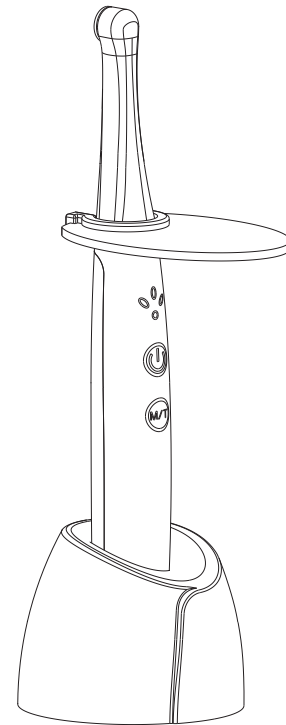


# LED Curing Light

## User Manual



## Product Introduction

This product is a new type curing light that uses high power and high purity broad spectrum blue-violet LED with a wavelength of 385–515nm as light source and an enhanced condenser lens.

It is suitable for most composite resins on the market.

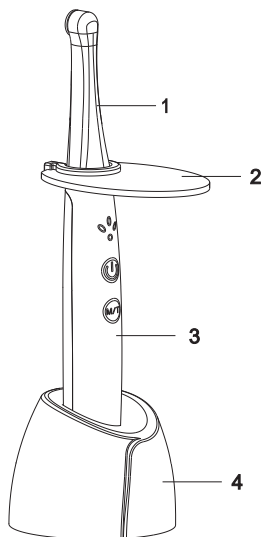
This curing light has 2 working modes for users to use in different working environments. The working head can be rotated 360 degrees for easy operation.

## 1. Basic Information

[Main structure composition] It is composed of a main body, a working head, a filter, a lithium battery, and a charging device.

## 2. Product structure and composition

- 1-Working head
- 2-Filter
- 3-Main body
- 4-Charging base



## 3. Product performance

### 3.1 Power adapter

3.1.1 Input voltage: AC100–240V 50/60Hz

3.1.2 Output voltage: DC5V 1.0A

### 3.2 Lithium battery

3.2.1 Type: rechargeable lithium battery

3.2.2 Capacity: 1500mAh

3.2.3 Internal power supply voltage: DC3.7V

### 3.3 Optical parameters

3.3.1 Wave length: 385~515mm

3.3.2 Radiation in the 385–515mm wavelength range:  $\geq 1500\text{mW/cm}^2$ , up to  $2500\text{mW/cm}^2$

## 4. Operating environment

4.1 Temperature range: 5~40°C

4.2 Relative humidity range:  $\leq 80\%$

4.3 Air pressure range: 75 kPa ~ 106kPa

4.4 Voltage: DC3.7V

4.5 Avoid using this product in an environment with electromagnetic interference (such as near a microwave oven, etc.).

## 5. Instructions

### 5.1 Function button

1-Working time indicator light

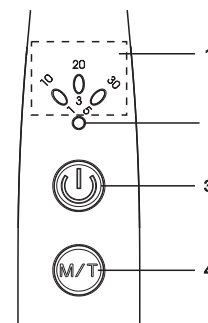
(1 second/10 seconds,

3 seconds/20 seconds,

5 seconds/30 seconds)

2-Charging light/mode light

Usage scenario		Indicator light color
Charging state	Charging	Blue
	Full charge	Green
While charging	Super power mode	Blue
	Normal mode	Green



3–Switch button

4–Mode setting/time setting

Long press the (M/T) button to switch the working mode, and short press the (M/T) button to set the working time.

5.2 Mode description

Mode 01: Normal mode (green indicator light)

The curing light works with standard power, and the time can be set to 10 seconds, 20 seconds and 30 seconds.

Mode 02: Constant power mode (blue indicator light)

The curing light works with super power, and the time can be set to 1 second, 3 seconds and 5 seconds.

5.3 Detailed operation

Step 1:

Press any button to wake up the circuit and enter the standby state.

