



MEDICAL APPLIANCE DIVISION

Cod. 9918

Operation and maintenance manual

STEAM STERILIZERS



MODEL

PRATIKA BABY B



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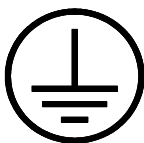
1. INTRODUCTION

The machine described in this operation and maintenance manual is a steam sterilizer that has been specially designed to sterilize of laboratory equipment.

The machine can either operate at a temperature of 134°C and a pressure of 3.180 mbar or 121°C and a pressure of 2.180 mbar. These parameters are monitored and kept at constant levels by three mechanical and electronic devices that ensure an optimal sterilizing process along with total safety.

The operating cycles can be visually checked on a display installed on the control panel of the machine, or by means of a printer supplied on request.

The machine has been built so that the work cycle will automatically stop and the situation be indicated by an error message on the display if the operator fails to carry out the loading operations correctly or if a fault occurs on printer.

SYMBOLS AFFIXED TO THE MACHINE		WARNING: IDENTIFIES A HEAT SOURCE. A PART COULD BE DANGEROUSLY HOT
		WARNING: IDENTIFIES A GENERIC DANGER. THERE COULD BE A POTENTIALLY DANGEROUS CONDITION
		IDENTIFIES THE GROUND CONDUCTOR



Do not use the machine for purposes other than those for which it has been built.

To prevent the autoclave from being subjected to electrical disturbance, it is important to make sure that the earth resistance value is sufficient and well coordinated with the protections in your electrical system.



- This symbol it means the product is covered by the European Directive 2002/96/EC.
- Please inform yourself about the local separate collection system for electrical products.
- Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.
- WEEE Compliance acquitted (RAEE).

2. TECHNICAL SPECIFICATIONS

PRATIKA Baby B are autoclaves designed and built in compliance with the operators' need for functionality, practical use and safety.

Are fully automatic. All functions are electronically servo-assisted, so the operator knows what the machine is doing at any given moment.

Have functional characteristics that make them unique, i.e.:

- The autoclaves Pratika Baby B after each cycle, if the door is not opened within a few minutes, activate a system of condensation (if you choose the night program).
- Gradual heating to obtain a more accurate temperature and a better sterilizing process.
- **DRYING CYCLE** included: with thermodynamic system and vacuum pump.
- Water loading with direct filling of the tank.
- **SAFETY VALVE** to prevent overpressures.
- **Check** the electronic control of each function with display and message print.
- **SAFETY THERMOSTAT** to prevent overtemperatures.
- Chamber capacity 7 lt.
- Press-moulded seamless 18/10 **STAINLESS STEEL CHAMBER**.
- Water filling tank.
- **POSSIBILITY OF CONNECTING THE DRAIN** to the sewage system or to the can provided.

Description	Unit of measurement	Values
Power source voltage rating	V	230 V.a.c. ~
Power source frequency	Hz	50
Machine power rating	W	1100
Boiler volume	mm	Ø 160x270
Operating pressure	mbar	3.180-2.180
Machine dimensions X, Y, Z	mm	570x410x330
Gross /net weight	Kg	35-30
Pack dimensions	mm	630x460x480
Operating temperatures	°C	+ 3°C + 29°C
Distance from walls	cm	8 - 10

X = depth

Y = width

Z = height

The electrical system is protected against the risk of over-currents installed inside the machine by two 15 A delayed action fuses (T 10 A).



The electronic control and powering boards protect the various users by means of 3 dedicated fuses: 2 quick-acting 1 A types (F 1 A) and one 100 mA delayed action type (T 100 mA) – (see enclosed wiring diagram).

Only have these fuses changed by a skilled electrician.

The noise level of the machine has been tested. The continuous equivalent weighted acoustic pressure level A is less than 70 dB (A) and the continuous equivalent weighted acoustic power level A does not exceed 70 dB (A). The measured noise level measured is therefore very low. For this reason, the operator need not take any particular measures (also in view of the fact that the machine operates automatically).

DATA AND SPECIFICATIONS OF THE PRESSURIZED VESSEL:

Serial N° of vessel, Serial N° of door	Month N°, Year N° (see internal label)
Max. operating pressure:	3.550 mBar
Max. operating temperature:	160°C
Min. operating pressure:	90 mBar
Test pressure:	8 Bar
Reference standards:	TRD 421
Volume of vessel:	7 lt.

3. GENERAL RECOMMENDATIONS

3.1 Regulations for the operator

- Always wear personal protective equipment in compliance with the directives that establish the current accident-preventing provisions.
- Do not approach the machine with inflammable materials.
- Do not carry out repairs or maintenance work whilst the machine is operating or plugged into the electricity main or when parts of it are hot.
- Only responsible adults may use the machine in places inaccessible to children.
- Use the machine in a dry place, sheltered from the rain.
- Periodically inspect the power cable to make sure that it is in a good condition.
- If there are several persons in the place of work, remember to keep at a safe distance from the machine to prevent accidental contact with hot parts.
- Never ever operate the appliance unless the power cable is in a perfect condition and the structure undamaged.
- It is advisable to keep the door half-open with switch (8) turned off in “0” position, when the appliance is not in use.
- It is advisable to nominate a person responsible for the autoclave, as established by directive 626/94.

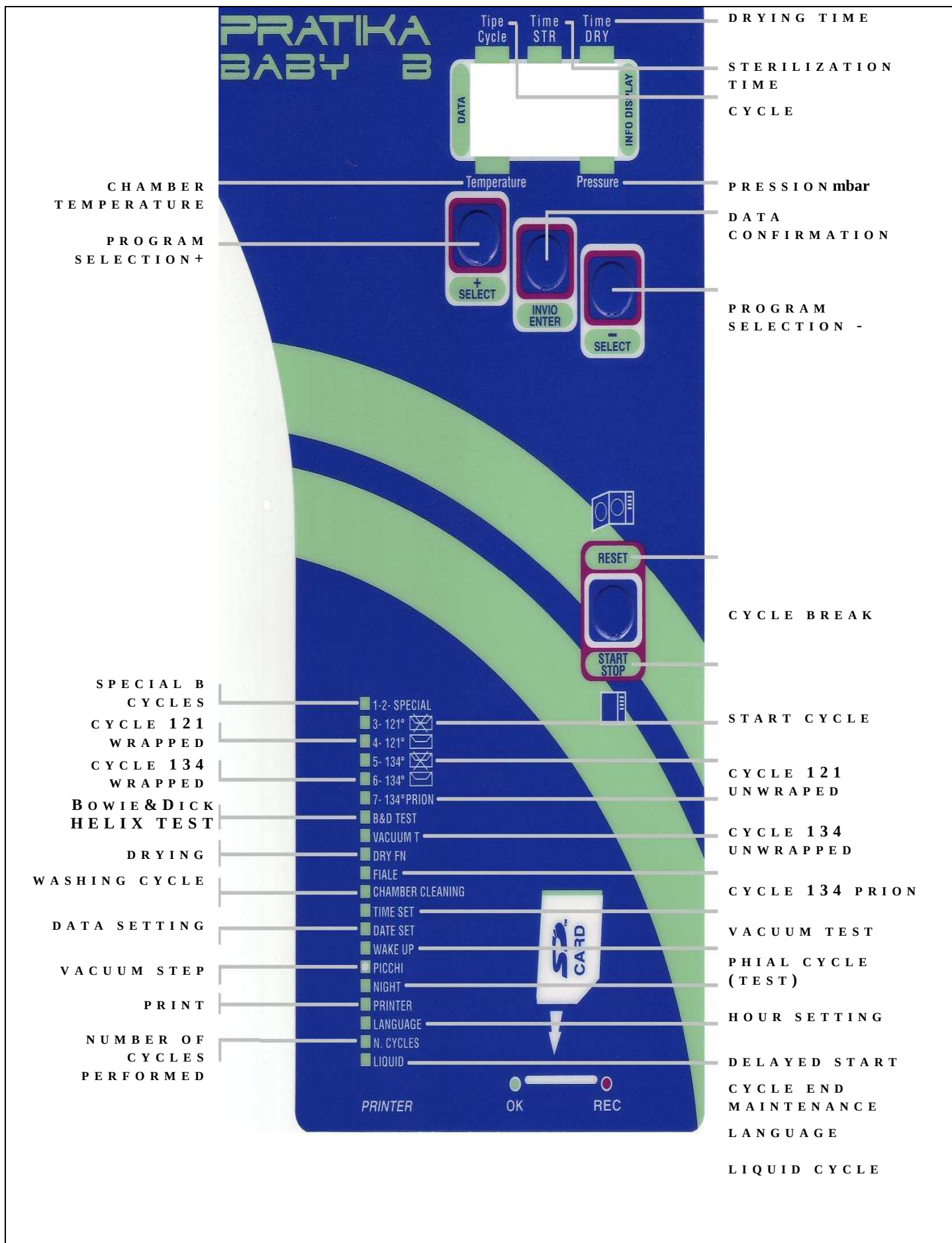


Pay the utmost attention to those parts of the appliance that become hot during operation and that still remain hot after it has been switched off. Keep your face well away from the top part of the machine when the door is opened to prevent it from being scalded by steam. Keep about 50 cm. away from the machine when opening the door.

