≤ 0.1 mg/L
Chlorides	Phosphates	Degree of conductivity	pH value	Degree of conductivity	Hardness
≤ 2 mg/L	≤ 0.5 mg/L	≤ 15 uS/cm	5~ 7.5	Colorless, clear, without sediment	≤ 0,02 mmol/L

2.5. Transport and storage conditions

Ambient temperature: +5°C~ +40°C

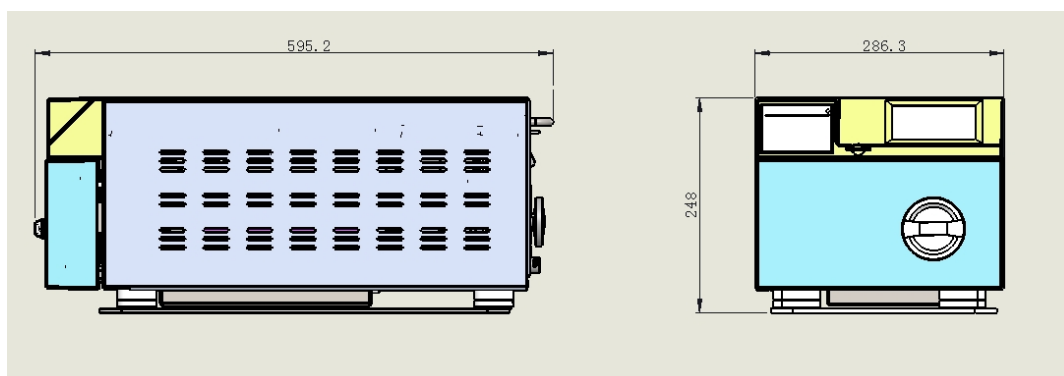
Relative humidity: ≤ 80%

In conditions free of corrosive gases.

3. INSTALLATION OF THE DEVICE

3.1. Dimensions and weight of the device

The external dimensions of the autoclave Model: LFFSS03AA (TOUCH), are as follows (unit: mm):



Model	Gross weight (kg)	Net weight (kg)
LFFSS03AA (TOUCH)	24	20

3.2. Installation requirements

In order to ensure the safe and reliable operation of the device, check that the following requirements are met, as specified below:

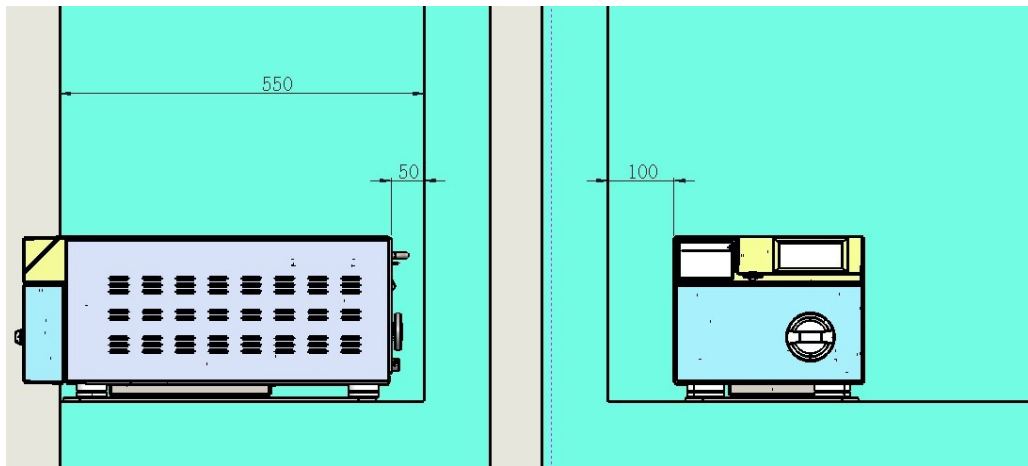
3.2.1. Power supply requirements: Single-ended (DC) 220V - 240V, 50 Hz, 2900W power supply.

3.2.2. Installation environment requirements: The unit must be installed in a clean, dry, well-ventilated enclosed room where small temperature differences can be provided. For the temperature, humidity and atmospheric pressure requirements of the operating environment, please refer to Section 2.4.

3.2.3. Site requirements:

Minimum table/countertop width	Minimum distance from the left surface side surface of the device	Minimum height
55 mm	≥ 100 mm	0,7 m

The following figures show the minimum space required for proper installation of the equipment. Position the equipment to provide at least the minimum required distances on each side of the autoclave.



3.2.4. Requirements for the mounting table: The design of the table intended for placement of the autoclave must be able to withstand the load (weight) of the equipment and its load. The table must be able to withstand pressure, at least 40 kPa.



Do not place the unit in a closed cabinet; make sure that the countertop or table on which the unit is placed is strong and solid enough; do not block the ventilation holes of the autoclave.

3.3. Handling of the packed device

To ensure proper handling of the packed unit, use only a cart and/or other similar equipment to carry or move it. In situations where a cart and/or other similar equipment cannot be used, a minimum of two people are required for lifting or manual handling. Always carry the crate by holding it from the front and back.



When lifting or carrying by hand, use extreme caution to avoid danger.

3.4. Unpacking

Cut the packing tape if used with knives or scissors. Then open the closures and remove the packing lid, and finally remove the protective film.



3.5. Set the device on the mounting surface

The device can be placed on the work table by one person. Lift the device, for this purpose, put your hands in the space between the front and rear feet and then place the autoclave on the table. When lifting or moving, pay special attention to the following aspects:



CAUTION

To avoid damage, it is absolutely forbidden to hold the unit by the door during handling or transportation.



WARNING

To avoid personal injury, do not lift and/or carry the unit while keeping your hands on its feet.



CAUTION

When transporting the device, do not move it by rolling, tilting, placing it horizontally (on its side) or turning it upside down.

When lifting or moving the device, keep it in the place indicated below:



3.6. Adjusting the feet

The height of the feet has been adjusted at the factory. If the mounting surface is flat, no adjustment is necessary; if the surface is uneven, adjust the feet accordingly so that the unit stands horizontally (flat on the ground).

3.7. Connecting to the drain

Connect the drain line/hose to the drain valve for draining used water (see Section 1.5) to the sewer or tank.

3.8. Plug the power cord plug into an electrical outlet.



WARNING

Ensure that the device has an effective and reliable grounding.

3.9. Other aspects



CAUTION

If the autoclave has been transported or stored at a temperature lower than 2°C, allow the unit to stabilize in its operating environment (at a temperature not lower than 5°C) for at least 2 hours before use. Usually, such a situation can occur in winter, and the water in the piping piping of the device may freeze and may cause equipment failure.

4. ADJUSTING

Before use, it is required to successfully configure the device to ensure its proper operation. To do this, perform the following steps:

4.1. Setting the atmospheric pressure

Before the first use or after each transfer of the device, adjust the atmospheric pressure value, otherwise, you will not be able to open the door (error code: E10, E11) or other problems may occur.

How to adjust the atmospheric pressure:

Open the door, turn off the power, wait about 20 seconds, turn on the power and wait 1 minute.

4.2. Setting the date and time

Check whether the correct date and time has been set. If it is not, set their respective values according to Section 6.1.4.2. The date and time have been set at the factory, usually there is no need to set them.

