

E8

EN

Instruction manual



Euronda[®]

Pro System

Foreword

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The Manufacturer is in no way responsible for the consequences resulting from any incorrect operations carried out by the user.

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I Introduction / purpose of the instruction manual

I.I Symbols used in the manual

Symbols are used in the manual to emphasise important information.

Symbol	Type
	Attention
	Prohibition
	Obligation

I.II Purpose of the document

This **Instruction Manual** represents the reference document, written by the Manufacturer of the device, and addressed to operators and specialised personnel who will come into contact with it during its entire life cycle.

The purpose of the document is to provide information for machine correct use, from installation to disposal, drawing attention to the dangers that can result from misuse, and taking into account the reasonably foreseeable improper behaviour of the operator.

I.III Intended audience

The manual is intended for **operators in charge of using and managing the device during all the phases of its technical life**. It includes topics relating to the proper use of the device in order to keep its functional and qualitative characteristics unchanged over time. It also includes all the information and warnings for a correct use under full safety conditions.

The manual, like the CE certificate of conformity, is an integral part of the device and must always accompany it whenever it is moved or resold. It is the responsibility of the user to keep this documentation intact, so that it can be consulted throughout the life of the device.

I.IV Supply and storage

Keep this manual with the device so that it can be easily consulted by the operator.

The manual is an integral part for safety purposes, therefore:

- **It must be kept intact** (in all its parts). If it is lost or damaged, a copy should be immediately requested.
- **It must follow the machine until scrapping** (also in case it is moved, sold, rent, leased, etc.).

I.V Updates

Euronda reserves the right to make modifications or improvements to the manual or device without prior notice and without being obliged to update the previous manuals.

I.VI Definition of operators for the purpose of professionalism



Before performing any operation, it is mandatory to read all documentation in order to avoid possible damage to the device and property, as well as personal injuries.

The roles of the operators are defined below:

Role	Description
Operator	Person who physically uses the device for the purpose for which it has been designed.
Responsible authority	Person, or group, responsible for the use, routine maintenance of the device and for operator training. The responsible authority is legally responsible for fulfilling the requirements relating to installation, operation and use of the device.

I.VII How to obtain a new copy of the manual

Request a hard copy of it to **Euronda** by sending an e-mail to **techinfo@euronda.com**. Provide the following information:

- Model and serial number of the device.
- Name and e-mail address.

1 Device identification

1.1 Manufacturer identification

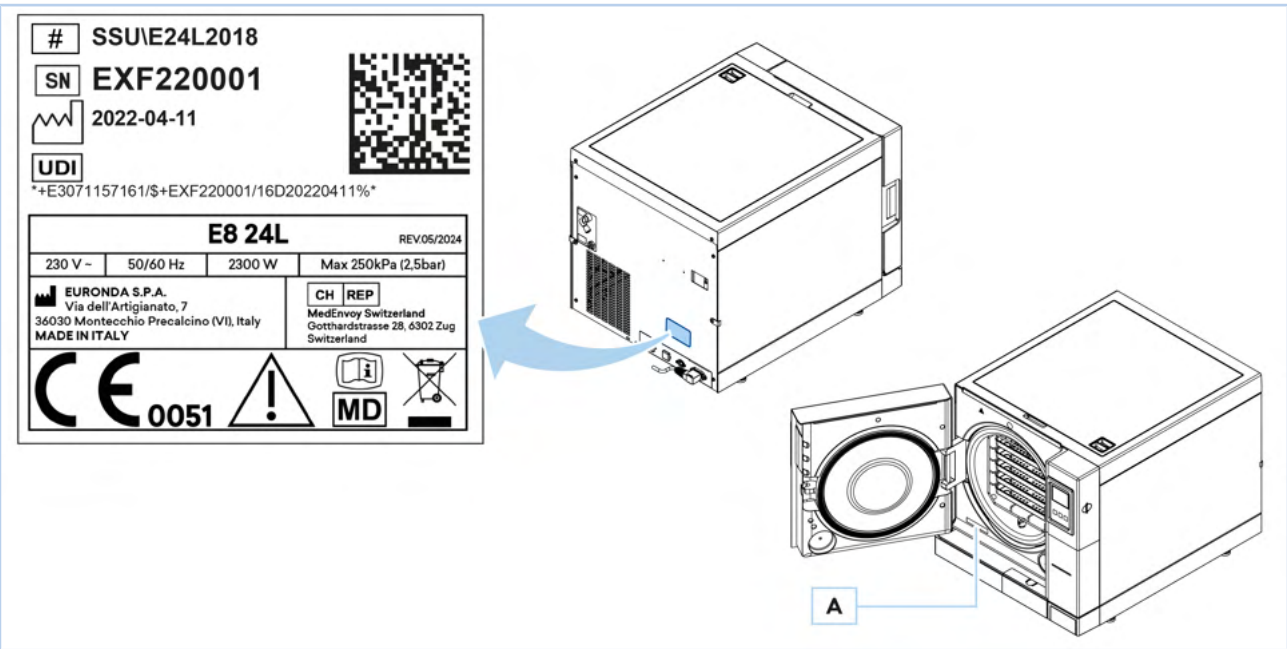
Manufacturer	Euronda S.p.A. Via dell'Artigianato, 7 36030 Montebelluna Precalcino - Vicenza, Italy t +39 0444 656111 f +39 0444 656199 m info@euronda.com www.euronda.it
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1.2 Device identification

Product category	STEAM STERILIZING UNITS FOR MEDICAL PURPOSE
Commercial name	E8
Model	SSU\E24L2018

1.3 Nameplate location

The device is provided with a **nameplate**, located on the back side and a **serial number (A)** on the front side.
The data present on the nameplate, when communicated to the Manufacturer, provide the exact identification of the device described in this manual.



Note: the information present in the plates above is to be considered as examples and is subject to change.

1.4 Reference standards

<p>Saturated steam steriliser E8</p>	<p>The saturated steam steriliser complies with the Performance and Safety Requirements of EU Regulation 2017/745 and Directive 2011/65/EU:</p> <ul style="list-style-type: none"> • Medical devices EU Regulation 2017/745, class IIb - CE 0051 <p>It complies with the following standards:</p> <ul style="list-style-type: none"> • EN 13060 • EN 61010-2-040 • EN 61326
<p>Boiler</p>	<p>It complies with the following standards:</p> <ul style="list-style-type: none"> • EN 13445 <p>It complies with the essential requirements of Council Directives:</p> <ul style="list-style-type: none"> • PED Directive 2014/68/EU of 15/05/2014 - Category II-D1 - CE 0497

1.5 Warranty

Euronda guarantees the quality of its equipment when used in accordance with the instructions provided by this manual, according to the conditions stated on the warranty certificate.

The warranty is valid from the date of sale of the device to the user customer, and the details can be found by registering on:

<http://myeuronda.com>

In case of a dispute, the date indicated on the purchase invoice, which must include the serial number of the device, will be considered as valid.

The bacteriological filter and gasket are not covered by the warranty.



Keep the original packaging for the entire duration of the warranty.

2 Safety

2.1 General safety warnings

Carefully read the safety warnings before using the device. Failure to comply with safety warnings may result in accidents or damage to the device.

The responsible authority must instruct and professionally train the operator to use and service the device safely; in particular, it must ensure that the information is properly understood.

Special attention should be paid to the emergency procedure regarding pathogenic materials discharged into the environment, which should be described in a special guide, placed near the device.

In the event of malfunctions or potential dangerous situations or serious accidents, the operator shall immediately report the situation to the Manufacturer and the competent authority of the Member State where the user is established.

High internal voltages are dangerous.

Clean the device with a damp cloth, after making sure that the power cable is disconnected (remove any moisture before using the device again).

Never touch the device with wet hands or in the presence of liquid on it, but always follow all the precautions required for the use of electrical equipment.

The device has not been designed to be used in the presence of explosive gases or vapours.

Do not expose the device to excessive mechanical stress such as impacts or strong vibration.

When opening the door, do not lean over or stand in front of it as there is a risk of burns from escaping steam (see paragraph **2.7 - Residual risks**).

The used water from the discharge tank or the parts in contact with the material to be sterilised may contain contaminated residues, it is therefore recommended to wear protective gloves when performing unloading and handling operations to avoid possible pathogenic contamination (see paragraph **5.3.2 - Manual water filling and draining** and paragraph **2.7 - Residual risks**).

Do not attempt to open the door in the event of a power failure during a sterilisation cycle (see paragraph **2.7 - Residual risks**).

REACH information notice

In compliance with Article 33 of Regulation No. 1907/2006 (REACH) and subsequent amendments and additions, please note that the device contains certain "Substances of Very High Concern" (SVHC) listed in Annex XIV in the articles.

Therefore, in accordance with the provisions of Article 33, which provides for the obligation to communicate the presence of such substances to the recipient of the product when the substance is included in the Candidate List and is present in quantities above 0.1%, Euronda informs that the list of complex products with SVHC components included in the Candidate List and the related SCIP Numbers is available at www.euronda.com/reach

Instructions for safe use of products with SVHC included in the Candidate List

Under normal conditions of use, the article does not lead to the release of SVHC. Any possible direct contact, even if the exposure is considered to be limited, only occurs in the case of handling the articles contained in the complex object and containing SVHC, or in the case of mechanical or thermal action outside the normal conditions of use as described in the technical data sheets of the complex article. It is therefore recommended not to open the machinery. Should it be necessary to open or disassemble the complex article (for example, in case of maintenance or disposal of the machinery), this operation must only be performed by trained personnel.

In case of direct contact with articles containing SVHC, it is recommended to wear hand protection in accordance with EN 374 and respiratory protection (P-type filter). Avoid dust formation and avoid breathing vapours or mists. Ensure adequate ventilation. Any mechanical action that causes or generates respirable solid particles or particles with aerodynamic diameter of less than 10 microns is not recommended. Furthermore, in relation to the SVHC present, it is strongly recommended to keep the complex article out of the reach of children. In case of disposal, the article must be treated as hazardous waste and in accordance with the regulations in force.

The device must not be installed in the "patient area" (EN 60601-1).

2.2 Obligations and prohibitions

2.2.1 Obligations



Make sure the device is powered with the correct voltage.

Make sure that the system is grounded in accordance with the standard applicable in the country of installation.

The operator **must**:

- Know all the indications included in this manual and those applied on the device.
- Have fully understood the meaning of all controls and their operation.
- Be aware of and know how to apply the safety rules for using the device.
- Keep the environment near the device clean and dry.
- Use distilled or deionised water for filling tanks.
- Use only original spare parts.

2.2.2 Prohibitions



It is absolutely forbidden to remove the safety pictograms and information labels present on the device.

Euronda disclaims any responsibility for the safety of the device in case of failure to comply with this prohibition.

It is absolutely forbidden to remove or render ineffective the safety devices.

The operator **must not**:

- Carry out operations on his/her own initiative or operations that are not within his/her competence.
- Use the device for other uses other than the intended ones.
- Disassemble the device.
- Remove the outer guard without first disconnecting the power supply: the device contains live parts, fans and heaters that could activate without warning.
- Use solvents on plastic parts and labels.
- Remove the labels from the device. In case of need, ask for new ones.
- Pour water or other liquids on the device that could cause short circuits and corrosion.
- Pour flammable substances onto the device.
- Lay trays, newspapers, liquid containers, etc. on top of the device.
- Lean against the door when it is open.

2.3 Noise

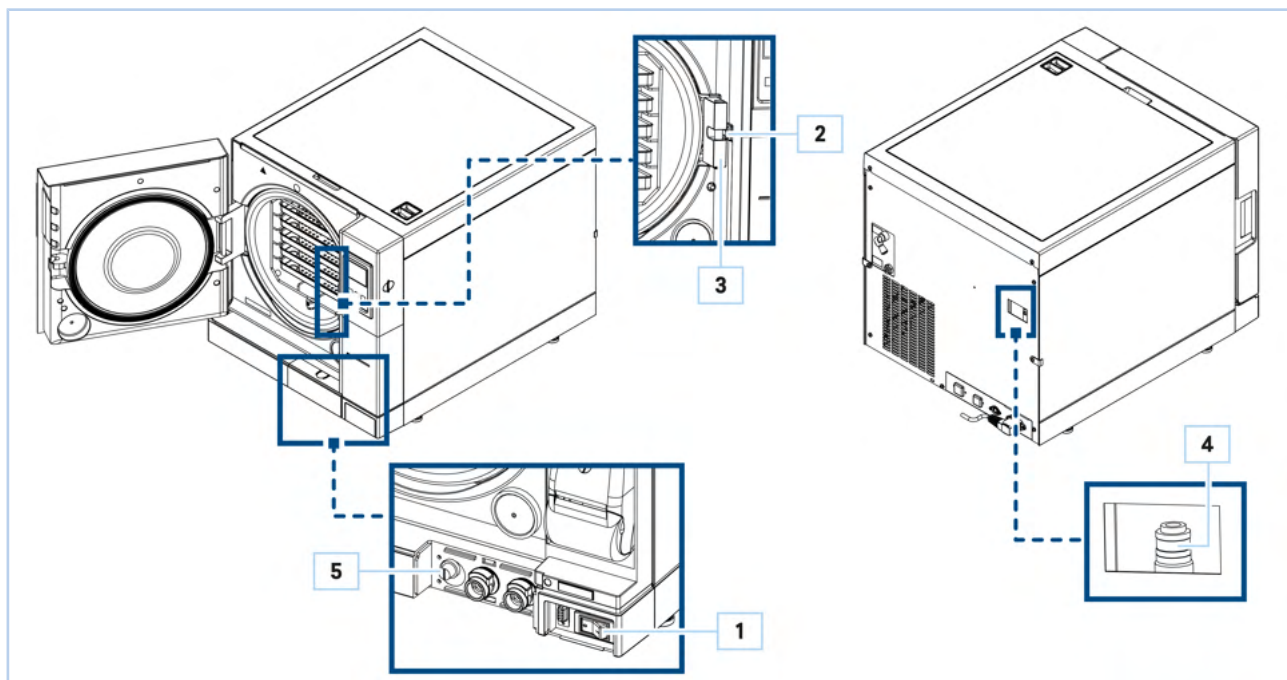
The device has been designed and manufactured in such a way as to reduce the sound power level as much as possible, which is **less than 65 dB(A)**.

