

Instructions manual

Eurosonic Micro



Euronda[®]

Dear Doctor,

*Thank you for the faith that you have shown us by acquiring our ultrasound apparatus the **Eurosonic Micro**.*

We want you to know that our firm is at your complete disposition to furnish information and to answer any questions concerning the operation and use of this equipment.

We remind you that for the correct usage of this machine it is necessary to first read this manual. The Eurosonic Micro corresponds to all of the relative safety regulations and presents no danger to the operator when used according to the instructions.

While wishing you success in your work, we remind you that the reproduction of this manual is forbidden and that the technical components could be changed without warning due to our continued technical research.

EURONDA S.p.A.

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INTRODUCTION

GENERAL NOTES ON DELIVERY

Upon receipt of the equipment, please control the condition of the package and keep it for possible shipments.

Open the package and check that:

- the equipment corresponds to the specific requirements
- there is no evident damage.

In case of damage or missing parts, inform immediately either the shipping agent, the dental depot or Euronda S.p.A.

All of the dimensions listed in this manual are not binding.

The sketches and any other consigned documents regarding this machine are property of Euronda S.p.A., which reserves all rights. They can not be made available to any third parties.

It is also forbidden to reproduce in whole or in part either the manual or the illustrations.

GENERAL INSTRUCTIONS

Included in this manual are instructions for:

- correct installation
- the safe and efficient use of the apparatus
- routine maintenance.

The Eurosonic Micro must be used in compliance with the instructions given in this manual and never for other purposes.

The operator is the person who physically uses the device for the purpose for which it was designed.

The person in charge is the person or group of persons responsible for the use, routine maintenance of the device and instruction of the operator.

The person in charge is legally responsible as regards respect of regulations for installation, operation and use of the device.

The manufacturer cannot be held responsible for any breakage, damage or malfunctioning of the unit if the machine has not been used correctly or not adequately maintained.

Use of the machine: This manual is an integral part of the ultrasound apparatus and it is necessary to keep it near to the machine in order to ensure an easy reference.

The machine is for professional use only.

Use the machine only for the ultrasound functions outlined in this manual.

Eurosonic® Micro: this apparatus is designed and developed to clean surfaces which are difficult to reach such as: diamond-tipped cutters, endodontic files, hand instruments, scissors, prostheses (crowns, inlays, dentures), orthodontic fittings, laboratory instruments.



The apparatus can only be used with water-based cleaning acid or alkaline solutions.

MEANING OF SYMBOLS USED


Present symbols of emergency on the equipment:

	CAUTION: HOT SURFACE
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The machine label contains the symbols listed below with their meaning.

SYMBOL	MEANING
SN	"SERIAL NUMBER" The symbol must be followed by the manufacturer's serial number. The serial number must be adjacent to the symbol.
	"DATE OF MANUFACTURE " The symbol must be accompanied by the year. The year must be expressed in four digits.
	"CAUTION, SEE INSTRUCTIONS"

In this manual there are also symbols alongside of descriptions, notes, etc. They serve to call your attention to a particular note or explanation. The meaning is illustrated below.

SYMBOL	MEANING
	IMPORTANT SAFETY INFORMATION. This symbol calls the attention of the reader to important information about safety

WARRANTY INFORMATION

Euronda guarantees the quality of its equipment, if used in accordance with the instructions supplied in this manual, and according to the conditions printed on the warranty certificate.

