Instruction for Use

Lighting Module
Model: VBL-100, VBL-200, VBL-300

Please be sure to read this manual carefully before using the instrument and keep it handy for ready reference .

Features

The VBL-100 lighting module provides two light sources: white light and infrared light. When used, the specific light source will evenly illuminate the subject, thereby improving the image quality. The light source switching and white light brightness adjustment can be controlled through the VisuDoc app.

Product Parameters

light source	White light x1, infrared light x2
Control method	Bluetooth
power supply	3.7V/ 320 mAh polymer lithium battery
Working hours	≥ 4 hours
Charging time	2 hours
Charging power supply	USB Type-C power cable Input voltage: DC 5V 1A
Product size	43.2mm x 61.1mm x 50.7mm (L/W/H)
Product weight	41.4 g (including batteries)
Work Environment	Temperature: +10℃ ~ +40℃ Relative humidity: 30%~75% Air pressure: 700hPa ~ 1060hPa
Warehousing requirements	Temperature: -20℃ ~ +60℃ Relative humidity: 10%~90% Air pressure: 700hPa ~ 1060hPa
Transportation requirements	Temperature: -20℃ ~ +60℃ Relative humidity: 10%~90% Air pressure: 700hPa ~ 1060hPa

Labels and logos

Item	Symbol	Description
1		Manufacturer
2		M anufacturing date and country of m anufacturing
3		Refer to instruction manual/booklet
4	CE	CE sign
5	SN	Serial number
6	#	Model number
7	EC REP	Authorized Representative in the European Community

I.   Packing List

Serial number	name	quantity
1	Background light source module host	1pc
2	USB Type-C charging cable	1pc
3	Back clip silicone pad	1pc

II.   Features

The lighting module provides soft and uniform background lighting, improving the image quality when taking photos. It is an auxiliary lighting component specially designed to provide visual contrast and image clarity.

III.   Product Structure

- Light source area: equipped with one tunable white light LED and two infrared LEDs for different image acquisition;

- Back clip buckle : used to fix on the small mirror arm of the slit lamp, equipped with silicone pad to enhance stability and prevent scratches;

- Power switch: used to turn the device on or off;

- USB Type-C charging port: used for device charging;

- Status indicator: displays the current charging status;
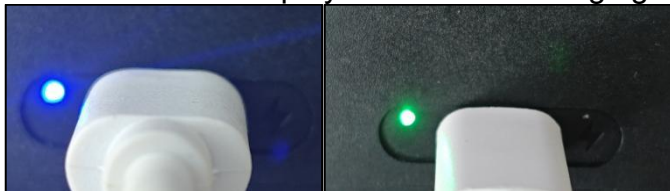
IV.   Product Installation

一、Preparation and precautions before installation:
- Make sure your device is turned off and has sufficient battery power.

- Prepare the slit lamp equipment and ensure that the slit lamp arm is clean and free of debris.

- Please be careful during installation to avoid touching the slit lamp lens to prevent fingerprints or scratches .

二、Clamping position:

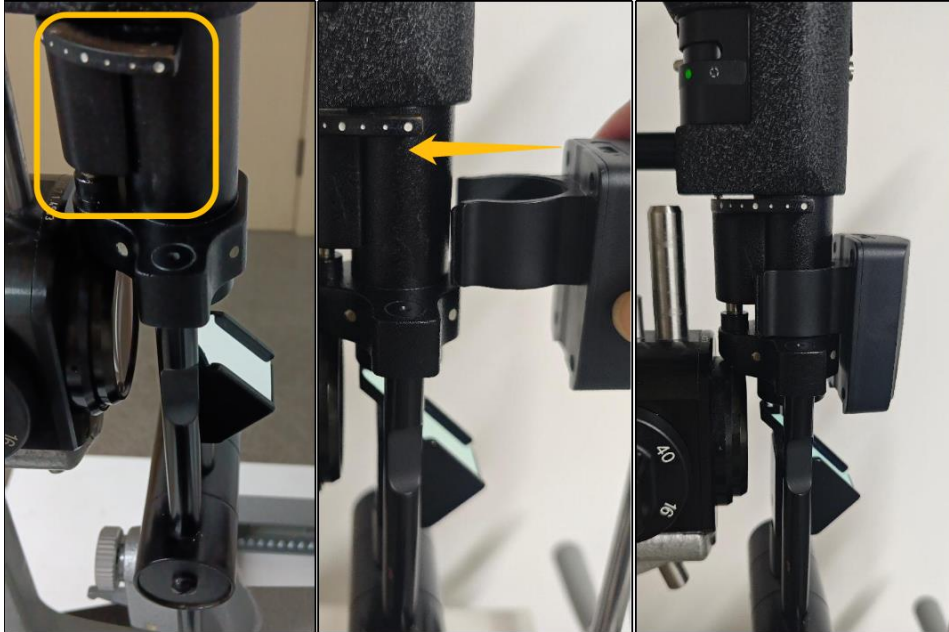- Place the back clip buckle over the lens of the small mirror arm of the slit lamp so that the back clip buckle firmly grasps the small mirror arm.

