

Operation Lamp

USER MANUAL

Content

| | |
|--|----|
| I Brief introduction..... | 1 |
| II Performance summary..... | 1 |
| III Main technical parameters..... | 1 |
| IV Security tips and symbol instructions..... | 1 |
| V Working environment..... | 2 |
| VI Product interface..... | 2 |
| VII Usage..... | 3 |
| VIII Attentions..... | 7 |
| IX Failure judgment and eliminating methods..... | 7 |
| X Bulb replacement..... | 8 |
| XI After-sales service..... | 8 |
| XII Transportation and storage condition..... | 9 |
| XIII Electrical schematic diagram and components list..... | 9 |
| XIV Warranty card and maintenance card..... | 11 |
| XV Configuration list..... | 13 |

XV Configuration list

| No. | Name | Specification | Quantity | Remark |
|-----|-------------------------|---|----------|--------|
| 1 | Lamp holder | LED 108W | 1 | |
| 2 | Spring arm | Ceiling type | 1 | |
| 3 | Center adjusting handle | -- | 1 | |
| 4 | Tool | <input type="checkbox"/> No. 4 Allen wrench <input type="checkbox"/> No. 3 Allen wrench <input type="checkbox"/> No. 6 Allen wrench | Each 1pc | |
| 5 | User manual | A5 | 1 | |
| 6 | Quality certificate | -- | 1 | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |

Notice: Please check the goods according to the configuration list within 3 days after receiving the goods.

No. 1 edition on August 11, 2018

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)

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. | | | |

I Brief introduction

It adopts 36 brand 3W LED bulbs as the light source, with adjustable high brightness, the lighting depth can reach 200mm. The product is mainly composed of lamp holder, spring arm and ceiling support.

The diameter of lamp panel is 500mm, larger than the ordinary operation lamp, smaller than traditional LED shadowless lamp. Ceiling installation, double handle design, adjust light spot by the center handle. Make up for short lighting depth and low illumination of the examination lamp, and the expensive of traditional LED shadowless light.

This product adopts wide voltage input, low voltage output power supply, stable and reliable performance; High-quality spring arm, positioning accuracy, no displacement.

Suitable for clinic operation, dental implant, plastic surgery, pet medical, and so on.

II Performance summary

The design and production of this product strictly executes the first part of the safety requirements of medical electrical equipment GB9706.1-2007: general requirements are guaranteed in safety.

III Main technical parameters

1. Input voltage: AC90V~240V 50/60Hz
2. Input power: ≤120VA
3. Power of bulb: 3W*36
4. Working distance: 1000mm
5. Diameter of light spot: φ120~240mm
6. Installation height: 2800~3200mm

IV Security tips and symbol instructions

1. When the check lamp is in use, you should always abide by the basic safety precautions in order to avoid fire, electric shock or the risk of injury.
2. Please read the instructions carefully, and operating according to the specifications and requirements.
3. Before clean the product, unplug the power line, and do not use liquid or spray cleaners.
4. Please don't install or use the product near the water or in moisture environment.
5. When replace the bulbs, you must turn off the power switch.
6. Maintenance should be performed by professionals.
7. The brightness of this examination light is very high, when you use, don't contact with eyes directly, in case of damage.
8. Symbol:

OFF Light off

ON Light on

▲ Brightness increase

▼ Brightness decrease

⊕ Protect the grounding

V Working environment

- a. Environment temperature: -5°C ~40°C
- b. Relative humidity: 35%~75%
- c. Atmospheric pressure: 700hPa~1060hPa