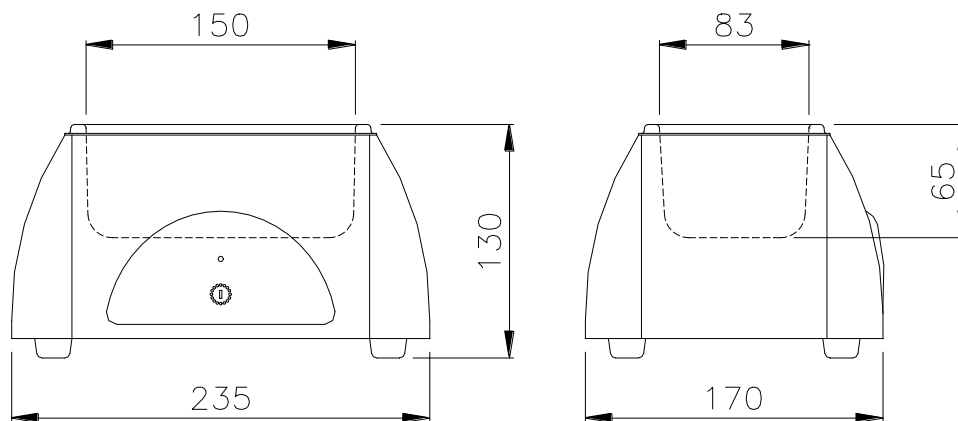
The warranty is valid from the date of purchase by the client and the details can be found by registering on www.euronda.com/myeuronda

In the case of dispute, the date indicated on the purchase invoice, showing the serial number of the unit, will be considered as valid.

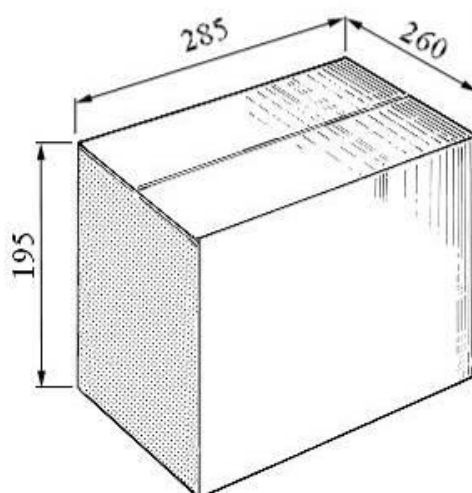
NOTE: please retain the original packaging and use it each time the unit needs to be transported. The use of different packaging could damage the product during transportation.

CHAPTER 1

1.1 - DIMENSIONS OF THE MACHINE AND OF THE PACKAGE



Dimensions of the Eurosonic® Micro ultrasound basin





Dimensions of the Eurosonic® Micro packing

CHAPTER 2

2.1 - INSTALLATION

The EUROSONICMicro ultrasound basin has been tested and inspected in the factory. Remove the packing and install the apparatus observing the following instructions:

1. Position the ultrasound basin on a flat surface, leaving a clear area of at least 50-80 mm around it.
2. Do not install the machine close to a sink or similar to avoid contact with water and possible electrical short circuits.
3. Keep the machine far from heat sources.
4. Install the machine in a ventilated area.
5. Ensure that the electrical cable is not folded up and freely reaches the electrical socket.
6. The device must be positioned in such a way that the plug is accessible.
7. Insert the plug; the machine is ready for use.

	<p>CAUTION: Do not use the unit for disinfecting, cleaning or rinsing contact lenses.</p> <p>CAUTION: Operators must wear appropriate Personal Protective Equipment for the foreseen use.</p> <p>CAUTION: In order to safeguard the unit and the surrounding area, remember, when choosing the place of installation of any ultrasound equipment, to take into account the effects of the gradual evaporation and vaporisation of the cleaning fluid, especially if the unit is used without its cover. If particularly volatile and aggressive solutions are used, the fumes and vapours may spread into the surrounding environment and cause problems for any equipment and structures situated nearby.</p> <p>CAUTION: Do not install the appliance in the “patient area” ref. EN 60601-1.</p> <p>CAUTION: DANGER OF CONTAMINATION. After use, the cleaning solution may contain contaminated residues: wear specific PPE when washing and cleaning the appliance and when replacing the cleaning solution. The responsible authority must teach the operator how to use the unit safely.</p>
	<p>NOISE LEVEL: The unit has been designed and built to reduce noise to less than 80 dB(A).</p>

2.2 - SAFETY

Before using your EUROSONIC Micro ultrasound cleaning machine, carefully read these safety warnings. Failure to observe them can cause accidents or damage the apparatus.