As specified in the technical specifications, these autoclaves operate at a pressure that can reach 2.2 Bar at most. Do not use the autoclave in an improper way and do not carry out maintenance operations while the sterilizing cycles are in progress. Remember that the pressure is shown on the display.

Wait at least 20 minutes after the appliance has been switched off, to allow the boiler to completely cool.

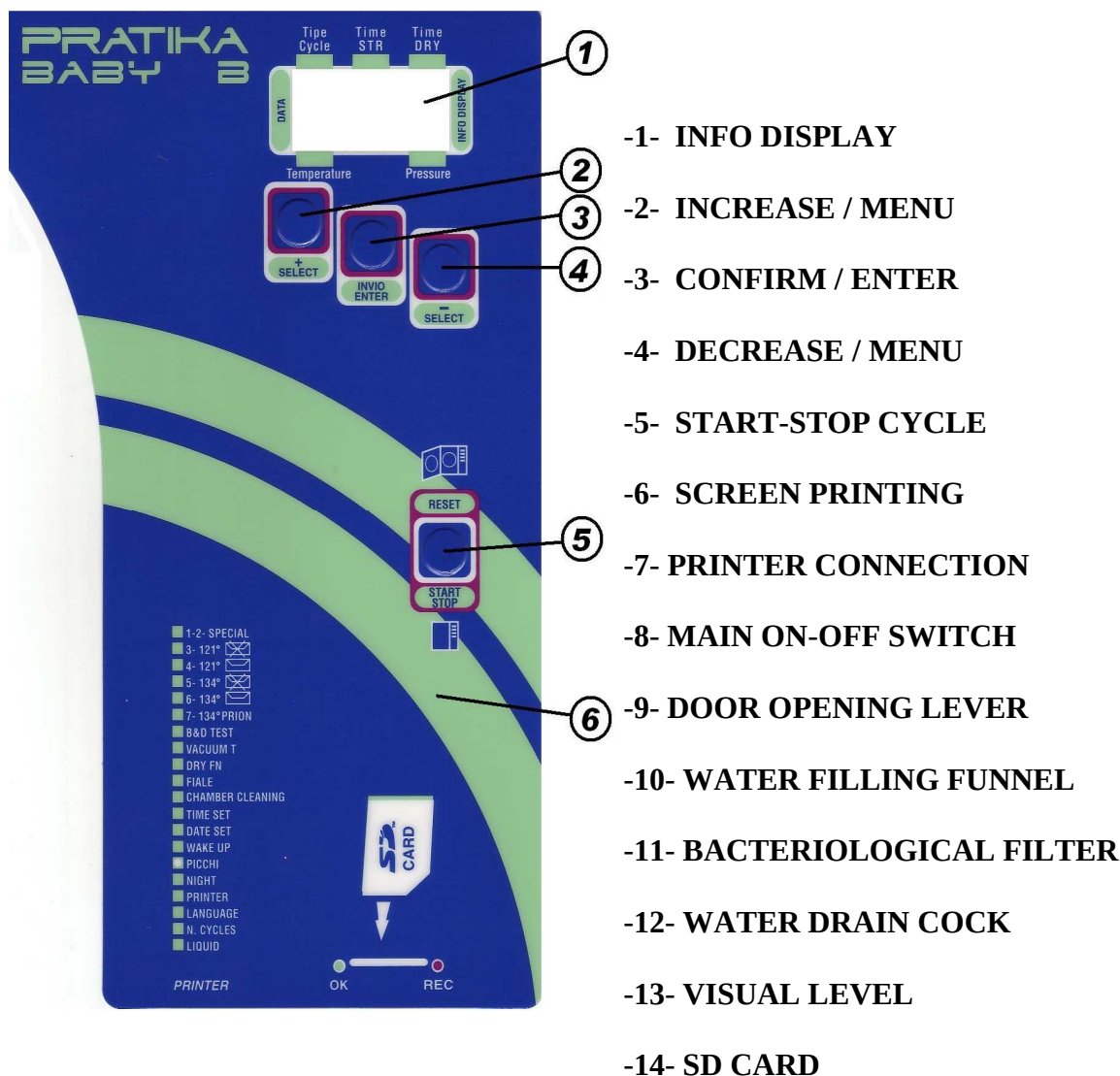
3.2 Description of the controls



4. LOCATION OF THE CONTROLS

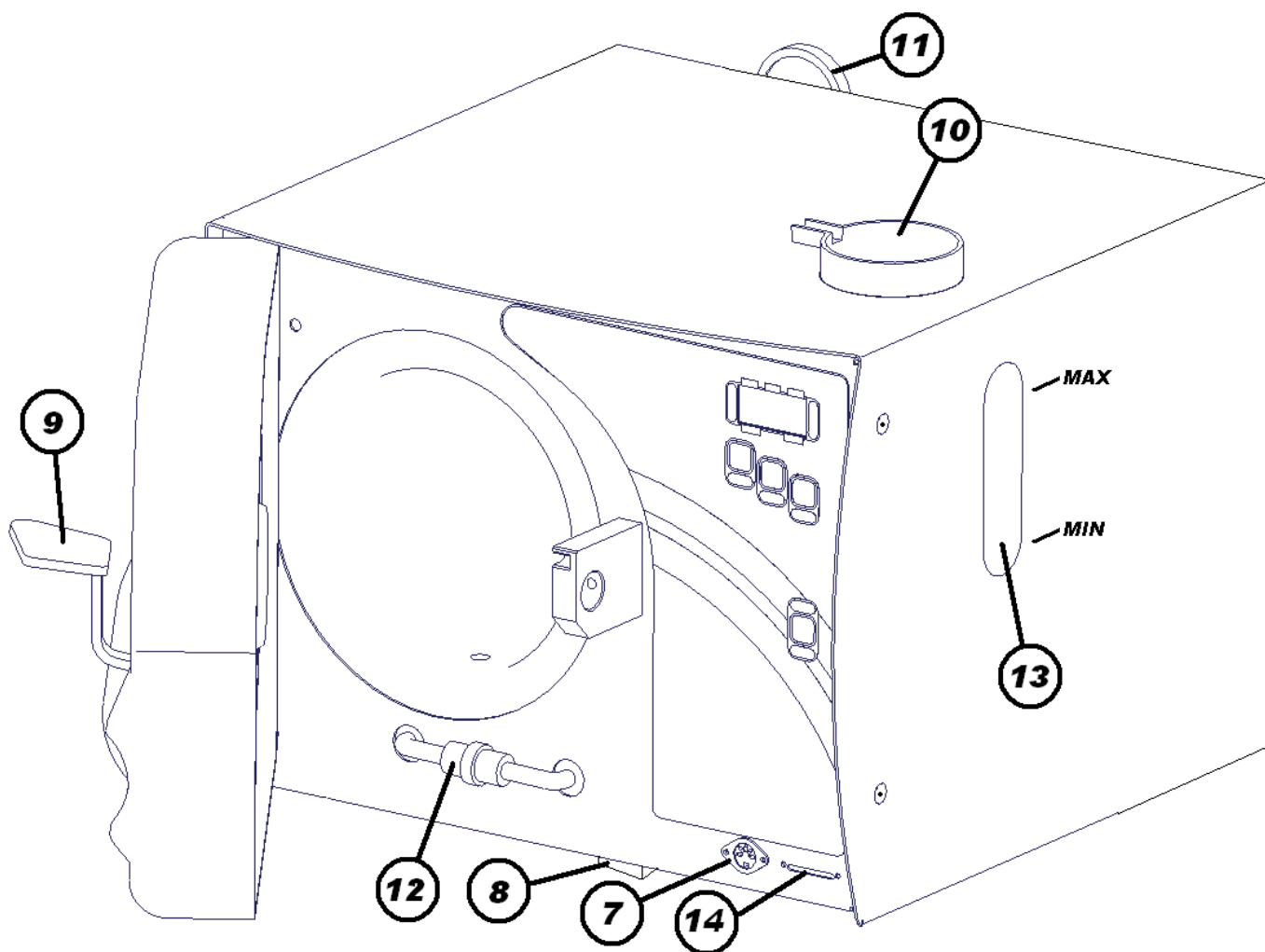
PRATIKA Baby B feature an elegant casing treated with scratch-proof epoxy powder paint in the **RAL 9010 COLOUR**. No particular preparations are required to operate the machines. Just fit the plug into a 230 V power socket.

CONTROL PANEL:



THE FOLLOWING ACCESSORIES ARE SUPPLIED:

1 TRAY HOLDER, 4 TRAY, 1 TOOL TO TAKE OUT TRAYS AND TO ADJUST DOOR, 1 SPONGE, 1 INSTRUCTION MANUAL, 1 LIFTING HANDLE, 1 FILLING PIPE, 1 DRAIN PIPE, 1 DRAIN CANISTER.



5. STARTING AND SETTING AT WORK

5.1 Removing the machine from the packing

The machine is consigned packed on a wooden pallet in a cardboard box: make sure that there are no dents and that the wrapping is in optimum conditions.

The machine must be stored in a dry place, sheltered from adverse weather conditions, at a temperature between +3°C and +35°C. The machine must be handled without jolting and using appropriate means. Open the pack without overturning it. Remove the polystyrene from the top and sides (the weight of the model is given in chap. 2, technical specifications).