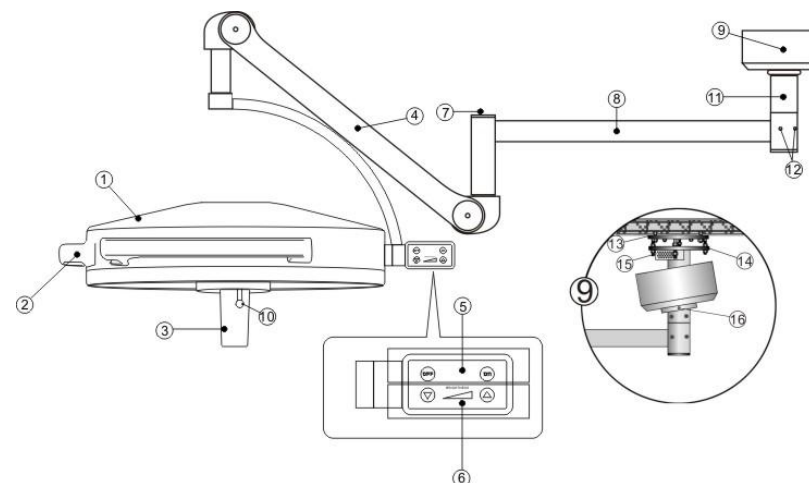
VI Product interface(Picture 1)

| | | | | |
|----|--------------------|--------------|----|--|
| 39 | Resistance | 3.9KΩ/0.25VA | 1 | |
| 40 | Resistance | 680KΩ/0.25VA | 1 | |
| 41 | Resistance | 1.5KΩ/0.25VA | 1 | |
| 42 | Resistance | 100KΩ/0.25VA | 1 | |
| 43 | Resistance | 4.7KΩ/0.25VA | 1 | |
| 44 | Resistance | 220Ω/0.25VA | 1 | |
| 45 | Resistance | 150KΩ/0.25VA | 5 | |
| 46 | Resistance | 2Ω/0.25VA | 2 | |
| 47 | Resistance | 22KΩ/0.25VA | 2 | |
| 48 | Resistance | 24Ω/0.25VA | 2 | |
| 49 | Resistance | 3.9KΩ/0.25VA | 2 | |
| 50 | Resistance | 100Ω/3VA | 1 | |
| 51 | Resistance | 680Ω/3VA | 1 | |
| 52 | Diode | F107 | 6 | |
| 53 | Diode | IN4752 | 2 | |
| 54 | Diode | IN4148 | 2 | |
| 55 | Audion | 1815 | 3 | |
| 56 | Thermistor | 5D-15 | 1 | |
| 57 | Piezoresistor | 10D471K | 1 | |
| 58 | Integrated circuit | LM494 | 1 | |
| 59 | Rectifier bridge | KBU810 | 1 | |
| 60 | Bulb | LED | 36 | |

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

XIV Warranty card and maintenance card

| | | | | |
|----|------------------------|--------------|---|--|
| 7 | Capacitance | 102M/2KV | 1 | |
| 8 | Electrolytic capacitor | 50V/1uf | 1 | |
| 9 | Capacitance | 222J/250V | 1 | |
| 10 | Capacitance | 102J/100P | 1 | |
| 11 | Electrolytic capacitor | 50V/4.7uf | 3 | |
| 12 | Electrolytic capacitor | 50V/22uf | 1 | |
| 13 | Electrolytic capacitor | 50V/47uf | 1 | |
| 14 | Electrolytic capacitor | 50V/1000uf | 2 | |
| 15 | Electrolytic capacitor | 250V/470uf | 2 | |
| 16 | Capacitance | 22nj/T100V | 1 | |
| 17 | Capacitance | 102M/2KV | 1 | |
| 18 | Electrolytic capacitor | 50V/1uf | 1 | |
| 19 | Capacitance | 222J/250V | 1 | |
| 20 | Capacitance | 102J/100P | 1 | |
| 21 | Electrolytic capacitor | 50V/4.7uf | 3 | |
| 22 | Electrolytic capacitor | 50V/22uf | 1 | |
| 23 | Electrolytic capacitor | 50V/47uf | 1 | |
| 24 | Electrolytic capacitor | 50V/1000uf | 2 | |
| 25 | Electrolytic capacitor | 250V/470uf | 2 | |
| 26 | CBB capacitor | 400V/105J | 1 | |
| 27 | Filter capacitor | 0.1uf | 2 | |
| 28 | Resistance | 150K/0.25VA | 1 | |
| 29 | Resistance | 15Ω/0.25VA | 2 | |
| 30 | Resistance | 120KΩ/0.25VA | 1 | |
| 31 | Resistance | 12KΩ/0.25VA | 1 | |
| 32 | Resistance | 10KΩ/0.25VA | 1 | |
| 33 | Resistance | 1KΩ/0.25VA | 1 | |
| 34 | Resistance | 22KΩ/0.25VA | 1 | |
| 35 | Resistance | 15KΩ/0.25VA | 1 | |
| 36 | Resistance | 5.6KΩ/0.25VA | 2 | |
| 37 | Resistance | 560Ω/0.25VA | 1 | |
| 38 | Resistance | 1.2KΩ/0.25VA | 1 | |