DO NOT USE INFLAMMABLE LIQUIDS IN THE TANK
DO NOT USE SOLVENTS IN THE CLEANER
DO NOT USE THE UNIT WITH EXPLOSIVE GAS OR VAPOURS
NEVER PUT YOUR HANDS IN THE TANK WHEN THE UNIT IS RUNNING
NEVER DISASSEMBLE THE EUROSONIC MICRO CLEANER.
THE HIGH VOLTAGES INSIDE THE UNIT ARE HAZARDOUS.



KEEP THE AREA AROUND THE CLEANING MACHINE CLEAN AND DRY
CLEAN UP ANY SPILT LIQUID. WATER PLUS HIGH VOLTAGES CAN CAUSE ELECTRICAL DISCHARGES.



If the equipment fails to operate properly, refer to the "Trouble Shooting" section of the manual for possible causes. If you should require further information or repairs, contact your supplier's specialised staff or the Euronda S.p.A. After-Sales office directly.



MAKE SURE THE SYSTEM IS EARTHED ACCORDING TO CURRENT LAW IN THE COUNTRY OF INSTALLATION

DO NOT REMOVE THE LABEL ON THE UNIT.

MAKE SURE THE CLEANER IS POWERED AT THE CORRECT VOLTAGE

NEVER USE THE CLEANER WITH SOLUTIONS AT TEMPERATURES HIGHER THAN 70°C

USE ORIGINAL SPARE PARTS ONLY

WARNING

- The apparatus conforms to the electrical safety requirements set out by the Standards Institute, and is provided with a bipolar plug which ensures complete earthing.
- As a fundamental safety requirement, make sure that the electric installation is efficiently earthed and the capacity of the installation and electric current sockets is adequate for the apparatus power shown on the rating plate. Have qualified personnel carry out the above checks.
- Pursuant to Article 33 of Regulation 1907/2006 (REACH), it should be noted that the unit contains Lead titanium zirconium oxide EC N° 235-727-4, CAS N° 12626-81-2. This substance is chemically bound and there are, therefore, no associated hazards and/or precautions for use.

Failure to follow the above instructions relieves Euronda S.p.A. of any liability under the warranty.

2.3 - ELECTRICAL CONNECTION

Check that the electrical current indicated on the tag on the rear of the machine, corresponds to the voltage of the place of installation.

The machine must be connected to an electrical system with adequate voltage which corresponds to all standards laws of the country of installation.



ATTENTION: Don't fold or twist the electrical cable and don't lay any objects on it.

CHAPTER 3

3.1 – DESCRIPTION

The ultrasound basins of the series EUROSONIC Micro are the result of extensive study and research on this system of industrial cleansing. Every day, dental studios are faced with the need to perform professional cleaning of the small instruments they use. EUROSONIC Micro, the result of over ten years of experience of Euronda in the production of ultrasound basins is the ideal solution for this problem. The device is small and easy to position, while providing excellent cleansing of the instruments. This is thanks to the single cleaning cycle preset to last 10 minutes, ready to go into action upon pressing the START button. It is possible to place the objects directly on the bottom of the basin or use a plastic beaker to hold them during washing.

3.2 - TECHNICAL CHARACTERISTICS

Supply voltage	230 V
Number of phases	1
Frequency	50 Hz / 60 Hz
Max consumption	40 W
Range of working conditions	<ul style="list-style-type: none"> - Indoor use - Altitude up to 2000 mt - Temperature: +5 ÷ +40°C - Max relative humidity 80% for temperatures up to 31°C with linear reduction to 50% at 40°C - Max power variation at mains: ±10% - Category of installation (category of overvoltage) II - Degree of pollution 1
Class of insulation	1
Fuses	N. 2 - F 500 mA 250V
Weight	1 kg
Piezoceramic transducer	1 with total power of 40 W
Working frequency	50 kHz
Electronic cycle timer	10 minutes
Color	RAL 9002
Switch	Bipolar with protection cover
Absence of air intake openings to prevent possible infiltration of liquids in device	

