



ZENOLITE

LED CURING LIGHT

User Manual

www.presidentdental.de

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2.1 Introduction

Thank you very much for purchasing “Zenolite” Curing Light of President Dental “Zenolite”, as a medical instrument used in dental clinic, have been designed and manufactured by the advanced technology of President Dental, and its superior performance and an ergonomic design will provide dentists with convenience in treatment.



Before using this product, please read this manual carefully, and keep it in a safe place for future reference

2.2 Main Features

- Maximum Output $2,700 \text{ mW/cm}^2 (\pm 10 \%)$
- Excellent readability through the OLED display
- Multifarious modes for convenient access
- Use interchangeable battery pack
- Use interchangeable light probe rotated a full 360 degrees
- Cordless system (use lithium-Ion battery)

2.3 Kit Contents



3. Unpacking & Installation Guide

3.1 Unpacking

- Take all parts of product out of the box.
- Check there are no broken or missing parts.
- Preparing future upgrades and repairs, keep the original box.
- Get rid of packing materials in accordance with the related regulations.



3.2 Installation Guide

- 1 Connect the plug of power adapter to charger stand, and set the stand on a flat surface. When installed properly, the blue power indicator will be on.
- 2 Check the display turns on after getting rid of a plastic film from a battery.
- 3 Totally put the light probe into the main control unit. If not tighten, it might be fall out, or can be a cause of lower output of the power.
- 4 Upon putting handpiece on the charge stand.

4. Safety Precautions

4.1 General Safety Precautions

- Do not use this instrument except who complete the course of user training.
- Before using this instrument, please read its manual carefully .
- Please use our original genuine parts only, or it can be a cause of damage to the product, and also, the product could not receive warranty service.
- Please keep terminals of the battery clean with a dry cotton swab, etc.
- Please disconnect the plug of charger when not in use for long time.
- When not in use for a long time, disjoint battery and handpiece separately and keep them in a safety and clean place.
- Never carry out the Ultrasonic, Boiling, Dry heat, Steam or Cresol disinfection. It might be a serious cause of trouble.
- Never disassemble, repair or modify this instrument except manufacturer's technicians.
- Do not leave this instrument in the place where is high temperature or humidity .
- Do not subject the instrument to severe impact or drop it from high position. This might be the cause of trouble.
- Be careful of the charger cable not be weighted down or chopped by other heavy objects.
- Do not get rid of the batteries close to the fire. It may be a cause of explosion or big fire.
- Get rid of the batteries at the named place in accordance with the related regulations and the local environmental guidelines.

4.2 Precautions For Use

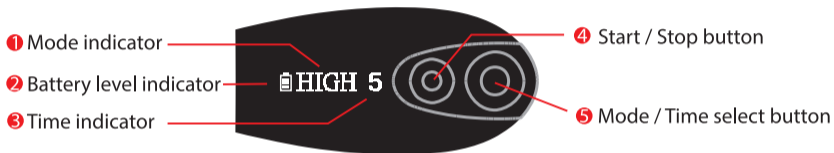
- Do not use this instrument with other purpose. It might be a cause of the safety accident.
- Avoid looking directly at the light source of this instrument. It may harm your eyes and vision.
- If any abnormal signs are found in the patient in using this instrument, stop the operation, and should take appropriate steps for the patient to be safe.
- Do not apply this instrument to the patient who has had an experience of biological reactions to light.
- The patients who have eye diseases do a prior consulting with his or her ophthalmologist before treatment by this instrument.
- Do not use a broken and damaged instrument.
- When disinfecting or cleaning, always disconnect charger plug from the electrical outlet.
- Use the disposable sheath to help prevent cross-infection.

5. How to use “Zenolite”

5.1 Electric Charging

- When the power connects to charger stand, the blue power indicator will be on.
- Upon putting handpiece on the charge stand, the red indicator will be on and start to charge (If your battery of handpiece is fully charged, the red indicator will not be on)
- When charging is finished, the indicator will be changed to blue.
- ZenOlite may reach a maximum temperature of 76°C if operated in an ambient temperature of 40°C.

5.2 User Interface



5.3 Operation

5.3.1 Setting Modes

- Press button (④ or ⑤), display turns on.
- Press and hold "Mode select button ⑤, changed the Mode indicator ①. Repeatedly press and hold, change the modes in order (ST - HI - SO - OR - XT).
- Continuously press and hold the Mode select button ⑤ after changing mode, the power is turned off.
- It turns off automatically after five minutes if it is not used.

5.3.2 Time Setting

- After setting the mode, press shortly the time select button ⑤, it will be changed the time on the time Indicator ③.

5.3.3 Active Curing

- After setting the mode & time, Point light towards curing adhesives.
- Press start button ④ to activate curing. timer counts down in seconds.
- Press start button ④ any time during the cycle to stop

5.3.4 Battery Maintenance

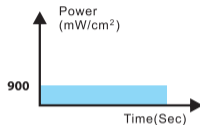
- Battery icon displays ② three full bars when the battery is fully charged.
- Recharge on the charge stand when it is not used.
- The unit warns with (BAT-LOW) when battery is low, then it doesn't work as the battery is getting low. Fully recharge and use it.