2.4 Safety devices

The steriliser has been designed and equipped with safety systems to minimise the risks to the operator.

The installed safety devices are listed below:

POS.	Element	Description
1	ON - OFF switch	Switch with double-pole thermal protection to protect the device from short circuits. In case of triggering, it allows the general power supply to be cut off.
2	Door safety microswitch	Ensures door proper closing. In case of triggering, a message with incorrect door position warning is sent.
3	Door lock with microswitch	Electromechanical mechanism, protecting against accidental door opening. There is also a microswitch revealing the correct position of the locking system. The door lock prevents the door from being opened while the device is working. In case of microswitch triggering, a signal is sent to warn that the door is not locked.
4	Safety valve	Complying with PED Directive 2014/68/EU, it protects against overpressure. In case of triggering, it allows the steam to be discharged and the pressure to be rebalanced to safe values.
5	Safety thermostat	Device cutting off the power supply if the maximum temperature is exceeded.



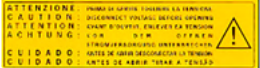

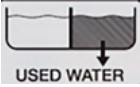
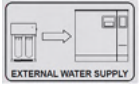

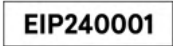
2.5 Digital safety requirements

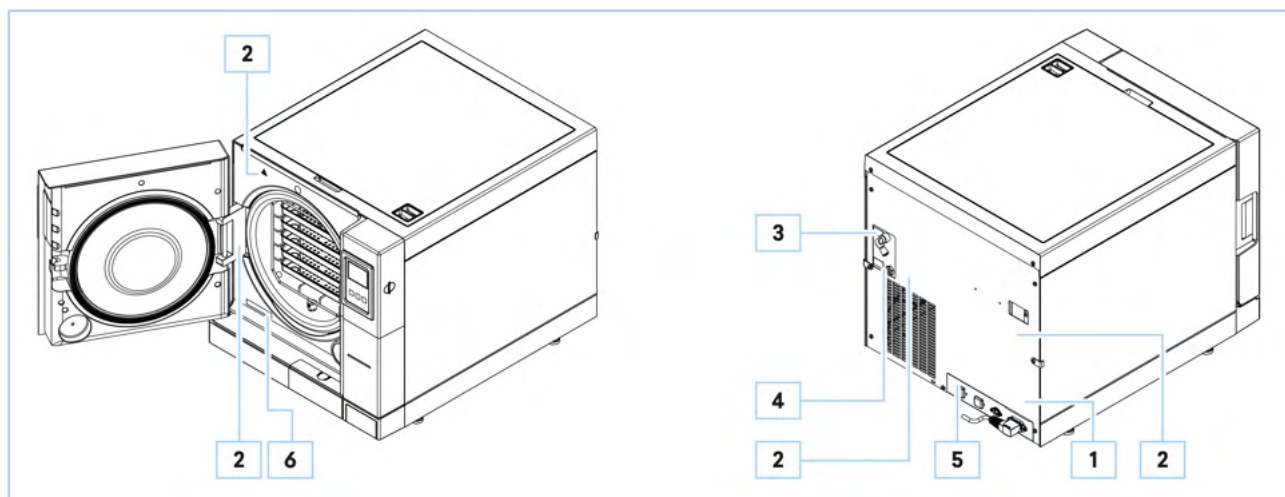
- The steriliser is protected by level password (admin and technical access) and user password.
- Before installing the steriliser, Euronda suggests using PCs and networks covered by antivirus and firewall systems.
- The SD card can be used to back up files and exchange data between the device and computer.

2.6 Safety pictograms and information labels

The device has been equipped with a series of safety pictograms warning the operator of the presence of residual risks. There are also labels for a better identification of certain elements.

The table below lists the safety pictograms and information labels present on the device:

POS.	Symbol	Description
1		WARNING! Cut off voltage before opening the guard
2		WARNING! Hot surface
3		Used water discharge label
4		Clean water inlet from external system label
5		Protective grounding (located inside the device)
6		Serial number



2.7 Residual risks

The device has been designed in such a way as to ensure essential safety requirements for the operator

Safety, as far as possible, has been integrated into the design and construction of the device, yet there are residual risks from which operators must be protected.

Residual risk	DESCRIPTION AND PROCEDURAL INFORMATION
Danger of contamination	<p>In case of unsuccessful sterilisation or a possible fault, the used water and any parts directly or indirectly in contact with the load may contain contaminating residues.</p> <p><u>To reduce the risk:</u></p> <ul style="list-style-type: none"> The <i>responsible authority</i> must give instructions to the operator on how to use the device safely.
Danger of burn	<p>When the steriliser has completed the sterilisation cycle and the door is opened to take out the sterilised instruments, the inner parts of the boiler and of the door are still very hot.</p> <p><u>To reduce the risk:</u></p> <ul style="list-style-type: none"> Do not touch the parts directly so as to avoid burns. Use the appropriate extractor tool. Do not stand in front of the door. Danger of burns from escaping steam.
Danger of contamination	<p>The water used by the discharge tank may contain contaminated residues.</p> <p><u>To reduce the risk:</u></p> <ul style="list-style-type: none"> Wear protective gloves when performing draining operations.
Electrical hazard	<p>Disconnect the power supply before performing any work on the device.</p> <p><u>To reduce the risk:</u></p> <ul style="list-style-type: none"> Use the Personal Protective Equipment listed in the procedures.

3 Device overview

3.1 Intended use

Small sterilisers designed to steam sterilise invasive and non-invasive medical devices.



The use of the device is strictly restricted to qualified personnel trained on the reprocessing of medical devices

Under no circumstances should it be used or handled by persons who are inexperienced and/or not authorised by the responsible organization

The organization must plan the training and updating of personnel in charge of reprocessing the medical devices.

The device was designed to:

- Meet the specific requirements mentioned on the sales contract.
- Be used according to the instructions and limitations of use given in this manual.

The device has been designed and constructed to work safely if:

- It is used within these limits.
- The procedures in the instruction manual are followed.
- Routine maintenance is carried out at the intervals and in the ways indicated in the manual.
- Extraordinary maintenance is carried out promptly when needed.
- Safety devices are not removed and/or bypassed.

3.1.1 Restrictions on use

- Do not use the device for uses other than the intended ones.
- Do not use the device to sterilise: corrosive products (acids, bases and phenols, volatile compounds or solutions such as ethanol, methanol or chloroform or radioactive substances), liquids, biomedical waste.
- Do not use the device in the presence of explosive or flammable gases or vapours.
- Domestic use of the device is prohibited.

Any other use of the device other than the intended one must be authorised in advance and in writing by the Manufacturer. In the absence of such written authorisation, use is to be considered **"misuse"**; therefore, the Manufacturer disclaims all liability resulting from any damage or injury that may be caused to property or persons and considers all warranties to be null and void.

3.2 Permitted environmental conditions

The device has been designed and constructed to operate indoors, protected from the weather and from aggressive or corrosive agents, with the characteristics shown in the following table.

Place of installation	Indoors, protected from the weather
Altitude	Up to 2,000 m above sea level.
Ambient temperature	+ + 5 °C to + 40 °C
Maximum relative humidity	<ul style="list-style-type: none"> • 80% for temperatures up to 31°C • Linearly decreased to 50% at 40°C
Ambient lighting	Illuminated environment in compliance with UNI 12464-1 standard
Max. mains voltage variation	±10%
Installation category	II
Degree of pollution	2
Temporary overvoltage	<ul style="list-style-type: none"> • Short-term 230 V + 1200 V up to 5 s • Long-term 230 V + 250 V for more than 5 s



The device must be installed inside a laboratory accessible to authorised personnel only.

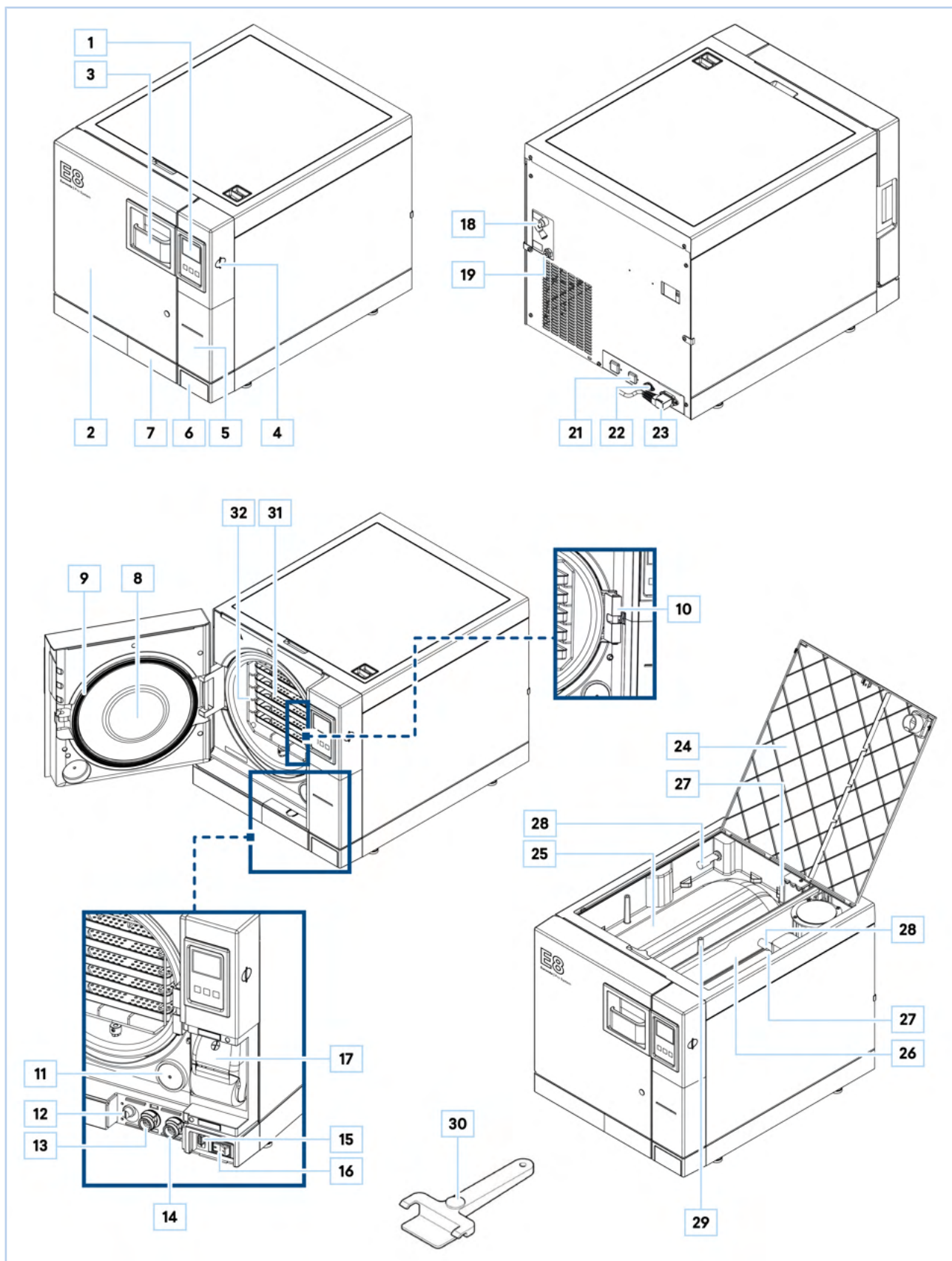
The device has not been designed to work in rooms with an explosive atmosphere or a fire hazard.

Environmental conditions other than those specified can cause serious damage to the device.

3.3 Main components

POS.	Element
1	Display with soft touch buttons
2	Door
3	Door opening handle
4	SD card slot
5	Magnetic front door
6	Switch door
7	Drain cover
8	Door gasket
9	Gasket
10	Door lock with microswitch
11	Bacteriological filter
12	Screw cap for the safety thermostat switch
13	Connector for draining used water
14	Connector for draining clean water
15	Service serial port
16	Main ON - OFF switch
17	Thermal printer (Optional)
18	Used water drain
19	Rear serial socket
20	Safety valve

POS.	Element
21	External water inlet from deioniser
22	Electrical connection for deioniser
23	Power cable socket
24	Upper cover
25	Used water tank
26	Clean water tank
27	Filters
28	Level sensor
29	Minimum clean water level/conductivity meter sensor
30	Extraction tool
31	Trays
32	Tray support



3.4 Optional components



Use only original components.

