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OPERATION MANUAL

**ISM-CL150
Cold Light Illuminator**



User Manual

This user manual is for users of ISM-CL150 series cold light illuminator. To ensure the safety, obtain optimum performance, and to familiarize yourself fully with the use of this cold light illuminator, we recommended that you study the instruction manual carefully. Improper handling or neglect of the instruction could result in bodily injury or damage to the equipment. Retain this instruction manual in an easily accessible place near the work desk for future reference.

Due to technical advancement, the design of this illuminator is subject to improvement without notice.

The following safety symbols are found on the instrument. Study the meanings of these symbols and always use the instrument in the safest manner.

Safety Symbols



CAUTION!

The symbol is on the side surface of the power supplier. Neglect of the symbol could result in bodily injury or damage to the instrument.



HOT SURFACE!

The symbol is on the lamp house cover. During use, the lamp and its periphery become very hot, so should not be touched with bare hands.



HIGH TEMPERATURE!

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1. Safety Precaution

1.1 Purpose

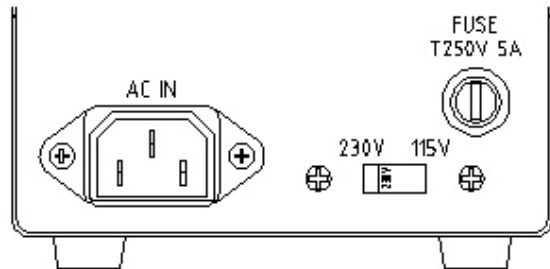
This instrument is only for illumination.

1.2 No disassembly

Do not disassemble any part of the equipment except those permitted, as this may result in reduced performance, electric shock, bodily injury or damage to the equipment. If there is any trouble, do not hesitate to contact with the supplier please.

1.3 Check the input voltage

Make sure the input voltage accords with the required value before connecting the power cord. (Fig.1.1)



1.4 Use specified power cord

Always use the specified lamp and power cord. Improper lamp and power cord may result in damage to the equipment or fire hazard.

- Cold light T-H lamp: 21V 150W.

1.5 Storage

To prevent unnecessary trouble, do not lay the equipment in a moist place. If water is splashed onto the illuminator, turn off main switch at once (to the "o" state), disconnect the power cord and wipe off water with a dry cloth. Make sure the equipment is placed in relatively independent room. If foreign matter enters into the power supplier, short circuit may be caused.

1.6 Precaution

This illuminator is a precision instrument. Handle it with care please. Sudden or severe impact may result in damage to the equipment.

- Grip the handlebar when moving the equipment.

2. Operation

2.1 Structure

Main structure of power supplier is shown in Fig.2.1 and Fig.2.2.

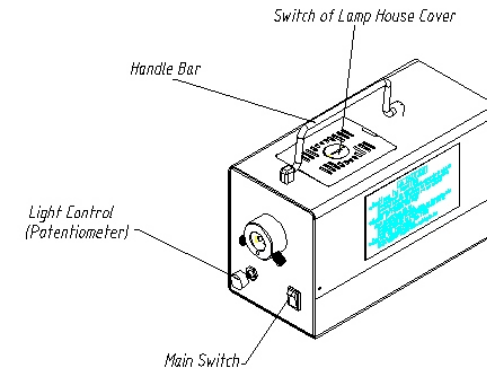


Fig.2.1

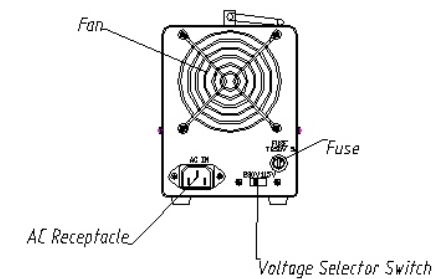


Fig.2.2

2.2 Light Guide Assembly

Insert light guide adapter into the light guide socket on the power supplier, and then tighten two clamping screws, as shown in Fig.2.3. Do not exert excessive force on the screws so as to avoid damage to the light guide.