Step 2:

Long press the (M/T) button to choose the required working mode.

Step 3:

After selecting the working mode, short press the "M/T" button to select the required working time.

Step 4:

After setting the working mode and time, press the switch button to turn on the device.

Note:

1. In standby mode, if no any button is pressed within 60 seconds, the device will automatically shut down.

2. The device is equipped with an under voltage detection function. When the battery voltage is lower than the set value, the device will sound an alarm and the power indicator on the screen will flash in green. Please stop using it and charge it in time. If the voltage is too low, it will be forced to shut down automatically.

## 6. Charging instructions

6.1 Connect the power adapter to the charging base and turn on the power, then put the curing light main body into the charging base. When charging, the indicator light on the main body is blue. After charging, the indicator light is green..

6.2 When using the device for the first time, please charge it for at least 4 hours.

## 7. Precautions

7.1 Please do not turn on the curing light and use it to work while charging.

7.2 When the lens has obvious damage or cracks that affect the light, please stop using the product immediately and replace with a new lens.

7.3 After charging, the charger plug should be unplugged from the power socket.

7.4 Do not touch the metal at both ends of the battery to avoid short–circuit damage to the battery.

7.5 The curing light can not be used in the presence of flammable anesthesia mixed with air or flammable anesthesia mixed with oxygen or nitrous oxide.

7.6 After the dental curing light is fully charged, the power plug should be unplugged. Do not continue to charge for a long time, otherwise the battery may be damaged.

### Warning:

When using the dental curing light, the light source should not be pointed at the eyes. If an accident occurs, please go to the hospital for medical treatment quickly.

## 8. Product contraindications

Patients with heart disease, patients with pacemakers, pregnant women and young children shall be precautions for application.

## 9. Maintenance and methods

9.1 After use, please wipe the working head with a damp cloth with medical alcohol. Do not soak the working head with disinfectant.

9.2 The body cannot be sterilized at high temperature and can be wiped with alcohol.

9.3 When not use the curing light, it can be put into the charging base. Connect the charger to the charging base when charging is needed.

9.4 Please use a cotton swab dipped in a small amount of absolute alcohol to wipe the contacts on the back of the battery and the charging pin of the base regularly, so as to avoid the occurrence of battery charging dissatisfaction due to poor contact.

9.5 This curing light cannot be disassembled and repaired on site by itself except for the replacement of the curing head and battery and the following common faults. If it is malfunctioning, please troubleshoot according to the following methods. If you can't solve it, please contact our company. This manual does not provide detailed circuit diagrams for the time being.

## 10. Common faults and solutions

Faults	Possible causes	Solutions
No indicator light, no action	<ol style="list-style-type: none"> <li>1. The battery is dead in the curing light.</li> <li>2. The battery is damaged.</li> <li>3. The charging interface is short-circuited, causing the lithium battery to enter the protection state.</li> <li>4. The main board circuit board is damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect to the power supply to charge or replace the battery.</li> <li>2. Replace the battery.</li> <li>3. Put the curing light into the charging base to charge, then it can return to normal.</li> <li>4. Contact your local dealer or our company.</li> </ol>
Digital display shows Er	The curing light circuit board is faulty.	Send to the maintenance department for repair.
Insufficient light intensity	<ol style="list-style-type: none"> <li>1. The bulb is aging.</li> <li>2. The curing light circuit board is damaged.</li> <li>3. There is resin remaining on the front end of the lens.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace with a new bulb</li> <li>2. Contact the local dealer or our company.</li> <li>3. Cleaning the lens.</li> </ol>
Does not charge after plugging in the power adapter	<ol style="list-style-type: none"> <li>1. The charging circuit board is damaged.</li> <li>2. The curing light circuit board is damaged.</li> </ol>	Contact the local dealer or our company.

