

KD-202A-7 Head Lamp

# USER MANUAL

## Content

I Brief introduction.....	1
II Performance Summarize.....	1
III Main technical parameters.....	1
IV Requirements of working environment.....	2
V Product list.....	2
VI Product interface.....	2
VII Assembly, debugging, operation.....	3
VIII Note.....	3
IX Failure Judgment and Eliminating Methods.....	4
X After-sales service warranty .....	5
XI Transportation and storage conditions.....	5
XII Electrical schematic diagram and components list.....	5

## I .Brief introduction

**Model:** KD-202A-7

**Scope of application:** The product is elaborately designed for the auxiliary lighting of local examination and operation which are occasions of frequent mobility and high request for lighting and man-machine relationship. It is used in dental department, operating rooms, doctor consultation and wild healing.

**Characteristic:** Adopt high power LED for lighting, long life of about 50000 hours. The integration of power box and light makes it concise, lighter and wireless. There are two biggest characteristics of it: the configuration of power box enables you to change it quickly and conveniently so that normal work gets guaranteed ; Auxiliary power box is of different color to distinguish, note that the main source should recharge in time!

**Product component:** lamp holder, hood, two power boxes, charger etc.

## II. Performance Summarize:

This product uses wide voltage power supply system. Lamp holder is composed of optical lens and grating. The joint design of lamp holder and hood can realize the effective regulation of up and down angle. This product is equipped with a magnifying glass joint, can be used together with a magnifying glass.

The design and production of this light source strictly executes the first part of the safety requirements of medical electrical equipment GB4793.1-2007: general requirements which is guaranteed in safety.

## III Main technical parameters:

Color temperature: 60000K $\pm$ 500K□ 4500K $\pm$ 500K□

Lamp Power: 3W

Input power:  $\leq$ 5W

Power supply time of the main one: 4H

Power supply time of the auxiliary one:2H

Charge Time: 6H

Input voltage: 100V-245V 50HZ-60HZ

## IV Requirements of working environment

A. Environmental temperature: -10℃ $\sim$ +40℃

B. Relative humidity:  $\leq$ 75%

C. The atmosphere: 86.0 kPa $\sim$ 106.0kPa

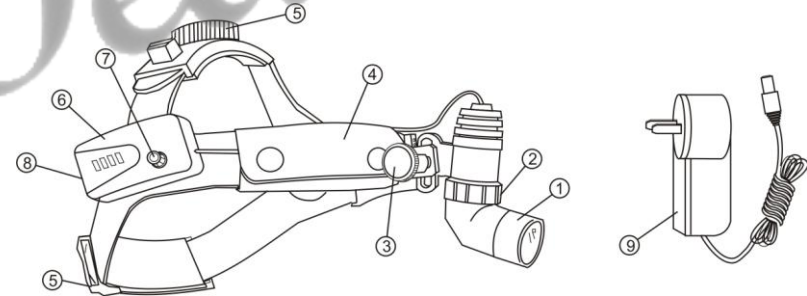
## V Product list

Head light: one

Power box: one

Power line: one

## VI Product interface



- |                |                                       |                                    |
|----------------|---------------------------------------|------------------------------------|
| 1. Lamp holder | 2. Flare-adjusting ring               | 3. Lock switch                     |
| 4. Head band   | 5. Head-wear tightness-adjusting knob |                                    |
| 6. Power box   | 7. Power switch                       | 8. Charging interface of power box |
| 9. Charger     |                                       |                                    |

## VII Debugging and operation

Open the packing box, check whether there are missing parts or damage phenomenon of the products according to the product list. If there is any problem, pls contact with the dealer or manufacturer in time to get solved properly.

1. Loosen the tightness-adjusting button (6), wear the lamp holder ahead, adjust the button to a reasonable degree. It is advisable if the lamp is stable and you feel comfortable when looking up, down and sway your head.

2. Loosen the lock switch (3) to adjust the angle and the height of lamp holder. Lock it after it is appropriate.

3. The power switch (7) that is to say, the light switch, is also the brightness adjusting button. You can get the proper lighting intensity after regulating it.

4. Replace the power supply box: when the yellow indicator light on the power supply box is bright, you will have to replace the power supply box.

