



Instruction for Use

Meibomian Gland Imaging Camera

Model: VMC-100

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



Thanks for purchasing MeiboVue Meibomian Gland Imaging Camera MeiboVue (hereafter named “MeiboVue”) manufactured by VisuScience Meditech Co., Ltd. (hereafter named “VisuScience”)

MeiboVue is used in photo-documentation for meibomian glands imaging. It helps to track the progression of meibomian glands dysfunction pathology.

Product Features:

1. It can quickly capture clear meibomian glands images.
2. It can be attached on smartphones or put on the slit lamp to capture images. It is very compact and convenient which can be carried away for outdoor examination or in bed patient examination.
3. The corresponding image management application VisuDoc can capture and manage images on users' smartphones either locally or on cloud.

Note: VisuScience does not store any image and/or patient's information.

Product Specifications:

Sensor	5M megapixels (VMC-100) 10M megapixels (VMC-200)
Preview Resolution	1920 x 1080, 25fPs
Image Resolution	2592 x 1944
Image Format	JPEG
Data transfer	Wi-Fi
Power	3.7V/2000mAh, 7.4Wh, Li-ion battery
Working Time	4 hours
Charging Time	2 hours
Recharging	Type-C USB cable DC 5V 1A
Charging Power	AC 110~220V $\pm$ 10%, 50/60Hz
Product Dimension	94mm x 68mm x 89mm (L/W/H)
Product Weight	146g (with battery)
Working Environment	Temperature: +5°C ~ +40°C Relative Humidity: $\leq$ 90% Air Pressure: 860hPa ~ 1060hPa
Storage Environment	Temperature: +5°C ~ +40°C Relative Humidity: $\leq$ 90% Air Pressure: 860hPa ~ 1060hPa
Transportation Environment	Temperature: +5°C ~ +40°C Relative Humidity: $\leq$ 90% Air Pressure: 860hPa ~ 1060hPa



Label and Symbols

Item	Symbol	Description
1		Manufacturer
2		Manufacturing date
3		Refer to user manual
4		Medical device
5		CE sign
6		Serial number
7		Authorized Representative in the European Community
8	Rx only (for US)	USA Federal law restricts this device to sale by or on the order of a physician
9		WEEE WEEE mark Please deal with the waste disposal produced by the machine following relevant laws and regulations
10		B type application
11		Power On/Off

Meibomian Gland Imaging Camera  Model: VMC-100 Battery: 3.7V --- 2000mAh Input: 5V --- 1A   (01)06976015150020 2 3 0 1 0 0 1 6 (11)230116  (21)23010016      01-2023   VisuScience Meditech Co., Ltd. Room 718, No. 208 Guangyi Road, Wuxi, China www.visu-science.com info@visu-science.com   SUNGO Europe B.V. Fascinatio Boulevard 522, Unit 1.7, 2909VA Capelle aan den IJssel, The Netherlands Rx only (for US) MADE IN CHINA VMC100-8E3A50	Meibomian Gland Imaging Camera  Model: VMC-200 Battery: 3.7V --- 2000mAh Input: 5V --- 1A   (01)06976015150051 2 3 0 1 0 0 1 6 (11)230116  (21)23010016      01-2023   VisuScience Meditech Co., Ltd. Room 718, No. 208 Guangyi Road, Wuxi, China www.visu-science.com info@visu-science.com   SUNGO Europe B.V. Fascinatio Boulevard 522, Unit 1.7, 2909VA Capelle aan den IJssel, The Netherlands Rx only (for US) MADE IN CHINA VMC100-8E3A50
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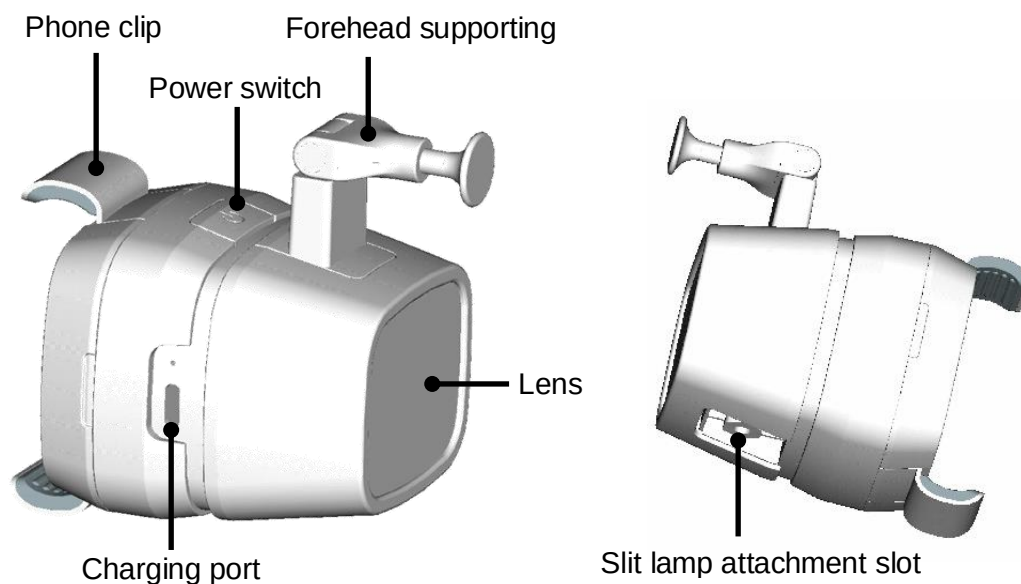
I. Packing List