Picture 1

①Lamp holder ②Ring handle ③Center handle ④Spring arm ⑤Lamp switch ⑥Brightness adjustment ⑦Cap of connecting pole
⑧Horizontal pole ⑨Decoration cover ⑩Button of center handle ⑪Center tube ⑫Damping screw ⑬Fixed base board ⑭Horizontal substrate ⑮Power box ⑯Fixed screw for decorative cover

VII Usage

1.Check before use

- 1)Open the package,check whether it is damaged or not.
- 2)Check whether the model、 name and quantity are in keeping with "packing list";Please contact with factory or distributor in time to get properly resolved if you find something incorrect.
- 3)Read the instructions carefully and follow the installation steps.

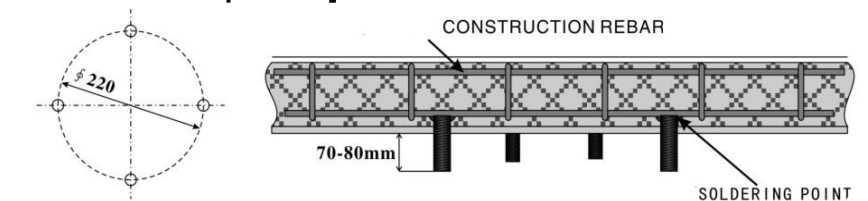
2.Installation

- 1)Position selection: The first step is to install the "fixing and leveling" device, which is inside of the decoration cover⑨ and consists of the fixed base board⑬, the horizontal substrate⑭ and the power box⑮ (Picture 1-9).

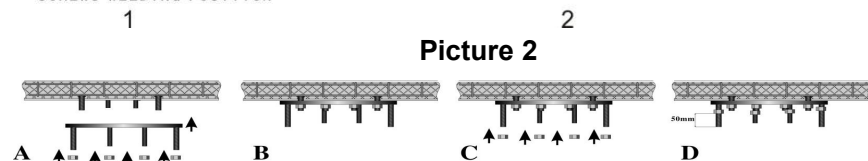
Its installation is in housetop, the biggest arm span is 1.92M, accordingly, the distance between fixed base board and all round wall cannot be less than 1.95m, the distance from housetop or decorations to the ground cannot be less than 2.4m, it is advisable to be in commonly installation height 2.8m to 3.2m.

2) Preparation of embedded parts: In the selected position, the size position of the embedded parts shall be drawn according to the requirements of Picture 2-1. The embedded parts shall be welded on the slab reinforcement with M12 screws, or embedded in the concrete pouring layer with piercing screws. The screws can be downward beyond the top surface by 70-80mm.

When the suspended ceiling is needed, the transition bridge shall be welded in the selected position before the suspended ceiling. The installation surface and the suspended ceiling shall be in the same plane. The connection between the roof and the bridge can still adopt the above method. **[Note: Expansion screws are not allowed to be installed in this product]**



SCREWS WELDING POSITION



Picture 2



Picture 3

3) Fixed base board: Install the board according to Picture 3-A、B, tighten screws. **[Note: After fix the board, screw 4 nuts on 4 downward bolts, the reserved length is about 50mm, as shown in Picture 3-C、D]**