The device can be equipped with the following optional components:

COMPONENT	DESCRIPTION
Aquafilter 1 to 1	Device for producing deionised water.
Aquaosmo	Device for producing deionised water by reverse osmosis process.
Aquabox	Device allowing Euronda sterilisers to be connected to an external water source that has already been treated.
Print Set 1	Internal thermal paper printer
Print Set 2	Internal adhesive label printer

3.5 Technical data

CHARACTERISTICS	E8 24L
Supply voltage	230 V
Mains frequency	50 / 60 Hz
Power output	2300 W
Absorbed current	10 A
Maximum emission in the room	8280 kJ
Insulation class	I
Protection class	IPX0*
Sterilisation cycles	5 sterilisation cycles
Noise emissions	65 dB(A)
Control cycles	Vacuum - Bowie & Dick - Helix
Personal Functions	To access Light and Light & Stock sterilisation cycles, contact Euronda authorised service personnel.
Additional test cycles	Pressure maintenance - Safety valve triggering
Maximum pressure**	250 kPa (2,5 bar)
Sterilisation chamber dimensions	Diameter: 250 mm Depth: 440 mm
Chamber usable space***	180 x 160 x 380 mm (WxHxD)
Chamber usable capacity	11 litres
Water tank capacity	4 litres
Weight per support area (full tank and chamber with maximum load)	3,21 kg/cm ² (315384 N/m ²)
Operation control	Microprocessor
Printer	Optional (thermal, labels)
Bacteriological filter	Yes

* The first characteristic figure indicates that:

- The casing provides protection of the equipment against the penetration of solid foreign objects; and at the same time
- The casing provides protection for people against the access to hazardous parts by preventing or limiting the insertion into the casing of a body part or a tool held by a person.
 - X: not declared.
- The second characteristic figure indicates the degree of protection of the casing against harmful effects on the equipment due to water ingress.
 - 0: no protection.

****Note:** in this manual, the word "pressure" always refers to "relative pressure".

*****Usable space:** it is the internal volume of the sterilisation chamber available for the material to be sterilised

3.5.1 Water characteristics

With reference to **EN 13060**, the recommended (maximum) limit values of contaminants and water chemical and physical characteristics for condensate and feed water are given.

CHARACTERISTICS	INLET WATER	CONDENSATE
Dry residue	<10 mg/l	<1 mg/l
Silicon oxide	<1 mg/l	<0.1 mg/l
Iron	≤0.2 mg/l	≤0.1 mg/l
Cadmium	≤0.005 mg/l	≤0.005 mg/l
Lead	≤0.05 mg/l	≤0.05 mg/l
Heavy metal residues	≤0.1 mg/l	≤0.1 mg/l
Chlorides	≤2 mg/l	≤0.1 mg/l
Phosphates	≤0.5 mg/l	≤0.1 mg/l
Conductivity at 20°C	≤15 µS/cm	≤3 µS/cm
pH	5-7	5-7
Appearance	Colourless, clean, sediment-free	Colourless, clean, sediment-free
Hardness	≤0.02 mmol/l	≤0.02 mmol/l

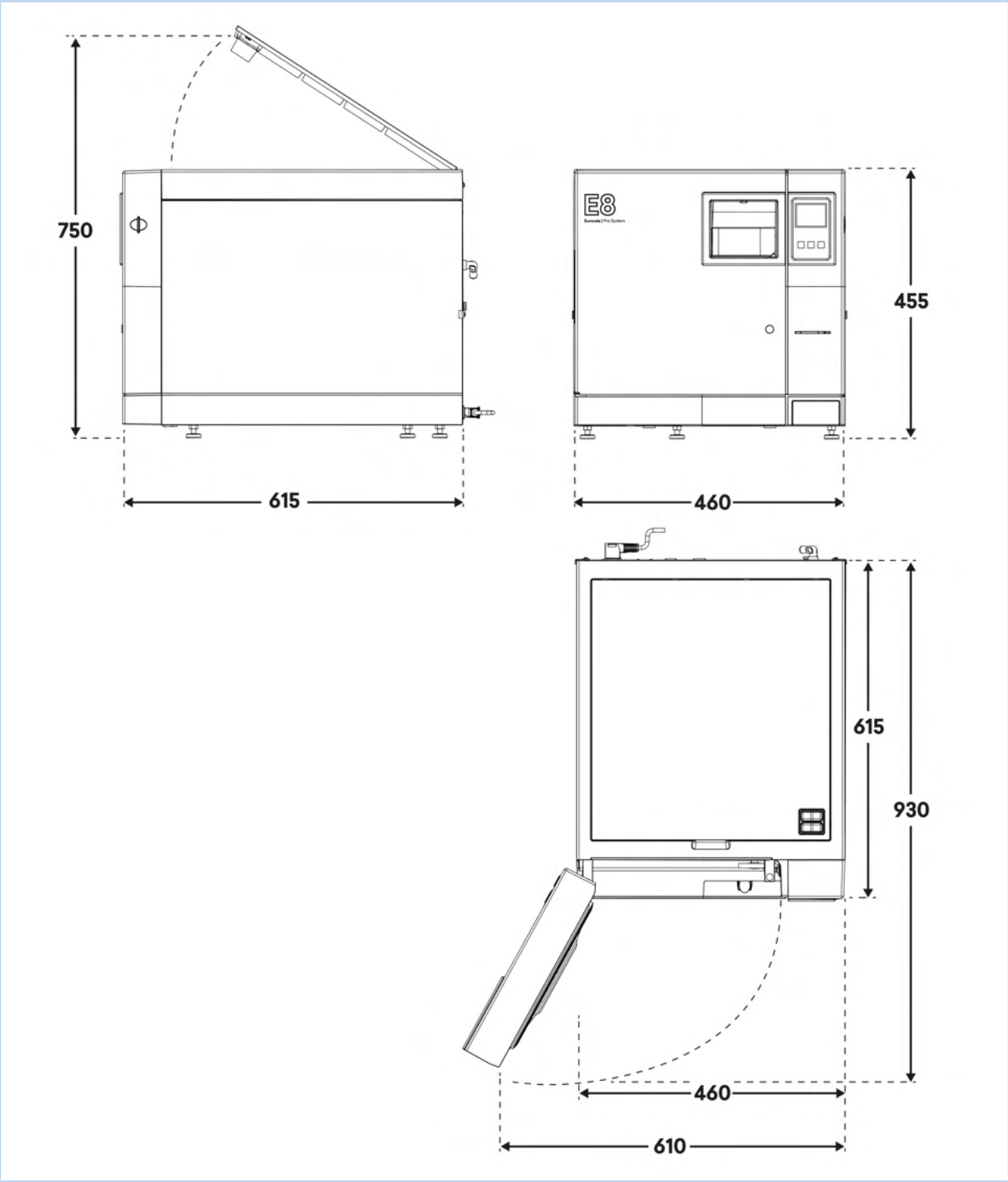


The use of steam-generating water containing contaminants at levels exceeding those shown in this table may significantly shorten the service life of a steriliser and may void the Manufacturer's warranty.

If the device is not used for more than three days, empty the two tanks to prevent deposits from forming.

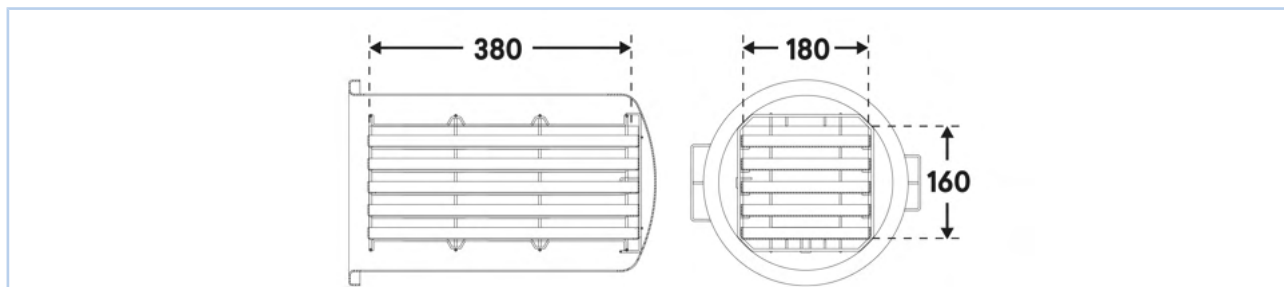
3.6 Dimensions

Device weight		
E8 24L	Empty = 47,5 Kg	Maximum weight with full tank and maximum load = 61,5 kg



3.6.1 Sterilisation chamber usable space

Sterilisation chamber usable space*	
E8 24L	180 x 160 x 380 mm (WxHxD)
*Usable space: it is the internal volume of the sterilisation chamber available for the material to be sterilised	

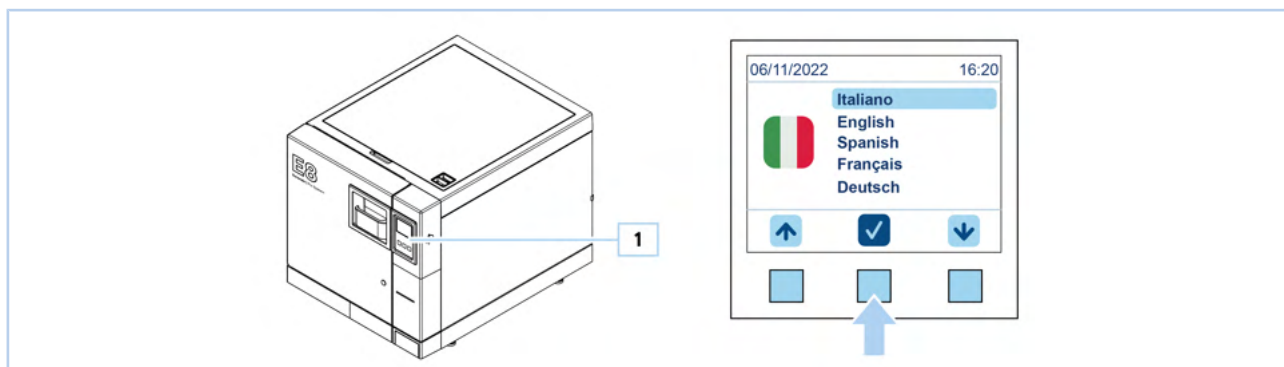


3.7 Description of control panel

The steriliser features a display user interface (1) with 3 soft touch keys.

Backlit keys allow performing all functions for programming, operation and maintenance of the equipment.

The function of a key depends directly on what is displayed next to it on the screen. Press the key corresponding to the desired function, as in the example below.



Example: If you want to confirm, press the centre key as shown in the figure. If you want to select a different language, press the keys next to the arrows.

Physical keys will therefore not be shown in the procedures described in this manual. It will be implied to press the key next to the desired icon.

3.8 Description of sterilisation programs

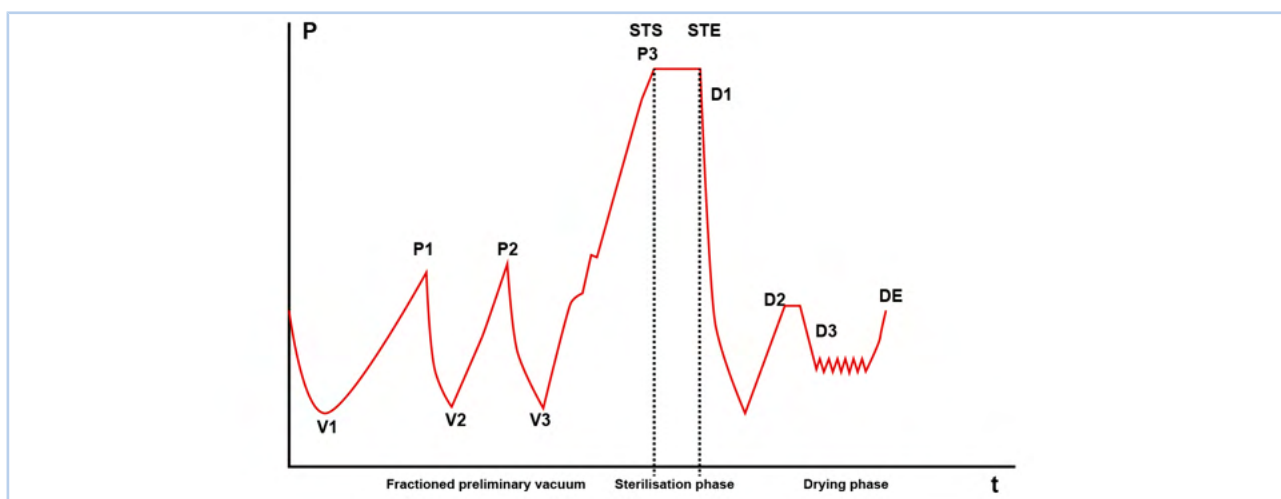
Herebelow are some definitions useful to understand the texts in this paragraph:

- **Solid load:** non-porous item, without notches or other characteristics that may hinder the penetration of steam in an amount equal to or greater than those of a hollow load.
- **Porous load:** a material capable of absorbing fluids; specifically:
 - A. Full porous load when the load occupies 95 ±5% of the usable space.
 - B. Reduced porous load when the load occupies 20 - 25% of the usable space.
 - C. Small porous load when the load occupies 0.5 - 5% of the usable space.
- **Hollow load A:** space open at one end where $1 \leq L/D \leq 750$ where D is the cavity diameter and L the length, with $L \leq 1500\text{mm}$, or space open at both ends where $2 \leq L/D \leq 1500$, with $L \leq 3000\text{mm}$ and that is not hollow load B.
- **Hollow load B:** space open at one end where $1 \leq L/D \leq 5$ where D is the cavity diameter and L the length, with $D \geq 5\text{mm}$, or space open at both ends where $2 \leq L/D \leq 10$, with $D \geq 5\text{mm}$.