4.3. Leak test

A leak test should be performed at the appropriate frequency to ensure that the sterilization chamber, including its piping, is airtight, and to ensure that cold air is removed from inside. The device is supplied with a factory-programmed "Vacuum Test" leak test program. This program, can only be run when the chamber is cold. When the test is completed, the device will display the result. The device can only be used after the test has been successfully completed.



CAUTION

Test results may be incorrect if the sterilization chamber is hot. Perform the leak test only when the chamber is cold.

4.4. Confirmation of the correct course of sterilization

A chemical indicator should be used for the test, aimed at initial confirmation of the sterilization parameters ensuring its correct course.

The use of a B-D test pack (Bowie Dick type) or a process test instrument - PCD - is required to check the course of the sterilization process.

Place the B-D test package or the PCD process test instrument at the bottom of the chamber, near the autoclave door. Start the "B&D Test" program. When the program is completed, remove the test package and observe the color change of the indicator paper. The indicator paper will change color evenly (uniformly) to the color required to qualify the process.

5. PROGRAMMED PROGRAMS - INTRODUCTION

5.1. Parameters of programmed programs

Program	Sterilization temperature (°C)	Time maintenance (min)	Vacuum rate	Time drying (min)	Comment
134° C Quick (134° C Quick)	134	4	3	4	The parameters have been preset set
134° C Universal (134° C Universal)	134	4	3	6	The parameters have been preset set
134° C Solid (134° C Lite)	134	4	1	2	The parameters have been preset set
121° C Universal (121° C Universal)	121	20	3	8	The parameters have been preset set
B&D/Helix Test	134	3.5	3	4	Test program
Vacuum Test	Vacuum: -80 kPa, holding time: 15 min				Test program
Dry (Drying)				5	Parameters have been preset

5.2. Sterilization charge types for each program

5.2.1. The charge type suitable for each program

Program	Load type
134° C Quick (134° C Quick)	Unpackaged or solid packaged batches, textile composite batches and indented batches, in paper-foil or two-ply packaging, which if not well dried are intended for immediate use after sterilization.
121°C/134° C Universal (121°C/134° C Universal)	Unwrapped or wrapped solid batches, textile composite batches and hollow batches.
134° C Solid (134° C Lite)	Solid batches, unwrapped, intended for immediate use after sterilization.
B&D/Helix Test	B-D test package or PCD process test instrument.
Vacuum Test	Without any charge.
Drying	Drying of the load if it is not dry after sterilization.

5.2.2. Table indicating maximum charge/load weight

Model	Maximum load weight - solid charges (instruments/tools)	Maximum load weight - porous charges (fabrics)
LFSS03AA (TOUCH)	2.2 kg	0.5 kg packed individually

5.3. Maximum operating time and maximum water consumption

Maximum operating time, maximum water consumption for each program at maximum load:

Model:	Program	Weight Load	Longest time	Minimum water consumption water
LFSS03AA (TOUCH)	134° C Quick (134° C Quick)	2.2 kg	20 min	280 ml
	134° C Universal (134° C Universal)	2.2 kg	24 min	300 ml
	121° C Universal (121° C Universal)	2.2 kg	38 min	380 ml
	134° C Solid (134° C Lite)	2.2 kg	18 min	240 ml

6. DESCRIPTION OF USER INTERFACE

In this device, human-computer interaction is carried out via a 4.3 touchscreen display.

6.1. Menu - Introduction

Input is done using the following buttons:



Press "Back" ("Back") to return to the previous page.



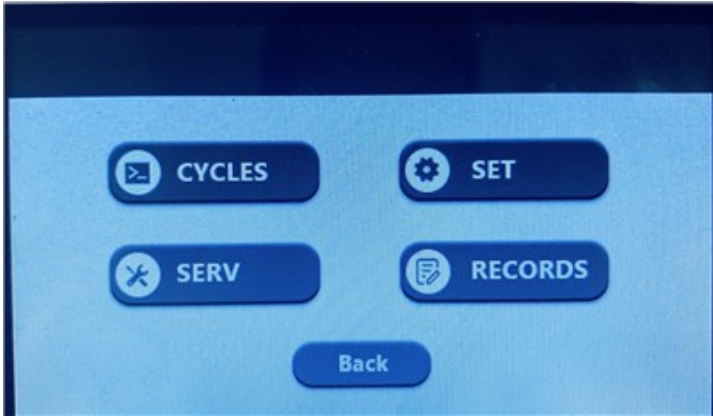
Press "Confirm" ("Confirm") to confirm/save the setting.

6.1.1. Start page



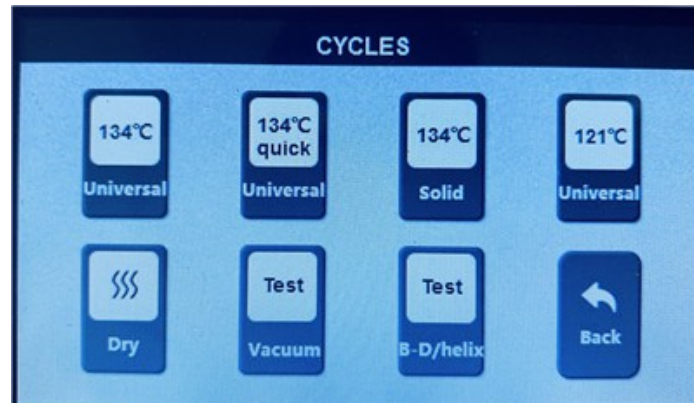
	Displays the current date and time.
	Displays the current cycle number.
	Displays the current temperature in the sterilization chamber.
	Displays the current pressure in the sterilization chamber.
	Displays the current water quality.
	Program shortcut - by default this is the last running program. The user can press the "OK" button to run the last running program.

6.1.2. More options



	Press to select more options, including program menu, settings menu, service menu service menu and results menu.
	Selectable programs - the menu intended for the operator.
	Settings - the menu intended for the operator.
	Service menu - intended only for the manufacturer or authorized service.
	Results menu - intended for the operator. Allows you to check the results, The 20 most recently run cycles or print them.

6.1.3. Programs menu

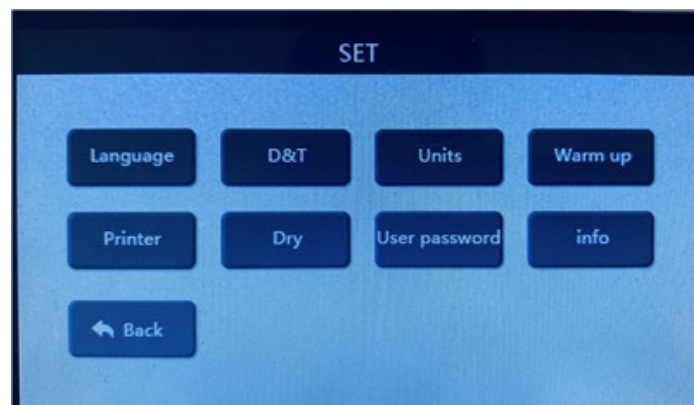


The Programs menu contains a total of 7 programs, such as:

- 4 sterilization programs: 134°C Universal (134°C Universal); 134°C Quick (134°C Quick); 134°C Solid (134°C Lite); 121°C Universal (121°C Universal);
- 1 drying program: Dry (Drying);
- 2 test programs: Vacuum Test, a vacuum test performed to check the tightness of the device; B&D/Helix test, performed to check the efficiency of the sterilization process.