No.	Spare Part Name	Quantity
1	Meibomian gland imaging camera	1pc
2	Power Adaptor	1pc
3	Type-C USB Cable	1pc
4	USB (VisuDoc Windows software)	1pc
5	User manual	1pc
6	Zipper bag	1pc
7	Slit lamp attachment	1pc (option)

II. Application

The MeiboVue is used to capture meibomian gland images. MeiboVue does not have diagnosis and measuring function.

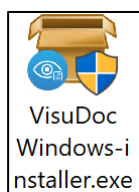
III. Product Structure

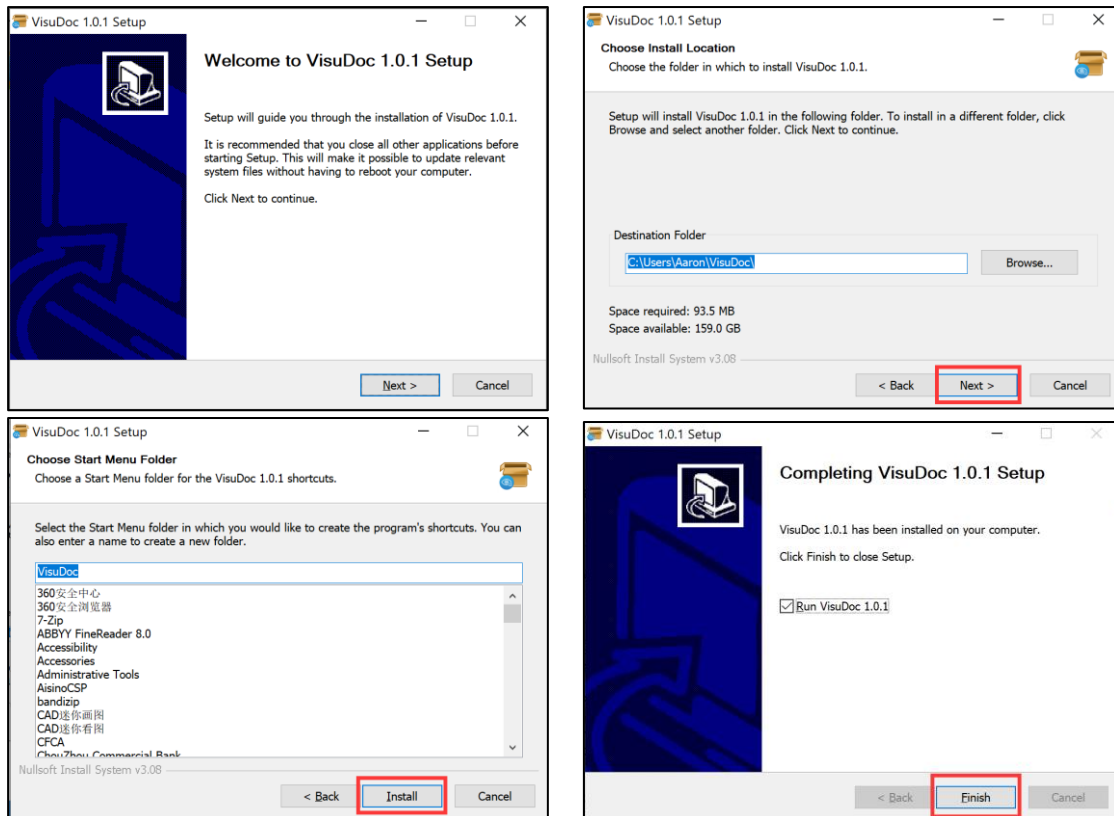


IV. Software Installation

1. Install VisuDoc Windows version

Please copy the installation software 'VisuDoc Windows-installer.exe' from the USB disk to PC with Windows 10 system. Double click to install.

