

XO ODONTOSURGE

**INSTRUCTIONS
FOR USE**



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1 GENERAL INFORMATION

1.1 INTRODUCTION

XO ODONTOSURGE is a device designed for effective and safe high frequency (HF) soft tissue handling with decisive importance attached to ease of use and minimum patient discomfort and apprehension.

However, safe and effective HF soft tissue handling is dependent not only on equipment design but also, to a large extent, on factors under the control of the operator. It is important that these instructions are read, understood, and followed in order to enhance safety and effectiveness.

The device shall only be used by certified dentists. In particular, for operators with little or no experience with HF soft tissue handling, but also for operators familiar with conventional low frequency devices, please take the time to carefully study these instructions prior to first using XO ODONTOSURGE.

1.2 HIGH FREQUENCY

XO ODONTOSURGE operates at a frequency of 27 MHz which is about ten times higher than conventional soft tissue surgery devices. This exceptionally high operating frequency results in multiple advantages - operationally as well as functionally:

At this high frequency, the entire surface of the patient's body is acting as a large passive or neutral electrode which, via the air, returns the high frequency current.



As a result, the conventional and cumbersome passive or patient electrode which also increases patient apprehension is rendered obsolete by XO ODONTOSURGE.

- The high operating frequency is far from frequencies that are able to stimulate nerve tissues. It is however recommended that in most cases, some level of anesthesia be used for patient comfort.
- The high frequency plays a central role for the completely automatic and instantly responding power tuning system of XO ODONTOSURGE.

As a result, the unique power tuning system is continuously controlling and precisely adapting the power output from a cutting electrode.



The device delivers the exact amount of energy to make a perfect incision, irrespective of varying clinical conditions.

If a cutting electrode nears bone or tooth structures, the tuning system immediately reduces the power to avoid thermal bone tissue necrosis.

1.3 WARNINGS



XO ODONTOSURGE must be installed and operated in accordance with these instructions for use.

Do not use in oxygen rich environments.



The risk for igniting flammable gases or other materials is inherent in soft tissue surgery and cannot be eliminated by device design.

The control box must not be exposed to excessively high or low temperatures and extreme moisture.

Use of XO ODONTOSURGE can affect other electromedical equipment.

Do not use XO ODONTOSURGE including cables closer than 30 cm (12 inches) to any part of other medical devices. Otherwise, degradation of the performance of this equipment could result.



Portable RF communications EQUIPMENT. Including antennas, can affect medical electrical EQUIPMENT. Such equipment should be used no closer than 30 cm (12 inches) to any part of the XO ODONTOSURGE including its cables.

Do not stack XO ODONTOSURGE on other medical devices.

Using cables and accessories not supplied by XO CARE A/S may negatively affect EMC performance



Technical changes including repairs, adjustments, calibrations or modifications must be conducted by a XO CARE A/S – or by authorized service personnel only.

Danger of electric shock!