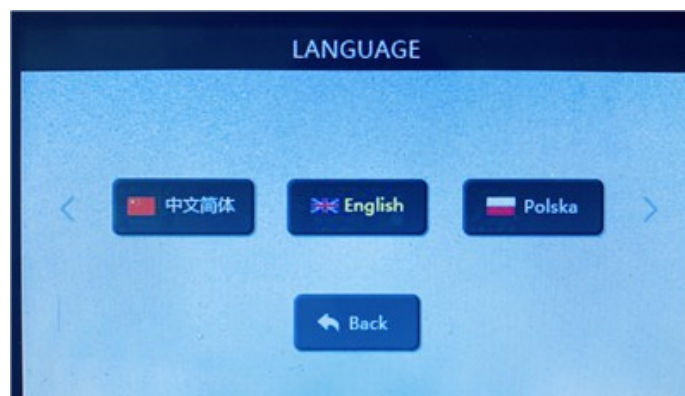
Notes: For the set parameters of each program, relevant maximum load information and other information, please refer to section 5 of this manual.

6.1.4. Settings



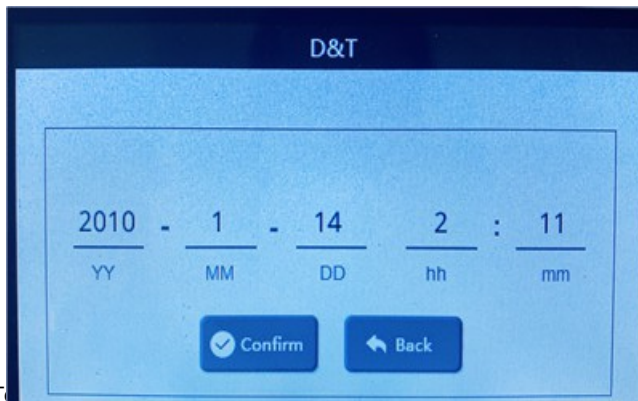
6.1.4.1. Language (Language)

Press the appropriate icon to select the desired language:



6.1.4.2. Date and time

The menu is used to set the date and time, when selected, the interface looks as follows:



Set date and time: Format:

Year - Month - Day | Hour : Minute YY: Year

MM: Month

DD: Day Hh:

Hour Mm:

Minute

6.1.4.3. Temperature and pressure units

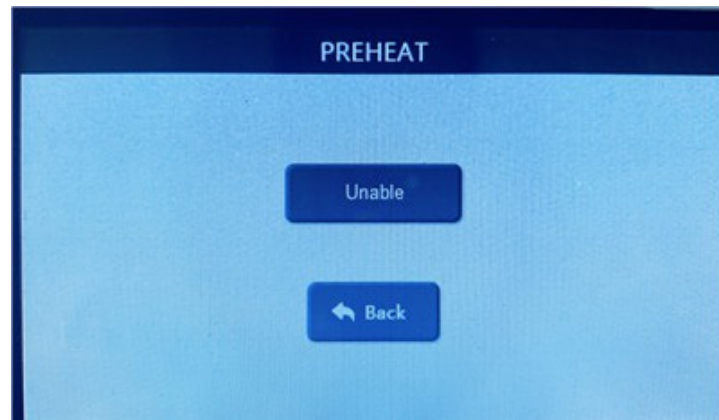
The menu is used to set the unit of temperature and pressure display, when selected, the interface looks as follows:



The currently set unit is indicated in yellow font color. Select the appropriate unit and press OK to change it accordingly.

6.1.4.4. Preheating function

The user can enable or disable the preheating function, the interface of which looks as follows:



- Set to "ON": this means that when the power is turned on, the unit will start heating up and keeping warm to reduce the sterilization cycle time.
- Setting in the "OFF" position: this means that when the power is turned on, the device will not start heating. Only when the cycle is started, the heating will be started and the whole sterilization cycle will be 5 - 7 minutes longer than when the preheating function is on.

It is recommended to set this setting to ON/OFF (enable this function).

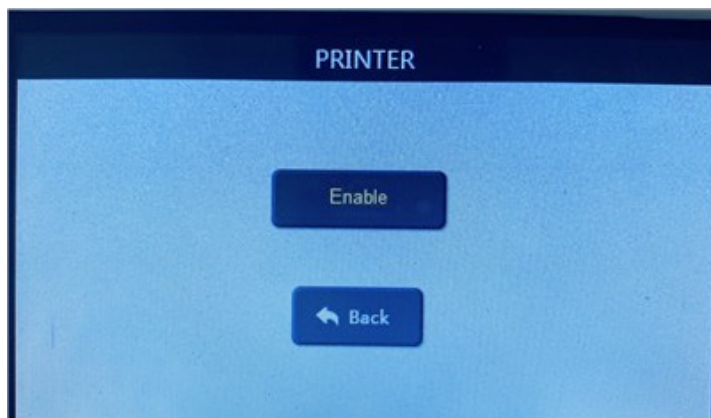


DANGER

If the preheat function is enabled, take special care not to touch the sterilization chamber when the door is open to avoid the risk of burns.

6.1.4.5. Printing and saving results

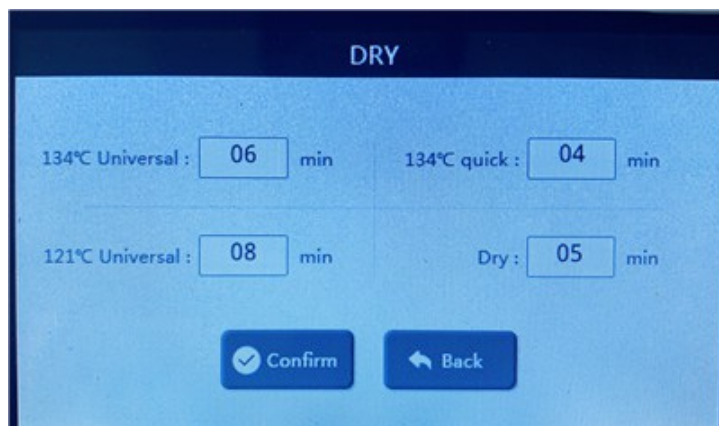
The operator can enable or disable the result printing function, when selected, the interface looks as follows:



- Setting in the "ON" position: this means that the results will be printed and automatically saved to the SD card;
- Setting in the "OFF" position: this means that the results will not be printed or saved to the SD card.

