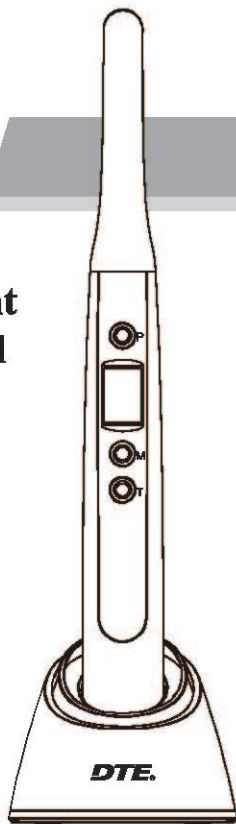


**DTE®**

## **LUX I Curing Light Instruction Manual**



Please read this manual before operating  
Industrial design patent No.: CN 201230045664.1

**Gullin Woodpecker Medical Instrument Co., Ltd.**

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## 1. Introduction

Guilin Woodpecker Medical Instrument Co., Ltd. is a high-tech enterprise in researching, developing, and producing dental equipment, and has a perfect quality assurance system, main products including ultrasonic scaler, curing light, micro motor, apex locator and ultrasurgery etc.

## 2. Principle and usage

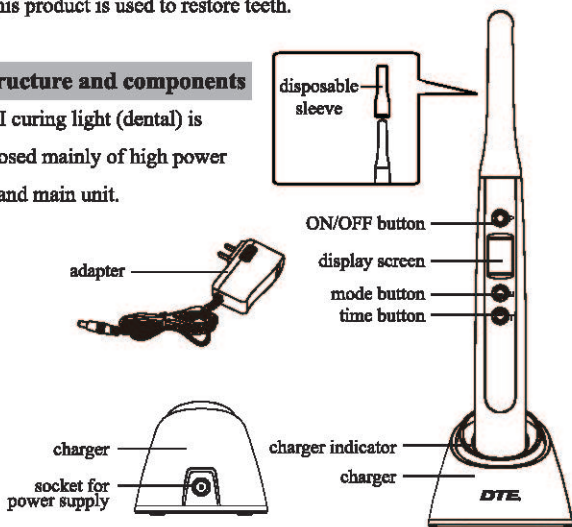
### 1.Principle and usage

1.1 LUX I adopts the principle of ray radiation to solidify the light-sensitive resin by shooting at it in a short time.

1.2 This product is used to restore teeth.

## 3. Structure and components

LUX I curing light (dental) is composed mainly of high power LED and main unit.



## **4. Technical specifications**

4.1 Dimensions: 79.5mm×79.5mm×261mm.

4.2 Net weight: 230g.

4.3 Power source

4.3.1 Power supply: rechargeable Lithium battery

4.3.2 Battery mode: ICR 18490

4.3.3 Battery voltage and capacity: 3.7/1400mAh

Battery has protection against Over-voltage, over-current and short circuit.

4.3.4 Adapter

Power Input: 100V to 240V, 50Hz/60 Hz

Input Power: 10VA

Power Output: DC5V/1A

4.4 Light source:

4.4.1 3W high power blue light LED

4.4.2 Checking method: the LED light is fine when the light is on during operating correctly.

4.4.3 The wave length of this product can match with the clinical dental resin solidification, such as 3M, Dentsply etc.

4.4.4 Wave length: 420nm-480nm

4.5 Light intensity: 850 mW/cm<sup>2</sup>~1000mW/cm<sup>2</sup>

4.6 Working condition

4.6.1 Environment temperature: +5℃ to +40℃

4.6.2 Relative humidity:  $\leq 80\%$

4.6.3 Atmosphere pressure: 70kPa to 106kPa

4.7 Equipment safety

4.7.1 Operating mode: intermittent operation

4.7.2 Protection type against electrical shock: class II.

4.7.3 Protection degree against electrical shock: type B.

4.7.4 Protection against harmful ingress of water or particular matter: ordinary equipment (IPX0).

4.7.5 Safety in the presence of flammable anesthetic mixture with air, oxygen or nitrous oxide: not suitable under this condition.

## **5. Install and uninstall way**

5.1 The top of the unit can be turned 220 degrees to both left and right while it is forbidden to remove.

5.2 Battery replacement method: turn the battery cover counter anticlockwise direction, take out the old battery and replace a new one, then turn the battery cover clockwise direction and turn it tightly.