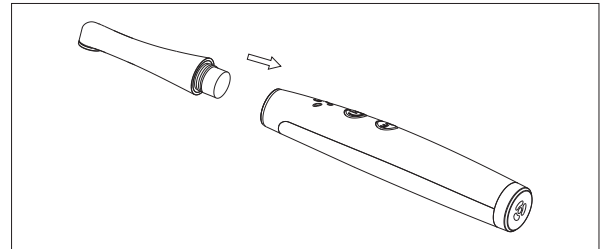
The use time becomes shorter after the battery is charged	Battery capacity becomes smaller.	Replace a new battery.
The working time indicator light flashes	LED damaged	Replace the working head or return to the manufacturer to replace the LED

If the fault cannot be resolved, please contact your local dealer or our company.

## 11. Installation and disassembly method of replaceable parts

### 11.1 Working head

Installation and disassembly method: unplug the working head from the curing light body, align the new working head (metal end with sealing ring) at the front end of the curing light body and insert it to the bottom in a rotating manner. Do not insert it diagonally.












⚠ The above parts are special parts of our company and cannot be purchased. If users need to replace them, please contact our company.

## 12. Storage and transportation

- 12.1 This equipment should be handled with care, far away from the source of the shake, and should be installed or stored in a cool, dry and ventilated place.
- 12.2 Do not mix with toxic, corrosive, flammable and explosive materials during storage.
- 12.3 The product should be stored in an environment where the relative humidity does not exceed 90%, the atmospheric pressure is 50kPa ~ 106kPa, and the temperature is  $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$ .
- 12.4 During transportation, avoid excessive shock and vibration, handle with care and avoid inversion.
- 12.5 It should not be mixed with dangerous goods during transportation.
- 12.6 Avoid sunlight or rain and snow during transportation.

13. Validity period 5 years.

## 14. Symbols and description

	Notice! Please refer to the accompanying documents		Refer to instructions for use
	Production date		Fear of rain
	Manufacturer		Sun protection
	Up		Handle with care and fragile
	Serial number		

## 15. After sales service

- 14.1 If this product fails to work normally due to quality problems within one year from the date of sale, our factory is responsible for free maintenance.
- 14.2 The following situations belongs to the scope of paid maintenance:
- 14.2.1 The damage is caused by the user's failure to operate, maintain, and store in accordance with the instructions or the user's carelessness.
- 14.2.2 Because the user disassemble the curing light body by himself/herself.
- 14.2.3 Damaged due to the user use the different performance battery from the original battery.
- 14.2.4 Damaged due to force majeure.
- 14.2.5 Beyond the free maintenance period.

## 16. Special instructions

1. The company reserves the right to modify the machine design, product technology or accessories, user manual and packaging content at any time without notice.
2. The product is subject to the actual product, the picture is for reference only.

## 17. Packing list

The product includes:

1. Curing light body 1pcs
2. Working head 1pcs
3. Charging base 1pcs
4. Filter cover 1pcs
5. User manual 1pcs
6. Certificate 1pcs
7. Power adapter 1pcs

## 18. Electromagnetic compatibility



- The LED curing light meets the requirements of electromagnetic compatibility
- The user should install and use it according to the electromagnetic compatibility information provided by the accompanying documents.
- Portable and mobile RF communication equipment may affect the performance of the dental curing light. Avoid strong electromagnetic interference when using it, such as close to mobile phones, microwave ovens, etc.
- The guidelines and manufacturer's declaration are detailed in the attachment.

### Warning

- The equipment or system should not be used close to or stacked with other equipment. If it must be used close or stacked, it should be observed to verify that it can operate normally under the configuration used.
- Except for cables sold by equipment or system manufacturers as spare parts for internal components, the use of accessories and cables other than those specified may result in an increase in the emission of the equipment or system or a decrease in immunity.

## 19. Product disposal

At the end of the product's life, in order to avoid the harm to the operator's health when it is discarded, and the waste to pollute the environment.

The product must be scrapped in accordance with the local regulations on scrapped medical devices.