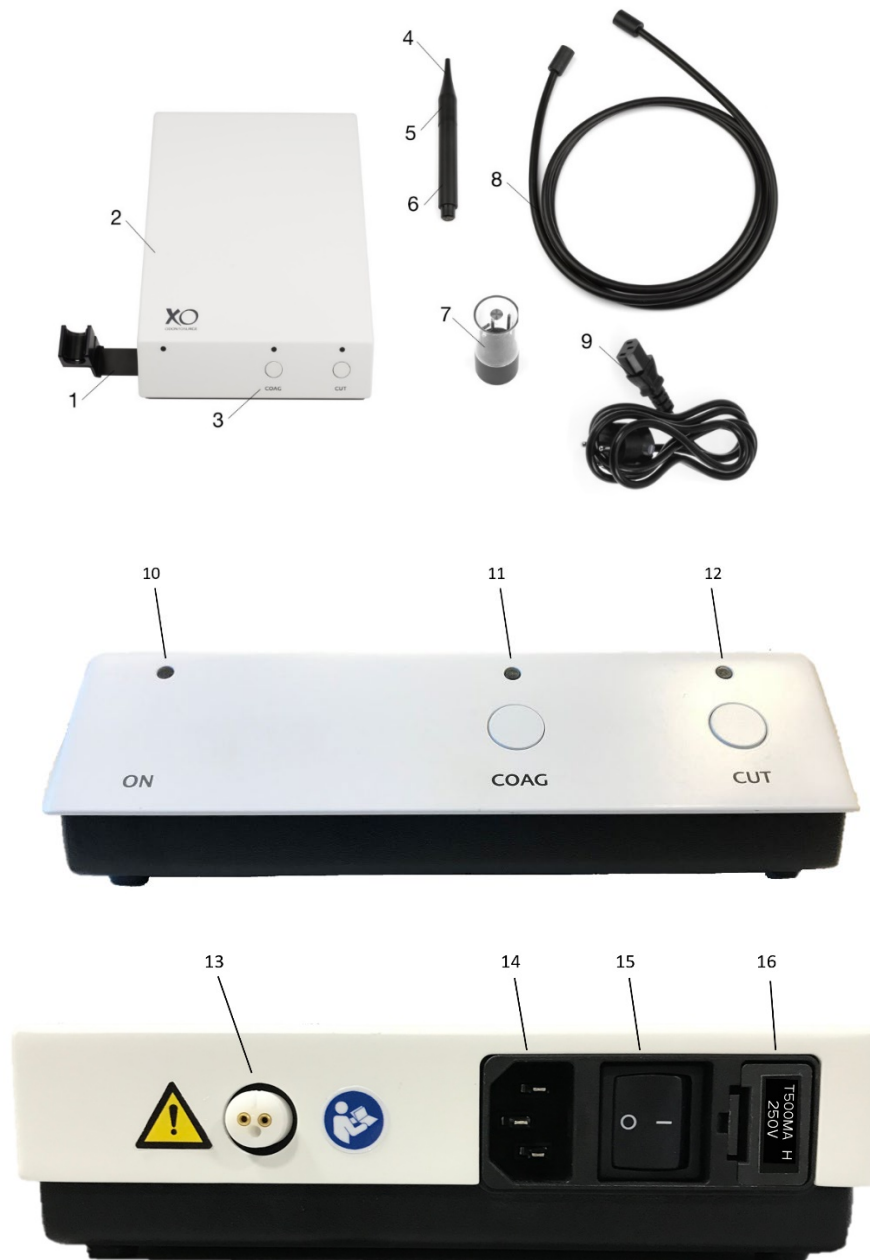
Do not attempt to open the control box or to disassemble the handpiece.

Pay attention to the fact that errors in the device can lead to electric shock.

2 PARTS DESCRIPTION

Table 1 – XO ODONTOSURGE parts

1. Detachable handpiece holder	2. Control box
3. Mode switch panel	4. Electrode socket
5. ON/OFF finger switch for activation of output power	6. Detachable handpiece
7. Seven electrodes in casing. Casing is only for storage of electrodes	8. Handpiece cable
9. Mains power cable	10. Green lamp (STANDBY)
11. Blue lamp (COAG)	12. Yellow lamp (CUT)
13. Handpiece cable connector	14. Mains power inlet
15. Mains switch	16. Fuse drawer



3 SETUP

XO ODONTOSURGE comes complete with control box, handpiece and cable, casing including a selection of seven electrodes and a mains power cable.

3.1 HANDPIECE AND CABLE

Connect the handpiece with the matching connector at the end of the handpiece cable.

Connect the opposite end of the handpiece cable with the matching connector at the rear of the control box.

Clip the handpiece in place by pressing it laterally into the handpiece holder.

3.2 DETACHABLE HANDPIECE HOLDER

Attach the handpiece holder by inserting its tongue into the slot in the side of the control box (left or right side at option).

3.3 CONTROL BOX

Check that the device is correctly rated for your local power line supply voltage (see rear of the control box).

Connect the power cable with the matching power inlet on the rear of the control box and plug into a wall socket with appropriate protective ground connection.