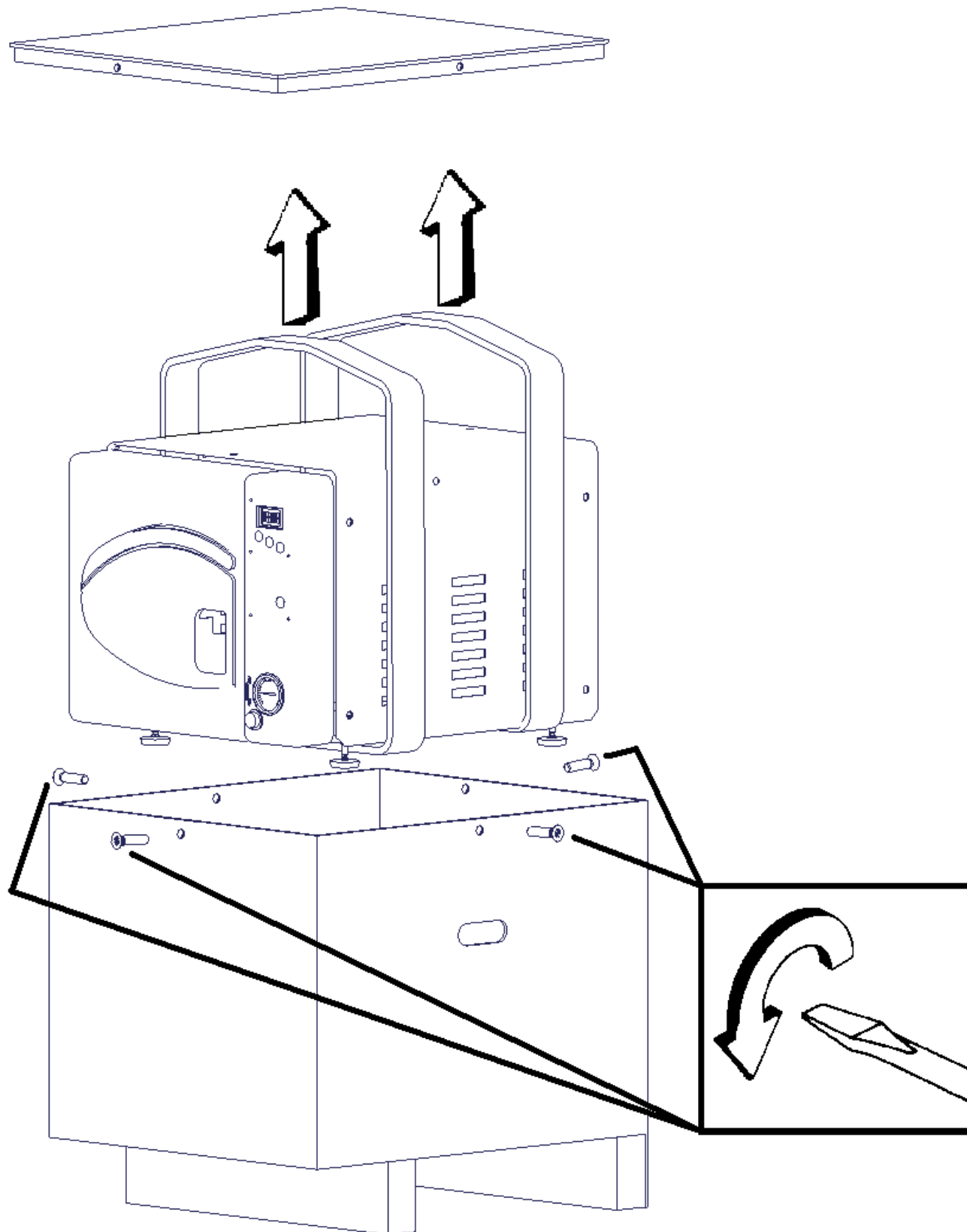
Lift the machine out of the box in a vertical direction using the two bands supplied (see drawing on page 10). Remove the pluriball wrapping from around the machine and make sure that all parts of this latter are undamaged and complete with all the accessories indicated on the consignment note. Immediately notify our dealer if discrepancies are discovered.

Keep the packing materials for as long as the machine remains in use, not just for the warranty period. This is because the autoclave may need to be calibrated or regulated by the manufacturer's staff or by an after-sales center. Non-original packing is unable to ensure that the machine is correctly protected during transport.

The original packing comprises the following items:

- FIREPROOF WOODEN CRATE

DRAWING ILLUSTRATING HOW THE MACHINE MUST BE LIFTED FROM THE PACK



5.2 Installation and preliminary inspections



The installer is obliged to make sure that the place in which the sterilizer is installed is fit for that purpose (CEI 62/4).

Using the device is prohibited to persons under the influence of drugs or alcohol.

Install the autoclave in a well ventilated place, well away from sinks, heat sources, grinders and from all other machines.

Comply with the following instructions to simply and efficiently check that the machine has been positioned correctly:

Fit the electric plug into a socket **WITH A CAPACITY OF AT LEAST 10 Ampere AND EQUIPPED WITH AN EARTH CONNECTION.**

Make sure that the mains voltage rating corresponds to the value indicated on the label at the rear of the machine (230 Volts).

PRATIKA BABY B AUTOCLAVES must only be filled with **DISTILLED WATER** to ensure that the electrical and air-operated devices operate efficiently and are long lasting.

Setting the language, date and time:

with the door open and the machine on, scroll through the menu with the button (2) or (4).

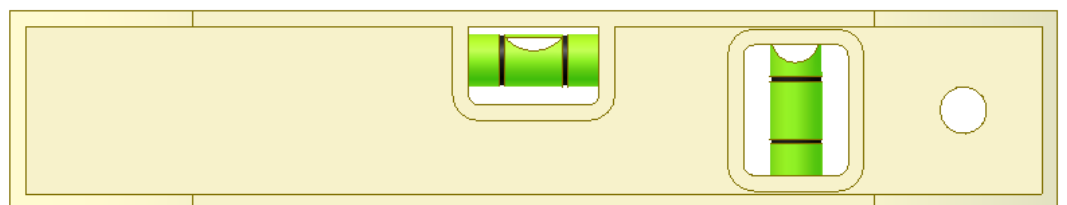
In addition to sterilization cycles can be displayed in succession setting data of the sterilizer, including the temperature of the chamber.

Enter the desired item and confirm with the button (3).

Change the values using the keys (2) and (4).

At the end of the changes you want, confirm with the button (3).

- **Never connect the plug of the machine to a reduction.**
- **Use a bubble level to make sure that the surface on which the appliance is to be positioned is perfectly horizontal.**



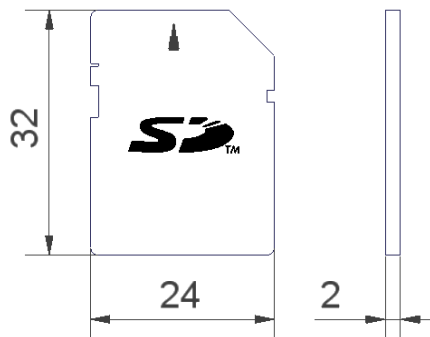
- **Fill out and send off the warranty form.**

5.3 Using the sd card



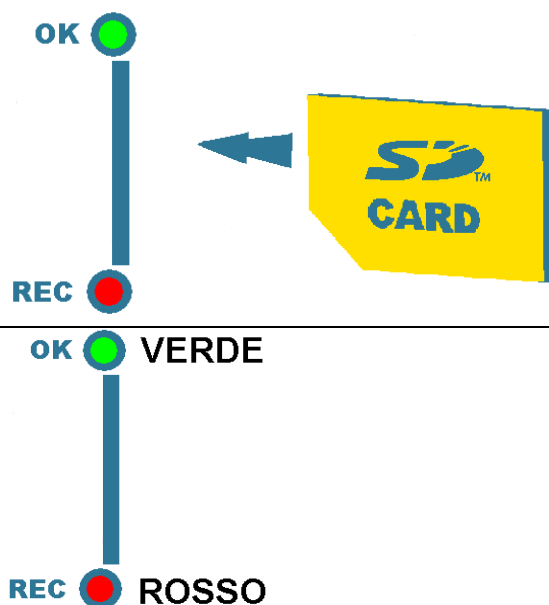
IT IS FORBIDDEN TO:

- take the card out and put it back in the slot again while the machine is working;
- force the card into the slot in the wrong direction;
- use different sized cards to those illustrated.