- of the background light source module should be vertically facing the center of the slit lamp lens, and the light should be directed from above. The lens is illuminated to ensure optimal lighting effects.


三、Fixed checks:
- The background light source module should be installed firmly without shaking or tilting
- The white light should be perpendicular to the lens and the direction of illumination should be towards the center of the lens.
- The back clip buckle has moderate pressure and the slit lamp lens is not touched and becomes dirty .

V. Product Operation

一、Device connection:

➢ Turn on the Bluetooth and backlight modules on your phone, and open VisuDoc .
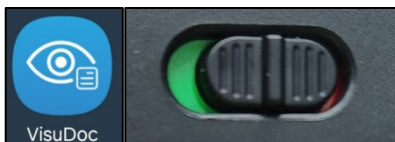
➢ entering the VisuDoc login interface, click the light source icon in the lower right corner to enter the LiteVue Control interface. After it automatically recognizes the device, the device number will be displayed. No manual pairing is required. Just click the corresponding device number to complete the connection.
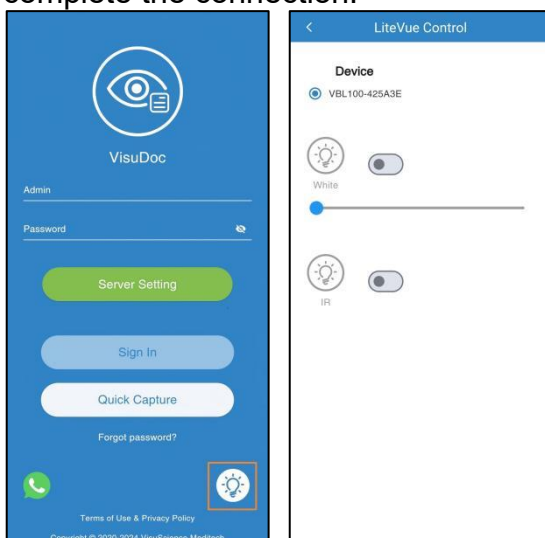
二、Select lighting mode: Select white light or infrared light mode in the app . (White mode and IR mode cannot be turned on at the same time.)

➢ White light mode: brightness adjustable (0~100% stepless adjustment);

➢ Infrared mode: Fixed infrared light output, used for specific image acquisition scenarios.
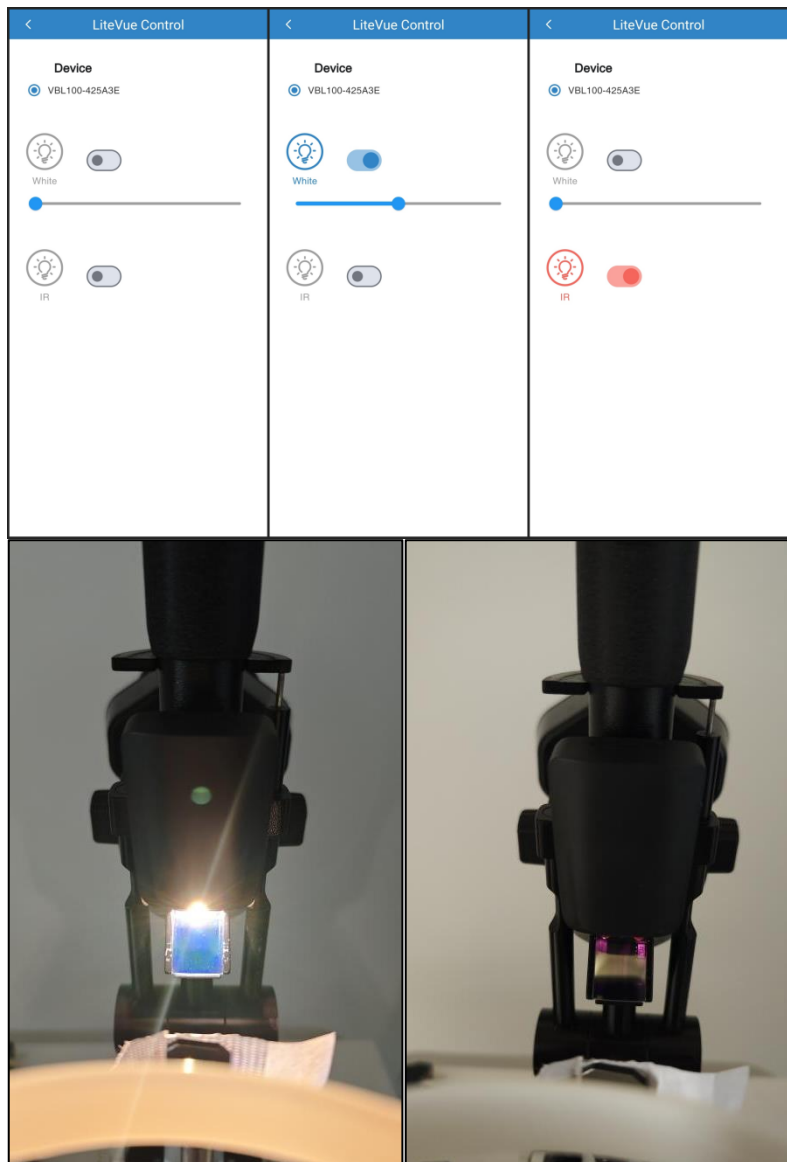
三、Precautions for use