To avoid the danger of electric shock, this device must only be plugged in to a grounded power supply.



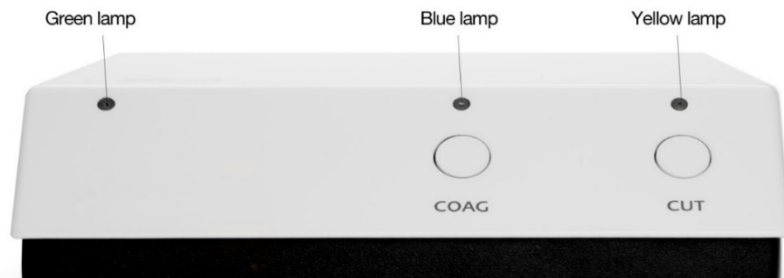
Should the device not be equipped with the appropriate power cable (i.e. pins different from the local standard) contact the XO Partner.

4 OPERATIONS CONTROL

4.1 MODE SWITCH PANEL

Standby mode

When the mains switch at the rear of the control box is activated the green lamp turns on meaning that the device is in STANDBY MODE.



CUT mode

When the CUT button is activated the yellow lamp turns on indicating that the device is in CUT MODE.

If the CUT button is reactivated the device goes back to STANDBY MODE.

COAG mode

When the COAG button is activated the blue lamp turns on indicating that the device is in COAG MODE.

If the COAG button is reactivated the device goes back to STANDBY MODE.

4.2 ON/OFF FINGER SWITCH ON THE HANDPIECE

While the device is either in CUT MODE or COAG MODE pressing the ON/OFF switch on the handpiece between fingers turns the output power ON in the selected mode.





The ON/OFF switch on the handpiece is only operative when the device is in CUT MODE or in COAG MODE.

When the device is ON an acoustic signal is heard.

As soon as the ON/OFF switch is released the output power is turned OFF.

5 HOW TO USE

5.1 GENERAL



Do not start clinical work until having carefully studied section 6.



Electrodes must always be kept away from the patient.



The control box must not be placed so that it can be touched by patients.



*For the sake of operator safety, electrodes should only be inserted/ removed from the handpiece when the device is in **STANDBY MODE** – only green lamp on.*



*Any treatment must be initiated by checking that the **ON/OFF** finger switch on the handpiece responds with an acoustic signal.*

Do not touch the electrode while the acoustic signal is sounding.



*Do not use **XO ODONTOSURGE** on or near patients or personnel with implanted cardiac pacemaker.*

Always:



- *Activate the output power (acoustic signal on) prior to making contact with the tissue*
- *Keep the electrode clean and free of tissue remnants*
- *Switch to **STANDBY MODE** (only green lamp on) as soon as the treatment has been completed and also during any pause in an on-going treatment.*



Pedodontics:

When operating children, depending on the physical conditions at the clinic and the size of the child, it will optimize the cutting process if the operator or another person touches the patient.

5.2 CUTTING (DISSECTION)

- *The handpiece cable must be placed so that it touches the patient as little as possible.*
- *As a first step, always make sure that the device is in the **STANDBY MODE** (only green lamp on). If necessary, activate the **CUT** and **COAG** buttons to turn the blue and yellow lamps off.*
- *Insert the desired cutting electrode (wire electrode) fully and firmly into the handpiece.*
- *Activate the **CUT** button to turn the yellow lamp on (**CUT MODE**).*
- *The device is now ready for operation. Activate the output power by pressing and holding the **ON/OFF** finger switch on the handpiece.*
- *Keep a cutting electrode in motion in a steady, continuous stroke.*
- *Keep the tissue moistened by spraying with sterile water or apply the patient's own saliva if necessary.*



Note the acoustic signal for cutting.