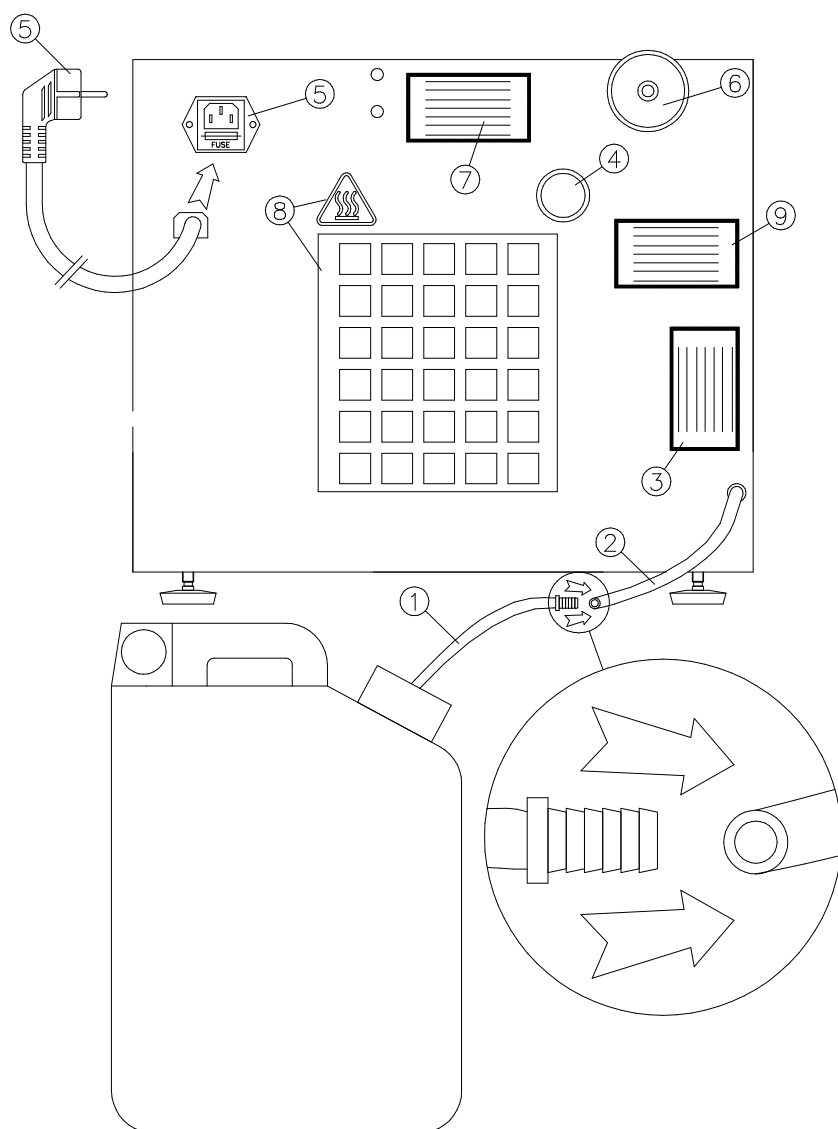


- If the printer is not connected to the device and at the same time the SD card is not fitted in its interface slot, the sterilisation data will be lost.

- 1) Fit the card in its slot with the door open.
- 2) When the card is fitted in place, the red LED will blink once.
- 3) The green LED will then light up steady. The card is ready to receive data from the machine.
- 4) Whenever the machine transfers data to the card, the red LED will blink.



ANOMALY	CAUSE	SOLUTION
The green LED blinks	Card memory full. Card protected (lock).	Replace the card or download the data on the card to a computer. Unlock the card protection lock.
No LED lit.	The card is not fitted in the slot correctly. The internal data transmission cable is faulty.	Fit the card correctly in the slot. Replace the internal data transmission cable.

DESCRIPTION OF THE REAR PART

- 1) Canister.
- 2) Water drain pipe to be connected to the canister "1". The same pipe can be used to drain into the sewers.
- 3) Label bearing the following data: Model, CE marking, power supply voltage and frequency, input power, serial number, year of manufacture, manufacturer's details.
- 4) Safety valve.
- 5) Power supply cable with Shuko France plug.
- 6) Bacteriological filter.
- 7) Warnings label.
- 8) Radiator label.
- 9) Calibration label.

TABLE OF CYCLES END SERVICES:

Nr. Progressiv	Cycle or service
1	CYCLE FREE
2	CYCLE FREE
3	CYCLE 121° UNWRAPPED
4	CYCLE 121° WRAPPED
5	CYCLE 134° UNWRAPPED
6	CYCLE 134° WRAPPED
7	CYCLE 134° PRIONE
B & D TEST	BOWIE & DICK TEST
DRY FN	CYCLE DRY
FIALE	CYCLE PHIALE
CHAMBER CLEANING	CHAMBER CLEANING
NIGHT	CYCLE NIGHT S/N
PRINTER	PRINT S/N
LANGUAGE	LANGUAGE GB/F/D/E/I
LIQUID	STERILIZATION OF LIQUID CULTURE

READ OF INFO DISPLAY:

	3		1	5			5
1	2	1					

3= Cycle number 15= Sterilization time 5= Dry time
121= Temperature of sterilization °C

	4		2	0		1	5
1	2	1					

4= Cycle number 20= Sterilization time 15= Dry time
121= Temperature of sterilization °C

	5			4			5
1	3	4					

5= Cycle number 4= Sterilization time 5= Dry time
134= Temperature of sterilization °C

	6		1	0		1	5
1	3	4					

6= Cycle number 10= Sterilization time 15= Dry time
134= Temperature of sterilization °C

	7		1	8		2	0
1	3	4					

7= Cycle number 15= Sterilization time 5= Dry time
134= Temperature of sterilization °C

B	&	D		T	E	S	T

BOWIE & DICK TEST not for instruments
134= Temperature of sterilization °C

V	A	C	U	U	M		T

VACUUM TEST

	D	R	Y		F	N	

ADDITIONAL DRY
110= Temperature of sterilization °C

	B	O	T	T	L	E	

PHIAL CYCLE
54= Temperature of sterilization °C for 48 hour

C	L	E	A	N	I	N	G

CHAMBER CLEANING

D	A	T	E		S	E	T

DATE SET

H	O	U	R		S	E	T

HOUR SET

D	E	L	.	S	T	A	R

DELAYED START within the next 24 h. Cycles 1-2-3-4-5-6-7-8-B&D-9-Test Vacuum.

P	I	C	C	H	I		

NUMBER OF PRE VACUUM (MAX 3). ONLY FOR CYCLES 1 AND 2

N	I	G	H	T		F	N
Y	E	S	/	N	O		

NIGHT CYCLE
YES= Active NO= Inactive

P	R	I	N	T	E	R	
Y	E	S	/	N	O		

PRINTER SELECTION
YES= Active NO= Inactive

L	A	N	G	U	A	G	E

LANGUAGE SELECTION

N	.	C	Y	C	L	E	S

NUMBER OF CYCLES

L	I	Q	U	I	D		
Y	E	S	/	N	O		

CYCLE FOR LIQUID STERILIZATION
YES= Active NO= Inactive

6. GENERAL INSTRUCTIONS FOR USE

6.1 Method of use

OPEN THE DOOR WITH THE HANDLE (9).

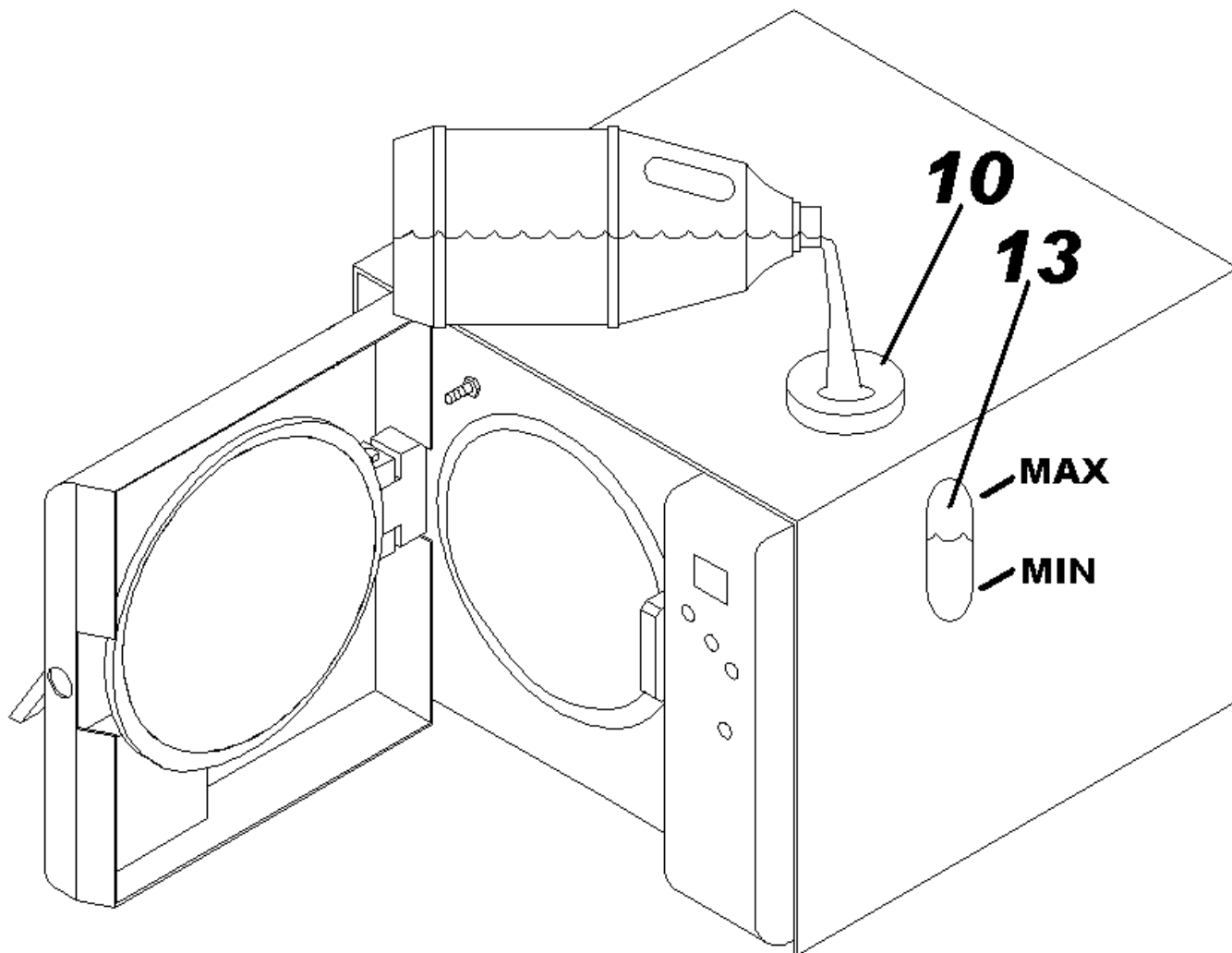
- Take the tray holder pack out of the chamber.
- Switch the main ON-OFF switch on (8).
- The display will point out that there is no water with the following message: NO WATER IN TANK.
- Pour the distilled water carefully in through the black funnel (10).
- Check the water level in the tank through the window (13) and wait for the maximum level acoustic signal and the message NO WATER will disappear.
- The display unit will show the number of the previously performed cycle.
- If a different cycle to that shown on the display unit (1) is to be performed, press button (2) or (4) to scroll the menu.
- For a customised ("special") cycle, select cycles number one or two. Once a "special" cycle has been selected, press key (3) to change the settings made. It is possible to change the sterilisation time, the drying time, the sterilisation temperature and the minimum vacuum value of the vacuum peaks. The settings can be changed using keys (2) and (4) before confirming with key (3). As regards the number of pre-vacuum peaks, enter from the main menu at the PEAKS item and set the desired figure, changing the setting with keys (2) and (4) and confirming with key (3). The number of peaks only concerns cycles one and two ("special").
- Refer to the cycle table on page 13.
- After terminating the settings on the display unit (1), introduce the tray holder into the chamber with the load to be sterilised.
- To start the cycle, close the door with the handle (9).
- Press key (5) to start the cycle.
- The end of the cycle is indicated by a message on the display unit (1), by an audible signal and a END message.