3.3 - ADVANTAGES OF ULTRASOUND CLEANING COMPARED TO MANUAL CLEANING

- 1) Rapidly and thoroughly cleans surfaces which are intricate and difficult to reach: diamond-pointed cutters, endodontic files, indented hand instruments, scissors, prostheses (crowns, inlays, dentures), orthodontic fittings, laboratory instruments.
- 2) Prolongs the life of sharp instruments, thanks to the capacity of the ultrasonic apparatus to remove any residue from sharp surfaces.
- 3) Ultrasound cleaning is more rapid and efficient than manual cleaning, and is capable of removing any residue which interferes with chemical reactions.
- 4) Eliminates possible accidental abrasions due to instrument brushing.
- 5) Eliminates the nebulisation of dead organisms, generated by instrument brushing.

CHAPTER 4

4.1 - OPERATING INSTRUCTIONS

General operation



THE APPLIANCE MUST NEVER BE ALLOWED TO WORK WITHOUT WATER.




- 1) Fill the basin with lukewarm tap water
- 2) Add the cleaning solution to the water.
- 3) Place the instruments in the basin. For very small items (drills, tips, etc.) use a plastic beaker with some water in it so it will stand on the bottom of the basin.
- 4) Make sure the liquid reaches the step in the basin.
- 5) Press the switch on the back of the unit. The green POWER ON light on the front of the machine will light up. This light stays on at all times, whether the device is running or not. It merely indicates that the machine is switched on and is powered.
- 6) Press the "START" button on the front of the basin to start an ultrasound cleaning cycle. After 10 minutes the machine stops automatically.
- 7) To start a new cycle just press "START" again.

Note: to stop the cycle while it is running, press the switch on the back of the machine.

WARNING: at the end of the working day, turn the main POWER switch off.

Recommendations for use

- Disconnect the electricity before filling or emptying the basin.
- The basin is to be filled with lukewarm tap water, with the addition of a cleaning solution to increase cavitation.
- The operator is responsible for ensuring that the choice of cleaning agents is adequate for the items to be cleaned.
- Before cleaning valuable items, you are recommended to carry out a small sample test; then you can proceed with the remaining material.
- The items to be cleaned can be placed directly on the bottom of the basin or in a plastic beaker containing them while being washed.
- The basin must be cleaned regularly and the cleaning solution changed often to increase cleaning action efficiency.
- Do not reduce ventilation.
- Do not use the ultrasound basin in a dusty environment.
- Dust accumulation can interfere with regular apparatus operation.
- Degas the cleaning solution every time the liquid is changed. Degassing consists of running the device with just the solution in it for a complete cycle.
- Having completed the instrument cleaning cycle, rinse it with drinking water (demineralised water would be better in order to avoid stain formation) and dry it thoroughly. In the case of medical instruments, carry out the sterilisation cycle.

	<p>CAUTION: after being cleaned with ultrasounds, all the instruments must be sterilised before use.</p> <p>CAUTION: always use personal protective equipment.</p>
	<p>STRICTLY FORBIDDEN: NEVER OPERATE THE UNIT WITHOUT WATER.</p>
	<p>STRICTLY FORBIDDEN: NEVER OPERATE THE UNIT WITH ITS COVER REMOVED</p>

CHAPTER 5

5.1 - ORDINARY MAINTENANCE AND DIRECTIVES

- Every time the liquids are changed, they must be DEGASSED. Otherwise, the cleaning effect of the ultrasound basin will be reduced, at least for the first wash.
- Change the cleaning solutions periodically. Drain the basin and clean the bottom using a cloth.
- Make sure that the dirt removed from the washed instruments does not remain in substantial amounts at the bottom of the basin and stay there for a long time. This is because the dirt deposited at the bottom of the basin decreases the ultrasound cleaning effect.
- After a certain period of time, the liquids become exhausted and therefore no longer have a cleaning effect. The life of the liquids cannot possibly be established beforehand, as it depends on the number of washes carried out and the time they last.
- For disposal of used solution refer to the manufacturer's instructions and the laws in effect in the country of use.