The device is capable of performing five sterilisation cycles; the parameters of each cycle are summarised in the following table:

CYCLE PARAMETERS	B134	B134 PRION	B121	B134 RAPIDO/ B134 PRION RAPIDO
Temperature	134°C	134°C	121°C	134°C
Pressure	2,05 bar	2,05 bar	1,05 bar	2,05 bar
Sterilisation phase duration (plateau period)	4'	18'	20'	3,5' / 18'
Drying time (Auto)	15'	15'	15'	5'
Maximum load: • solid • porous	6 kg 2 kg	6 kg 2 kg	6 kg 2 kg	0,6 kg 0,2 kg

Cycle duration depends on the weight of the load, its type, and the temperature of the chamber upon cycle start.



Fractioned preliminary vacuum	V1	1st vacuum
	P1	1st pressure rise
	V2	2nd vacuum
	P2	2nd pressure rise
	V3	3rd vacuum
	P3	3rd pressure rise
Sterilisation phase	STS	Start of the sterilisation period
	STE	End of the sterilisation period
Drying	D1	Start of the drying phase
	D2	End of swift drying phase
	D3	Start of common drying phase
	DE	End of common drying phase

The single sterilisation cycles are now described one by one.

Follow the Manufacturer's recommendations regarding sterilisation methods and times.

Program name	Description
Program B 121	<p>It allows sterilising objects that are sensitive to temperature:</p> <ul style="list-style-type: none"> • Rubber parts. • Some plastic items. • Porous materials (cotton, fabrics) in open trays, or special perforated trays. <p>Hollow instruments and dental instruments such as tubes and similar objects can also be sterilised, after making sure that they have been previously cleaned. Pouched (single or double pouching) and non-pouched items can be sterilised.</p>
Program B 134	<p>It allows sterilising both solid instruments and porous materials (cotton, fabrics, etc.) in open trays, or special perforated trays.</p> <p>Hollow instruments and dental instruments such as tubes and similar objects can also be sterilised, after making sure that they have been previously cleaned. Pouched (single or double pouching) and non-pouched items can be sterilised.</p>
Program B 134 PRION - B 134 PRION RAPIDO	<p>It allows sterilising all those instruments suspected to have been contaminated by prions. The program allows sterilisation in open trays, or special perforated trays of items packed in pouches.</p> <p>Hollow instruments and dental instruments such as tubes and similar objects can also be sterilised, after making sure that they have been previously cleaned. Pouched (single or double pouching) and non-pouched items can be sterilised.</p>
Program B 134 RAPIDO	<p>It allows sterilising a maximum solid load of 0.6 kg and porous load of 0.2 kg in less time.</p> <p>The load to be sterilised must be placed on the highest tray, removing the others. It is possible to sterilise both pouched and non-pouched loads. In order to ensure proper drying of pouched loads, the specified weight must not be exceeded.</p>
Light Program (N121 and N134)	<p>It allows sterilising only unwrapped solid products in less time than a B134 cycle. It is not possible to sterilise hollow or pouched bodies due to the absence of pre-vacuums, which instead are present in the B121 or B134 programs. Do not exceed a weight of 6 kg.</p>
Light & Stock Program (S121 and S134)	<p>It allows sterilising only single-pouched solid instruments. You cannot use this program for double pouching or hollow bodies. The maximum sterilisable weight is 6 kg.</p>

3.8.1 Cycle validation

All cycles are validated according to EN 13060 for different parameters:

- Dynamic pressure of the steriliser chamber.
- Air leakage.
- Empty chamber.
- Solid load.
- Small porous items.
- Porous load.
- Hollow load A.
- Multiple packaging.
- Dryness, solid load.
- Dryness, porous load.

4 Packaging, handling and storage

4.1 Packaging

Upon receipt of the device, check that the packaging is intact in every part.



Keep the original packaging and use it for any future transport of the device.

The device is placed in a cardboard box, protected by a bag and proper shock-proof templates.

4.1.1 Packaging weight and dimensions

OVERALL PACKAGING DIMENSIONS	- Height = 545 mm - Width = 560 mm - Depth = 745 mm	
TOTAL WEIGHT	E8 24L	54 kg

4.1.2 Package contents

The package contains the following items:

- Water steam steriliser - 24 L (q.ty 1).
- Anodised aluminium perforated tray (q.ty 5).
- Tray support with 5 compartments in stainless steel (q.ty 1).
- Handle for tray extraction (q.ty 1).
- Door gasket adjustment lever (q.ty 1).
- Drain hose with quick coupling (q.ty 1).
- Overflow drain hose (q.ty 1).
- Sponge (q.ty 1).
- Power cable (q.ty 1).
- Funnel (q.ty 1).
- Warranty certificate (q.ty 1).
- Service Book (q.ty 1).
- Test report (q.ty 1).
- Steriliser Declaration of Conformity **CE** 0051 (q.ty 1).
- Boiler Declaration of Conformity **CE** 0497 (q.ty 1).

4.1.3 Packaging removal

To **remove the packaging**, proceed as follows:

Step	Action
1	Place the packaging in the place where the device will be installed.
2	Remove the staples closing the top of the cardboard packaging.
3	Open the top of the carton and check that: <ul style="list-style-type: none"> • The supply meets the technical specifications (see paragraph 4.1.2 - Package contents). • There are no obvious signs of damage. Note: in case of damage or missing parts, immediately inform the carrier, wholesaler or Euronda , providing all details.
4	Using the special straps, have the device lifted by two people at the same time , taking care to keep it horizontal at all times. Note: Do not grasp the device by forcing plastic parts.
5	Lay the device on the work surface, then remove the straps by lifting the device slightly.



In case of wrong delivery, missing parts or damage of any kind, immediately inform Euronda, providing all details.

4.2 Handling



Before carrying out any transport and handling operations of the device, empty the water filling and drain tanks. Use the provided drain hose and follow the drain instructions.
Do not lift the device with violent jerks and do not overturn.

The device, once taken out of the packing box, must be lifted by two people at the same time and moved preferably by a forklift truck or similar means.

4.3 Storage

Store the device at a temperature no lower than +5°C.

Prolonged exposure to low temperature may cause damage to the product.

5 Installation and commissioning

5.1 Installation



Installation is a key operation for the subsequent use and correct operation of the device.

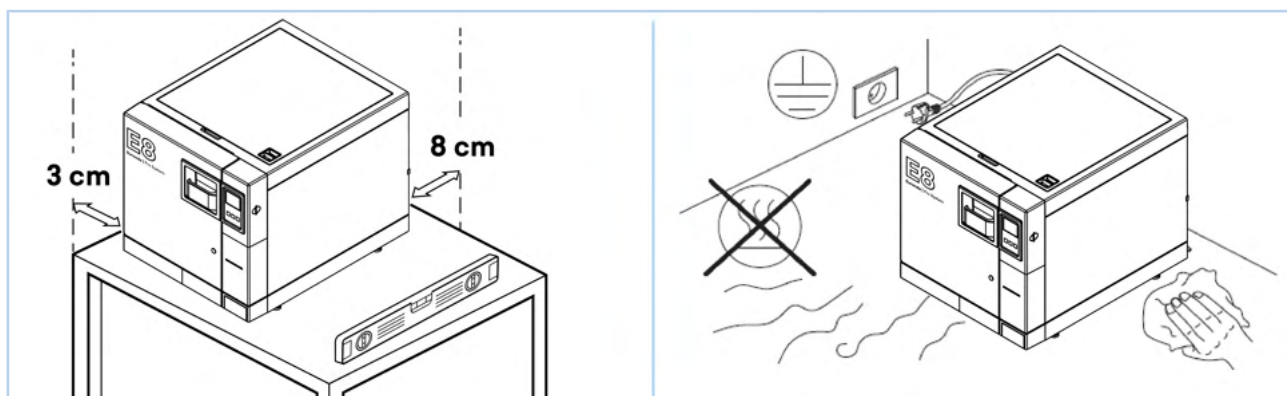


Installation must be performed by technical personnel authorised by Euronda.

5.1.1 Preliminary checks

Before positioning and installing the device, make sure that:

- It is placed on a flat, horizontal surface.
- The resting surface is strong enough to support its weight.
- You leave a space of at least 8 cm on the back, and 3 cm on the sides to allow sufficient ventilation and heat dissipation.
- The accessory kit placed inside the device has been removed.
- In case of recessed installation, leave a space of at least 8 cm upwards for heat dissipation.



5.1.2 Positioning

The device must be positioned in such a way that:

- The power cable is not bent or crushed but can run free to the electrical socket.
- The device is at such a height that will allow the user to easily inspect the sterilisation chamber and tanks and clean them.
- The mains plug is always easily accessible. The mains plug is the means used to disconnect from the power mains/cut off the power supply.

Do not place the device near sources of steam or possible water splashes, which could damage the internal electronic circuits.



Do not install the device in places with poor ventilation and/or near heat sources.

If the discharge tank is connected to waste pipes, place the device at a height above the drains.

5.2 Connections



Connections must be carried out by technical personnel authorised by Euronada.

5.2.1 Electrical connection



Use only the supplied power cable.

The device complies with the electrical safety requirements of regulatory standards, and is equipped with a dual-pole plug ensuring its complete grounding.

Before performing the electrical connection, check that:

- The device is powered with the voltage indicated on the nameplate.
- In the system, upstream of the power socket, there is a differential switch with the following characteristics (rated current = 16A; differential sensitivity = 0.03A).
- The system is grounded in compliance with the standards applicable in the country of installation.
- The system is connected in compliance with the standards applicable in the country of installation.
- The maximum mains voltage variation is $\pm 10\%$.



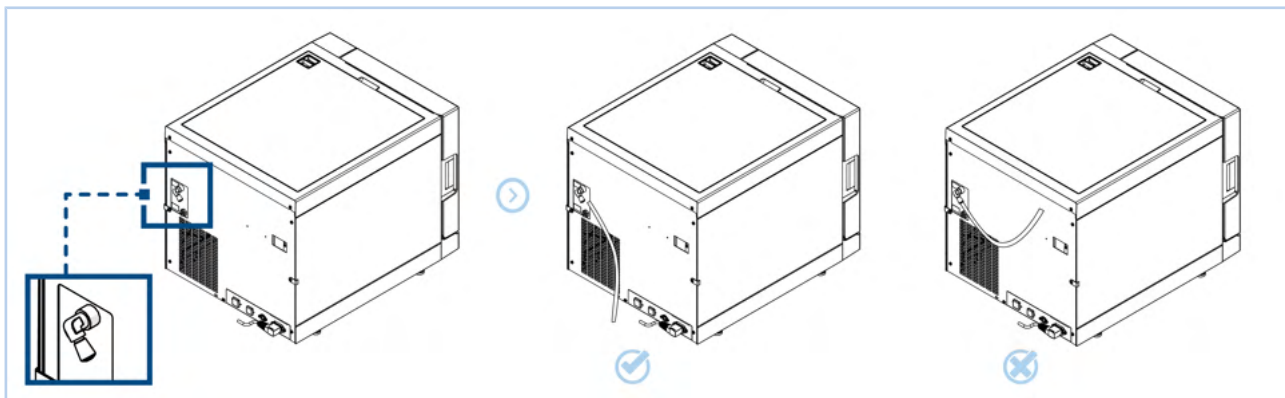
The Manufacturer is not liable for damage caused by installing the device with inadequate and/or ungrounded electrical systems.

5.2.2 Continuous used water drainage connection



If an Euronada water treatment system has been connected to the device (refer to paragraph 8.1.8 - Water treatment system set-up), the continuous used water drainage connection must be used.

The drain fitting on the back of the device can be used for water drainage, so that it can be drained continuously. Insert the hose into the water drainage connection used for continuous drainage.



The drain hose should be at a lower level than the connection on the device. Failure to do so could affect tank proper drainage.






5.3 Commissioning

5.3.1 First start-up



The first start-up should be carried out while holding the device door open so that the local ambient pressure can be read.

To perform the first start-up, proceed as follows:

Step	Action
1	Press the main ON - OFF switch. Note: The display activates and the welcome message appears. This screen remains fixed for a few seconds until the device is ready to interact with the operator.
2	Select the desired language using the arrows   . Press icon  to confirm the selected language.
3	The installation screen is displayed: <ul style="list-style-type: none"> Press icon  to confirm the installation of the device with the date and time displayed on the screen. Press  icon not to complete device installation. The installation screen is shown again upon next switching on.

When the first start-up procedure is completed, the HOME screen appears on the display.

5.3.2 Manual water filling and draining



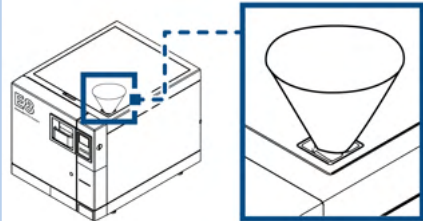
To ensure device correct operation, it is essential to use only distilled or deionised water with the characteristics listed in paragraph 3.5.1 - Water characteristics.

The device features two separate tanks:

- One for the clean water required for the cycles.
- One for the used water that is collected at the end of the cycle.

5.3.2.1 Manual water filling

To perform **manual water filling**, proceed as follows:

STEP	ACTION	IMAGE
1	Open the top cover plug.	
2	Insert the supplied funnel into the hole.	
3	Manually pour water in. Note: do not exceed the MAX level in the water filling hole.	