6.1.4.6. Drying time

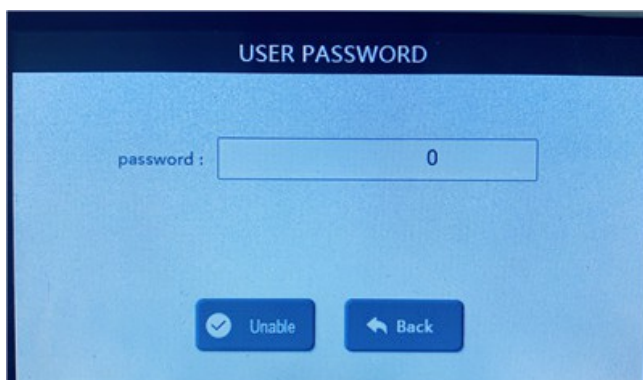
The user can change or set the drying time for 4 programs:



- Adjustment range: from 0 to 60 minutes.
- You cannot change the drying time for the program: 134°C Solid (134°C Lite).
- If the drying effect after the completed sterilization cycle is insufficient, you can increase the drying time for the selected program accordingly.
- Press the appropriate value to change the drying time.

6.1.4.7. User password

You can set the password required to be entered when starting the machine.

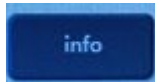


Press "Unable" to set the user password on or off.

- Set to "ON": this means that a password will be required to be entered when the power is turned on.
- Set to "OFF": this means that no password will be required when the power is turned on.

To change the password, press the password display button.

6.1.4.8. Menu - device information



Select this option to display device information.

6.1.4.9. Service menu



Service menu - is intended only for the manufacturer or authorized service.

6.1.4.10. Results menu



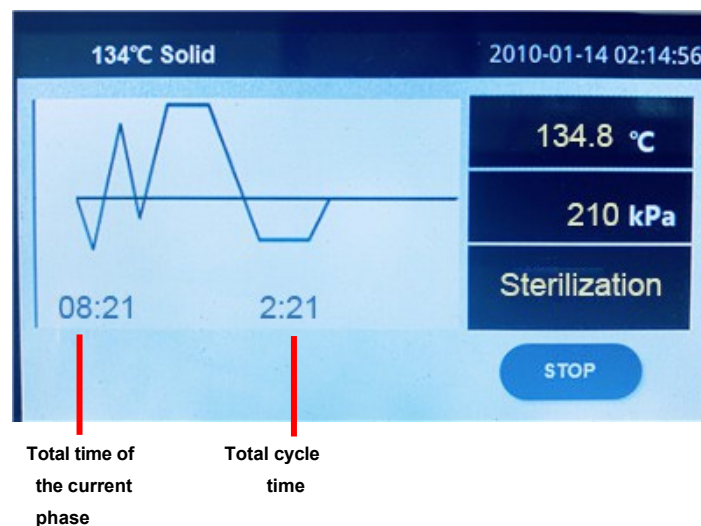
Results menu - intended for the operator. Allows you to check the results, the last 20 cycles or print them, see section 7.13.

6.1.5. Page start and graphical module of the running interface

6.1.5.1. After selecting the appropriate program, the interface of the program to be run will be displayed, for example, the interface of the 134°C Solid (134°C Lite) program will be presented as follows:



6.1.6. Message presentation and explanation



The line on the process flow chart will flash to indicate the cycle stage in progress. For a description of each stage, see Appendix 3.

6.1.7. Message presentation and explanation

No.	Way of presenting Messages	Description
1.	 Not enough clean water!	Insufficient water to run the cycle. Refill the tank for clean water.
2.	 Waste water tank is full!	The waste water tank is full and must be emptied.
3.	 Door not closed!	Be sure to close the door before starting the program.
4.	 Poor Water quality!	Inadequate water quality - means that there is water of inadequate quality in the clean water tank and it needs to be replaced For distilled or deionized water of suitable quality.
5.	 Door locked!	Indicates that the door is locked to prevent it from opening during operation.
6.	 Door unlocked!	Indicates that the door can be opened when the program is finished.
7.	 Please open the door, and wait the chamber colder!	Open the door, wait for the appliance to cool down and try again - Indicates that the chamber is too hot because a program at 134°C was started at 121°C immediately after the program ended. Open the door to cool the chamber to the correct temperature, this may take about 5 - 7 minutes.
8.	 Please replace bacterial filter !	Replace the bacteriological filter - indicates that the bacteriological filter is worn out and must be replaced with a new one.
9.	 Please replace door seal!	Replace the door gasket - indicates that the door gasket is worn out and must be replaced with a new one.
10.	 Need maintenance !	Maintenance required - indicates that the deadline for periodic inspection and maintenance by the manufacturer or authorized service has passed.
11.	 The last cycle did not completed!	Last cycle abnormally completed - indicates, about the abnormal completion of the program, for example, due to stoppage by the user, power failure or equipment failure. In such situations, the batch must be considered be considered unsterile. A repeat cycle is required.
12.	 The alarm needs to be resolved first!	Explain the error message - the message means that the equipment must not be used if there is a malfunction. Qualified technical personnel are required to confirm whether the equipment is operational, complete or intact. If a problem or malfunction occurs, it is imperative that the problem be solved first or repair the malfunction before the equipment is further used.

7. PREPARATION FOR USE

7.1. Preparation for use

Before use, check the following items:

1. Check the paper in the printer, if there is none replace the roll with a new one,
2. If it is required to keep the results, check whether the SD memory card is connected,
3. Make sure the door gasket and the surface in contact with the gasket on the chamber side are clean. If they are not, clean them. Excessive dirt can cause leaks.

Only after visual confirmation of efficiency can the appliance be turned on.

7.2. Filling the clean water tank

If there is insufficient water in the clean water tank, the device will not start the program. If the tank is empty or the water level is too low, the water must be refilled by pouring at least 300 ml of water into the tank.

7.3. Emptying the used water tank

If the waste water tank is full or close to full, it must be emptied before running the program. Do not run the program if the tank is full. Always empty the tank completely.

7.4. Placing the load in the chamber

Use the handle/grip to place the load to avoid the risk of burns caused by touching the chamber.



WARNING

Do not touch any wall of the sterilization chamber to avoid the risk of burns.

Place the sterilization load in the chamber according to the following guidelines:

1. Contact of items to be sterilized with the walls of the chamber is prohibited. It is also required to provide free space between the packs to ensure free penetration of steam.
2. It is forbidden to distort or bend objects with a tubular structure intended for sterilization. If objects with such a structure are sterilized they must be kept in a straight line.
3. If the objects to be sterilized have holes, slits or recesses, in such situations they must always be arranged so that their holes or channels are in an open position and pointing downward to avoid water collecting in them and thus leading to improper drying.
4. Distribute the items evenly, at appropriate intervals, so that they do not touch each other, do not stack, otherwise it may cause ineffective sterilization and drying.
5. It is advisable that simultaneously sterilized items are made of the same material. In the case of material differentiation, it is the metal tools/instruments that should be placed at the bottom of the chamber, and the fabric products at the top.
6. When sterilizing instruments in paper and foil packages, place the packages on top to facilitate their drying.
7. It is forbidden to place the tray with packaged items directly on textile or soft goods to avoid condensation of water on lower items;
8. Sterilized items must meet the conditions described in Section 5.2.2, and the placed load must not be more than 70% of the chamber volume.

7.5. Closing the door



Push the door all the way down by hand, then turn the rotary handle clockwise as far as it will go until the door is locked. The rotary handle in the closed position of the door looks as follows:

7.6. Program selection

Select a sterilization program suitable for the type of load. Information on selecting a program for the type of load is presented in section 5.2.1. There are no significant differences between the 134 °C sterilization process and the 121 °C process. It is recommended to use the former method (at 134 °C) whenever possible, as the process is faster. However, this program is only for solid, unwrapped items intended for immediate use after sterilization.



