

CL Series

INSTRUCTION MANUAL

	Model
	CL-32
	CL-33

Ver. 1.0 2020



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1. Warning

This device is a scientific precision instrument designed to last for many years with a minimum of maintenance. It is built to high optical and mechanical standards and to withstand daily use. We remind you that this manual contains important information on safety and maintenance, and that it must therefore be made accessible to the instrument users. We decline any responsibility deriving from incorrect instrument use uses that does not comply with this manual.

2. Symbols and conventions

The following chart is an illustrated glossary of the symbols that are used in this manual.



CAUTION

This symbol indicates a potential risk and alerts you to proceed with caution.



ELECTRICAL SHOCK

This symbol indicates a risk of electrical shock.

3. Safety Information



Avoiding Electrical Shock

Before plugging in the power supply, make sure that the supplying voltage of your region matches with the operation voltage of the equipment and that the lamp switch is in off position. Users should observe all safety regulations of the region. The equipment has acquired the CE safety label. However, users have full responsibility to use this equipment safely. Please follow the guidelines below, and read this manual in its entirety to ensure safe operation of the unit.

4. Intended use

Standard models

For research and teaching use only. Not intended for any animal or human therapeutic or diagnostic use.

IVD Models

Also for diagnostic use, aimed at obtaining information on the physiological or pathological situation of the subject.

5. Overview

5.1 CL-32



5.2 CL-33



6. Unpacking

The device is housed in a plastic container. Take some care to avoid that the optical items fall out and get damaged.



Do not touch with bare hands optical surfaces such as lenses, filters or glasses. Traces of grease or other residuals may deteriorate the final image quality and corrode the optics surface in a short time.

7. Assembling

Once opened the box, the device parts are the following:

7.1 CL-32



- ① Magnetic light guide
- ② Mini USB - USB cable

- ③ Adhesive magnetic holder
- ④ Power supply

7.2 CL-33



- ① Magnetic light guide (2 pcs)
- ② Magnetic holder
- ③ Adhesive magnetic holder (2 pcs)

- ④ Mini USB - USB cable (2 pcs)
- ⑤ Power supply (2 pcs)

7.3 System assembling

7.3.1 CL-32

- A double-sided adhesive tape disc is placed at the bottom of the magnetic holder.
1. Remove the protective foil and place the adhesive magnetic holder at the desired location. (Fig 1)



2. Place the magnetic part of the LED illuminator on the holder. (Fig. 2)



7.3.2 CL-33

1. Place the magnetic holder (black) at the desired location.
2. Place the magnetic part of the LED illuminator on the holder. (Fig. 3)



3. Alternatively: Repeat the mounting procedure for the CL-32 by positioning the individual magnetic adhesive holders at the desired points and then mount the LED illuminators.

8. Use of the illuminator

8.1 Light intensity adjustment

1. Operate on the button ① to turn ON/OFF the LED and to increase/decrease the illumination voltage. (Fig. 4)
2. The button will turn green.
- **By pressing the button the light will cyclically change: LOW INTENSITY --> HIGH INTENSITY --> OFF.**