- WATER QUALITY TABLE -

CEN STANDARD DIN EN 285	Valore massimo
Residuo evaporazione	10 mg/l
Ossido di silicio (SiO ₂)	1 mg/l
Ferro	0,2 mg/l
Cadmio	0,005 mg/l
Piombo	0,05 mg/l
Resti di metalli pesanti (tranne ferro, cadmio e piombo)	0,1 mg/l
Cloruro	2 mg/l
Fosfato	0,5 mg/l
Conduttività (a 20°C)	15 µs/cm
Valore pH	da 5 a 7
Aspetto	incolore, pulita e priva di sedimenti
Durezza	0,02 mmol/l

NOTA: L'utilizzo di acqua di alimentazione contenente concentrazioni superiori a quelle indicate nella tabella sopra riportata, può ridurre notevolmente la vita dell'apparecchio causando gravi danni ai suoi componenti e determinando la decadenza della garanzia.

FILLING THE CLEAN WATER TANK



6.2 Method of use of cycle

B&D Test and Helix Test

- 1) This cycle is used to verify the correct operation of the autoclave. Place the package cod.3606 or 4465 in the middle of the chamber. Activate the cycle.
- 2) At the end of cycle check if the card inside the package is tacking properly.
- 3) With the same cycle you can run the Helix Test cod.3369.
- 4) Prepare the device and insert it in the machine already hot . Place it in the center of the chamber. Activate the cycle.
- 5) At the end of the cycle check if the paper strip is turning.

Vacuum test

- 1) Before running this test ensure that have been performed the daily maintenance procedures set out in sections 9.1 and 9.2.
- 2) Run the cycle when the machine is cold or with delayed start , as indicated in section 6.3.

FN.ASC Additional drying

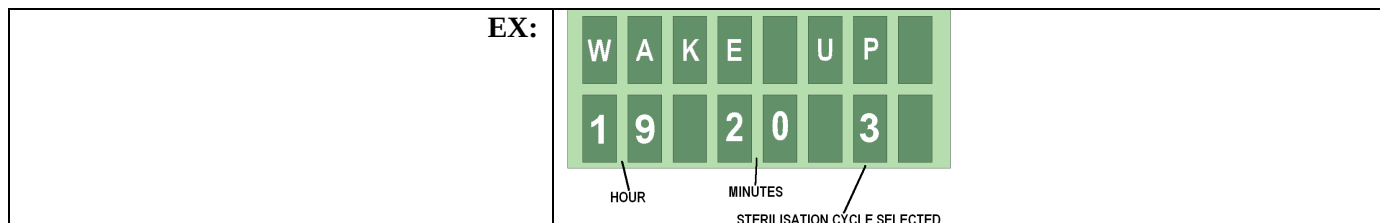
- 1) Cycle suitable to complete the drying of wrapped instruments , without having to repeat the sterilization cycle.
- 2) Cycle suitable for dry instruments before they are packaged and sterilized . Useful to remove traces of moisture after the initial cleaning of instruments.

6.3 Show to drain the used water from the tanks

- Check the tank level (used water) before each cycle.
- In case the level is nearly full, please behave as follows:
- Unscrew the plug of the tank.
- Empty the tank in drainage and rinse with care.
- Screw the plug of the tank (make attention to not twist the discharge tube and be sure that the tank is in stable position).

6.4 Delayed starting setting within 24 hours

- Light on the autoclave.
- Select (WAKE UP) by the button (2) even in the display appears WAKE UP.



- Press the button (3) so that the first data flashes (19 ex) that correspond to the hour. Slide the keys (2) & (4) to set the hour wanted. Press the button (3) to confirm the hour chosen.
- The second data flashes (20 ex) that correspond to the minutes. Slide the keys (2) & (4) to set the minutes. Press the button (3) to confirm the hour chosen.
- The third data flashes (3 ex) that correspond to the cycle number. Slide the keys (2) & (4) to set the sterilization cycle wanted, between 1 and 7.
- Close the door of the autoclave. Don't touch any buttons of the autoclave.
- The autoclave will execute the sterilization cycle chosen at the set up hour.
- For convenience you can also run cycles (8) and vacuum test (9) B & D Test.

6.5 End of work

At the end of the operations, open the door and position the green master switch (8) on OFF.



Pay particular attention to the temperature of the various components when you switch off the machine.

Wait a few minutes to allow the components to cool.

It is prohibited to reuse the waste water of the device for the sterilization!

7. HOW TO ARRANGE THE INSTRUMENTS FOR THE STERILIZING PROCESS

Before being sterilized, the instruments must be cleaned to remove blood residues, incrustations, foreign bodies, etc. These impurities can damage the items being sterilized, the autoclave components and prevent the sterilizing process from being correctly carried out.

These instruments must be made of NON-ferrous material since they could damage or oxidize the other instruments or the autoclave itself.

To achieve perfect sterilizing, it is therefore important to proceed in the following way:

1. Rinse and brush the instruments under running water immediately after use to remove all deposits.
2. Place the instruments in the ultrasound machine with distilled water and detergent solution.
3. Thoroughly rinse the instruments in demineralised water to prevent scaling stains.
4. Dry the instruments to eliminate all water residues which could lead to oxidation.
5. Wash, rinse and dry the supplied trays and make sure that they are perfectly clean.
6. To ensure that packaged instruments are perfectly dried, we recommend use of support art. M9050 supplied as an optional.
7. Scissors and forceps should be slightly opened. Mirrors and containers should be placed upside down for the sterilizing process.
8. It is advisable to keep the instruments separated from each other to achieve a better sterilizing action. Overloading will impair the sterilizing process.
9. If packaged instruments must be sterilized on the trays, place the packets with their transparent side downwards and do not overlap. The packets should not be too large. Drying will be difficult if their edges overlap.
10. The machine can operate with a maximum 1 Kg load.

Sterilizing handpieces:

- Carefully read the handpiece operation manual with particular attention to the part about sterilizing (121°).
- Wrap the handpiece in the special sterilizing cloth.
- Place the wrapped handpiece on a NON-perforated tray to prevent spilt lubricating oil from polluting the pipes of the autoclave.
- Remember to immediately remove the handpiece from the autoclave at the end of the sterilizing process or schedule on the “special” cycle the drying time not more than 3 minutes.

For a valid sterilizing process, it is obligatory to add a chemical indicator for each cycle.

7.1 Sterilizing table

CYCLES FREE	<i>STERILIZING TIME (Min.)</i>	<i>DRYING TIME (Min.)</i>	<i>Nr. PICCHI</i>
1	*	*	1-3
2	*	*	

CYCLES AT 121°	<i>STERILIZING TIME (Min.)</i>	<i>DRYING TIME (Min.)</i>	<i>Nr. PICCHI</i>
3 UNWRAPPED	15	10	1
4 WRAPPED	15	15	

CYCLES AT 134°	<i>STERILIZING TIME (Min.)</i>	<i>DRYING TIME (Min.)</i>	<i>Nr. PICCHI</i>
5 UNWRAPPED	5	10	1
6 WRAPPED	5	20	
7 PRIONE	18	20	

TEST	STERILIZING TIME (Min.)	DRYING TIME (Min.)	Nr. PICCHI
BOWIE & DICK*	3,5	2	3
Vacuum**	15 (Total length of test)		

CYCLE PHIAL	<i>STERILIZING TIME (Min.)</i>	<i>DRYING TIME (Min.)</i>
54°	48h (Total length of test)	

* Preset value. ** To execute with cold machine.