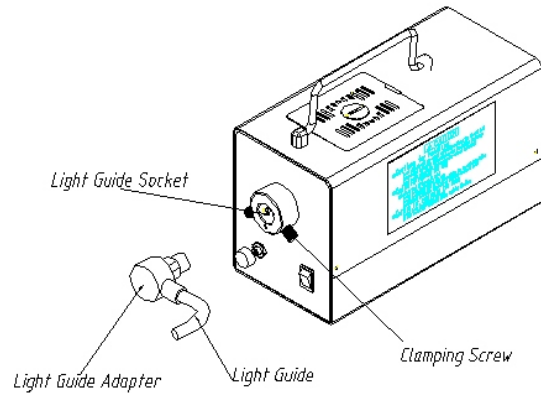


Fig.2.3

2.3 Using the illuminator

1. Check the input voltage and choose the proper one by voltage selector switch ① on the rear panel of the power supplier. (Fig.2.4);
2. Make sure that the main switch (power) is turned off (in "o" state). (Fig.2.5);
3. Before using, rotate the light control to "MIN".(Fig.2.5);
4. Connect the power cord plug ② to the AC receptacle ③ on the rear panel of the power supplier.(2.4),then insert the power cord plug ④ into the wall outlet ⑤.(Fig.2.4);
5. Turn on the main switch and rotate the light control to adjust illumination intensity to a proper extent.(Fig.2.5);
6. The illumination center can be adjusted by regulating light guide. (Note: Different shape for light guide of different model.

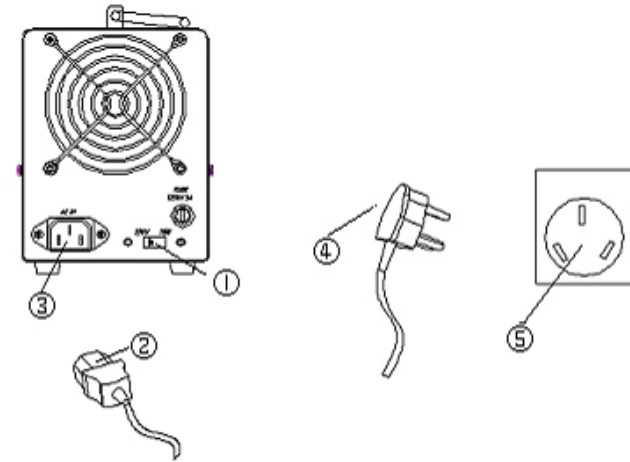


Fig.2.4

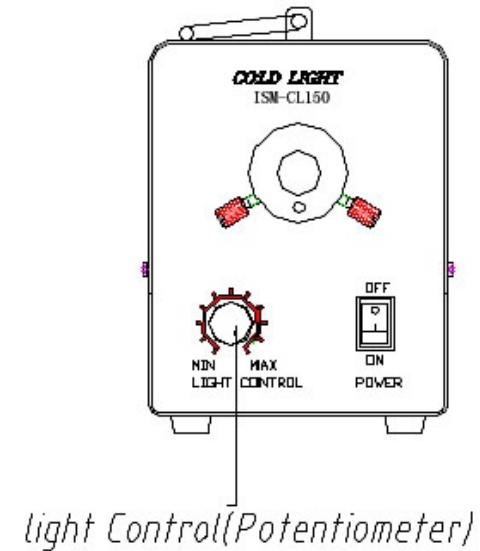


Fig.2.5

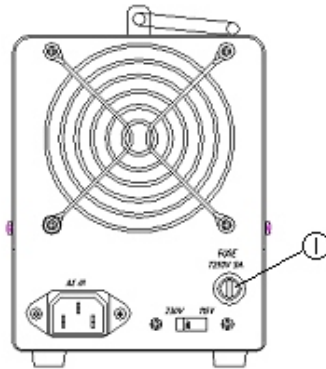
- The power cord is vulnerable when bent or twisted. Never subject it to excessive force. Always use the supplied power cord .If it is lost or damaged, choose the same specification power cord please.
- Turn on the main switch to verify that the fan can work well . Otherwise, the heat can not be expelled properly, which could result in damage to other parts. In this case, turn off the power switch right now and contact with the supplier to change the fan.

3. Parts Replacement

3.1 Fuse Replacement (Fig.3.1)

Make sure that the main switch is set to off (“o”) state and the power cord is unplugged before fuse replacement. Rotate the broken fuse ① out of the fuse holder with screwdriver and replace with a new one.

- **Rated value for the fuse: T250V, 5A .**



3.2 Lamp Replacement(Fig.3.2、 Fig.3.3)

Make sure that the main switch is turned off and the lamp is cooled down before lamp replacement. (cooling time :10~15 minutes).

Rotate the switch of lamp house cover ① and take the cover ② out. In the lamp house, trip the throw rod ③ in the arrowhead direction so that the lamp ④ can be jacked up. Then unplug the lamp receptacle ⑤ and take the lamp out. Now replace with a new lamp.