➢ Do not block the light source's emitting surface;
➢ All control and adjustment are done through the app. The device itself does not support brightness adjustment or mode switching.
➢ If the device is inactive for 20 minutes, it will automatically enter sleep mode and can be reactivated through the App.

VI.   Product charging

一、Battery Introduction:

This product has a built-in 3.7V/320mAh polymer lithium battery, which can work continuously for ≥4 hours when fully charged .

When the battery is low, the App will pop up a low-battery reminder; even when the reminder pops up, you can still use it for about 30 minutes before it automatically shuts down.
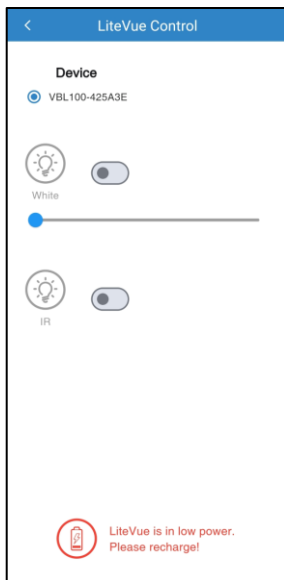
二、 Charging operation:

Use the included USB Type-C charging cable to connect the device to a 5V/1A power adapter;

When charging, the blue indicator light is always on, and the green indicator light turns on when fully charged;

The complete charging process takes about 2 hours.

三、 ⚠Charging precautions:

➢ Please use the charging cable provided by the original manufacturer;

➢ Please select a 5V1A output for the adapter. Too high a power will affect the battery life.

➢ It is recommended to charge as soon as possible after the low battery indicator appears to extend the battery life;

➢ Do not charge in high temperature, high humidity or strong magnetic environment;

➢ If the device is not used for a long time, please charge it at least once every three months to prevent the battery from over-discharging.

VII. Product maintenance and cleaning

1. Do not place any containers filled with liquids near the device.

2. When the device is not in use, please turn off the power.

3. If the device is not used for more than one month, please fully charge the device and charge it every three months to ensure the battery is in optimal condition.

4. Under good maintenance conditions, the service life of the equipment is 3 years.

5. Users may only clean the surface of the device according to the following instructions:

a). Please use a soft cloth to clean the device surface other than the lens protective cover.

b). When cleaning, avoid labels and symbols on the device.

VIII. troubleshooting

Serial number	Fault	Solution
1	The app cannot recognize the device	Bluetooth is not turned on/the device is not turned on. Check the device power status and confirm that the phone's Bluetooth is turned on. Restart the app
2	The module back clip is not stable	Improper installation position or the back clip buckle is not tightened Adjust the clamping position to ensure that the back clip buckle is tightly attached to the small mirror arm
3	The light source does not turn on	If the battery is exhausted or the device is in sleep mode, recharge it and restart it, or wake it up through the app.
4	White light brightness cannot be adjusted	➤ The app is not connected or the operation is unresponsive ➤ Check the Bluetooth connection and re-enter the APP ➤ Check if there is a mobile phone connected to this device
5	No response when charging	➤ The interface is in poor contact or the adapter is abnormal. ➤ Check whether the interface is plugged in. ➤ Replace the original charging cable ➤ Use a 5V/1A adapter

IX. Maintenance Term

VisuScience Meditech Co., Ltd. provide one year warranty to the device upon installation of the device.

X. Disclaim

1. VisuScience Meditech Co., Ltd. will not hold responsibility for damage caused by fire, earth quake, their party behavior or other abuse by the user.

2. VisuScience Meditech Co., Ltd. will not hold responsibility if the device is not able to be used because of the company loss or close down.

3. VisuScience Meditech Co., Ltd. will not hold responsibility for the operations conducted by the user that is not mentioned in this user manual.

4. VisuScience Meditech Co., Ltd. will hold no responsibility for the diagnosis given by the doctors.

FCC Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC RF Exposure Warning Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment can be used in portable exposure conditions.

VisuScience

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Subject to change in design or specifications without advance notice

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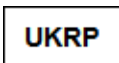Tel/Fax: +86 510-85757880 | Email: info@visuscience.com

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