

# **XO ODONTOCURE**

## User Guide

(addendum to XO 4 User Manual)



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## 1 XO ODONTOCURE POLYMERIZATION LIGHT

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XO ODONTOCURE is supplied with:

- 1 \* Fiber glass rod (AP-915)
- 1 \* Light Shield (AP-916)
- 5 \* Protection caps (AP-917)
- 100 \* Cross infection protection sleeves (AP-918)
- 1 \* Testing device (MN-451) for measuring curing effectiveness

### 1.1 TECHNICAL SPECIFICATIONS

**Fiber glass rod outer diameter: 8 mm**

**Cross-sectional area of optics (effective): 0,44 cm<sup>2</sup> (44,2 mm<sup>2</sup>)**

**Hand piece temperature during use: 46°C**

Light characteristics: wavelength peak values 400±10 nm and 460±5 nm, intensity 1650 mW/cm<sup>2</sup>

Polymerization activator classification: Class 2, Type 1

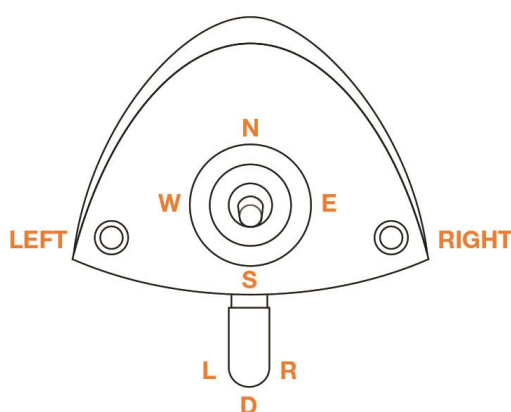
### 1.2 INSTRUMENT CONTROL

Lift the polymerization light forward and control it with the foot control.

See the current exposure time on the display before the foot control is activated.


Choose between three different exposure times with **N** and **S** and see the selected time on the instrument bridge display.


Start the curing process with **R** or **L**.



See elapsed exposure time on the display during the process.

Hear a beep after each 5 seconds.

	<b><i>WARNING! Never look directly into the light or direct it at the eyes of others! XO ODONTOCURE emits thermal radiation, and blue light and ultraviolet light in the range 385 – 515 nm at an intensity that requires protection of the eyes.</i></b>
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	<b><i>CAUTION! The high light intensity of XO ODONTOCURE is accompanied by heat generation on the exposed surface! Uninterrupted expose of more than 20 seconds to the same surface shall be avoided. Polymerization at intermitted intervals is recommended.</i></b>
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Switch soft-start on and off with **RIGHT** while the light is not activated.

Soft-start is a feature that can help reduce shrinkage. When enabled, the light will emit light at a reduced intensity for a manually preset number of seconds before going to full intensity.

For curing of posterior teeth use a protection cap as light shield:



**Figure 1 Protection cap**

For curing of anterior teeth use the Light Shield:



**Figure 2 Light Shield**

Please refer to section **Fejl! Henvisningskilde ikke fundet.** for infection control procedures.

See section **Fejl! Henvisningskilde ikke fundet.** for measuring of curing effectiveness.

Please refer to section “Configuration” in XO Flex User guide or “XO 4 Configuration Guide” in XO 4 User documentation, for configuration of the preset exposure times and soft-start.

*Notes about intermitted operation: The unit will prohibit re-activation of the lamp if the hand piece temperature is too high. In this state, the message “TOO HOT” is displayed, when activating the lamp. After some seconds, depending on the temperature, the lamp is ready for re-activation.*

### **1.3 INFECTION CONTROL**

Every day the light rod should be examined for stuck restorative material and mechanical damages.

Remove the light rod from the instrument by pulling it with your hand.

Autoclave the rod and protection cap (AP-917) separated from each other at 134°C.



**Figure 3 – Removing the light rod from XO ODONTOCURE hand-piece**

Disinfect the hand-piece and hose with XO Quick Disinfection.

Use the supplied cross infection protection sleeves (AP-918) in order to decrease the risk of cross contamination and prevent the composite from bonding to the end of the rod.

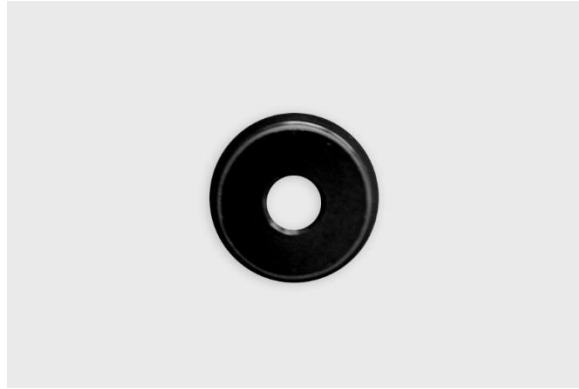
### **1.4 CURING EFFECTIVENESS**

The curing effectiveness of XO ODONTOCURE should be measured once a month to ensure that the effectiveness of the lamp is consistent. A substantial change in effectiveness is indicative of a fault, which may affect the curing result adversely. XO CARE delivers a testing device that can be used for the curing tests. Test procedures are described in the following sections.

#### **1.4.1 MANUAL MEASUREMENT OF CURING EFFECTIVENESS**

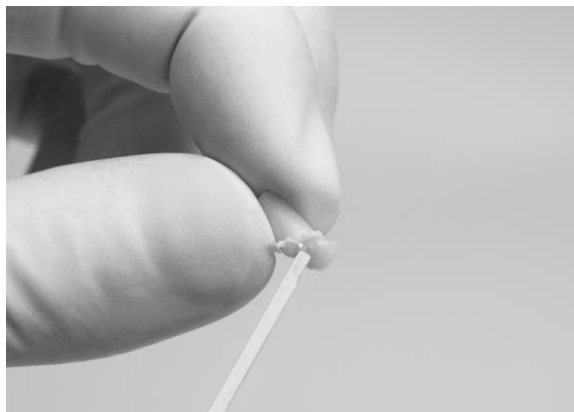
Upon receiving the instrument, measure the curing effectiveness of XO ODONTOCURE as follows:

1. Place the testing device on a flat surface and fill the cavity with the composite material to be used. See Figure 4.



**Figure 4 – Testing device**

2. Place the polymerization light tip on top of the testing device. The tip of the instrument must be placed in parallel with the surface of the testing device.
3. Apply the curing light for 10 seconds.
4. Press the test plug out of the cavity immediately. Carefully remove the non-polymerized soft material at the bottom of the test plug with a plastic spatula. See Figure 5.



**Figure 5 – Non-polymerized material is removed from composite test plug**

5. The polymerization depth is measured using a caliper. Measure the depth at the shallowest point. See Figure 6.



**Figure 6 – Measuring the depth of the test plug**

6. The measured depth of the polymerized material shall be recorded, and is now the target reference for future measurements.

***At an interval of approximately 1 month, perform the following steps:***

1. ***Please refer to points 1-5 on page 5 & 6.***
2. ***Compare the result of this test with the reference made upon receiving the instrument. If the polymerization depth deviates more than 0.8mm from the reference, a fault may be present and you might need to contact your XO service provider in order to remedy the fault.***

***Note: this is a technical verification of performance; it does not reflect actual polymerization depth in a human tooth.***

***In case of faulty performance, the fiber rod may be replaced and retested. In case the problem persists, technical assistance from an authorized service provider is required.***

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Subject to change.

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