5.3 When the battery needs to be charged, connect the plug of the adapter into the AC100V~240V power supply. Then connect the output plug of the adapter to the DC 5.0V input plug of the pedestal, then put the main unit into the pedestal.

## **6. Operation**

6.1 Press the mode button. Following three modes are available.

6.1.1 Full power mode: screen shows 01, LED works in full power.

6.1.2 Ramping mode: screen shows 02, LED turns from weak to stronger, and reaches the highest power in 5 seconds.

6.1.3 Pulse mode: screen shows 03, LED works on the pulse condition.

6.2 Press the time button to choose the solidification time, 4 working time is available: 5, 10, 15, 20seconds.

6.3 During the operation, put the disposable sleeve on the top of the main unit, aim the top at the correct position, press the ON/OFF button and the main unit will produce "Bi" sound, the curing light radiates blue light and starts working according to the set modes. Meanwhile, it starts counting down and will produce tone at every 5 seconds, it stops working when counting down to "0".

6.4 During operation, the blue light can be stopped by press the power button at any time.

6.5 After a working cycle, operator can press the ON/OFF switch to start another working cycle. Stop operating if the equipment began to heat obviously, do not restart until the equipment cool down. Suggest continues working cycle less than 10 times.

6.6 Low power detect circuit is fixed inside of the main unit, when low power is detected, the display screen of main unit will wink, please charge in time.

6.7 When the battery needs to be charged, connect the plug of the adapter into the AC100V~240V power supply. Then connect the output plug of the adapter to the DC 5.0V input plug of the pedestal, and then

the indicator turn to green, that means the pedestal is standby. Put the main unit to the charging point of the pedestal, the indicator turn to yellow, and the curing lights starts charging. When charging finished, the indicator turn to green.

6.8 After operating, take off the disposable sleeve and throw away, forbidden to reuse.

6.9 This equipment will turn off automatically if don't any action within 2 minutes, turn it on by press any button.

6.10 The depth of solidification of composite is no less than 4mm per 10 seconds.

6.11 The curing light is equipped with over-heat protection system. It can continuously work 200s, For example, continuously operate the curing light for 10 times under 20s working mode (even the curing light works less than 20s, it is counted as a full operation), then it will come into over-heat protection status. And only after 2-minute sleep, it can restart working 200s continuously.

## **7. Precaution**

7.1 Please recharge the battery at least 4 hours before first time usage.

7.2 In order to prevent cross-infection, it is forbidden to reuse the disposable sleeve.

7.3 The top of the main unit can be turned 220 degrees to both left and right while it is forbidden to remove.

7.4 During operation, the blue light should be aimed straightly at the

composite resin to ensure the effect of solidification.

7.5 Avoid aiming the blue light at eyes directly.

7.6 Please use the power adapter and lithium battery which is designed and supplied by our company. It may cause potential dangers to operator and patient by using the power adapter and lithium battery which is designed and supplied by other manufacturers.

7.7 It is forbidden to use metal or other conductors to touch the main unit and the charging point of pedestal because it may burn the internal circuit or make the lithium battery short circuit.

7.8 Please recharge the battery in cool and ventilated room.

7.9 It is forbidden to self-taking apart the battery, in order not to result in short-circuit or leakage.

7.10 It is forbidden to extrude, shake or rock the battery. The Li-ion battery is forbidden to be in short-circuit situation and it is forbidden to put the battery with metal or other conductors.

**①WARNING: If the curing light works for 40s continuously, the temperature of the top of optical fiber may reach 56℃.**

**②WARNING: Do not modify this equipment without authorization of the manufacturer.**

## **8. Contraindication**

The heart disease patients, pregnant women and children should be cautious to use this equipment.



## **9. Daily maintenance**

9.1 This equipment does not include the self-maintainable spare parts. The maintenance of this equipment should be taken by the appointed professional or special repair shop.

9.2 Users can change the disposable sleeve and lithium battery. Please use accessory which is designed and supplied by our company, contract with the local dealer or our company if you want to buy. It may cause potential dangers to curing light or other damages which is designed and supplied by other manufacturers.