5.3 COAGULATION (HAEMOSTATIS)

- *As a first step, always make sure that the device is in the **STANDBY MODE** (only green lamp on). If necessary, activate the **CUT** and **GOAG** buttons to turn the blue and yellow lamps off.*
- *Insert the desired coagulation electrode (ball or rod electrode) fully and firmly into the handpiece.*
- *Activate the **COAG** button to turn the blue lamp on (**COAG MODE**).*
- *The device is now ready for operation. Activate the output power by pressing and holding the **ON/OFF** finger switch on the handpiece.*
- *Keep a coagulating ball electrode in motion in a tapping movement.*



Note the acoustic signal for coagulation.

6 PREPARATION AND FAMILIARIZATION

When taking XO ODONTOSURGE into use for the first time, it is strongly recommended that the operator gets familiar with XO ODONTOSURGE by practicing before starting to work under clinical conditions.

This can be done with a piece of fresh and lean meat which, when held in the operator's hand, constitutes an acceptable clinical model.

6.1 DISSECTION EXERCISE

- 1) Select the STANDBY MODE by activating the CUT and COAG buttons to turn the blue and yellow lamps off.
- 2) Insert a straight needle wire electrode.
- 3) Activate the CUT button to turn the yellow lamp on.
- 4) Check that the ON/OFF finger switch responds with an acoustic signal.
- 5) Place the meat in the palm of one hand on a piece of paper towel. The meat should not be dry. If it is, moisten lightly with water.
- 6) Hold the handpiece in a pencil-type grip and hold the electrode in position slightly above the tissue surface. Activate the device by pressing and holding the ON/ OFF finger switch.
- 7) You will hear the acoustic signal for the CUT MODE.
- 8) Make an incision a few millimeters deep in the meat by advancing the electrode in a single continuous stroke, while using a high volume for odor evacuation.
- 9) Practice making shallow and deep incisions - also incisions of varying depth. While making the incisions, the electrode should always be kept in motion and be moved as rapidly as the tissue resistance permits.

Next practice is tissue sculpting using the wire loop electrode and "troughing" with a wire hook electrode.

Please observe that the shape of the electrode, and the angle of the electrode to the tissue surface will determine the shape of the cut.

6.2 COAGULATION EXERCISE

The COAG MODE is used with the ball electrode provided to control isolated areas of bleeding.

- 1) Select the STANDBY MODE by activating the CUT and COAG buttons to turn the blue and yellow lamps off.
- 2) Insert the ball electrode fully into the handpiece and activate the COAG button to turn the blue lamp on.
- 3) Check that the ON/OFF finger switch responds with an acoustic signal.
- 4) Hold the electrode in position slightly above the meat tissue surface and activate the device by pressing and holding the ON/OFF finger switch.
- 5) The acoustic signal for the COAG mode will now be heard.
- 6) Make repeated taps with the activated electrode on the tissue. This will result in small "target" areas of coagulation which will effectively stop spot bleeding in a clinical situation.

7 INFECTION CONTROL

7.1 GENERAL

All infection control, maintenance activities and adjustments described in this section can be done by the user provided that these provisions are strictly followed.

Wear protective clothing, safety glasses, face mask and gloves.

Use only original consumables, accessories and spare parts provided by XO CARE A/S.

Before using XO ODONTOSURGE for the first time it must be cleaned, disinfected and/or sterilized as described below.



Before using a thermidisinfector and an autoclave read the instructions for use for the devices and be aware of the warnings provided by the manufacturers.

Pack items to be sterilized in sterilization packages that meet the following requirements:

- *The sterilization package must meet the applicable standards in respect of quality and use and must be suitable for the sterilization method*
- *The sterilization package must be large enough for the sterilization goods*
- *The filled sterilization package must not be under tension*

Store sterile goods dust-free and dry.

Please note that autoclaving and thermo-disinfection processes wear down the materials and may cause change of color and/or shorten the lifetime.



The shelf life of the sterile goods depends on the storage conditions and type of packaging.

If the described cleaning, disinfection and sterilization methods are not followed carefully:





- *the safety of operators and patients may be compromised,*
- *the service life of the device expires and*

- ***XO CARE A/S has no responsibility for the product's correct functioning and safety.***

7.2 CLEANING, DISINFECTION AND STERILIZATION METHODS

Table 2 below describes relevant cleaning, disinfection and sterilization methods.