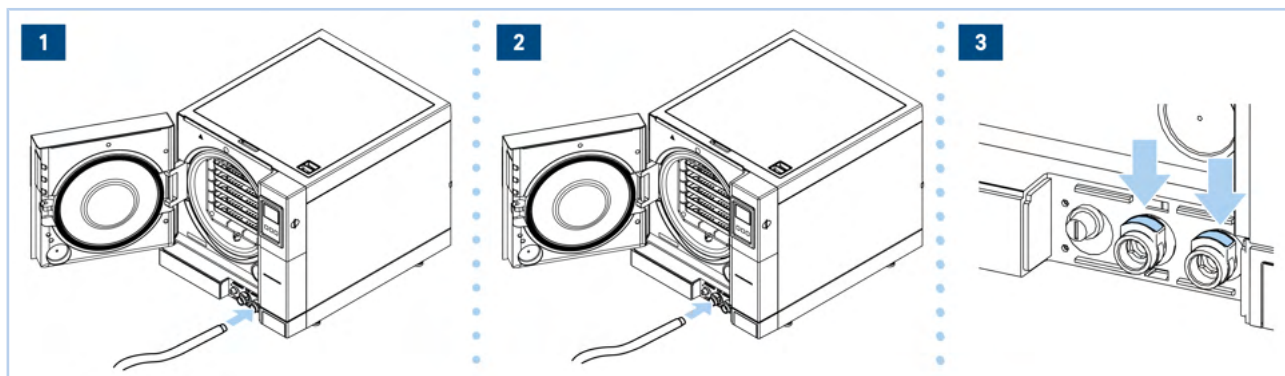
Take care not to spill water on the device; if you do, switch off the autoclave, dry it promptly and do not switch on the power until the machine is completely dry.

Water can be filled through a water treatment system that enables automatic water filling. To install this option, contact the Euronda authorised technician.

5.3.2.2 Water drain

To perform tank emptying:

Step	Action
1	Connect the supplied tube to the clean water drain connection. Place the other end of the tube into an empty container.
2	Connect the supplied tube to the used water connection. Place the other end of the tube into an empty container.
3	When draining operations are completed, remove the tube from the fitting by pressing on its button.



DANGER OF CONTAMINATION!



The water in the discharge tank may contain some contaminated residues

Wear protective gloves when performing draining operations.




Do not reuse used water.

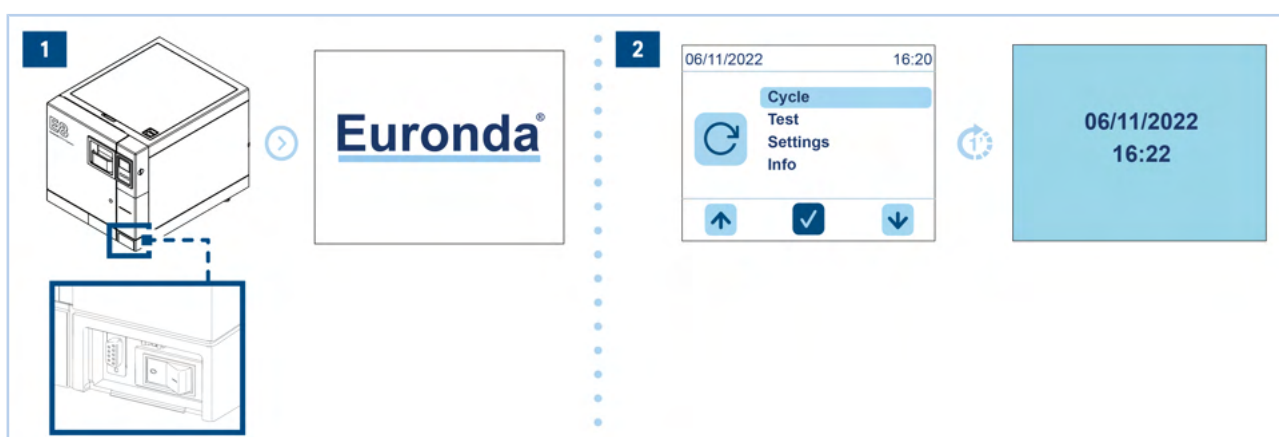
Continuous draining of used water can be conveniently carried out using the drain fitting on the back of the device (see paragraph 5.2.2 - Continuous used water drainage connection).

6 Operations for proper functioning

6.1 Switching on and cycle selection

To perform device switching on and cycle selection, proceed as follows:

Step	Action
1	Press the main ON - OFF switch. Note: the display activates and the screen shown below appears for a few seconds, followed by the HOME screen.
2	Select the  sterilisation CYCLES function from the HOME screen. Scroll down the list  and select the  icon to return to the HOME screen. Note: if no command is selected within 1 minute, the screensaver screen is displayed.



Do not open tank doors while the cycle is running to avoid possible water spillage.

6.2 Loading the material to be sterilised



All materials, before being sterilised, must be processed according to current regulations (EN ISO 17665-1 and EN ISO 17664-1).

6.2.1 Decontamination

Before loading the material to be sterilised into the chamber, all objects must be decontaminated and thoroughly cleaned (so as to remove blood, saliva, dentin and organic substances in general) and dried. In case of instruments joined together, they should be divided or otherwise placed in the most airy and spacious position possible.

6.2.2 Loading into the sterilisation chamber



Do not exceed the max. load specified in paragraph 3.8 - Description of sterilisation programs.



Before loading the material to be sterilised, the device should be turned on and the door left open. This procedure allows the correct measurement of the atmospheric pressure.

Before loading the material into the sterilisation chamber, follow the directions below:

- Use the tray support to facilitate the circulation of steam.
- Do not place unused trays inside the chamber.
- When sterilising loose instruments, always cover the tray using tray paper sheets, so as to avoid direct contact of the instrument with the tray.
- Make sure that instruments of different materials are separated and placed on different trays.
- For better sterilisation, open instruments such as pincers, scissors, or other composite instruments.

- Arrange the instruments far enough apart and so that they remain separate throughout the sterilisation cycle.
- Do not pile instruments on the trays: overloading could compromise sterilisation.
- Mirrors should be placed with the glass facing down.
- It is necessary to leave a space between the trays to allow steam to circulate during the sterilisation phase and thus facilitate drying.
- If pouched instruments are sterilised, do not overlap the pouches on the trays. Prevent pouches from coming into contact with the walls of the chamber. Place the pouch with the transparent side facing down (in contact with the tray) and the paper part facing up.



When inserting the trays, be careful not to damage the door gasket.
Place the load to be sterilised in the highest available part of the tray support.

6.3 Sterilisation



During the sterilisation cycle, do not open the tank cover.
For pouched loads exceeding the indicated weight, proper drying is not assured.






During the sterilisation cycle, it is forbidden to manually release the safety lock-door.

6.3.1 Cycle type selection



For a description of the sterilisation cycles, refer to paragraph 3.8 - Description of sterilisation programs.

To **select and run the sterilisation cycle**, proceed as follows:

Step	Action
1	Select the sterilisation CYCLES function from the HOME screen.
2	Press one of the five available cycle icons: 134B - 134R - 121B - 134P - 134PR Note: the screen with cycle main characteristics is displayed.
3	Press: <ul style="list-style-type: none"> •  to start the cycle; •  to go back to cycle selection screen.
4	Select the operator and press icon  to confirm.

2



3



4



6.3.1.1 Sterilisation cycle screen description

POS.	ELEMENT	
1	Cycle name	
2	Maximum admissible solid load	
3	Maximum admissible porous load	
4	Number of pre-vacuums required by the cycle for air removal	
5	Sterilisation time	
6	Average cycle time	

6.3.2 Cycle execution

During the execution of a sterilisation or test cycle, the screen shown in the table appears on the display, where the following are shown:

POS.	ELEMENT	
1	Cycle name	
2	Cycle stage indicators: pre-vacuums, sterilisation, drying	
3	Temperature	
4	Pressure	
5	Time left to the end of the cycle	
6	Padlock symbol to indicate that the door is locked	
7	Detailed information about the parameters of the cycle in progress	
8	Cycle manual stop	

6.3.2.1 Parameter information on the cycle in progress

Press icon to access the screen with detailed information about the parameters of the cycle in progress:

POS.	ELEMENT	
1	Reading of the probes present on the device and the name of the current phase (top)	
2	To go back to the previous screen	

6.3.3 Unlocking personal cycles

To receive the password and unlock personal Light and Light&Stock cycles, contact the support service.



These sterilisation programs can only be used for solid loads. Do not use for hollow and double-pouched loads. Please read carefully paragraph 3.8 - Description of sterilisation programs.

6.3.4 Cycle end





Do not interrupt a cycle by cutting off the power supply to the device. Always use the manual stop procedure specified below.

6.3.4.1 Cycle end - Sterilisation completed

<p>When the cycle is successful, the load is sterile and dry and the door is unlocked Process end is confirmed by the appearance of this screen To pick up the load, simply open the device door.</p>	
---	--

6.3.4.2 Cycle end - manual Stop

To **perform cycle end - manual stop**, proceed as follows:

Step	Action
1	Press icon  for at least 3 seconds.
2	Press icon  again to confirm that you want to stop the cycle. Note: the device will then start the manual stop procedure. A sequence of operations is started to safely vent the steam and let the pressure in the boiler go back to the external level (the display shows "PLEASE WAIT" flashing in red). When the manual stop operations are completed, the error screen appears on the display. The door is locked.
3	Touch the screen to unlock the door.

Manual stop screen - load not sterile

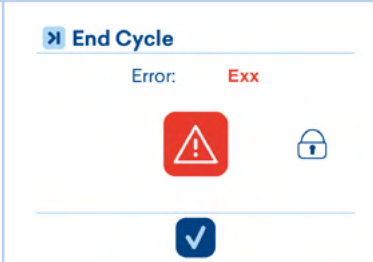
<p>This screen appears after a manual stop before the end of sterilisation The load in the boiler is to be considered as non-sterile To unlock the door, touch the central area of the screen.</p>	
--	--

Manual stop screen - wet load

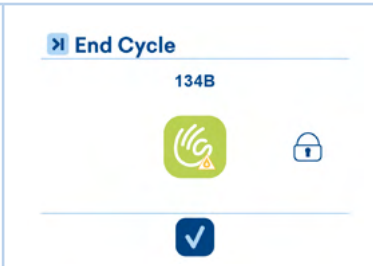
<p>This screen appears after a manual stop at the end of sterilisation phase The load in the boiler is sterile, but not suitable for storage, as drying has not been completed. Therefore, the load can only be used immediately. To unlock the door, touch the central area of the screen.</p>	
---	--

6.3.4.3 Cycle end - Error






Error screen - load not sterile

<p>If a cycle is stopped due to an error before the sterilisation phase is completed, the load in the boiler is to be considered non sterile Then this screen appears showing the cycle name and the error code To unlock the door, touch the central area of the screen.</p>	
---	---

Error screen - wet load

<p>If a cycle is stopped due to an error at the end of the sterilisation phase, the load in the boiler is to be considered sterile but not suitable for storage, as drying has not been completed. Therefore, the load can only be used immediately. Then this screen appears showing the cycle name and the error code. To unlock the door, touch the central area of the screen.</p>	
--	---

6.4 Material extraction

-  **Danger of burns from escaping steam. When opening the door, do not lean over or stand in front of it.**
-  **Danger of burns from contact with hot metal surfaces.**
-  **In any case of failed sterilisation cycle, pay attention to the presence of hot and/or potentially contaminated liquids.**
-  **Always wait for the cycle end signal on the display before opening the door.**
-  **Wear appropriate Personal Protective Equipment (e.g. gloves, goggles and half-face mask) to extract the material in any case of failed sterilisation cycle.**

To extract the material, proceed as follows:

Step	Action
1	Open the door.
2	Pull out the trays using the extractor tool provided.
3	Allow the internal parts of the steriliser and instruments to cool down before touching them.

-  **If there are packages that are damaged or have opened after sterilisation, the load of material to be sterilised should be re-packed and sterilised.**

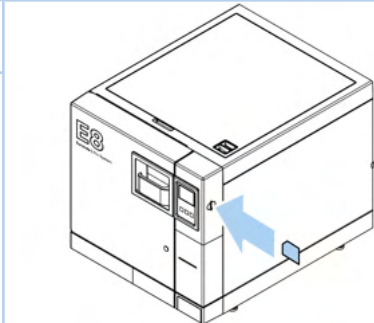
6.5 Inserting and removing the sd card



Before removing the SD memory card, turn the steriliser off. Before turning it on again, reinsert the SD memory card. The absence of the SD memory card during device operation may cause errors.

Do not run cycles if no SD memory card is inserted: if you run cycles without the SD memory card on board, or if you remove it during a cycle, the data related to those or that cycle will be lost.

To put the SD memory card in and out from its slot, proceed as follows:

STEP	ACTION	IMAGE
1	Push it deep into its slot. Note: make sure the pins face the front side of the device.	



If the SD card proves difficult to fit into the slot, do not force the mechanism and check it has been inserted in the right direction.

A quick check that the PC correctly recognises the memory is possible by checking in "Windows Explorer" whether the external memory device is present and appears as a "Removable disk".

6.6 Door release

A safety pin automatically locks the door after cycle is started. The pin only returns to its seat at the end of the cycle.



Attempting to open the door with the safety door lock applied may seriously damage the closing system.

Always wait for the cycle end signal on the display before opening the door.

In case of an alarm, the door can be opened only after giving consent by touching the display.

6.7 Stop

When stopping the steriliser, make sure the door is:

- open, or
- completely closed.

Avoid the situation where the door is closed but the handle is not fully hooked.

6.7.1 Power blackouts



In the event of power cuts (blackouts) during a sterilisation cycle, any attempt to open the door is strictly forbidden; any residual pressure could cause burns due to escaping steam.

In case of power cuts (blackouts) during device operation, the display shows the **alarm message E02** (see chapter 10 - Troubleshooting).