WARNING

The autoclave is intended only for sterilizing medical devices that are resistant to resistant to moisture and heat. It cannot be used to sterilize oily materials and powders, e.g., petroleum jelly, agar.



DANGER

The autoclave must not be used to sterilize liquids or liquids in closed vessels (especially glassware), as this leads to the bursting of these vessels, thus endangering the safety of people and equipment.

7.7. Starting a program

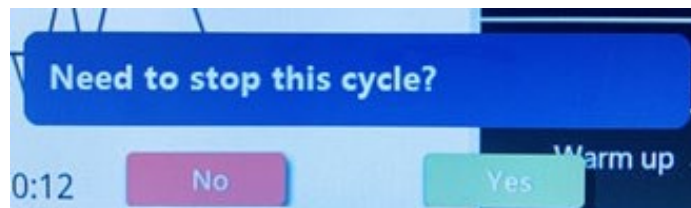
When you select the appropriate program in the Programs menu or when you directly select the program shortcut on the home page, the interface of the selected program will be displayed:



The device will automatically start the program when the "Start" button is pressed.

7.8. Interruption of the program by the user

If it is necessary to stop the operation of the device during the cycle, press and hold the "Stop" button on the running program screen, the following dialog box will appear:



If you select "Yes", the device will automatically start lowering the pressure to a safe level and terminate the program. Only then will it be possible to open the door.

7.9. Opening the door and unloading the chamber

7.9.1. Opening the door

When the program is finished, turn the rotary handle to the left to open the door.

7.9.2. Unloading the chamber

When the cycle is complete, you can open the door and remove the sterilized items. To remove them, absolutely use a special handle (handle) for removing trays or special insulated gloves or other means of protection from high temperatures.



WARNING

Always use a special tray removal handle (handle) or special insulated gloves or other protective measures to remove the sterilization load to avoid the risk of burns.



CAUTION

If the sterilization charge is removed from the device immediately after the program is completed, there may be a small amount of moisture on the sterilized items, it is recommended to open the door and wait 5 minutes before starting to empty the chamber.

7.10. Reading and archiving results

7.10.1. Reading the results

The way of saving and presenting data, is the same on the printer printout and on the SD card. The method of reading the result is shown in Appendix 2.

7.10.2. Archiving cycle data

It is recommended that the data ripped to the SD card be backed up regularly, and then deleted from the card, every 3 months. Too much data stored on the SD card, will fill up the entire card, and once the card is full, older records will be automatically overwritten with new ones.

Printing of results is done on special paper (thermal paper). Printouts must be stored in a clean, dry place at room temperature and away from sunlight. The maximum storage period of the printed data (record permanence guarantee) is 2 years.

7.11. Emergency door opening

If the door cannot be opened due to an equipment malfunction (for example, such as signaled by an E05 alarm), and the load must be removed from the device, follow the steps described below:

As a prerequisite for safety, turn off the power supply to the appliance and equalize the pressure in the chamber with atmospheric pressure.

1. Open the safety valve with a tool to completely lower the internal pressure. It is absolutely necessary to be very careful not to get burned by the steam coming out of the device. Always use special insulated protective gloves for this purpose.
2. Turn on the power supply.
3. Open the door.



DANGER

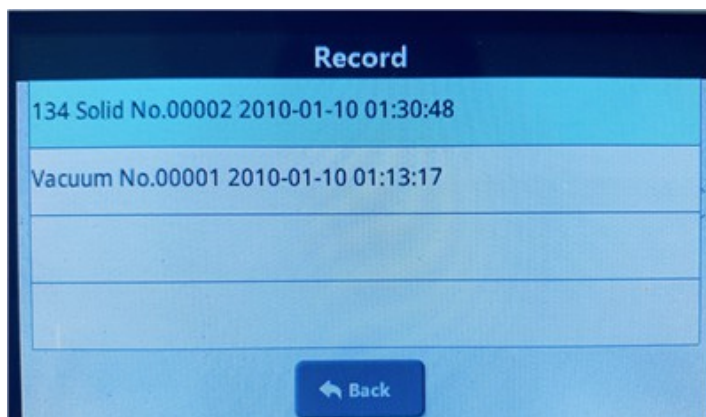
When opening the door in an emergency, the autoclave must be turned off and disconnected from the power source, and the pressure in the chamber must be equal to the atmospheric pressure.

7.12. Viewing or playing back stored records

The unit's memory can store and reprint data from the last 20 cycles. If you run out of printer paper, you can run the program and the parameters of the completed cycle will be stored in the device's memory.

After replacing the paper, you will be able to print the results of the previous cycle as follows:

1. Under "More" ("More options"), press the "Record" ("Result") button:



The name of the result consists of three parts: program name+ cycle number+ start date and time. It is necessary to select

on the corresponding result to be viewed or played back.

2. Press the result to display detailed information.



Press "Print" ("Print") to print the result.

7.13. Preparing for an extended break in use

If the device will not be used for an extended period of time (4 days or longer), the device should be properly prepared for downtime, i.e.:

1. Completely empty the clean water tank, as well as the external waste water tank, if used.
2. Disconnect the device from the power source.
3. Store the device in a place where it will not be exposed to high temperature and high humidity.

8. LIST OF ERROR MESSAGES

If a malfunction or any situation abnormal to the proper operation of the device occurs during operation, the autoclave will automatically raise an alarm, stop the program and lower the pressure to ensure the safety of the operator. In such a situation, the corresponding error code number will be displayed on the screen.

Immediately after the alarm occurs, write down the error code information and disconnect the power supply. If it is not possible to solve the problem on your own, according to the information shown in the table below, as soon as possible contact the manufacturer or an authorized service center to solve the problem.



CAUTION

If an error code is displayed, it is advisable to run the program once again and see if the error code displays again. If the error code appears again, contact the manufacturer or with an authorized service center to solve the problem.