NOTE: we advise you against using liquids having high acid concentration and temperature above 70°C. As a matter of fact, as the temperature comes closer to the boiling point, the ultrasound cleaning becomes less efficient (the water motion caused by boiling means that air is incorporated, and this phenomenon has the effect of inhibiting the ultrasonic wave cleaning action).

- During the working phase, you are advised to keep the lid on the basin, in order to hold the produced vapours inside.
- Wash the outside of the machine with a slightly damp cloth. Before carrying out this operation, make sure that the basin electrical connection is deactivated.

5.2 - EXTRAORDINARY MAINTENANCE

All maintenance operations, including power supply cable replacement, must be carried out by competent personnel.

5.3 - TROUBLESHOOTING

<i>PROBLEMS</i>	<i>CAUSES</i>	<i>SOLUTIONS</i>
1) The led on the front panel does not light up.	No power. Switch broken. Circuit protection fuse burnt out.	Power out on mains. Replace switch (qualified personnel). Check for possible short circuits and replace the fuse with one of the same type (qualified personnel).
2) No ultrasound function with led on.	Cycle ended. Generator circuit broken.	Start new cycle. Replace circuit (qualified personnel).
3) Reduced ultrasound activity.	Solution not degassed. Solution exhausted. Solution not suitable. Soft materials like temporary cement. Transducers working out of frequency.	Degas the liquids according to the instructions in "Recommendations for us". Change the solution and clean the basin with a cloth. For cements, plaster, alloys etc., use specific liquids for best results. It is not possible to obtain good results with these materials. Contact the Euronda Service Center for repair.

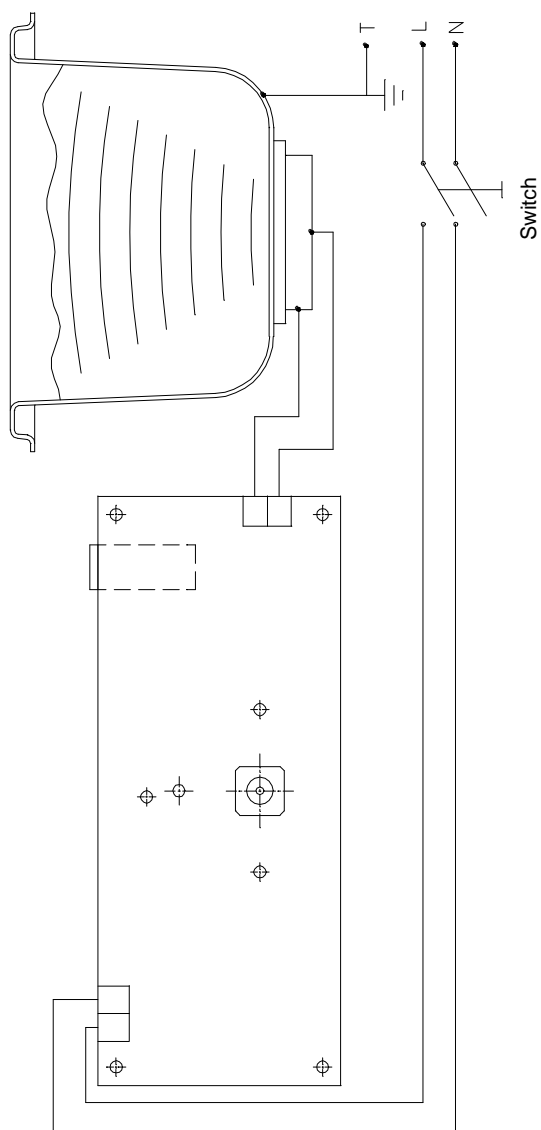


CAUTION: Disconnect the power supply before starting work. Have work performed by specialised technicians.