6.7.2 Long periods of inactivity

In case of long periods of inactivity of the device, proceed as follows:

Step	Action
1	Disconnect the device from the mains supply.
2	Empty the tanks (see paragraph 5.3.2.2 - Water drain).
3	Leave the door ajar.
4	Cover the device with the protective bag available in the package to protect it from moisture and dust.

6.8 Restart

6.8.1 Restart after an interruption caused by an alarm

To reset the device after an interruption caused by an alarm:

Step	Action
1	Press the centre key on the control panel to confirm.
2	Go back to the HOME screen.

For further information see chapter 10 - Troubleshooting.

7 Test programs



It is important to periodically check the performance of the device by carrying out appropriate tests; the device can perform three different types of tests:

- **VACUUM**
- **BOWIE & DICK**
- Helix

The parameters of the respective cycles are:

CYCLE PARAMETERS	VACUUM	BOWIE & DICK	HELIX
Temperature	-	134°C	134°C
Pressure	Minimum pressure	2,05 bar	2,05 bar
Sterilisation phase duration (plateau period)	-	3'30"	3'30"
Drying time	-	-	-
Total time	20'	23'	23'







7.1 Description of test programs

Program name	Description
VACUUM	<p>This test is performed to check the performance of the device, specifically:</p> <ul style="list-style-type: none"> • The efficiency of the vacuum pump. • The tightness of the hydraulic circuit. <p>The cycle is structured as follows:</p> <ol style="list-style-type: none"> 1. A vacuum is created to the minimum pressure value indicated in the load pretreatment stage. 2. this pressure is maintained for 5 minutes and then measured. 3. this pressure is maintained for 11 minutes and then measured. 4. In compliance with EN13060, the test requires a leak test of less than or equal to 1.3 mbar/ min in the 10-minute test; if the leakage is greater than this value, the test outcome will be negative; it will be necessary to check the tightness of the device's hydraulic circuit. <p> Perform this test at the beginning of each working day with the chamber at ambient temperature.</p> <p> The Vacuum test can be performed only when the device is cold, so within 3 minutes after it is turned on. After this time has elapsed, it enters pre-heating and the test will no longer be possible.</p>
BOWIE & DICK	<p>The Bowie & Dick test simulates the performance of the device with respect to sterilisation of porous loads, specifically:</p> <ul style="list-style-type: none"> • The efficiency of the preliminary vacuum, and thus the penetration of steam inside the cavities. • The temperature and pressure values of the saturated steam during the sterilisation phase. <p>The packet for the Bowie & Dick test should be inserted on its own, possibly in the lowest tray with the label facing up. After performing the cycle, type B134, immediately check the test.</p> <p>Taking care to handle the packet (still hot), remove the indicator sheet and follow the instructions given in the package to evaluate the test outcome.</p>

Program name	Description
Helix	<p>The Helix test represents a hollow A-type load, which is the load with the most critical characteristics.</p> <p>The Helix test simulates the performance of the device with respect to sterilisation of hollow loads, specifically:</p> <ul style="list-style-type: none"> • The efficiency of the preliminary vacuum, and thus the penetration of steam inside the cavities. • The temperature and pressure values of the saturated steam during the sterilisation phase. <p>The Helix test strip should be placed in the lowest tray inside the sterilisation chamber. At the end of the cycle, immediately remove the tube (paying attention as the load is still hot) and check the test outcome, referring to the indications given on the tube package.</p>

7.2 Selecting a test program

To **select a test**, proceed as follows:

Step	Action
1	Press the main ON - OFF switch.
2	Select the  TEST function from the HOME screen to access the menu of test cycles.
3	<p>From the TEST screen, select the test cycle you wish to start among:</p> <ul style="list-style-type: none"> •  Vacuum. •  Helix. •  Bowie & Dick. <p>Scroll down the list  and select the  icon to return to the HOME screen.</p>






7.3 End of test program

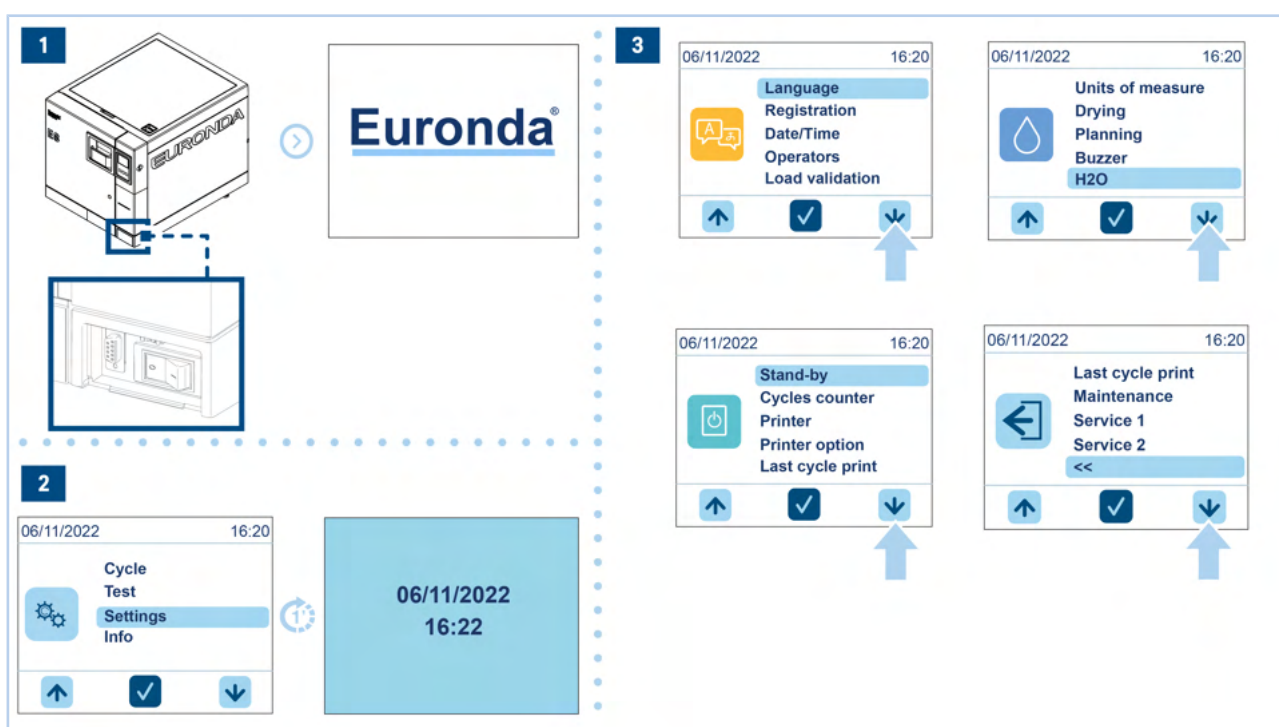
The same screens described in paragraph **6.3.4 - Cycle end** apply for the test program.

8 Settings

8.1 Settings menu

To access the settings menu, proceed as follows:

Step	Action
1	Press the main ON - OFF switch.
2	From the HOME screen, select the function  SETTINGS.
3	<p>Touch the arrows   to scroll through the settings screens.</p> <ul style="list-style-type: none"> Press  to enter the selected setting. Select  to go back to the screen.






8.1.1 Language set-up

To set the language shown on the display, proceed as follows:

Step	Action
1	Select LANGUAGE from the settings menu.
2	Select the desired language by pressing the icon.


8.1.2 Date and time set-up

To change the date and time of the device:

Step	Action
1	Select DATE AND TIME from the settings menu.
2	Touch the field to be edited. Note: the field is highlighted in grey.
3	Change the value using the arrows   .
4	Press the  icon to confirm changes and exit the specific screen.

8.1.3 User set-up

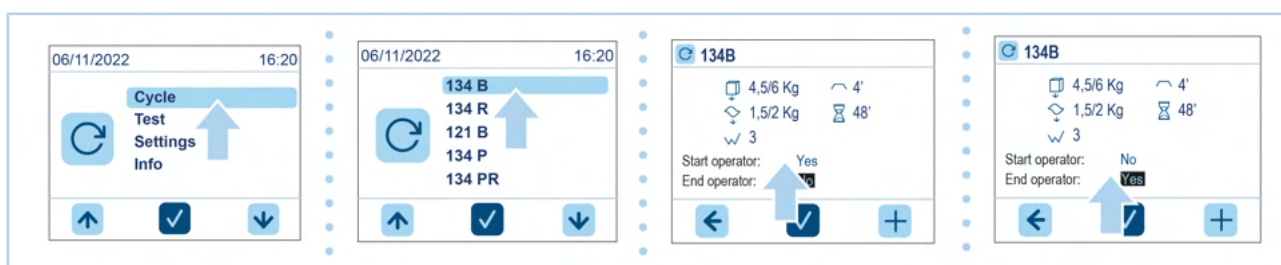
The device allows each sterilisation cycle to be associated to the user launching it. By default, the steriliser does not use this feature; to activate it, simply touch the Users icon. Then proceed as follows:

Step	Action
1	Press the USERS icon to access the menu.
2	Press the icon  to add a new user.
3	Enter the required data (first name, surname, password and password confirmation) for each user.
4	Once all users have been entered, you can activate the user list by touching the icon on the right, which will turn green.

When the cycle is launched, the user can choose whether to register the operator who loads the steriliser, or the one who unloads it, or both.


Select:

- **Initial operator** = Yes, the device will prompt to select the operator from the list of saved operators and save the data of the operator who performs the start of the sterilisation cycle.
- **Final operator** = Yes, the device will prompt to select the operator from the list of saved operators and save the data of the operator who unloads the steriliser after the sterilisation cycle.






8.1.4 Units of measure set-up

To change the unit of measure of the device:

Step	Action
1	Select UNITS OF MEASURE from the settings menu.
2	Select the desired unit of measure from those suggested. Press the  icon to confirm changes and exit the specific screen.

8.1.5 Drying time set-up

If necessary for certain loads or specific requirements, the drying time can be increased:

Step	Action
1	Select DRYING TIME from the settings menu.
2	Change the drying time using the arrows   . Press the  icon to confirm changes and exit the specific screen.

8.1.6 Planning set-up






8.1.6.1 Delayed start

The device allows planning test cycles and programs by defining the day and time to run them. The device should be left on with the door closed and the water level above the minimum.

The following test cycle and program combinations can be planned:

- Vacuum (performed only with cold device).
- Bowie & Dick.
- Helix.
- Vacuum test followed either by a cycle or another test program.
- Cycle.

To set a delayed start, proceed as follows:

Step	Action
1	Select PLANNING from the settings menu.
2	Press the DELAYED START function.
3	Select the type of cycle/test to be planned.
4	Touch the field to be edited (TIME and/or DATE) and act on the arrows   . Note: the field is highlighted in grey.
5	Press the  icon to confirm changes and exit the specific screen.
6	Press the  icon to enable the programming of the cycle/test selected in step 3.
7	Press icon  to end the storage of the delayed start.


8.1.6.2 Test reminder

The device allows the user to schedule a reminder to perform a test after a certain number of days.

Reminders can be scheduled at set intervals for the following tests:




- Vacuum.
- Bowie & Dick.
- Helix.

To schedule a test reminder, proceed as follows:

Step	Action
1	Select PLANNING from the settings menu.
2	Press the TEST PLANNING function.
3	Select, for each test, every how many days the reminder will be activated. Press the  icon to confirm changes and exit the specific screen.

8.1.7 Standby set-up

The steriliser is set to stop pre-heating the boiler after 30 minutes of inactivity. You can disable the Standby function or change this interval:


Step	Action
1	Select STANDBY from the settings menu.
2	Set the standby time using the arrows   . Press the  icon to confirm changes and exit the specific screen.

8.1.8 Water treatment system set-up



If an Euronda water treatment system is connected to the device, the continuous waste water drainage connection must be used (refer to paragraph 5.2.2 - Continuous used water drainage connection).

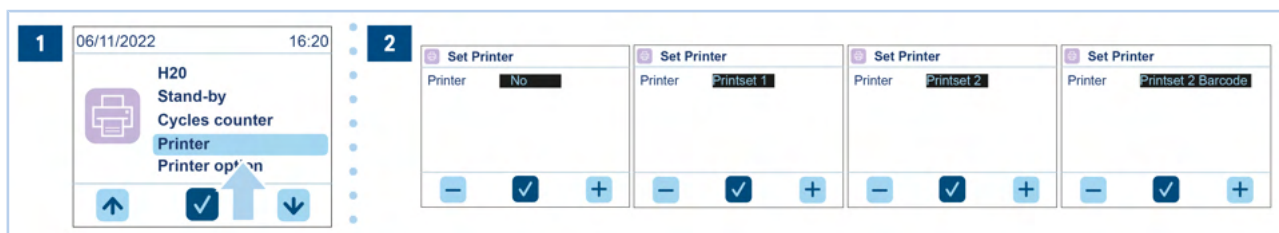
If an **Euronda** water treatment system (allowing you to obtain water automatically) has been connected to the device, proceed as follows:

Step	Action
1	Select H ₂ O from the settings menu.
2	Enable the AQUAFILTER or AQUABOX function corresponding to the purchased product.
3	Press the  icon to confirm changes and exit the specific screen.

8.1.9 Printer set-up

The device has the option of having 2 types of associated (optional) printers. By default, the steriliser uses the Print Off mode. After electrically and mechanically connecting the desired printer, in order to interface it with the device proceed as follows:

Step	Action
1	Select PRINTER from the settings menu.
2	Select the desired printer and print type. To save the setting tap the right key, to exit tap the left key, to return to type setting tap the centre key. <ul style="list-style-type: none"> 1 = No 2 = Print Set 1. 3 = Print Set 2. 4 = Print Set 2 Barcode



After activating a Print Set, at the end of each cycle it will print:

- a receipt showing the essential cycle data;
- if a Print Set 2 is installed, it will print the set number of labels/barcodes (see “8.1.10.2 - Label option”).