Table 2 – Cleaning, disinfection and sterilization definitions

Procedure	Symbol	Purpose	Method(s)
Cleaning	N.A.	Removal of visible blemishes spots, stains etc.	<ul style="list-style-type: none"> Physical/chemical use of a mild detergent (e.g. liquid dish soap) – will not significantly reduce the number of pathogens. Application of thermo-disinfection according to ISO 15883-1
Chemical disinfection	N.A.	Significantly reduce the number of pathogenic microorganisms	<ul style="list-style-type: none"> Application of chemical disinfectants to surfaces
Thermo-disinfection		Significantly reduce the number of pathogenic microorganisms	<ul style="list-style-type: none"> Application of thermo-disinfection according to ISO 15883-1 at 93°C/194°F, 5 minutes
Sterilization		Elimination/destruction of all living pathogenic microorganisms	<ul style="list-style-type: none"> Steam sterilization (steam sterilizer according to ISO 13060, Type B), 34°C/273°F, 3 minutes

Clean, disinfect and sterilize XO ODONTOSURGE as described below in Table 3.

Table 3 – Cleaning, disinfection and sterilization methods

Product / part	REF	Reference	Cleaning	Chemical disinfection	Thermo-disinfection	Sterilization
Electrodes	See Table 5	7.3	Mild detergent with a twisted lint-free cloth.	XO Intensive Disinfection	250 cycles	250 cycles
Electrode casing		Only for storage	Mild detergent with a twisted lint-free cloth.	N.A.	N.A.	N.A.
Handpiece		7.4	Mild detergent with a twisted lint-free cloth.	XO Intensive Disinfection	250 cycles	250 cycles
Handpiece cable			Mild detergent with a twisted lint-free cloth.	XO Intensive Disinfection	250 cycles	250 cycles
Detachable handpiece holder			Mild detergent with a twisted lint-free cloth.	XO Intensive Disinfection	250 cycles	250 cycles

Product / part	REF	Reference	Cleaning	Chemical disinfection	Thermo-disinfection	Sterilization
Control box	N.A.		Mild detergent with a twisted lint-free cloth.	XO Intensive Disinfection	N.A.	N.A.

7.3 ELECTRODES

A prerequisite of clean and well-defined incisions is clean electrodes. Fair-sized tissue remnants can be removed by wiping.



Remember to switch to *STANDBY MODE* (only green lamp on) before touching the electrode.



Always handle the electrode wires with care in order to avoid deformation and breakage.

7.4 HANDPIECE



After sterilization it is recommended to grease the O-ring at the handpiece.

7.5 CONSUMABLES

Table 4 below shows a list of consumables available for XO ODONTOSURGE.

Table 4 – Consumables

Product	REF	Reference	Note	Supplied units
XO Intensive Disinfection	AP-831	7.6	For disinfection of <i>alcohol-resistant</i> surfaces.	In box with 6 x 1 liter
Electrodes	See section 0	0		In bag with 5 pcs.



Use only original XO consumables for XO ODONTOSURGE.

7.6 DETERGENTS AND DISINFECTANTS



XO Intensive Disinfection

XO Intensive Disinfection can be used on alcohol-resistant surfaces of XO ODONTOSURGE.

Use undiluted.



Apply to a dry, lint free cloth and fully wet the surfaces. Then allow them to dry. The disinfection is effective after 1 minute.

Do not use an excessive amount of liquid.

Please see more details in safety data sheets at xo-care.com and in the instructions supplied with the disinfectant.

























If XO Intensive Disinfection is unavailable in your region/country, FD 333 from Dürr Dental, can be used as a substitute.

7.7 ELECTRODES

Table 5 – Electrodes

Type & shank	Picture	Intended use	REF
Electrode No. 1		Cut tissue	220501 (5 pcs.)