9.3 The accessory of the product should be cleaned by clean water or neutral sterilized liquid. Do not soak. Do not use highly volatile and diffuent solvent to clean this equipment, which can cause the signs on the control panel to fade.

9.4 Please clean the resin remained on the top of the main unit after using to avoid infecting the life-span or solidified effect.

9.5 If you don't use this equipment for a long time, please take the battery out and preserve separately.

## **10. Packing List**

The components of the equipment are listed in the packing list.

## **11. Trouble shooting**

Faulty	Possible cause	Solutions
No indication, no response.	1. Battery is out of power. 2. Faulty of battery. 3. The main unit battery protection system works.	1. Charge the equipment/Change a new batter. 2. Change a new battery. 3. Place the main unit into the socket on the charger for activation.
"Er" or "Ed" shown on the screen.	1. System error. 2. Faulty of main unit.	1. Take the battery out and reconnect. 2. Send to after service for repair.
Wink shown on the screen.	Low battery.	Reconnect the charger, if "Er" show again after 15 minutes please change the battery.
Light intensity is weak.	There is resin on the top of the main unit.	Clear the resin.

Faulty	Possible cause	Solutions
The equipment is not charging when the adapter is connected.	1. The adapter is not connected well. 2. Faulty of adapter or incompatible. 3. The charging point is impurity.	1. Reconnect. 2. Change the adapter. 3. Cleaned by the alcohol.
Effective duration of the battery become short.	The capacity of the battery decreased.	Change a new battery.
The mode indicator twinkles when charging.	1. Low voltage. 2. Short-circuit of the battery.	1. Back to normal after 15 minutes charging. 2. Change a new battery.

If such handlings are completed, the equipment still cannot work normally, please contact with the special maintenance shop or our company.

## 12. After service

From the date this equipment has been sold, base on the warranty card, we will repair this equipment free of charge if it has quality problems, please refer to the warranty card for the warranty period.

### **13. Storage and transportation**

13.1 This equipment should be handled carefully, kept away from shaking point, installed or stored at shadowy, dry, cool and ventilated places.

13.2 Don't store it together with articles that are combustible, poisonous, caustic and explosive.

13.3 This equipment should be stored in the environment where the relative humidity is  $\leq 80\%$ , the atmosphere pressure is 70kPa to 106kPa and the temperature is  $-10^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ .

13.4 Excess impact or shake should be avoided during transportation.

13.5 Don't mix it with dangerous articles during transportation.

13.6 Keep it away from sun or snow or rain during transportation.

### **14. Environmental protection**

There is not any harmful element in our product. It can be disposed according to the local law. We reserve the rights to alter the design, the technology and fitting parts, instruction manual and packaging without further notice. If there is any discrepancy between the picture and the real product, please refer to the real product.

### **15. Symbol instruction**



Trademark



CE marked product



Type B applied part



FDA marked product



Un-detachable



Class II equipment

**IPX0**

Ordinary equipment

**P**

ON/OFF button

**M**

Mode button

**T**

Time button



Date of manufacture



Manufacturer



Recovery



Used indoor only



Keep dry



Handle with care



-10°C +55°C Temperature limitation



0% 80% Humidity limitation



70 106 Atmospheric pressure for storage



Appliance compliance WEEE directive



Consult the accompanying documents



Authorised Representative in the EUROPEAN  
COMMUNITY

## **16. Statement**

All rights of modifying the product are reserved to the manufacturer without further notice. The pictures are only for reference. The final interpretation rights belong to GUILIN WOODPECKER MEDICAL INSTRUMENT CO., LTD. The industrial design, inner structure, etc, have claimed for several patents by WOODPECKER, any copy or fake product must take legal responsibilities.

Scan and Login website  
for more information



Guilin Woodpecker Medical Instrument Co., Ltd.  
Information Industrial Park, National High-Tech  
Zone, Guilin, Guangxi, 541004 P. R. China

**Tel:**

Europe Sales Dept.: +86-773-5873196, +86-773-2125222

North America, South America &

Oceania Sales Dept.: +86-773-5873198, +86-773-2125123

Asia & Africa Sales Dept.: +86-773-5855350, +86-773-2125896

**Fax:** +86-773-5822450

**E-mail:** woodpecker@glwoodpecker.com sales@glwoodpecker.com

**Website:** <http://www.glwoodpecker.com>