8.1.10 Printing options set-up

8.1.10.1 Cycle option

The device stores the last 40 cycles started. This option allows printing the report of selected cycles divided by outcome. To display the "cycles" printing option, proceed as follows:

Step	Action
1	Select the PRINT OPTIONS from the settings menu.
2	Select/touch the CYCLES field.
3	Select the number of the involved category. Use the arrows to indicate the number of cycles to be printed.
4	Select the printer icon of the involved category to proceed with printing. Press the icon to confirm changes and exit the specific screen.




8.1.10.2 Label option


In label printing mode, the device prints the expiry date of sterility on the labels. By default the device assigns:

- an expiry of 30 days
- the number of labels to print to 0.

To change the default number of labels to be printed:


Step	Action
1	Select the PRINT OPTIONS from the settings menu.
2	Select/touch the LABELS field.
3	<ul style="list-style-type: none"> • Select/touch the upper field and change the value by acting on the arrow up and arrow down keys to change the number of labels. • Select the lower field to change the expiry days.
4	Press the  icon to confirm changes and exit the specific screen.

POS.	ELEMENT
1	Label number set-up
2	Expiry days set-up



8.1.11 Label reprinting management

In case you run out of label roll during printing, the device gives the possibility to reprint them. The cycle will end normally without finishing printing. To reprint the last print cycle, proceed as follows:

Step	Action
1	Select PRINT LAST CYCLE from the settings menu.
2	Set the number of labels to be printed in the first line.
3	Set the expiry date in the second line.
4	Press icon  to start printing.

9 Maintenance

9.1 Safety warnings for maintenance

Before any intervention, disconnect the power supply (main switch in the "0 - OFF" position). Failure to observe this warning may cause serious injury to people or may seriously damage the device.

All the described maintenance operations must only be performed by the responsible authority or technicians authorised by Euronda.

It is important to periodically check the efficiency of safety devices.

Unauthorised people must stay at a safe distance from the device during maintenance operations.

It is forbidden to remove the safety devices installed on the device.

When replacing components or parts of the device, request and/or use only original spare parts.

The device must undergo regular checks and maintenance.

9.2 Routine maintenance

To prevent any malfunction and risk, it is necessary for the device to be regularly checked and maintained.

- For good maintenance of the device, periodically clean all external parts using a soft cloth dampened with standard mild detergents (do not use corrosive or abrasive products).
- Do not use abrasive cloths or metal (or otherwise abrasive) brushes to clean metals.
- Before starting each cycle, thoroughly clean the door gaskets using a damp cloth.
- The formation of white stains on the base of the chamber shows that the water used is of poor quality.

9.2.1 Maintenance intervals

OPERATION	FREQUENCY						
	Daily	Weekly	Every year	When the following message appears			
				M1	M2	M3	M4
Cleaning:							
Door gasket	●						
General of the external surfaces	●						
General of internal surfaces	●						
Sterilisation chamber		●					
Trays and support		●					
Tanks							●
Drain filter	When necessary						
Replacement:							
Bacteriological filter				●			
Door gasket					●		
Contact the technical support service						●	
Label roll	When necessary						
Paper roll	When necessary						

9.2.2 Safety valve check



The operation should be performed only when the device is cold.

To perform the safety valve check, proceed as follows:

STEP	ACTION	IMAGE
1	Access the safety valve fitted on the back of the device.	
2	Loosen the plug, located on top of the valve, anti-clockwise until it reaches the end of the thread and turns loose.	
3	Take the plug back to its original position, screw it back on. Note: repeat the operation from the beginning at least a couple of times.	



This operation is necessary in order to ensure the proper operation of the safety valve over time. Make sure that at the end of the operations the plug is tightly closed.

9.2.3 Adjustment of the closing mechanism



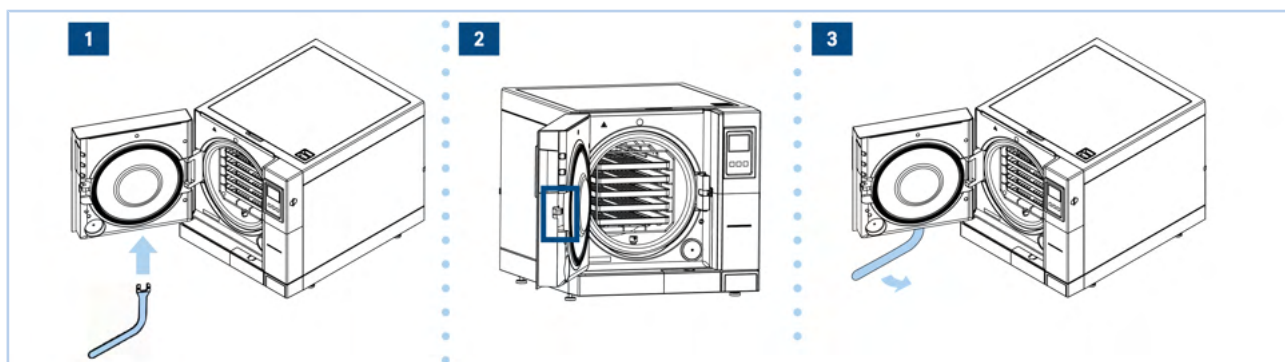
The operation should be performed only when the device is cold.



If not correctly adjusted, the closing mechanism can affect the gasket as well as the correct success of the cycle.

To adjust the closing mechanism, proceed as follows:

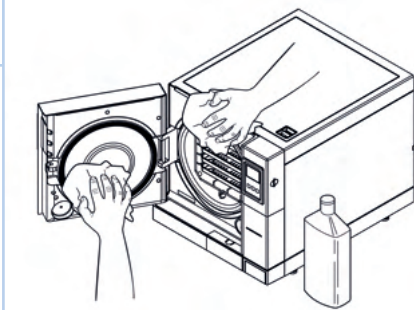
Step	Action
1	Open the door and insert the supplied adjustment lever into the slot at the bottom.
2	Visually check, through the side slot of the door, that the lever is correctly inserted into the adjustment pin.
3	Turn the adjustment lever by 1/4 of a turn. Turn anti-clockwise, looking at the door gasket, to increase the closing pressure, and clockwise to decrease it.
4	Check the correct closing of the door. Note: in case you need to soften the resistance of the door control, turn the pin clockwise
5	Run a test cycle to check correct adjustment.



9.2.4 Door gasket cleaning

Such cleaning must be performed to remove any impurities that may cause the sterilisation chamber to lose pressure and possibly cut the gasket.

To **perform door gasket cleaning**, proceed as follows:

STEP	ACTION	IMAGE
1	Clean the door gasket with a soft cloth, dampened with water or citric acid, to remove scale deposits.	



Gasket must be kept clean. Do not allow residues of lime-scale or dirt to accumulate on the gasket, since these can damage or break it over time.

9.2.5 General cleaning of external / internal surfaces

Perform a daily cleaning of all external and internal surfaces of the device, using a soft cloth dampened with mild detergent or simply water.



Do not use solvents and/or abrasive products, which could damage the external and internal plastic parts of the device.

Do not use direct or pressurised water jets to clean the device. Any seepage on electrical components could affect the smooth operation of the device and safety systems.

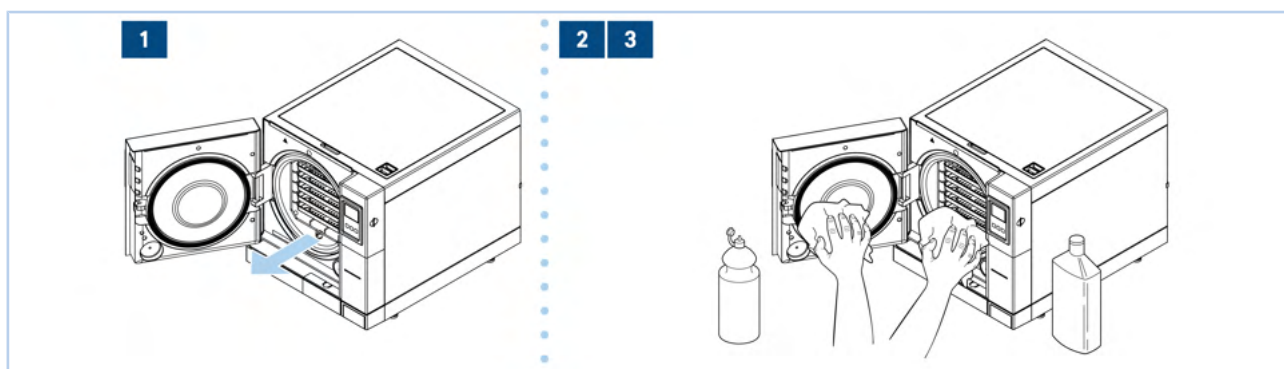
9.2.6 Sterilisation chamber, trays and support cleaning



Do not use disinfectant substances to clean the chamber.

Cleaning the sterilisation chamber is important to remove deposits that may affect the smooth operation of the device. To **clean the sterilisation chamber**, proceed as follows:

Step	Action
1	Remove the tray support by pulling it out of the chamber.
2	Thoroughly clean the sterilisation chamber with a cloth moistened with distilled or deionised water. Note: when cleaning, be careful not to damage the probe at the bottom of the chamber.
3	Clean the trays and their support.



9.2.7 Tank cleaning



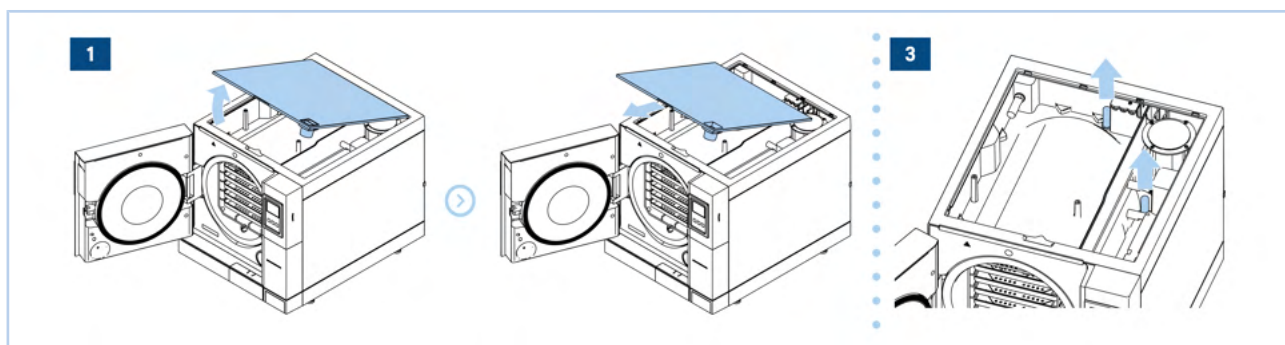
When cleaning the tanks, be careful not to damage the floating level sensors inside the tanks.



Perform tank cleaning operations only after emptying the tanks (refer to paragraph 5.3.2.2 - Water drain).

To perform tank cleaning, proceed as follows:

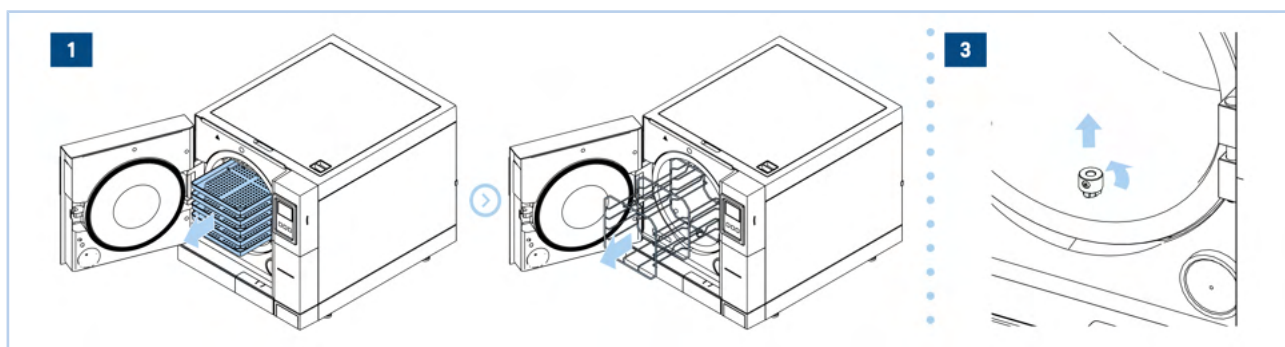
Step	Action
1	Lift the top cover to 45° and remove it by pulling it towards you so that you can freely access the tanks.
2	Clean the tanks using the supplied sponge moistened with water. Use the spongy part, not the abrasive part. Note: pay special attention to dirt deposits in corners.
3	Remove the filters (clean water tank and used water tank) and rinse them under running water to clean them of any deposits. Note: after cleaning is completed, position the filters properly in their housings.
4	Carefully rinse and remove the water used for this operation.
5	Carry out a sterilisation cycle without loading.



9.2.8 Drain filter cleaning

To clean the drain filter, proceed as follows:

Step	Action
1	Open the device door and remove trays and support.
2	Turn the filter anti-clockwise and remove it.
3	Clean the filter with running water and screw it back into its housing.



9.2.9 Bacteriological filter replacement



Use only Euronda original components.

To **replace the bacteriological filter**, proceed as follows:

Step	Action
1	Manually unscrew the filter anti-clockwise and remove it.
2	Insert the new filter by turning it clockwise all the way down. Note: replace it with a new filter having the same characteristics.
3	Reset meters.