Type & shank		Intended use	REF
Electrode No. 2		Cut tissue	220502 (5 pcs.)
Electrode No. 3		Cut away a piece of tissue	220503 (5 pcs.)
Electrode No. 4		Cut away a piece of tissue	220504 (5 pcs.)
Electrode No. 5		Cut away a piece of tissue	220505 (5 pcs.)
Electrode No. 6		Cut away a piece of tissue	220506 (5 pcs.)
Electrode No. 7		Cut tissue	220507 (5 pcs.)
Electrode No. 8		Cut away a piece of tissue	220508 (5 pcs.)
Electrode No. 9		Coagulation	220509 (5 pcs.)
Electrode No. 10		Coagulation	220510 (5 pcs.)
Electrode No. 11		Cut tissue	220511 (5 pcs.)
Electrode No. 12		Cut tissue	220512 (5 pcs.)

Type & shank		Intended use	REF
Electrode No. 13		Cut tissue	220513 (5 pcs.)
Electrode No. 14		Cut tissue	220514 (5 pcs.)
Electrode No. 15		Cut away a piece of tissue	220515 (5 pcs.)
Electrode No.16		Cut away a piece of tissue	220516 (5 pcs.)
Electrode No.17		Cut tissue	220517 (5 pcs.)
Electrode No. 21		Cut away a piece of tissue	220521 (5 pcs.)
Electrode No. 26		Cut away a piece of tissue	220526 (5 pcs.)
Electrode No. 41		Coagulation	220541 (5 pcs.)
Electrode No. 42		Coagulation	220542 (5 pcs.)
Electrode No. 43		Coagulation	220543 (5 pcs.)
Electrode No. 44		Coagulation	220544 (5 pcs.)

8 ACCESSORIES AND SPARE PARTS



Use only original accessories and spare parts for XO ODONTOSURGE.



Using other accessories and spare parts may negatively affect the device's EMC performance.

8.1 ACCESSORIES

Table 6 – Accessories

Description	REF
Handpiece	225129
Handpiece cable with connectors	225127
Electrode casing with 7 electrodes (only for storage)	220097
Handpiece holder	200986

8.2 SPARE PARTS

Table 7 – Spare parts

Description	REF
Electrode casing, empty (only for storage)	220096
Cover for electrode casing	220044
Tip, conic, black for handpiece	320015
Spring, for conic tip	225132
Rubber, black, for handpiece switch	225042

9 MAINTENANCE AND REPAIR

9.1 MAINTENANCE

XO ODONTOSURGE is a maintenance-free device.

9.2 REPAIR

In the event, that the conditions as described below occur, XO ODONTOSURGE has to be sent to an XO Partner for repair.



XO ODONTOSURGE and its accessories must not be taken into use, if signs of operational, electrical or mechanical defects are found.

XO ODONTOSURGE must not be taken into use if heavy sparking between electrode and tissue is observed.

9.3 TROUBLE SHOOTING GUIDE

See Table 1 on page 7 for a description of XO ODONTOSURGE parts referred to hereunder.

No lamps are on at the mode switch panel:

- Mains switch is not activated
- Mains plug is not fully inserted in the mains connector
- One or two fuses in the fuse drawer are defective

The device does not react when the ON/OFF finger switch on the handpiece is activated:

- CUT or COAG button is not activated
- Electrode not fully inserted into handpiece
- Handpiece is defective (can happen if it has been dropped on the floor)
- Handpiece cable is defective (is disconnected due to wear)
- Gold pins in the plugs on the handpiece cable may be broken
- Handpiece cable is not fully inserted in the socket of the device

Please contact the XO Partner if the device is still not working.

9.4 REPLACEMENT OF FUSES

Disengage the fuse drawer and replace the fuse(s).

10 LEGAL

10.1 INTENDED USE

XO ODONTOSURGE is intended for use in a clinical setting by skilled dentists for cutting (removing) soft tissue and controlling bleeding in the oral cavity during surgical procedures in all phases of dentistry, including prosthodontics, periodontics, endodontics, pedodontics, orthodontics, oral surgery and routine restorative dentistry.

10.2 CONTRAINDICATIONS TO HF TISSUE HANDLING

HF soft tissue handling is contraindicated in patients with cardiac pacemakers.