List of error codes and possible ways to solve them

L.p.	Code Error code	Current state	Cause	Possible solutions
1.	E31	The temperature in the sterilization chamber is $> 150^{\circ}\text{C}$.	Defective temperature sensor in the sterilization chamber.	Check the temperature sensor in the sterilization chamber.
2.	E32	The temperature of the heating ring in the chamber is $> 220^{\circ}\text{C}$.	Defective heating jacket temperature sensor.	Check the heating jacket temperature sensor.
3.	E33	Heating tube temperature of the steam generator is $\geq 230^{\circ}\text{C}$.	Defective temperature sensor steam generator.	Check temperature sensor of the steam generator.
4.	E51	The temperature in the sterilization chamber is $\leq 0^{\circ}\text{C}$.	1. Short circuit of the temperature sensor in the sterilization chamber. 2. Ambient temperature is too low.	1. Check the temperature sensor in the sterilization chamber. 2. Check the temperature in the room if it is not $< 0^{\circ}\text{C}$.
5.	E52	Heating jacket temperature is $\leq 0^{\circ}\text{C}$.	1. Short circuit of heating ring temperature sensor. 2. Ambient temperature is too low.	1. Check the heating jacket temperature sensor. 2. Check the temperature in the room if it is not $< 0^{\circ}\text{C}$.
6.	E53	The heating tube temperature of the steam generator is $\leq 0^{\circ}\text{C}$.	1. Short-circuit of the steam generator temperature sensor. 2. Ambient temperature is too low.	1. Check the steam generator temperature sensor. 2. Check the temperature in the room if it is not $< 0^{\circ}\text{C}$.
7.	E61	134°C program: the chamber temperature is $> 140^{\circ}\text{C}$ and $\leq 150^{\circ}\text{C}$. 121°C program: chamber temperature is $> 127^{\circ}\text{C}$ and $\leq 150^{\circ}\text{C}$.	1. Chamber temperature sensor connector contact too weak. 2. Defective control board.	1. Repair/replace chamber temperature sensor connector. 2. Replace the control board.
8.	E62	The temperature of the heating jacket is $> 190^{\circ}\text{C}$ and $\leq 220^{\circ}\text{C}$.	1. Too weak contact of the sensor connector temperature of the heating jacket. 2. Defective control board.	1. Repair/replace the heating jacket temperature sensor connector. 2. Replace the control board.
9.	E63	Heating jacket temperature is $> 160^{\circ}\text{C}$ and $\leq 230^{\circ}\text{C}$.	1. Too weak contact of heating jacket temperature sensor connector. 2. Defective control board. 3. Defective water pump.	1. Repair/replace heating jacket temperature sensor connector. 2. Replace the control board. 3. Replace the water pump.
10.	E2	Pressure too high during sterilization: 134°C program: pressure $> 235\text{ kPa}$; 121°C program: pressure is $> 135\text{ kPa}$.	Insufficient vacuum, more cold air remains.	Check vacuum pump and valve for vacuum.
11.	E41	After 8 minutes of the preheating phase, the temperature of the heating jacket is $< 100^{\circ}\text{C}$.	Malfunction of the heating jacket.	Check heating jacket thermostat and mating thermostat.
12.	E42	After 8 minutes of heating phase The initial temperature of the steam generator is $< 110^{\circ}\text{C}$.	Failure of the steam generator heating rod.	Check the heating rod thermostat and mating thermostat.
13.	E5	After 10 minutes of sterilization phase, pressure release has not reached $< 20\text{ kPa}$.	Clogged tube for water drainage.	1. Clean and sterilize the internal filters. 2. Check the drain solenoid valve and vacuum valve
14.	E6	Door safety switch contact opened during program run. Program.	Safety switch sensor displaced, microswitch not working properly.	Replace the door safety switch.

15.	E7	Atmospheric pressure is <70 kPa.	1. Incorrect value of stored pressure. 2. Atmospheric pressure is too low.	1. Adjust the pressure. 2. Use the device at an altitude of < 2500 m above sea level.
16.	E8	During the heating process, the pressure increase in 1 min is < 3 kPa.	1. Water cannot be drawn. 2. Steam generator heating rod damaged. 3. Door seal damaged.	1. Check, water level in clean water tank and water level sensor. 2. Check pump and inlet solenoid valve. 3. Check the door gasket.
17.	E9	Too low pressure during sterilization: 134°C program: pressure < 100 kPa; 121°C program: pressure < 200 kPa.	1. Excessive chamber loading. 2. Pump cannot draw water.	1. Reduce the load. 2. Check, water level in the clean water tank and the water level sensor. 3. Check the water pump and the inlet solenoid valve.
18.	E10	Unlocked door during cycle running.	Defective door interlock.	Check the door solenoid and control board.
19.	E11	Door does not open when program ends. The door opens during the program.	1. Defective or jammed electric door lock. 2. Defective control board.	Check the electric lock and control board.
20.	E12	During running program where there is 2 times vacuum generation, cannot reach the level of < -70kPa.	1. Incorrect loading of the chamber. 2. Defective vacuum pump. 3. The seal in the door is leaking.	1. Run the program with an empty chamber (no load). 2. Check the vacuum pump. 3. Check that the door is closed enough that it cannot be moved.
21.	E16	The sterilization chamber still There is a high vacuum after the program is completed.	1. Clogged or worn air filter. 2. Defective inlet solenoid valve.	1. Replace the air filter. 2. Check the inlet solenoid valve and control board.

9. MAINTENANCE

The condition for safe and reliable operation of the autoclave is the regular periodic inspection, cleaning and maintenance processes.

9.1. Safety rules during maintenance of the device



WARNING

1. To carry out any maintenance of the device, it is required to provide sufficient lighting, i.e. the illumination should be at least 100 lx.
2. Any maintenance work, perform only when the device is disconnected from the power source, and also when the device is completely cooled down.
3. Use only original consumables and accessories. Use of other substitutes not provided by the device manufacturer, may lead to unpredictable damage.
4. Performing activities beyond the routine maintenance provided for the user may only be performed by the manufacturer or an authorized service center.
5. The user may independently replace the following consumables and/or accessories: air filter, door gasket, safety valve, power cord and other directly accessible internal components accessible internal components.

9.2. Maintenance plan

9.2.1. Cleaning plan

L.p.	Required action	Frequency	Target condition	Note
1.	Cleaning the sterilization chamber	Once a week	Clean, free Free from dirt and water.	See 9.3.1
2.	Cleaning the clean water tank water	Once a month	No contamination.	See 9.3.2
3.	Cleaning the drain filter	Once a month	Transparent Filter surface.	See 9.3.3
4.	Cleaning the door seal	Once a week	No contamination.	See 9.3.4
5.	Cleaning filter w tank for clean water	Once a month	Transparent filter surface.	See 9.3.5

9.2.2. Checking plan

L.p.	Required activity	Frequency	Target condition	Note
1.	Inspection of the safety valve protecting the chamber	1 once every six months	You can check whether the valve is working properly. Absolutely do not do this while the running cycle.	See 9.3.6
2.	Checking sensor water level of water in the clean water tank	1 once every six months	Trigger an alarm In case of water shortage.	See 9.3.7
3.	Checking the water quality sensor	1 once every six months	Trigger an alarm In case of inadequate water quality.	See 9.3.8
4.	Checking cable supply-supplying	Once every six months	No damage to the insulation exterior.	See 9.3.9
5.	Checking battery panel pushbutton control panel	1 once every six months	Display of correct date and time values.	See 9.3.10
6.	Leakage check (performing a leakage test)	Every day as first activity	Successful test result.	See 9.3.11

9.2.3.

Maintenance plan

L.p.	Required activity	Frequency	Target condition	Note
1.	Bacteriological filter replacement	1 time, every 150 cycles	Well, permanently seated.	See 9.3.12
2.	Replacement of the door seal	1 time every 2 years	Wide side of the gasket facing outward. Gasket adhering flat against the floor.	See 9.3.13
3.	Replacing the paper	When exhausted or when there is little left	Paper inserted with the printable (heat-sensitive) side up. No jammed paper.	See 9.3.14
4.	Replacement of button control panel batteries	1 time every 2 years	Display of correct date and time values (also after 5 minutes after switching off).	See 9.3.15

9.3. Detailed information

- 9.3.1. Cleaning the sterilization chamber: wipe the wall of the sterilization chamber and the sealing surface of the chamber with a clean, dust-free cloth soaked in water.