9.2.10 Door gasket replacement



Use only Euronda original components.

To **replace the door gasket**, proceed as follows:

Step	Action
1	Clean the gasket seat using a cloth moistened with alcohol.
2	Insert the new gasket into the seat on the door, distributing it evenly around the circumference. Apply consistent pressure with your fingers all around the perimeter of the gasket.
3	After insertion is complete, visually check by lifting up the lip of the gasket: there shall not be incorrectly inserted points.
4	Turn the steriliser on, close the top door, and check that the door closes properly. Note: if necessary, adjust the closure as specified in paragraph 9.2.3 - Adjustment of the closing mechanism .
5	Reset meters.

9.2.11 Roll replacement



Use only Euronda original components.



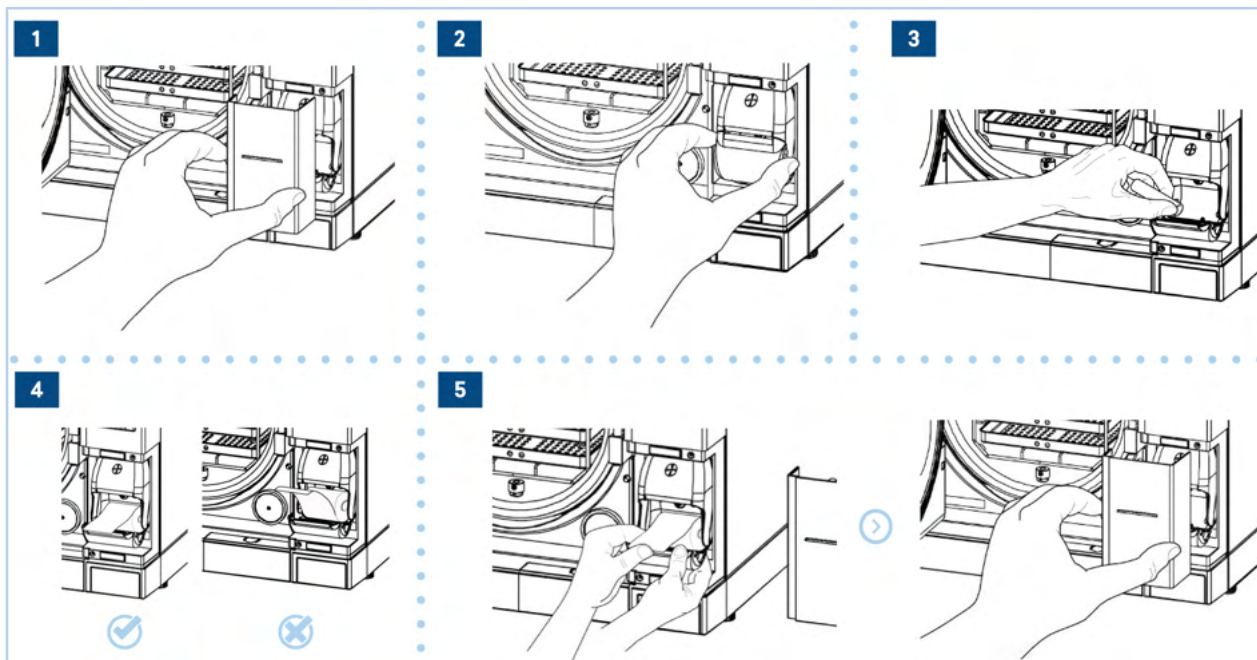
Do not expose the thermal paper to direct light, heat and moisture. Avoid direct contact with polyvinyls; solvents and other derivatives (PVC envelopes, acrylics and papers treated with ammonia vapours).



Rolls should be stored in dry places with humidity not exceeding 70% and a direct temperature of 35°C.

To **replace the label or paper roll**, proceed as follows:

Step	Action
1	Open the door and remove the front magnetic door.
2	Open the cover of the roll support (labels or paper) by grasping it with your fingers at the sides and pulling it down slightly.
3	Remove the used roll (if any).
4	Insert the new roll (labels or paper). Note: make sure the paper comes out of the roll in the correct direction.
5	Stretch the paper, close the cover again.
6	Reposition the front magnetic door.



9.3 Extraordinary maintenance

Any work that is not part of the maintenance described in the previous paragraph is considered as extraordinary maintenance.



Ordinary and extraordinary maintenance operations must be performed by qualified personnel authorised by Euronda.

9.3.1 General overhaul

When the maintenance message M3 appears, a general overhaul should be performed, which can only be carried out by specialised personnel authorised by Euronda.

10 Troubleshooting

10.1 Alarm table

The table below shows all alarm messages with possible causes of failure; if the device shows any of the following error codes, perform the checks indicated in the table before contacting the support service.

Code	Description	Remedy
E01	Anomalous change in input voltage	Make sure the device is connected to a suitable mains power supply.
E02	Blackout	If the message is caused by a voltage drop (see 6.1 - Switching on and cycle selection), switch the device back on and wait for its reset. In all the other cases, allow the steriliser to cool down for a few hours, then reset the safety thermostat on the front of the device. If the problem persists, contact the technical support service.
E10	Lower band temperature time out in phase (2Z) in all cycles	Contact the technical support service.
E21	Excessive pressure during sterilisation	Allow the steriliser to cool down, then try running a cycle. If the problem persists, contact the technical support service.
E22	Insufficient pressure during sterilisation	Allow the steriliser to cool down, then try running a sterilisation cycle with a small load in the boiler (one tray only) observing whether there is any leakage (venting) or dripping on the front. If the problem persists, contact the technical support service.
E23	Excessive temperature during sterilisation	Allow the steriliser to cool down, then try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.
E24	Insufficient temperature during sterilisation	Allow the steriliser cool down, then perform a Vacuum test. In case of positive outcome, try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.
E25	Unsaturated steam during sterilisation	Allow the steriliser cool down, then perform a Vacuum test. In case of positive outcome, try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.
E26	Cannot reach the cycle vacuum threshold	Allow the steriliser cool down, then perform a Vacuum test. If the problem persists, contact the technical support service.
E27	Cannot reach the cycle pressure threshold	Try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.
E28	Sharp pressure variation	Allow the steriliser to cool down, then try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.
E29	Cannot de-pressurise the boiler	Turn off the steriliser, allow to cool for a few hours and then check the drain filter at the front of the boiler. If the problem persists, contact the technical support service.
E30	Cannot balance internal pressure with external pressure	Make sure that the bacteriological filter on the front of the device is not clogged.
E31	Minimum vacuum not reached during Vacuum test	Perform the Vacuum test again. If the problem persists, contact the technical support service.
E32	Maximum vacuum not reached during Vacuum test	Perform the Vacuum test again. If the problem persists, contact the technical support service.







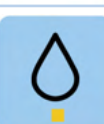





Code	Description	Remedy
E33	Leak during the balancing phase of the Vacuum test	Perform the Vacuum test again. If the problem persists, contact the technical support service.
E34	Leak during the maintenance phase of the Vacuum test	Perform the Vacuum test again. If the problem persists, contact the technical support service.
E35	Anomalous temperature during the Vacuum test	Allow the steriliser cool down, then perform the Vacuum test again. If the problem persists, contact the technical support service.
E41	Faulty steam generator temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E42	Faulty upper band temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E43	Faulty lower band temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E44	Faulty condensation battery temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E45	Faulty chamber temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E46	Faulty pressure sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E47	Faulty door closing sensor	Try closing and opening the door a few times. If the problem persists, contact the technical support service.
E48	Faulty door lock sensor	Try running a sterilisation cycle. If the problem persists, contact the technical support service.
E51	Steam generator not active	Contact the technical support service.
E52	Inactive upper band	Contact the technical support service.
E53	Inactive lower band	Contact the technical support service.
E54	Steam generator temperature too high	Turn off the steriliser and let it cool a few hours, then try running a sterilisation cycle. If the problem persists, contact the technical support service.
E55	Upper band temperature too high	Turn off the steriliser and let it cool a few hours, then try running a sterilisation cycle. If the problem persists, contact the technical support service.
E56	Lower band temperature too high	Turn off the steriliser and let it cool a few hours, then try running a sterilisation cycle. If the problem persists, contact the technical support service.
E58	Lower band heater temperature too high in the pressure maintenance cycle	Turn off the steriliser and let it cool a few hours, then try running a sterilisation cycle. If the problem persists, contact the technical support service.
E59	Condensate battery temperature too high	Contact the technical support service.
E60	Writing problems on the SD card	Make sure that the SD memory card is properly installed. Turn off the steriliser, remove the SD card and check that the protection switch allows writing If the problem persists, contact the technical support service.
E62	Water injections finished	Try running a sterilisation cycle with a small load in the boiler (one tray only). If the problem persists, contact the technical support service.

Code	Description	Remedy
E81	Failure to supply water from the Aquafilter 1 to 1 deioniser	Check that the connections to the Aquafilter are correct and there are no crushed or kinked pipes. Make sure that the Aquafilter inlet tap is open. If the problem persists, contact the technical support service.
E99	Problem in transferring data from power board/display	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
E100	Problem in transferring data from power board/display	Turn the steriliser off and on again. If the problem persists, contact the technical support service.

10.2 Table of warning symbols / codes

The following table shows the warning messages given by the device using symbols or codes when it detects a problem that prevents a cycle from starting.

Symbol	Description	Remedy
W31	Aquabox / Aquafilter timeout	Check the clean water supply.
W32	Clean water tank empty	Fill water as described in paragraph "5.3.2.1 - Manual water filling"
W33	Dirty water tank full	Drain water as described in paragraph "5.3.2.2 - Water drain"
W34	Aquafilter cartridges empty	Replace the Aquafilter cartridges according to the instructions.
W41	Door open	Close the door.
W43	Faulty door lock electromagnet	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W44	Door lock electromagnet come out with door open	Let the electromagnet go back in position by pushing the pin toward the steriliser.
W74	Wrong date or low battery	Set a correct date. If the warning occurs several times, replace the battery.
W80	Lower band heater temperature not suitable for cycle start	Heater failure.
W81	Upper band heater temperature not suitable for cycle start	Heater failure.
W82	Upper band heater temperature not suitable for NGV cycle start	Heater failure.
W90	Faulty steam generator temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W91	Faulty upper band temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W92	Faulty lower band temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W93	Faulty condensate battery sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W94	Faulty pressure sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W95	Faulty chamber temperature sensor	Turn the steriliser off and on again. If the problem persists, contact the technical support service.
W97	Door locked by safety pin	Contact the technical support service.

Symbol	Description	Remedy
	Used water level at the maximum	Empty the used water tank.
	Clean water level below the minimum	Refill the clean water tank with distilled or deionised water.
	An attempt was made to launch a cycle with the door open	Before launching a cycle, close the door.
	Steriliser too hot	The steriliser temperature is too high to start a Vacuum test. Allow it to cool down by turning it off and leaving the door open.
	The conductivity read by the Aquafilter 1 to 1 is outside acceptable values and the automatic supply of water is therefore impossible	Check the colour of the LED on Aquafilter 1 to 1: if it is not green, replace the cartridges.
	The steriliser does not detect the SD card memory or the SD card is write-protected	Make sure that the SD memory card is present and properly installed. Turn off the steriliser, remove the SD card and check that the protection switch allows writing.
	The conductivity read by the conductivity meter of the steriliser is at the limit of acceptable values	Empty the clean water tank as soon as possible and fill it with better quality distilled or deionised water.
	The conductivity read by the conductivity meter of the steriliser is outside the acceptable values	Empty the clean water tank and fill it with better quality distilled or deionised water.
M1 	Bacteriological filter to be replaced	The warning is not blocking, replace the filter as soon as possible with the machine off or contact the technical support service (see paragraph 9.2.9 - Bacteriological filter replacement).
M2 	Door gasket to be replaced	The warning is not blocking, replace the gasket as soon as possible with the machine off or contact the technical support service (see paragraph 9.2.10 - Door gasket replacement).
M3 	Extraordinary maintenance	The warning is non-blocking; when it appears exit by pressing the central icon at the bottom. Contact the technical support service in order to perform maintenance.
M4 	Tank cleaning	The warning is non-blocking; when it appears exit by pressing the central icon at the bottom. Clean the tank to avoid the appearance of biofilm. Carry out the operation with the machine switched off.

11 Scrapping, disposal and resale


11.1 Scrapping instructions

The device has been manufactured using ferrous materials, electronic components, and plastics. In case it needs to be scrapped, separate the different components according to the material they are made of in order to simplify possible reuse or differentiated disposal. No particular operations are required after scrapping.



Do not leave the device in unguarded places. Take it to a disposal company. Always refer to the laws of the country of use for scrapping and disposal.



The symbol  shown on the device indicates that the waste should be disposed of as “sorted waste”. Therefore, the user will have to deliver (or have delivered) the waste to Separate Collection Centres set up by local councils, or deliver it to the dealer against the purchase of an equivalent unit (European Union only). Sorted waste collection and subsequent treatment, recovery and disposal operations promote the production of equipment from recycled materials and limit the adverse environmental and health effects that may be caused by improper waste management.



Abusive dumping by the user will result in the application of the administrative penalties provided for in current laws.

11.2 Disposal of packaging

To dispose of the packaging, refer to the appropriate pictograms on each element, which indicate the manufacturing material.

11.3 Resale

If the device is sold, hand over all technical documentation to the new purchaser, inform him/her about any work carried out and how to use and service the unit.

Also inform **Euronda** of the sale and provide the details of the new purchaser.

Euronda[®]

Pro System