Medical consultation should always be considered prior to using HF soft tissue handling in those patients who may be systemically medically compromised, especially those with abnormal healing processes such as diabetes, blood dyscrasias, collagen disturbances and patients undergoing irradiation treatment.



XO ODONTOSURGE is a monopolar electrosurgical instrument. As such it is not recommended for surgical procedures in the proximity of metallic structures such as dental implants. Contact between an active XO ODONTOSURGE electrode and an implant can result in a heat-induced injury to peri-implant bone, seriously and permanently damaging the osseointegration and leading to the loss of the implant.

10.3 SERIOUS INCIDENTS



If a serious incident should occur in relation to the use of XO ODONTOSURGE, this should be reported to XO CARE A/S and to the competent authority.

10.4 AUTHORIZED SERVICE PERSONNEL

Authorized service personnel are appointed by XO CARE A/S and may be XO CARE A/S employees or personnel employed by XO Partners.



Please visit xo-care.com for a list of XO Partners.

10.5 XO CARE GENERAL CONDITIONS, WARRANTY AND SERVICE LIFE

All products manufactured by XO CARE A/S and described in these instructions for use are subject to “XO CARE General Conditions” valid at the date of delivery.



Concerning XO CARE A/S' and the XO Partner's liability for defects and complaints please see “XO CARE General Conditions”.

XO CARE A/S guarantees delivery of spare parts and consumables as well as technical support to the XO ODONTOSURGE during the expected lifetime. See “XO CARE General Conditions”.

Visit xo-care.com to see “XO CARE General Conditions”.

10.6 PRODUCT UPDATES

XO CARE A/S is not obliged to update this product if new versions or updates are introduced after the time of delivery.

10.7 APPLICABLE STANDARDS

XO ODONTOSURGE fulfills requirements of the following standards:

- EN 60601-1 (electrical safety)
- EN 60601-1-2 (EMC)
- EN IEC 62366-1 (usability engineering)
- EN 1639 (requirements for dental instruments)
- EN 1640 (requirements for dental equipment)
- EN ISO 10993-1 (biological evaluation of medical devices)
- EN ISO 14971 (risk management)

10.8 INTERMITTENT OPERATION

XO ODONTOSURGE is designed for intermittent operation at 25% with duty time 10 sec. and cycle time 40 sec. corresponding to the dental mode of treatment.

XO ODONTOSURGE is equipped with an overtemperature protection. If the duty time is exceeded, depending on the load, the device will switch off the output power and indicate this by flashing the blue- and the yellow lamps in antiphase. After a few seconds the device enters STANDBY MODE and is ready for use again.

10.9 ELECTROMAGNETIC COMPATIBILITY (EMC)

XO ODONTOSURGE is intended for operation in the electromagnetic environment specified below. Please make sure that the device is used in such an environment.

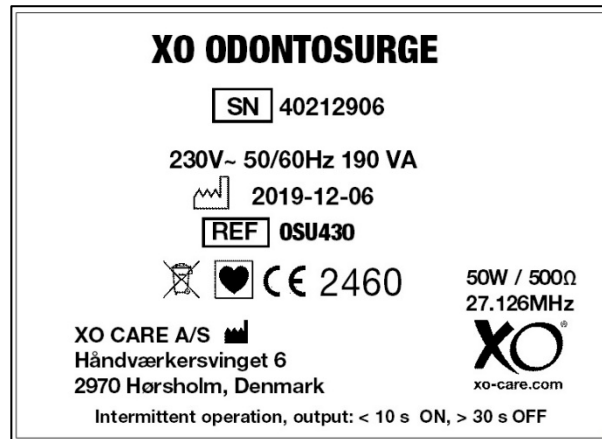
Table 8 - EMC

Guidance and manufactures declaration for electromagnetic emissions		
Emission standard	Type	Compliance to standard
CISPR 11	RF emissions	Yes, Group 2, Class B
EN/IEC61000-3-2	Harmonic emission	Yes, Class A
EN/IEC61000-3-3	Voltage fluctuations/flicker	Yes
Guidance for application Environment		
XO ODONTOSURGE is suitable for use in both professional as well as domestic environments including environments where connected to the public low-voltage network. The device must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.		