CAUTION

Do not use acidic or alkaline pH cleaners to clean the sterilization chamber.



WARNING

Before cleaning the chamber, wait until the chamber has cooled completely to avoid the risk of burning yourself.

- 9.3.2. Cleaning the clean water tank

Empty the tank, remove sediment and other debris, and then wipe the inner surfaces with a clean, dust-free cloth.



CAUTION

Do not remove the filter from the tank to prevent debris from entering the pipeline, which can cause the pump to fail and trigger an alarm.



WARNING

Use only clean water to clean the tank. Do not use other liquids or agents, such as: chlorine-based, methyl alcohol, sodium hypochlorite or acetone, etc., they may damage the tank.

- 9.3.3. Cleaning the drain filter

There is a drain filter in the front of the sterilization chamber:

1. Turn clockwise to remove the filter from the chamber.
2. Unscrew the inner pressure ring of the filter.
3. Clean the 2 inner filter elements.
4. Reassemble the filter: make sure to insert the coarse mesh filter element first, followed by the fine mesh element, and only then screw on the pressure ring.
5. Screw the drain filter into place.



WARNING

Before cleaning the filter, wait until the chamber has cooled completely to avoid the risk of burning yourself.

- 9.3.4. Cleaning the door seal:

Check that there is no dirt on the sealing surface; if there is, it must be removed. Then wipe the entire sealing surface with a clean, dust-free cloth soaked in clean water.

- 9.3.5. Cleaning the filter in the clean water tank

The clean water tank filter is the same structure as the used water drain filter and is installed in the clean water tank. Before removing the filter, first empty and clean the tank. Clean the filter analogously to the drain filter cleaning procedure described in section 9.3.3.

- 9.3.6. Checking the safety valve

Regularly, every 6 months, check that the valve opens properly and steam is completely released to prevent the safety valve from failing. Check the valve as follows:

- 1) Run the program at 134°C.
- 2) Wait until the pressure rises to about 100 kPa. Then pull the ring on the safety valve to move the valve to the open position and wait for about 1 second, if the air and steam are completely released this indicates that the safety valve has been opened. If the valve does not open, stop the program and immediately contact an authorized service center to have the safety valve replaced.

- 3) If the test was successful, let go of the ring and wait for the completion of the program run.
- 4) Observe whether steam escapes from the safety valve during the remaining phases of the running program. If it does, contact an authorized service center to have the safety valve replaced. If no steam escapes, it means that the valve is working properly.



Ring

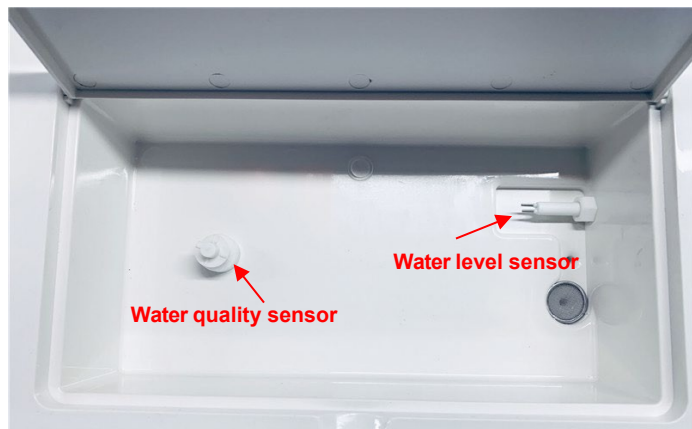
Safety valve

**WARNING**

Steam will be ejected when the ring is pulled. Pull the ring using a suitable tool, such as a flathead screwdriver or other tool. Absolutely do not do this directly with your hand. The operator must stand as far back as possible and always wear special insulated protective gloves, to avoid the risk of getting burned.

9.3.7. Checking the water level sensor in the clean water tank

With the power on, press the program shortcut button to enter the program interface. Drain the water completely from the tank. If a message about no water is displayed, it means the sensor is operational. If there is no such message, report the malfunction to the manufacturer or authorized service center.



9.3.8. Checking the water quality sensor

With the power on and the tank filled, short out and hold the two electrodes of the sensor by using a metal object (such as tweezers, scissors, etc.) and wait a few seconds. If a message about inadequate water quality is displayed, report the fault to the manufacturer or authorized service center.

9.3.9. Checking the power cord

Check the outer surface of the power cord for any damage. If the cable is damaged, contact the manufacturer or authorized service center for replacement.

9.3.10. Checking the button control panel battery

Check the date and time on the display when the unit is turned on. If these values are incorrect, the battery may be dead and should be replaced.

9.3.11. Checking for leaks

To check for leaks, perform the vacuum test "Vacuum Test". Carry out the test with an empty chamber (no charge). After completing the test, the device will display its result. The device can be used

only after successful completion of the test. If it fails, contact the manufacturer or authorized service center.



Test results may be incorrect if the sterilization chamber is hot or not dry. Conduct the leakage test only when the chamber is dry and cold.

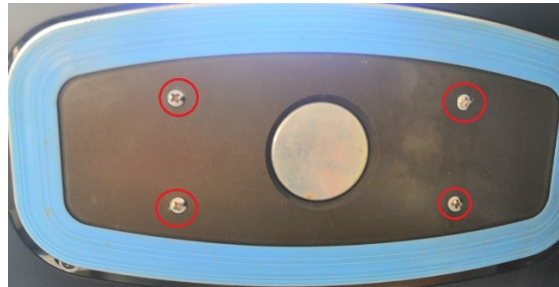
9.3.12. Replacing the bacteriological filter

The position of the bacteriological filter is shown in section 1.5. Turn the filter counterclockwise, remove it and install a new one.

9.3.13. Replacing the door seal

After removing the 4 screws shown in the photo opposite, first separate a certain part of the gasket, and then remove the whole gasket.

Insert the new gasket by carefully pushing the gasket into each of the 4 grooves. Then push the remaining sections of the gasket all the way in, replace the cover and tighten it with screws.



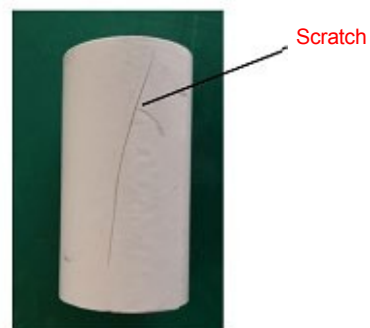
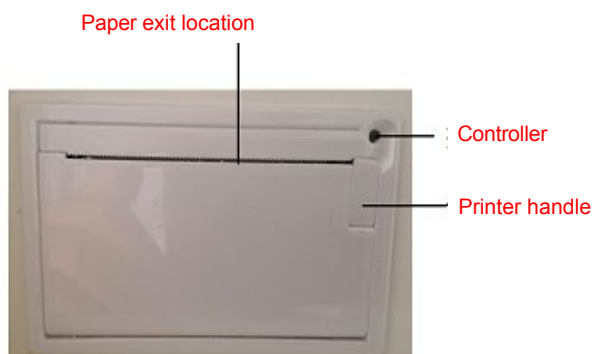
Before replacing the gasket, make sure the door cover is completely cooled to avoid the risk of burning yourself.