5.3.3 Mode Description

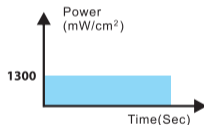
1 Standard mode

- 1) Optical output - Over 900 mW/cm^2 ($\pm 10\%$)
- 2) Available time setting - 5, 10, 15, 20 seconds



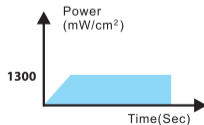
2 High mode

- 1) Optical output - Over $1,300 \text{ mW/cm}^2$ ($\pm 10\%$)
- 2) Available time setting - 3, 6, 9, 12 seconds



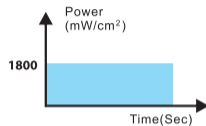
3 Soft start mode

- 1) Optical output - After gradually increasing from 0 to $1,300 \text{ mW/cm}^2$ ($\pm 10\%$) and be maintained until finish time
- 2) Available time setting - 3, 6, 9, 12 seconds



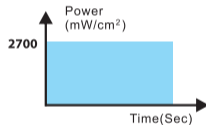
4 Orthodontic mode

- 1) Optical output - Over 1800 mW/cm^2 ($\pm 10\%$)
- 2) Available time setting – 3, 4, 5 seconds



5 Xtra mode

- 1) Optical output - Over 2700 mW/cm^2 ($\pm 10\%$)
- 2) Available time setting – 1, 2, 3 seconds

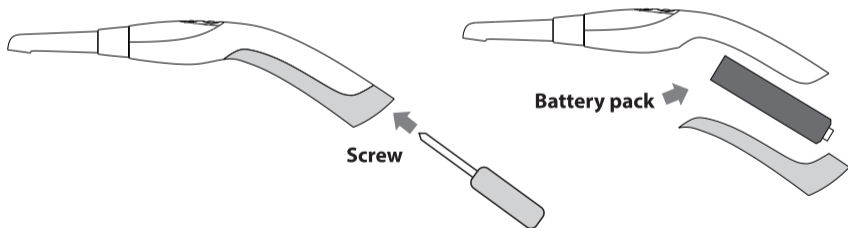


A high power visible light radiation from this instrument can cause eyesight damage. A person using it should wear safety glasses or use anti glare shield.

5.4 Replace the battery

5.4.1 Change the battery

- Replaceable the battery pack in case of a broken or a degraded battery.
- Remove the battery pack from the main control unit with screw driver.
- Insert a new battery pack, and tighten up the screw with the figure below.



6. Maintenance & Storage Tips

6.1 Maintenance Tips

- Disconnect the connection cable from electrical outlet before cleaning.
- When the light guide become dirty, remove the stain with soft materials such as wood or plastic etc, but a sharp thing like metal.
- Wipe clean the surface of instrument with soft cloth or tissue.
- Use a cotton swab etc. to wipe clean the charging terminal.
- Be careful not to let liquid of sprayer or cleaner into the instrument.

6.2 Storage Tips

- Keep it away from water.
- Keep it away from the places where can be affected from abnormal atmospheric pressure, temperature or humidity, including sunlight, dust, salt, sulfur etc. Adequate pressure: 70~ 106 KPA, Temperature: 10~ 40 °C, Humidity: 30~ 85%.
- Keep away from the places where any chemicals or gases are.
- Keep away from fire.



- Do not use the ethanol and phenol binder for disinfection.
- Do not take autoclave or thermal disinfection for handpiece or cable.
- Do not immerse the handpiece in a liquid or a fluid.

7. Troubleshooting

1) Battery can not be recharged instead of long time.

- Check the green light of the charger is on first, and if it is off, make sure the power plug and adapters are well connected.
- When the green light is on, check the battery terminals becomes dirty or not.
- Pull the plug out from the charger and reconnect it.

2) Handpiece operates anything unusually.

- Check the wrongly pressed keys on the keypad and take out battery and remount, and all the circuit will be reset.

3) No signals on the display of handpiece and not operating.

- Take out battery and remount, and recharge the battery.

4) Output is too low unusually

- Check the close adhesion of light guide and wipe out the dirt of it.
- Change the light probe in case of low intensity of the light.

5) Battery discharge too fast

- Rechargeable lithium-ion battery for this product has its own service life of charge cycles. If you find a problem on charging, replace it to new one.

8. General Information

8.1 Specification

- Light source: Power LED
- Wave length range: 430~490nm
- Light power: 2.700mW/cm²
- Battery: 3.7V Lithium ion (LG Chem, INR18650 B4 2600 mAh)
- Dimension: **Handpiece:** 255x 31x70cm **Charger:** 102x 102x 94cm
- Weight: Handpiece: 120g Charger: 189g
- Operating voltage: 5V, 1.6A AC/DC Adaptor
- Model: UE130415HKKK1-P
- Input: AC100-240V~, 50-60Hz, 400mA
- Manufacturer: Fuhua Electronic

8.2 Environment

Operating Condition

- Temperature: 10~ 40 °C, Relative Humidity: 30~ 80%,
Ambient pressure: 700~ 1060 hPa

Transportation and Storage Conditions

- Temperature: 10~ 55 °C, Relative Humidity: 10~ 90%,
Ambient pressure: 700~ 1060 hPa











9. Warranty & Service

9.1 Warranty Informations

1. This item (the "Zenolite") is free from manufacturing defects in material and workmanship, provided the Product is used in normal conditions and is installed and used in strict accordance with the instructions contained in the User Manual.

2. Warranty Exclusions

- This warranty does not apply to defects or damages arising by use of the Product in other than normal including negligent use, misuse or abuse of the Product
- By fire, earthquake, flood or other Acts of God.
- By any excessive shocks.
- By not allowed disassemble, modify.

	Direct current		See instruction for use
	Attention, consult accompanying documents		Manufacturer
	Fragile-handle with care		General symbol for recovery/ recyclable
	Manufacture date		CE mark
	Serial NO.		Type B applied part



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