Guidance and manufactures declaration for electromagnetic immunity				
Emission standard	Type	Compliance level		Specific guidance for application environment
EN/IEC61000-4-2	Electrostatic discharge (ESD)	± 8kV contact ±2kV, ±4kV, ±8kV, ± 15kV air		Suitable for use on wood, concrete, or ceramic floor materials. Keep relative humidity below 30% when used on floors of synthetic materials e.g. carpets.
EN/IEC61000-4-4	Electrical fast transients and bursts	± 2kV mains		XO ODONTOSURGE is suitable for use with mains connected to a power supply with the quality of a public low-voltage network supplying domestic environment.
EN/IEC61000-4-5	Surge	± 1kV L-N, ±2 L-PE, ±2 N-PE		
EN/IEC61000-4-11	Dips, interruptions and variations on power supply input	Angles: 0; 45; 90; 135; 180; 225; 270; 315 degrees Cycles: Dips 0.5x, Interruptions: 10x Mains freq.		
EN/IEC61000-4-8	Power frequency magnetic field	30 A/m 50/60 Hz		The level for power frequency magnetic fields corresponds to the levels typical for professional or domestic Environment.
EN/IEC 61000-4-6	Conducted disturbances, induced by RF fields	150kHz to 80MHz 3V RMS (6V ISM)		
EN/IEC61000-4-3	RF electromagnetic fields.	80 MHz to 2.7 GHz, 80% AM at 1 kHz, 10 V/m		
	Proximity fields from RF wireless communication equipment.	Test freq.		
		MHz	V/m	
		385	27	
		450	28	
		710	9	
		810	27	
		1,72	28	
2,45	28			
5,24	9			

10.10 TYPE PLATE

The type plate is located on the bottom of the control box and contains the following information:



10.11 DISPOSAL

Within the European Union this product must not be disposed of with household waste. Instead, it is the responsibility of the owner to dispose of the waste equipment by handing it over to a designated collection point for the recycling of electrical and electronic equipment waste. The separate collection and recycling of waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where to drop off waste equipment for recycling, please contact the local city office, or the XO Partner.
















Disposal of electrical products in countries outside the European Union should be done in line with local regulations.



This product is to be disposed by authorized service personnel as required by local ordinances or regulations!

Disposal of defective electrodes in accordance with applicable rules for electronic scrapping must occur only after disinfection.

11 SYMBOLS

	General safety warning
	Safety related prohibitive action
	Safety related mandatory action
	General caution
	Notification
	Safety warning: dangerous voltage
	Class 1, type CF (IEC 60601-1)
	Static electricity.
	Serial number
	Reference number (catalogue number)
	Sterilizable up to the stated temperature
	Thermo washer disinfectable
	Manufacturer
	Date of manufacture
	Dispose of in accordance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU of the European Parliament and the Council of the European Union; Do not dispose of with domestic waste.



Instructions for use.

12 TECHNICAL SPECIFICATIONS

Product name	XO ODONTOSURGE
Mains connection	1-phase with protective earth
Mains voltage	230V, 50/60 Hz
Classification	Class 1, type CF (IEC 601-1)
	Class IIb equipment (M.D.D. 93/42/EEC)
Primary fuses	Mains 230 VAC: T800mA/250VAC
Generator frequency	27,126 MHz
Max. output power – cutting mode	50 W at non-inductive load impedance of 500 ohms
Max. output power – coagulation mode	30 W at non-inductive load impedance of 500 ohms
Max. output voltage	159 VAC
Max. power consumption	190 VA
Environment	Operation: +10 °C to +35 °C. Storage: -40 °C to +70 °C.
Relative humidity	10-95% RHM, 700-1060 hPa.

XO ODONTOSURGE

REF: OSU430

Instruction for use

REF: YA-551

Ver. 4.09

2021-06-30

Subject to change.

€2460



Manufacturer

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