7.2 Notes and warnings

- 1- Strictly comply with the manufacturer's instructions when sterilizing materials.
- 2- To preserve packaged and loose sterilized materials, the trays must be stored in special cabinets fitted with ultraviolet lamps and designed for this specific use.
- 3- Whenever a sterilizing process is carried out, it is advisable to add a chemical indicator that we can supply on request, code 1468.
- 4- we advise you to keep the recorded data from the SD card.
- 5 - There must always be trays and tray-holders in the chamber. Without these accessories, abnormal pressures and temperatures could develop inside and these could cause the cycle to abort.
- 6 - It is advisable to place a phial containing culture spores in the chamber along with each load sterilized in order to make sure that the sterilizing process is valid.
- 7 - For a better sterilization should be kept separate instruments. Overloading may compromise sterilization.

7.3 Monthly inspection proposal

Fac simile of an inspection form

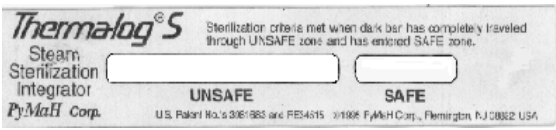
Sterilizer data			
Brand	Model	Year of purchase	Observations

Periodical internal inspection

EXAMPLE	Date	Cycle length on display	Cycle temperature	Cycle temperature
	07/11/2000	20'	134°	VAPOR LINE

The utilized indicator is enclosed for each inspection.

Always use biological indicators. 3 types of integrator are indicated as an alternative.

	ORIGINAL	VAPOR LINE (C O D . 1 4 6 8)	THERMALOG S	HELIX TEST* (C O D . 3 3 6 9)
				
	VEER			



PARAMETER: Ø=SAFE O=UNSAFE

- 1) Put the previously sterilised ampoules in the machine and activate the AMPOULE cycle.
- 2) When the cycle has finished, check the result and register it in the department safety folder.

8. MESSAGES DISPLAYED

8.1 Alarm management

MESSAGE	ERROR TYPE	REMEDY
FAILED	Cycle not terminated	Check presence of any leaks in the hydraulic circuit, in the door seal (adjustment), solenoid valve N.O.
NO POWER	No mains power	Fit the machine plug in a single socket that complies with standards and is without adapters or extensions. Change the fuse and check the causes. Make sure the master switch (8) is not turned off with closed door.
NO WATER IN TANK	Not enough clean water in load tank	Fill up
BOILER	Boiler level error	Steam generator level probe cleaning
HIGH	High temperature	Check generator solenoid valve and temperature probe cable (PT100)
LOW	Low temperature.	Check the solenoid valve, thermostat and heating element of the generator. Clean the generator probe.
VACUUM	Vacuum error	Check the vacuum pump and the relevant solenoid valve. Check the vacuum values on the display unit and on the pressure gauge.
MAX TEMP.	High boiler pressure	Check the temperature probe (PT100) and cable or detached cable.
PRESS. ERR.	Pressure error	Perform the vacuum test and check for any leaks. Check for any transducer malfunctions.
U.FULL	Used water tank full.	In case of connection, empty the tank

To reset the machine, turn the switch (8) off and on.

8.2 Operating messages

MESSAGE	OPERATION IN PROGRESS
Vac. test	Check hydraulic circuit for leaks
Phials	Pre-sterilised phial culture cycle
Print.	Start print
No cycle	Maintenance of instrumental drying
Hr. set	Time set
Start time	Start delayed up to 24 hours
Peaks	Vacuum, pressurisation, release
no. cycles	No. of cycle performed by machine
Italian	Current language (set)
End	Cycle finished
Liquid	Liquid sterilisation (gradual drain)
Cleaning	Cleaning chamber

8.3 Printed Messages

MESSAGE	OPERATION
Ster. time	Sterilisation time
Type of cycle	Cycle type
Ster. time	Sterilisation time
Min.	Cycle min.
Sec.	Cycle sec.
Hrs	Cycle hrs.
C	Degrees centigrade
Sterilisation	Sterilisation phase
Pressurisation	Steam injection
Drying	Drying stage
End	End of cycle
Total time	Total cycle time
Test	Test cycle
Release	Steam release
Stopped	Cycle stopped by operator

9. MAINTENANCE



- Carry out maintenance with the machine switched off, having unplugged the machine from the mains and waited for the various parts to cool down.
- The declaration of conformity to current standards is invalidated if the maintenance jobs indicated hereafter are not carried out.
- If one or more heating elements is/are replaced, you must check the integrity of the machine's electrical safety.
- The declared useful lifecycle of the device is 8 years provided all the maintenance jobs indicated are carried out.
- Pursuant to the application of current standards, the user is requested to carry out all the maintenance jobs indicated. This guarantees that the device maintains the level of performance and safety declared by the manufacturer.
- The maintenance technician is obliged to inform the manufacturer of the jobs carried out.
- Exclusively spare parts supplied by the manufacturer may be used for maintenance purposes.

9.1 General maintenance (which can also be carried out by the operator)

The machine requires certain maintenance activities, therefore it is obligatory to observe the following instructions:

- Check the state of the electrical system periodically, especially the connection cable. **If faulty, contact our technical assistance department or specialised personnel.**
- Clean the door and gasket periodically and also the **internal part of the chamber** with special care when removing scale, using the sponge supplied, damping it. The correct maintenance cleaning of these parts of the machine optimize the performance of the sterilization cycle.
- If the machine is not used for quite some time, leave the door ajar and keep it in a room where the temperature is >8°C and empty the drain tank.
- To clean the panels, use a damp cloth. Do not use flammable liquids for any reason whatsoever.
- You are recommended to replace the bacteriological filter (code 1067) at least once every six months.

9.2 Daily routine maintenance (ALSO OPERATOR)

Clear the door seal, door window and generally clean the outer and inner surfaces of the machine.

Clean the black silicone door seal, the outer and inner edges and the part where the door rests on the sterilizing chamber and on which the seal must tightly fit. Use the supplied sponge to do this. The soft part of the sponge can be used to clean the seal while the rough part can be used to clean the edge of the chamber.

This cleaning operation must be carried out regularly to remove all impurities that could lead to loss of pressure inside the sterilizing chamber.

Check the used water level and drain off the actual water into the sewer if necessary. Then wash out the can under running water.

Check the level in the used water can

9.3 Weekly routine maintenance (ALSO OPERATOR)

Cleaning the sterilizing chamber (cleaning the trays and tray holders.

As specified in section 9.1 “ General maintenance “, all traces of deposits must be removed from the bottom of the chamber. Use the rough side of the supplied sponge for this operation, attempting to eliminate any scaling that may have formed.

Rinse everything with the same water used for the sterilizing process. The trays and tray-holders must also be cleaned in this way.

9.4 Monthly routine maintenance (ALSO OPERATOR)

Lubricate the pins and locking mechanisms.

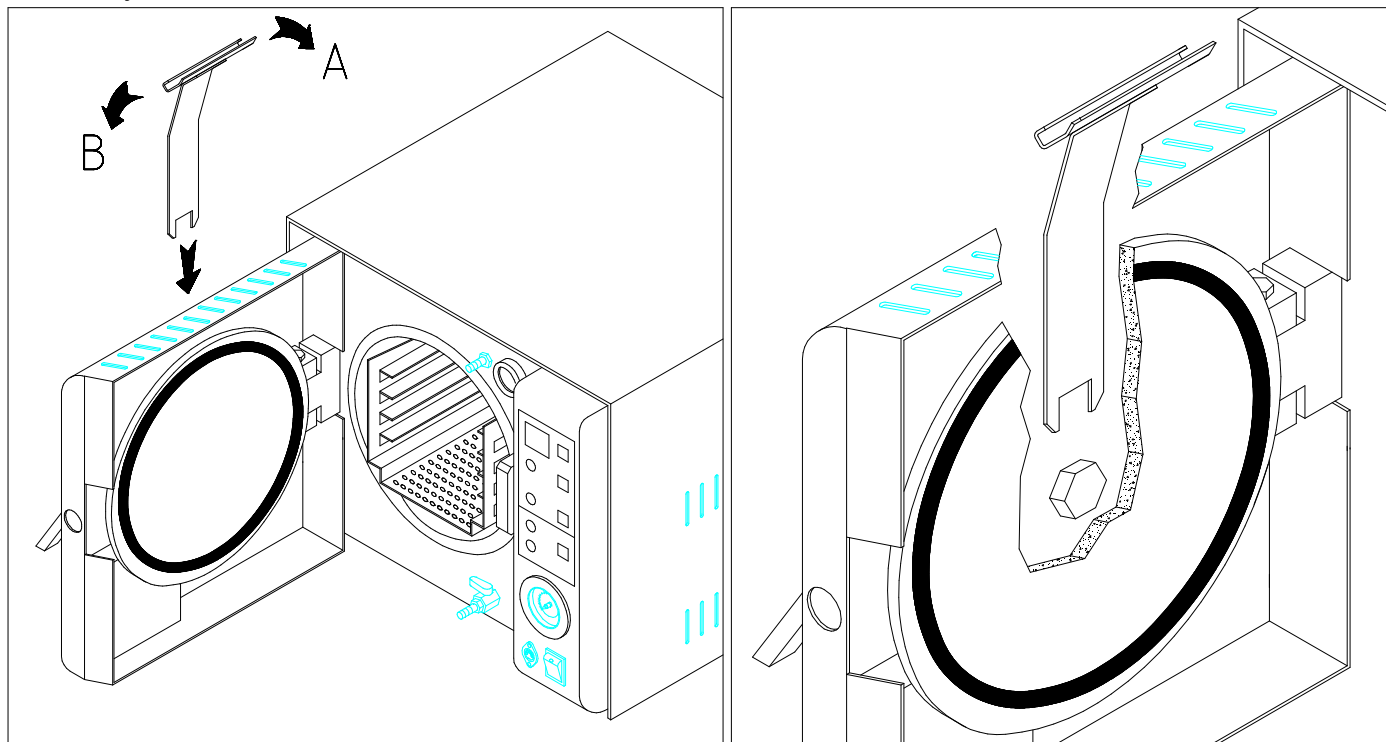
Check the movement of the hinge and door locking pin. Lubricate with Vaseline oil.