9.3.14. Replacing the paper

If a red streak appears on the printout of the result, it means that the printer paper is close to exhaustion and must be replaced immediately.

If the printer light turns red, it means that the paper has run out and must be replaced. How to replace the paper:

1. Pull the "Printer Holder" outward to open the printer cover.
2. Take a roll of printer paper and perform a scratch test, i.e. scratch the lines on both sides of the paper with your fingernail. The side with the scratch is the side to be printed.
3. Insert the paper into the feeder and put a small part of the paper through the outlet hole in the cover. Make sure that the scratched side faces outward.
4. Close the cover and insert the "Printer Holder".
5. Press the indicator light and check that the paper comes out smoothly. If the paper is jammed or improperly fed, correct the position of the sheet so that it is placed vertically and with the scratched side facing up (ensure a straight paper path).



9.3.15. Replacing the button control panel battery

The push-button control panel is powered by a battery (1 x CR2032). If the battery runs out, the user must replace the used battery with a new one of the same type on his own.



Replacement method: Unscrew the 2 screws at the bottom of the panel, remove the chamber cover, lever the battery with a flat screwdriver and remove. Insert the new battery and fix the compartment cover.

10. SERVICE AND WARRANTY CONDITIONS AND SERVICE

10.1. Service

Servicing is necessary for the device to operate properly. An annual (every 12 months) inspection of the device is required. Service may be performed only by qualified personnel of the warranty and post-warranty service company designated by the manufacturer.

10.2. Warranty

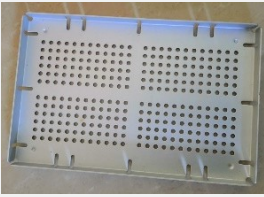
The expected lifetime of the device is 5 years. The device is covered by a 2-year warranty, which runs from the date of the invoice. Any failure or damage caused by proper installation, use and service of the device in accordance with the provisions of this manual, under the warranty is covered by free replacement or repair of faulty components. The warranty does not cover consumables. Servicing by unauthorized parties excludes any claim under the warranty and any other claims.

The warranty does not apply, even during the warranty period, in the following cases:

- damages or defects caused by improper installation and operation,
- damage or malfunctions caused by damage to the device, such as from a fall or impact,
- damage or malfunctions caused by installation and repair of the device by entities not authorized by the manufacturer,
- lack of proof of purchase and warranty card,
- damage or malfunction due to a fortuitous event (e.g., overvoltage or fire),
- use of non-original consumables and accessories,
- normal wear and tear of consumables and accessories,
- If any markings, labels/tags, including warning and information stickers are blurred, modified, damaged or removed from the device/product,
- if the device's serial number/part number has been removed, altered or is illegible or the authenticity of the device/product cannot be confirmed.

In cases not covered by the warranty, including after the expiration of the warranty period, repairs are made against payment. Detailed warranty conditions are presented in the warranty card.

11. ACCESSORIES

Lp.	Item name	Photo	Comment
1.	Instrument tray (1 piece is standard, 2 pieces are optionally available).		Used to place items or instruments. Serves to place on the rack for trays.
2.	Tray rack (optional).		The lower part is used to place items for sterilization. The upper part is used to place instrument trays.
3.	Handle (handle) for removing trays.		Always use the handle (handle) to remove trays from the chamber to avoid the risk of burns.
4.	Wire/hose drain (2 pcs.)		Used for draining water.

12. APPENDICES**Annex No. 1 Items and results of the test**

Subject of the test	Method of compliance	Result
Dynamic pressure control	Type test	Compliant
Air leakage	Inspection of finished product	Compliant
Empty chamber test	Inspection of finished product	Compliant
Solid batch	Type test	Compliant
Small porous objects	Type examination	Compliant
Small porous batches	Type test	Compatible
Full porous charge	Type test	Compliant
Type B hollow charge	Type examination	Compliant
Type A hollow charge	Inspection of finished product	Compliant
Multilayer packaging	Type testing	Compliant
Drying of solid batches	Type examination	Compliant
Drying of porous batches	Type test	Compliant

Appendix No. 2 Sample printout of the result of the completed program

SERIAL NO.:300012345

OPERATER:

----CLASS B---

COUNT:00001

B.W. WATER COUNT

DATE: 01-07-2020

TIME: 15:46:25

PROGRAM: 134 / QUICK

HH:MM:SS KPA °C

START

15:51:43 000 072.6 05:18

VACUUM

15:52:45 -080 079.1 01:02

RAISE

15:53:00 021 089.2 00:15

VACUUM

15:53:50 -080 095.2 00:50

RAISE

15:54:05 010 103.9 00:14

VACUUM

15:55:09 -080 105.7 01:05

RAISE

15:56:24 221 133.7 01:15

STER-START:

15:56:24 221 133.7 01:15

MAX TEMP: 136.1

MIN TEMP: 133.7

MAX PRESS: 227

MIN PRESS: 207

STER-END

16:00:24 213 134.6
04:00

DRY-END

16:04:58 -017 118.8
04:34

CYCLE COMPLETE

16:04:59 000 119.1
00:01

Pressure unit

Temperature unit

Vacuum phase time

Duration of the entire
cycle (18 m : 34 s)During the
sterilization
phase

SERIAL NO.:

OPERATOR:

CLASS B

COUNT:

B.W. WATER COUNT

DATE:

TIME:

PROGRAM: 134 / QUICK

HH:MM:SS

START

VACUUM

RAISE

RUDDER-

START: MAX

TEMP: MIN

TEMP: MAX

PRESS: MIN

PRESS:

RUDDER-END

DRY-END

CYCLE COMPLETE

SERIAL-

NUMBER:

OPERATOR:

CLASS B

CYCLE NUMBER:

WATER

QUANTITY/QUALITY

DATE:

TIME:

PROGRAM: 134 / FAST

HH:MM:SS

START

PHASE VACUUM

GENERATION

PHASE INCREASE

OF TEMPERATURE AND

PRESSURE IN THE

CHAMBER

START OF

STERILIZATION MAX.

TEMPERATURE MIN.

TEMPERATURE MAX.

PRESSURE

MIN. PRESSURE END

OF STERILIZATION

END OF DRYING

COMPLETE CYCLE

Appendix No. 3 Explanation of each stage of the process

Lp.	Method display	Explanation
1.	Standby	The device is in sleep mode, when it exits the mode, it is ready for operation.
2.	Warm up	Pre-heating phase.
3.	Vacuum	Air evacuation phase.
4.	Raise	Saturated steam is injected into the sterilization chamber: the increase in temperature and pressure in the chamber.
5.	drain	Draining (draining water and releasing steam) of the sterilization chamber.
6.	Sterilization	Sterilization: maintaining the sterilization pressure and temperature.
7.	Dry	Vacuum drying.
8.	equilibrium	Air is drawn into the interior of the sterilization chamber through a bacteriological filter to equalize the pressure in the chamber to atmospheric pressure.
9.	End	Termination of the running program.

13. CONTACT DATA

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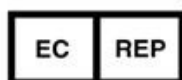
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