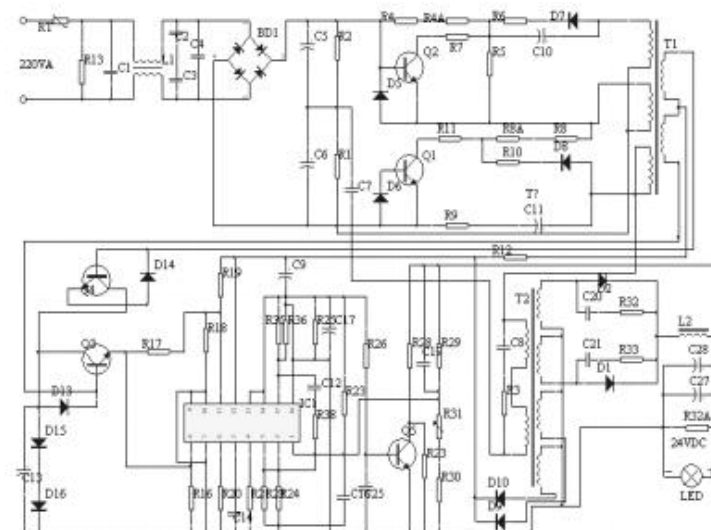
XII Transportation and storage condition

Environment temperature: -40℃~55℃

Relative humidity: 30%~80%

Atmospheric pressure: 500hpa~1060hpa

XIII Electrical schematic diagram and components list



| N0. | Material | Specification | Quantity | Remark |
|-----|-------------------|---------------|----------|--------|
| 1 | Circuit board | 7D1A | 1 | |
| 2 | Field-effect tube | SL20C20U | 1 | |
| 3 | Filter choke | 220mH | 1 | |
| 4 | Inductance | 470mH | 1 | |
| 5 | Capacitance | F103M/2KV | 3 | |
| 6 | Capacitance | 22nj/T100V | 1 | |

| | | |
|-----------------------|---|--|
| The lamp doesn't work | 2.The lamp switch⑤ is not turned on | Turn on the switch⑤ with key ON |
| | 3.The brightness adjustment⑥ at the minimum position | Press the brightness adjustment⑥ ▲ to the maximum. |
| | 4. Poor contact with docking plug between spring arm and horizontal pole. | Open the cap⑦, re-docking again |
| | 5. Poor contact with docking plug of lamp holder① | Remove the lamp holder①, re-docking |

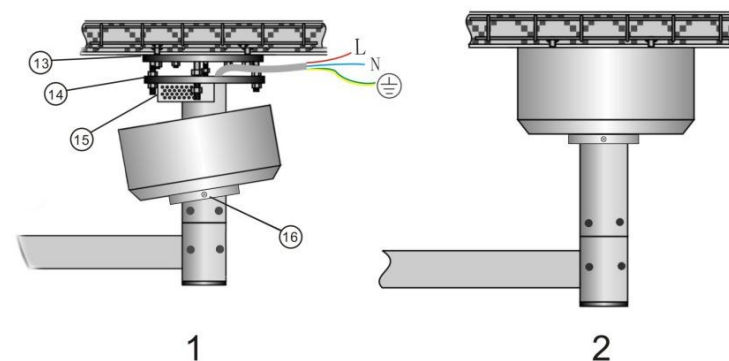
X Bulb replacement

The bulb is LED light source, the normal life up to 10000 hours, no need to replace normally. In case of any failure, please inform the manufacturer in time for processing.

XI After-sales service

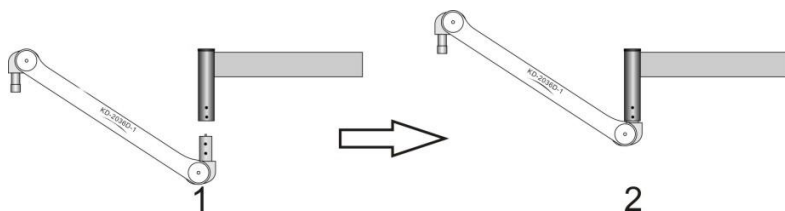
- ◆ The product warranty period is 18 months
- ◆ During warranty period, Send or give us your warranty and purchase invoices, we will provide free maintenance service when you have quality problems.
- ◆ Light bulbs are consumable accessories.
- ◆ If you modified the function by yourself and then it does not work, is not covered under warranty.
- ◆ If the marks on the product such like model, serial number, date of manufacture has been altered, deleted, moved, or unidentifiable, will not provide free warranty service.
- ◆ If moving falling, squeezing, soaking, moisture and other failures caused by human factors can not enjoy our free warranty service.
- ◆ The production date shown on label, service life is 5 years, we provide lifetime maintenance.