Make sure that the door is well regulated. If it is excessively slack, it must be adjusted by means of the supplied wrench. Turn the regulator at the rear of the door in a (A) direction. This will increase the pressure exercised by the seal.

Attempt to shut the door. If some difficulty is encountered, turn the regulator in an (B) direction with the supplied wrench.

Clean the entire autoclave cabinet with a slightly damp sponge, including the door casing.

Check and/or replace bacteriological filter Code. 1067 once a year.



9.5 Periodic extraordinary maintenance (to be carried out exclusively by maintenance technicians)

To ensure the regular operation of the autoclave, it is obligatory to carry out a functional test of the machine to make sure the temperature and pressure parameters comply with the requested standards to guarantee correct sterilisation.

These tests must be carried out by authorised personnel using periodically calibrated and certificated instruments.

To have this test carried out, the autoclave can also be returned to the manufacturer, after filling-in form 32/A and signing it for acceptance.

The autoclave is able to accommodate test probes for sterilisation tests.

It is obligatory to have the equipment Fully Serviced by an authorised service centre at least every 12 months.

9.6 Inspections and replacements (after approximately 1000 cycles, to be carried out exclusively by technicians)

- 1) Replace the bacteriological filter when it changes colour
- 2) Clean and inspect the sterilisation chamber (there must be no traces of scale or rust)
- 3) Check the cock (12) to make sure it is not obstructed by blowing it with compressed air
- 4) Check the state of the door gasket (replace it if it is cut or damaged in any way)
- 5) Check the efficiency of the micro switch and micro switch pusher, lubricating with silicon spray.
- 6) Replace the water in-take filter.

9.7 Corrective actions to prevent faults

- 1) Change the water inlet filter (internal) code 1484.
- 2) Clean the "Y" shaped filter (if installed) code 3136, and replace its seal, code 3188.
- 3) Check the quality of the distilled water using the relative instrument (from 0 to 20 mSiemens).
- 4) Replace the diaphragm and head seal of the vacuum pump (specify the model or serial number of the machine).
- 5) Replace the N.O. solenoid valve or coil, code 1015.
- 6) Before closing up the machine, generally inspect the internal components to make sure that they are in a good condition.
- 7) After these operations have been carried out, print out the report on the first cycles to make sure that the sterilizer operates in a normally efficient way.
- 8) Check the temperature and pressure in the chamber with a special "logger" type instrument.

9.8 Washing the inside of the chamber

- 1) Put a spoonful of scale remover in the chamber (code 4177).
- 2) Select the WASH cycle.
- 3) Close the door.
- 4) Select START. The machine will run a chamber washing cycle that will take approximately 2 hours.

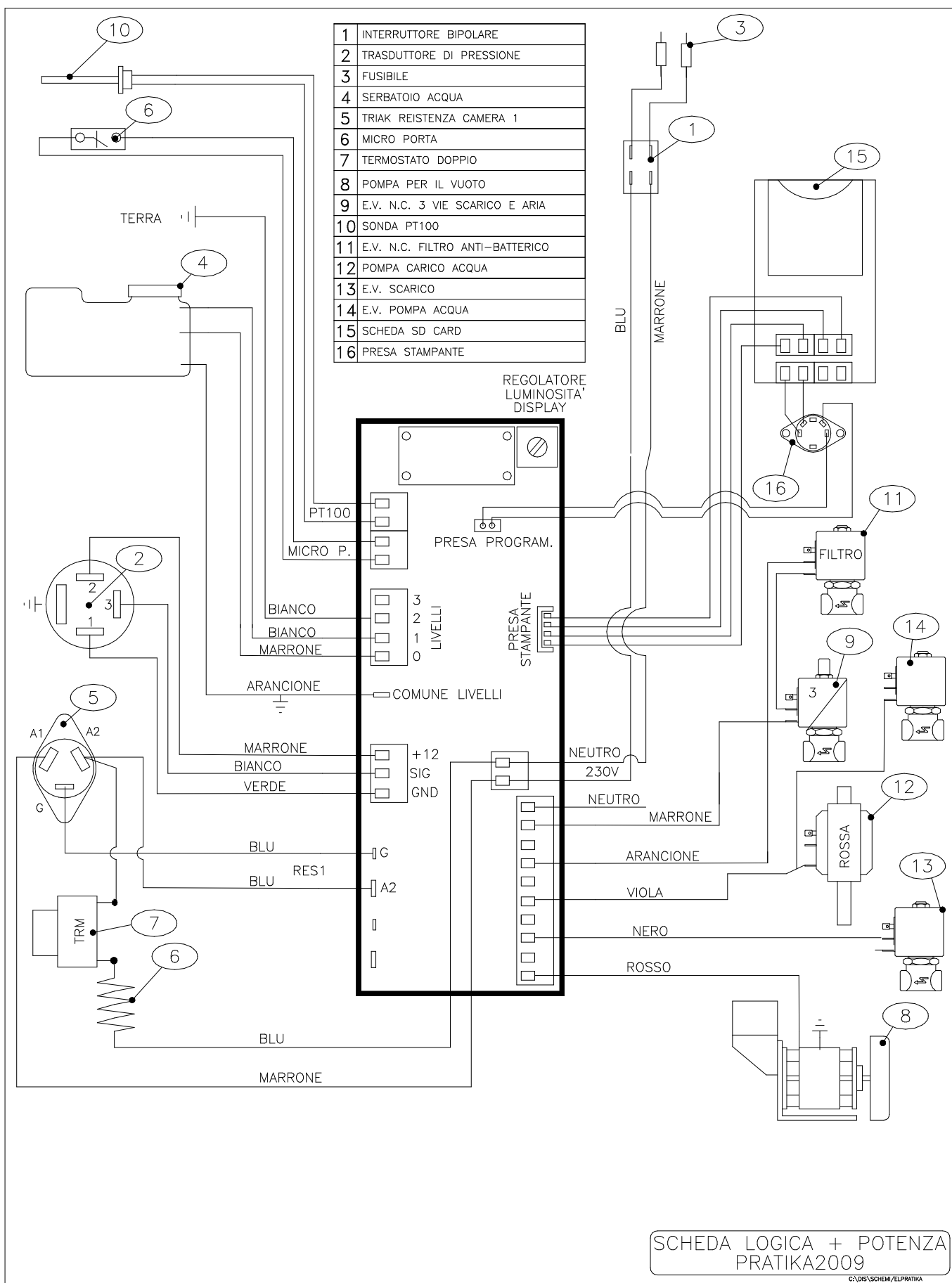
10. LABELING

	REVERBERI s.r.l. 
	Via Don Luigi Sturzo, 6 42021 BARCO DI BIBBIANO (RE) ITALY Tel (0522) 875159 - Fax (0522) 875579
NOME COMMERCIALE	Modello: <u>XXXXXXXXXXXXXXXXXX</u>
CODICE MODELLO	Articolo: <u>MXXXX/XX/XX</u>
NUMERO DI SERIE	Matricola: <u>XYYYZZZ</u>
	Alimentazione: 230 Volt ~ 50 Hz
	Potenza:
	Costruita nel: <u>XXXX</u> 
ANNO DI COSTRUZIONE	