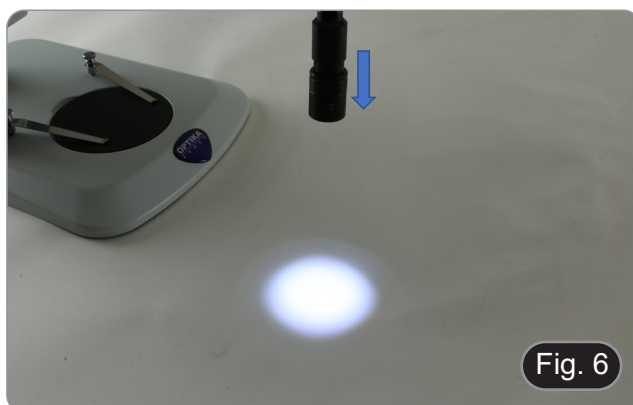


8.2 Focusing the light beam

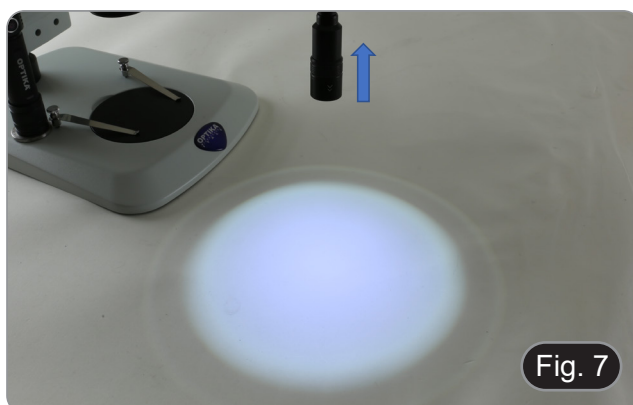
- The terminal part of the illuminator is equipped with a beam focusing system.
- By moving up or down the terminal part ②, you can concentrate or diffuse the beam of light.



1. Move the terminal part downwards to have a more concentrated light beam. (Fig. 6)



2. Move the terminal part upwards to have a more diffuse light beam. (Fig. 7)



8.3 Charging the battery

1. Connect the mini USB terminal of the cable to the LED illuminator. (Fig. 8)
2. Connect the USB terminal to the power supply and then plug the power supply into the wall outlet.
 - **A green light lights up while the battery is charging.**
 - **If you use the LED illuminator when the USB cable is connected, the charging light turns red.**



9. Important safety instructions



- Charge the battery immediately after purchase, after each use and, if not often used, at least every 6 months.
- DO NOT turn on the LED light while it is being charged.
- DO NOT handle or move the LED light while it is being charged.
- DO NOT look directly into the light beam or directly aim the light into the eyes of any person or animal.



- AVOID use of LED light by children.
- DO NOT operate the LED light if it has received a shock, been dropped or damaged in any way. In such a case contact qualified service person.
- DO NOT leave battery in a discharged state for a long time.
- DO NOT use the LED light with a charger with damaged cord or plug. Immediately replace the cord or the plug.
- ALWAYS use a USB charger rated for 5V, 1A.

10. Personal safety instructions



- DO NOT disassemble the LED light: it takes qualified service person when service or repair is required. Incorrect reassembly may result in risk of fire.
- DO NOT crush, puncture, short external contact or dispose in fire or water.
- DO NOT expose to temperature above 60°C.
- Recycle or dispose the used batteries as required by local regulations.



- If the electrolyte in the cells gets on your skin, wash thoroughly with soap and water. If it gets into your eyes, rinse thoroughly with water and SEEK IMMEDIATE MEDICAL ATTENTION.

11. Maintenance

Device environment

This device is recommended to be used in a clean, dry and shock free environment with a temperature of 5°-40°C and a maximum relative humidity of 85 % (non condensing). Use a dehumidifier if needed.

To think about when and after using the device



- Never mishandle or impose unnecessary force on the system.
- Never attempt to service the system yourself.

Electrical safety precautions



- Before plugging in the power supply, make sure that the supplying voltage of your region matches with the operation voltage of the equipment and that the lamp switch is in off-position.
- Users should observe all safety regulations of the region.
- The equipment has acquired the CE safety label. However, users do have full responsibility to use this equipment safely.

If you need to send the system to Optika for maintenance, please use the original packaging.

12. Troubleshooting

Review the information in the table below to troubleshoot operating problems.

PROBLEM	CAUSE	SOLUTION
The LED light does not operate	Battery is uncharged	Recharge battery to full charge

Equipment disposal

Art.13 Dlsg 25 July 2005 N°151. "According to directives 2002/95/EC, 2002/96/EC and 2003/108/EC relating to the reduction in the use of hazardous substances in electrical and electronic equipment and waste disposal."



The basket symbol on equipment or on its box indicates that the product at the end of its useful life should be collected separately from other waste. The separate collection of this equipment at the end of its lifetime is organized and managed by the producer. The user will have to contact the manufacturer and follow the rules that he adopted for end-of-life equipment collection. The collection of the equipment for recycling, treatment and environmentally compatible disposal, helps to prevent possible adverse effects on the environment and health and promotes reuse and/or recycling of materials of the equipment. Improper disposal of the product involves the application of administrative penalties as provided by the laws in force.

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