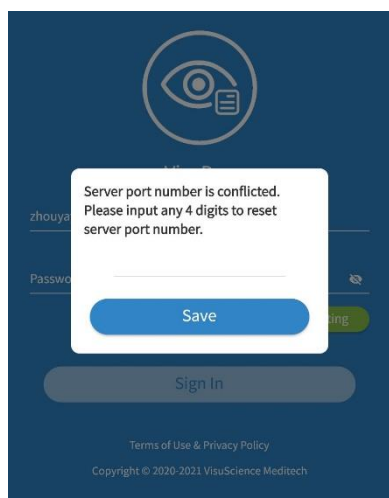




Click 'VisuDoc.exe' to run the software.



If the port number of VisuDoc has conflict with other software installed in this PC, please input any other 4 digits to reset port number.



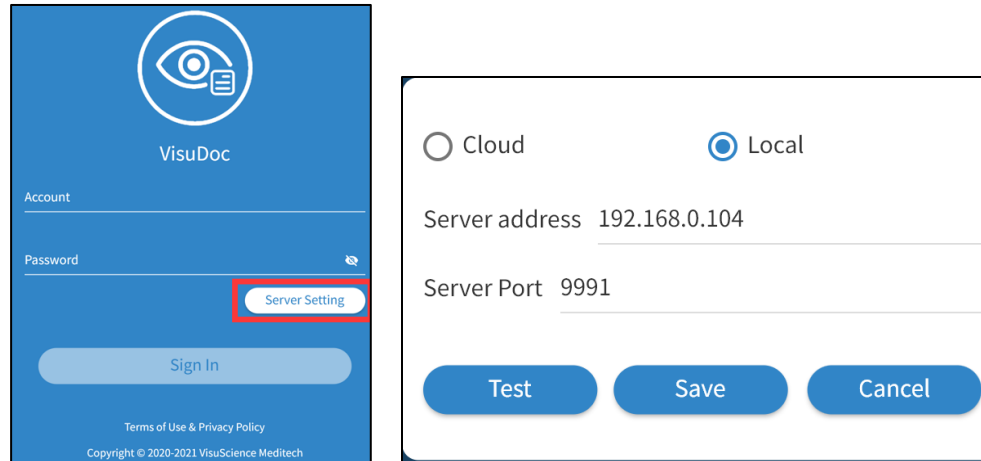
2. VisuDoc provides two data storage options: Local and Cloud. Please set the server according to the preferred storage option.



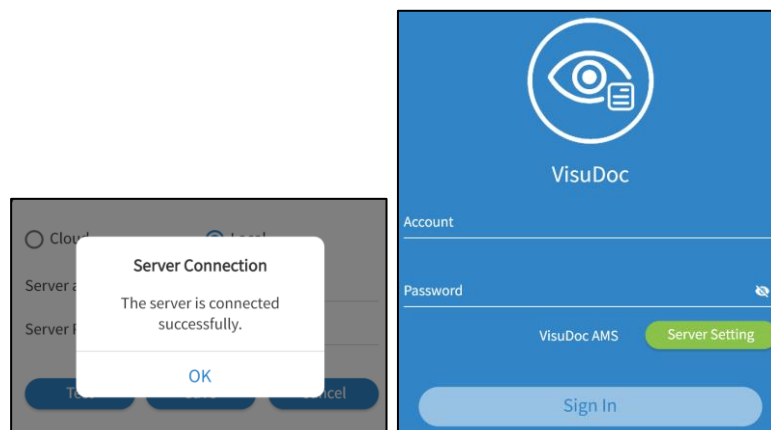
1) Local Storage

The image captured and patient information will be stored in the local PC.

Click 'server setting' and select 'Local'. Input server PC's IP address in LAN and the default port number is 9991.



Click 'Test' to see if the connection succeeds. If the connection succeeds, click 'Save' to save the setting. The 'Server Setting' button will be green when connection succeeds.



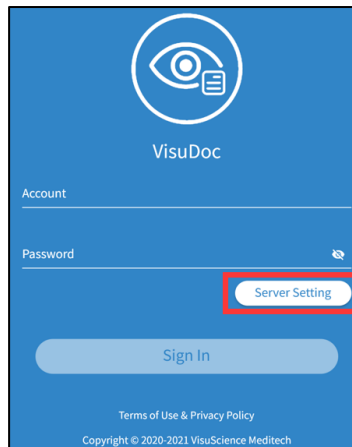
For any other PC installed VisuDoc Windows PC, as long as it put same IP address of the server PC, it can visit the image and patient data on the sever.

2) Cloud Storage

To store the images and patient information on cloud, please contact VisuScience to operate cloud implementation for you.