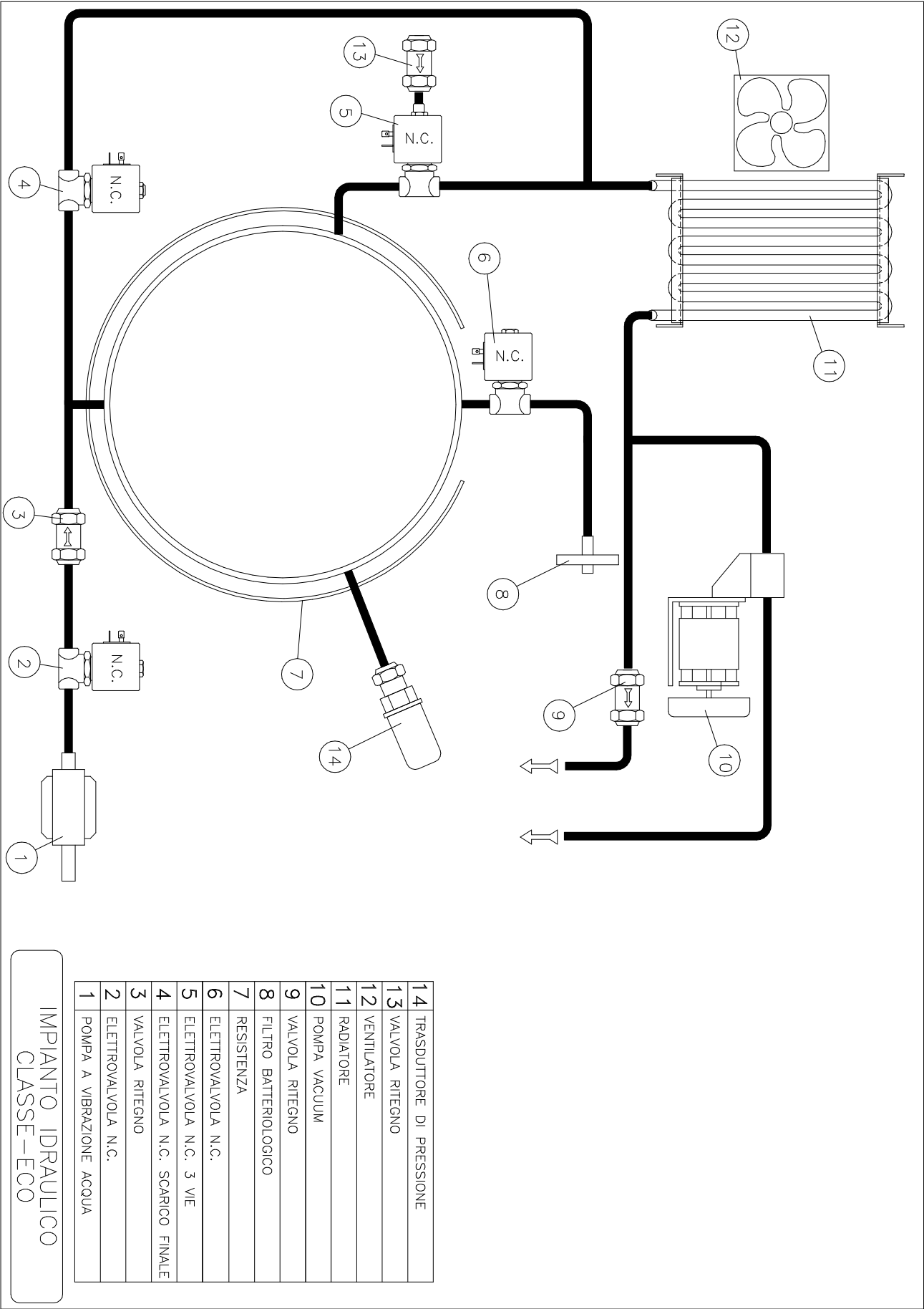
CALIBRATION LABEL

ADJ TEMP	
ADJ PRES	
PAR. ☐ ON ☐ OFF	
P. VUOTO ☐ ON ☐ OFF	
% ASC.	

Cod. 4905

ELECTRICAL SYSTEM:

HYDRAULIC CIRCUIT:



 FAX NR. 0039 0522 875579 E-MAIL: reverberisrl@gmail.com REVERBERI ARNALDO S.R.L. Via Don Luigi Sturzo n°6 42021 Barco di Bibbiano Reggio Emilia – ITALY Tel. 0039 0522/875159 Numero REA: 180051 C.C.I.A.A di Reggio Emilia Partita IVA, Codice Fiscale e reg. imprese di R.E. 01363800358	FORM TO FILL OUT WHEN APPLIANCES ARE RETURNED FOR REPAIRS Sterilizers: Matika Baby	To be filled out by the: Installer or authorized person
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Autoclave mod.....	Serial N°
Invoice nbr.....	dated

REASON WHY THE MACHINE SHOULD BE SENT BACK TO THE MANUFACTURER:	
REPAIR SUBJECT TO PAYMENT ... ☐	EXTRAORDINARY MAINTENANCE WITH SECURITY TEST in compliance with the law EN61010..... ☐
PERIODIC TEST in compliance with the law EN13060 ☐	OTHER..... ☐

FAULT ENCOUNTERED: Which message appears on the display?
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INSTRUCTIONS FOR THE RETURN OF THE AUTOCLAVE: - Before sending back the machine, fill out this form and send it by fax to N° 0039 0522 875579 and await the authorization for the shipment that must be free of charges. In case of non accepted repair estimate, will be invoiced € 100,00. - Shipments not agreed will not be accepted. - Empty the used and clean water from the tanks. - Remove the tray-holder. Do not send it back with the machine. - Send the autoclave packed in the original packing in which it was purchased. - The maximum cost of the repair will be of € 270,00. In case of substitution of the heating element, the cost will be increased of € 170,00. The repair on the machine will follow our previewed inner protocol from the quality system. - In the event of the repair estimate not being accepted, we will charge you of € 100,00 that should be paid against documents (C.O.D.) to the forwarder together with the return of the autoclave (excluded transport charges and, if needed, packing charges). - Demands for eventual autoclaves in replacement, will be executed according to the availability and with a charge of € 100,00 , excluded transport. - To avoid damages during the transport, should be used the original packing. In absence of the original packing please pack the machine in pallet for handling with pallet unloader. - The repair that we will carry out, will be comprehensive of a control and an eventual modernization for a perfect sterilization. * The above prices are subject to change without notice.

ACCEPTANCE OF THE REPAIR Date SIGNATURE and STAMP for acceptance

This form **MUST** be fully filled-in by the installation technician, who will declare to have observed all the conditions that ensure the correct installation of the equipment according to section 5.2. of the instruction handbook.

The installer also declares that he has duly trained the user to operate the machine, with the help of the instruction manual.

The technician declares that he has attached the printer ticket to this form along with the warranty form, duly filled out in all parts.

The above mentioned documents must be immediately forwarded to the manufacturer.

Notes and/or considerations

.....

.....

.....

Installer's signature and date

.....



WARRANTY CERTIFICATE

This document certifies that the appliance has been correctly manufactured.

The appliance will be repaired if it operates in a faulty way during the warranty period owing to manufacturing defects, the manufacturer's judgement over such matters being final.

The sterilizing chamber is covered by guarantee for a period of 60 (sixty) months from the date of purchase. This date shall be testified by the enclosed coupon, which must be filled out, duly stamped and signed by the technician who took part in the installation course.

The sales invoice or consignment note shall bear witness in the event of disputes.

The electrical, electronic parts and nuts and bolts are guaranteed for a period of 24 months.

The warranty covers the sole replacement or repair of those parts recognized as possessing manufacturing defects, travel and call costs excluded and the normally expendable components.

Replaced parts shall be returned free port. The ordering party shall be charged for any part that is not returned.

All appliances returned for repairs shall only be sent to us free port after authorization and shall be adequately packed, with the sender's name, address and claimed defect clearly indicated.

The appliance remains the property of the seller until it has been fully paid for by the purchaser.

THE WARRANTY SHALL BECOME VOID:

1. If the appliance has been repaired, modified or tampered with by the purchaser or by unauthorized third parties.
2. If the customer does not perform the proper and constant maintenance indicated in this manual
3. If the purchaser fails to contact the seller or authorized technical center.
4. After 24 months from the date of our consignment note.
5. If the customer delays or suspends payments.
6. If the appliance has been damaged by exposure to fire, spilt liquids, natural disasters, has been dropped or damaged by causes that are not ascribable to manufacturing defects.
7. When the warranty form has not been duly filled out, signed and returned to the manufacturer within the established time.
8. If the customer uses the appliance improperly, fails to carry out the routine maintenance operations or services the appliance in a neglectful way.

WARRANTY CERTIFICATE

APPLIANCE:

The undersigned reseller certifies that the warranty has been examined and certifies that the appliance has been consigned and installed in compliance with the instructions given

by the manufacturer on:.....

By Mr.

Address

ZIP Code City

1 – FOR THE PURCHASER

.....
TECHNICAL INSTALLER SIGNATURE AND STAMP



Via Don Luigi Sturzo, 6
42021 BARCO DI BIBBIANO (Reggio Emilia) ITALY

THIS PART OF THE CERTIFICATE MUST BE SENT BACK BY REGISTERED LETTER WITHIN 8 DAYS FROM THE DATE OF PURCHASE

WARRANTY CERTIFICATE TO BE RETURNED SIGNED AND STAMPED

APPLIANCE:



The undersigned reseller certifies that the warranty has been examined and certifies that the appliance has been consigned and installed in compliance with the instructions given

by the manufacturer on:.....

By Mr.

Address

ZIP Code City Buyer signature.....

2 –FOR THE MANUFACTURER

.....
RESELLER'S SIGNATURE AND STAMP



Via Don Luigi Sturzo, 6
42021 BARCO DI BIBBIANO (Reggio Emilia) ITALY