4) Center tube: The center tube, horizontal substrate⑭, Horizontal pole⑧, decorative cover⑨, power box⑬ and fixing ring⑮ of the operating lamp are assembled together before leaving the factory. During installation, the four mounting holes⑭ on the horizontal substrate should be aligned with the four bolts of fixed base board⑬, and then screw on the nuts. Do not tighten them first, use the level device to adjust the horizontal state of the horizontal rod⑧ left, right and front and rear respectively. After horizontal adjustment, tighten a total of 8 nuts above and below the horizontal substrates **[Note: Please regularly check the nuts for tightness, if they are loose, tighten in time]**. AC power line connection: L-red line, N-blue line, yellow-green line - ground (shown in Picture 4-1). And wrap it with insulating tape, insert into the gap between the fixed base board and the horizontal substrate. Finally, push the decoration cover⑨ and tighten the fastening screws⑮ of the decoration cover (Picture 4-2).



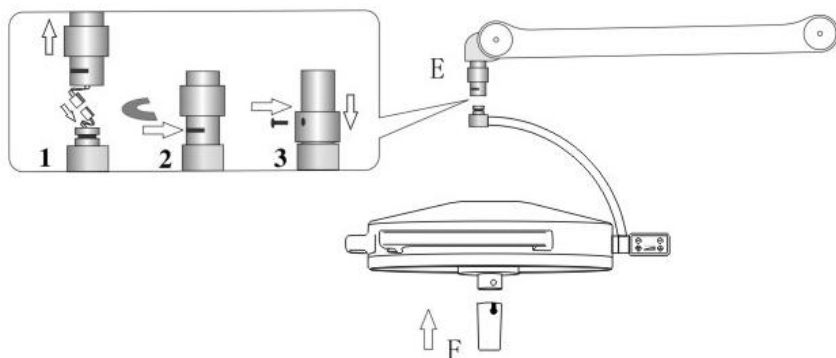
Picture 4

5) Spring arm: Remove the four screws on the rotate axis of spring arm④, open the connecting cap⑦ (Picture 5-1), connect the spring arm④ with the pole, and pull out the power line from the link pole, install and fix the four screws, docking the power cord plug, put on the cap of the pole (As shown in Picture 5-2).



Picture 5

6) Installation of lamp holder: Unscrew the screw on cover of crescent pin, push up and remove the crescent pin, then connect the lamp holder① and the spring arm④ according to Picture 6-E,the order of 1、2、3;That is :First step, docking the power connector. Second step, install the crescent pin. The third step, put down the cover and fix it. Finally, press the button⑩ of the center handle in Picture 6-F, the guide groove of the center handle③ must be pushed in place, loosen the button to pop, the installation of operation lamp is completed.



Picture 6

3.Usage:

- 1) Close the main control switch,,press the key ON to turn on lamp switch⑤,the lamp light on.
- 2) Press the Brightness adjustment⑥ could change the brightness of the lamp; key ▲ brightness increase,▼brightness decrease.

- 3) Rotate the center handle③ could change the size of light spot, realize the focusing function.
- 4) Hold the center handle③ or ring handle② up and down, left and right to adjust the height of the lamp holder and lighting angle; It is also possible to change the angle and the range of illumination by rotating the spring arm④ and horizontal pole⑧ left and right.
- 5)When in using, in the case of rotate axis is too alive or too tight, you can use allen wrench to adjust damping screws; Spring arm adjustment method is the same.
- 6) After usage of operation or examination, press the button⑩ of center handle to remove handle and sterilize it.

VIII Attentions

- 1.Please pull out the power plug before clean the lamp, do not use liquid spray to clean it.
- 2.When install the lamp, please assemble and reinforce it according to the instruction of the technical requirements.
3. Installation with expansion screws is prohibited.
- 4.Do not use the lamp near water.
- 5.The repair, installation and commissioning of the operation lamp should be performed by professionals.
- 6.The light intensity is high, you should be cautious in use with your eyes.

IX Failure judgment and eliminating methods

(This link requires professional operation)

| Failure phenomenon | Reason | Solution |
|--------------------|------------------------------------|-------------------------|
| | 1. The master switch is not closed | Close the master switch |