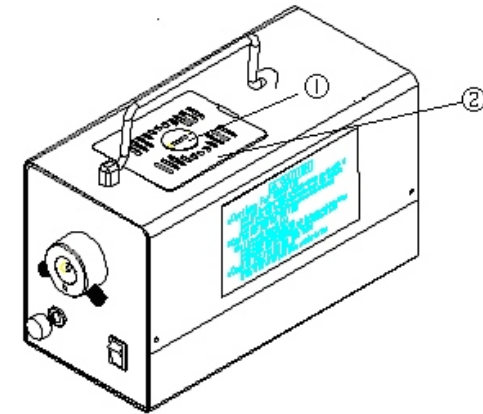


Fig.3.2

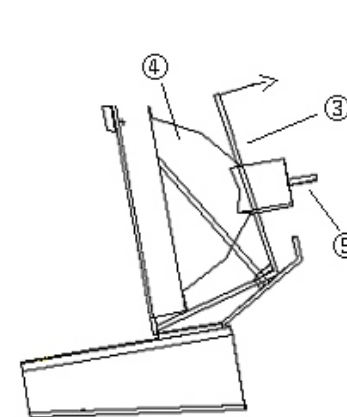


Fig.3.3

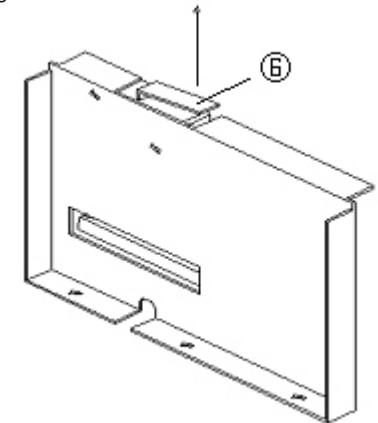


Fig.3.4

- **As shown in Fig.3.4,during the lamp replacement, when lamp house cover is taken out, the latch plate ⑥ would spring, thus the power supply is automatically cut off. However, for the sake of safety, it is preferable to disconnect the equipment before lamp replacement.**
- **Make sure that the latch plate ⑥ is pressed down and”clicked” is heard when the lamp house cover is laid back after lamp replacement.**

- The lamp would become quite hot during operation, do not touch it with bare hands just after the lamp turned off.
 - Make sure that the lamp is cooled down before lamp replacement .
 - To avoid burns, do not touch the lamp during operation:
 - To avoid fire hazard, do not lay such things as scrim, paper or other flammable solvents near the lamp.

4. Troubleshooting Guide

4.1 Lamp does not light:

- ① No power supply: check the power cord connection ;
- ② Lamp is not mounted properly: mount the lamp properly;
- ③ Lamp is burned out: replace the lamp;
- ④ Fuse is burned out: replace the fuse;
- ⑤ Input voltage is improper: check the voltage .

4.2 Lamp is burned out frequently:

- ① Lamp of wrong type is used: replace with a specified one.
- ② The input voltage is wrong: select the right voltage.

4.3 The illumination is not bright enough.

- ① Lamp of wrong type is used: replace with a specified one;
- ② Light control is not adjusted properly: adjust the light control.

4.4 Lamp flickers:

- ① Breadboard is burned-out.: replace breadboard (send it to the supplier to repair.);
- ② Bad connection: connect it properly.

5. Maintenance and Storage

5.1 Maintenance

- ① Do not attempt to use organic solvents to clean the equipment, or it will cause fading or writing shed;
- ② For intractable dirt, wipe it away with gauze slightly moistened with a little scour.

WARNING : Be sure that the equipment is disconnected before cleaning and not used until the surface is dry.

5.2 Storage

The equipment should be stored properly. Wrong handling or storage may exert a malignant influence on the equipment performance. The storage should satisfy following conditions:

- ① Do not subject the equipment to direct sunlight, high temperature or humidity.
- ② Lay the equipment in a clean place.
- ③ Do not place the equipment on vibrated bench, which would reduce the performance.
- ④ Lay the equipment on a sturdy, level table which can support the weight of the equipment.

5.3 Scheduled Check

- ① In order to keep optimum performance ,scheduled check for the equipment is necessary.
- ② About scheduled check, contact with the supplier pls.

6. Specifications

- 1.Lamp: Cold Light T-H Lamp: 21V 150W
- 2.Fuse: T250V, 5A
- 3.Standard Voltage: 115V, 230V
- 4.Outfit: Double Light Guide(500mm)