A. Use your forefinger to hold down in front of the box, push backward towards the regulator direction, the power supply box will be out;

B. Push the backup power supply box along the direction of the rail to the full degree to get it tight.

## VIII Note

1. When use the battery power supply, you need to charge in time if brightness of the light significantly weakened.
2. This product can only work in DC condition. It can't work at the same time with charging.
3. Turn off the power switch (6) when charging.
4. You can't use liquid cleaners to clean the product.
5. You need to recharge in time when the battery power is not full, or the battery will be scrapped.

6. Battery life is of about 500 times to charge and discharge, please put the abandoned battery into a designated chemical waste.

## IX Failure Judgment and Eliminating Methods

Fault phenomena	Fault cause	Solution
Turn on the power switch, the indicator is not bright	A.Run out of power	Charging in time
	B.Battery damage	Replace the same specification battery
	C.Not remove the charge plug	Remove the charge plug
	D.Power board fault	Contact with the after-sale service department for solution
Turn on the power switch, the indicator is bright but the lamp is not bright	A.Not pushing the power box tight to the full degree	Push it to the full degree again
	B.Not open the flare-adjusting ring	Transfer the flare-adjusting ring clockwise to the maximum
	C.Bulb is damaged	Replace the bulb
Other fault		Contact with the after-sale service department for solution

## X After-sales Service and Warranty

Warranty of 18 months, provide maintenance service all user's life.

◆In the warranty period, in normally using, the trouble because of the product quality, the consumer depends on the warranty slip and invoice enjoys free maintenance service.

◆If the error caused by remodel or install other functions which is without our company's permission, is not within the scope of warranty

◆If the model, number, release date is modified, deleted, moved or illegibility, will not enjoy the maintenance service.

◆The error caused by human factor such as falling, squeezing, dip in, wetting, etc. is not within the scope of warranty.

◆Once receiving the goods, please sign and accept it after opening the package to inspect and confirm whether the instrument is crushed, scratched or not. Make sure there is no special unnumbered inside. If the goods are damaged and you did not inspect before sign it, It will be at your own risk.

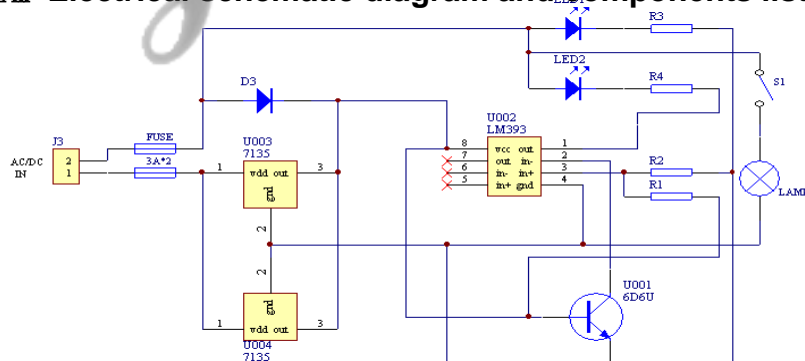
## XI Transportation and storage conditions

A. Environmental temperature:  $-40^{\circ}\text{C} \sim 55^{\circ}\text{C}$

B. Relative humidity :  $\leq 70\%$

C. The atmosphere: 50Kpa~106Kpa

## XII Electrical schematic diagram and components list



NO.	Material name	Specification	Quantity	Remark
1	Circuit board		1	
2	Socket	2*2.54	1	
3	Electric current detection chip	7135	2	
4	diode	IN4148	1	
5	Integrated circuit	LM393	1	
6	Indicator light	yellow/green	2	
7	Integrated circuit	6D6U	1	
8	Power switch	---	1	
9	Resistor	390Ω /0.125W	2	
10	Resistor	300K/0.125W	1	
11	Resistor	33K/0.125W	1	
12	LED bulb	3W	1	

Any products may be updated or improved. The change of circuit or element specifications of the product will not with prior not

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### Warranty card

Company name:			
Address			Phone No.
Product name		Model	
Serial Number		Manufacture date	
Sale date			
Fault description:			
Remark: The warranty of our products is 18 months since the release date.			

(Please truthfully fill in this form, cut it according to the dotted line and send it back to our company, thank you for your cooperation)

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### Maintenance card

Company name:			
Address			Phone No.
Product name		Model	
Serial Number		Manufacture date	
Sale date			
Fault description:			
Remark: You can enjoy seventy percent discount for the maintenance services even if you use this card over the quality assurance period.			