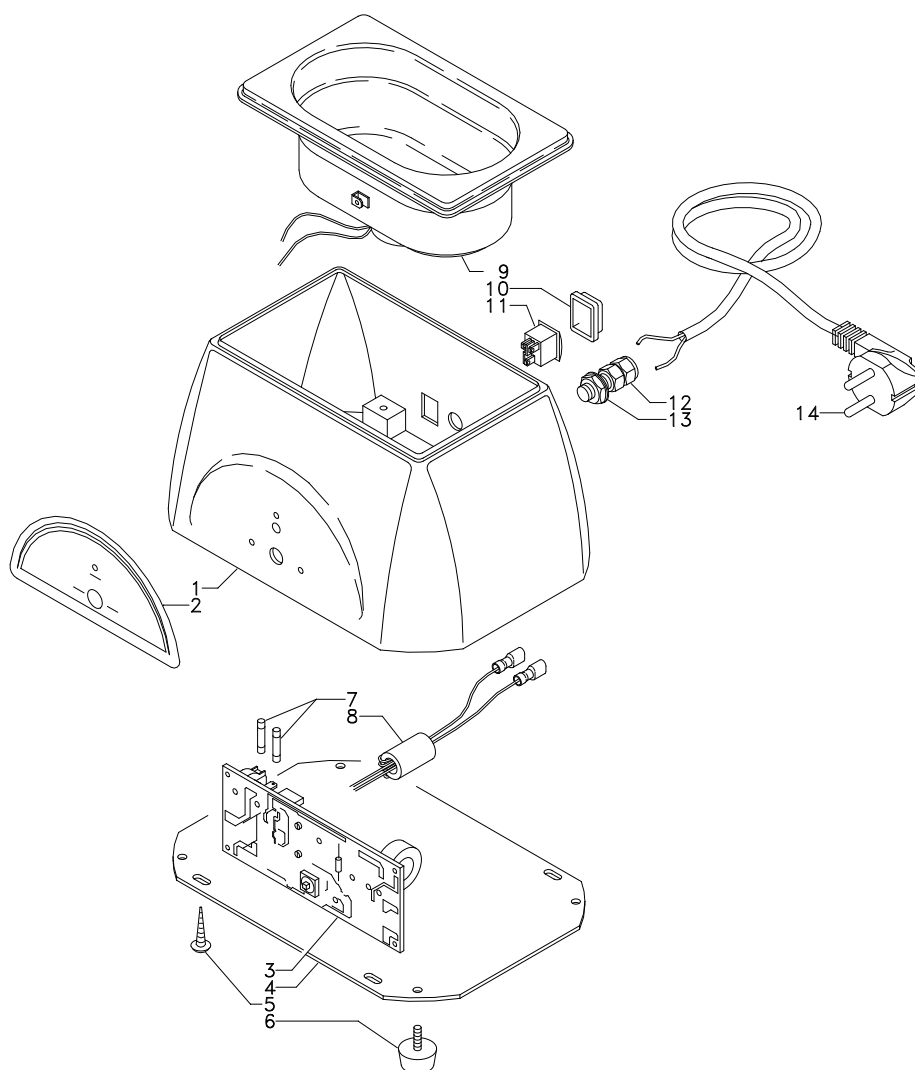


CAUTION: DANGER OF HIGH INTERNAL VOLTAGES

5.4 - ELECTRICAL DIAGRAM



5.5 - ENLARGED VIEW OF THE BASIN




CHAPTER 6

6.1 - INSTRUCTIONS FOR DISPOSAL

The EUROSONIC Micro ultrasound basin has been manufactured using iron materials, electronic components and plastic materials. No particular precautions are required to throw the unit away. Do not dump the unit in an unguarded place; consign it to a waste disposal agency for scrapping. Always refer to the specific laws in the country of use when scrapping equipment.



The  symbol on the appliance means that it must be disposed of as “sorted waste”.

The user must therefore send (or instruct other people to send) the unit to one of the sorted waste collection centres set up by the local councils, or send it to the dealer against the purchase of an equivalent unit (European Union only).

Sorted waste collection and the subsequent treatment, recovery and disposal operations facilitate the production of equipment using recycled materials and limit the negative environmental and health effects that may be caused by improper waste management.

Abusive dumping by the user will be punished according to law.