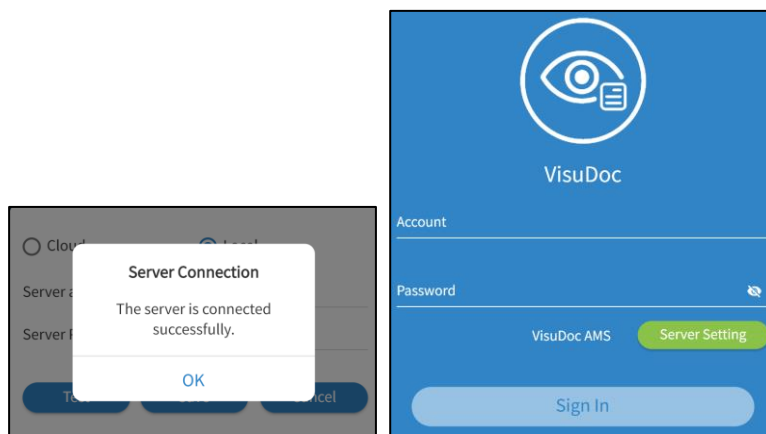
Click 'server setting' and select 'Cloud', input IP address and port number.



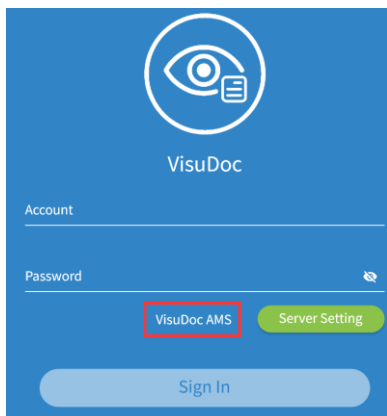


 This is a modal dialog box titled 'Server Setting'. It has two radio buttons at the top: 'Cloud' (selected) and 'Local'. Below are two text input fields labeled 'Server address' and 'Server Port'. At the bottom are three buttons: 'Test', 'Save', and 'Cancel'.

Click 'Test' to see if the connection succeeds. If the connection succeeds, click 'Save' to save the setting. The 'Server Setting' button will be green when connection succeeds.



3. Click 'VisuDoc AMS' to open VisuDoc account management system.



4. Input 'Admin' in username and the default password is 'visu20211111'. Click 'Login'.



VisuDoc Account Management System A²

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Login

5. Click 'User' tab, click 'Create' button to enter new user creation interface.

VisuScience

Dashboard / Users

- Users 1
- Patients
- Exams
- Report Setting
- Operation Logs
- Change Password

Create 2

User ID	Account	First Name	Last Name	Is Admin	Join Time	Operation
2	zhouyaya	zhou	yaya	No	2022-01-11 18:40:41 CST	Update Password Remove
1	Admin	Super	User	Yes	2021-12-31 14:46:46 CST	Update Password Remove

Total 2 1 < >

6. Input user name and password. This account information will be used as login info for VisuDoc App.

'Is Admin': if it is selected, the user account will have access to login VisuDoc AMS.

Account

First Name

Last Name

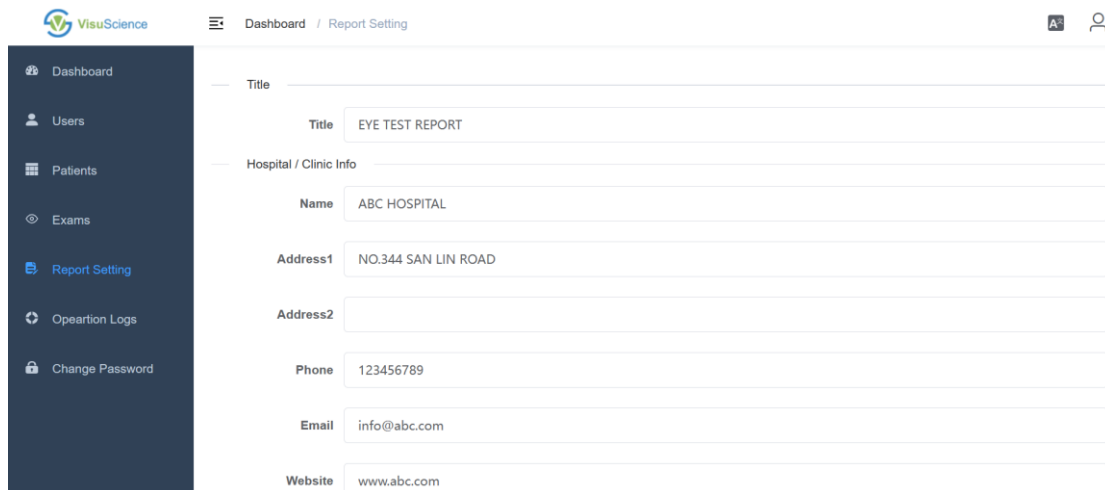
Password

Is Admin
☐

Submit

7. Click 'Report Setting' to input hospital information for PDF report template.





VisuScience Dashboard / Report Setting

Title

Title: EYE TEST REPORT

Hospital / Clinic Info

Name: ABC HOSPITAL

Address1: NO.344 SAN LIN ROAD

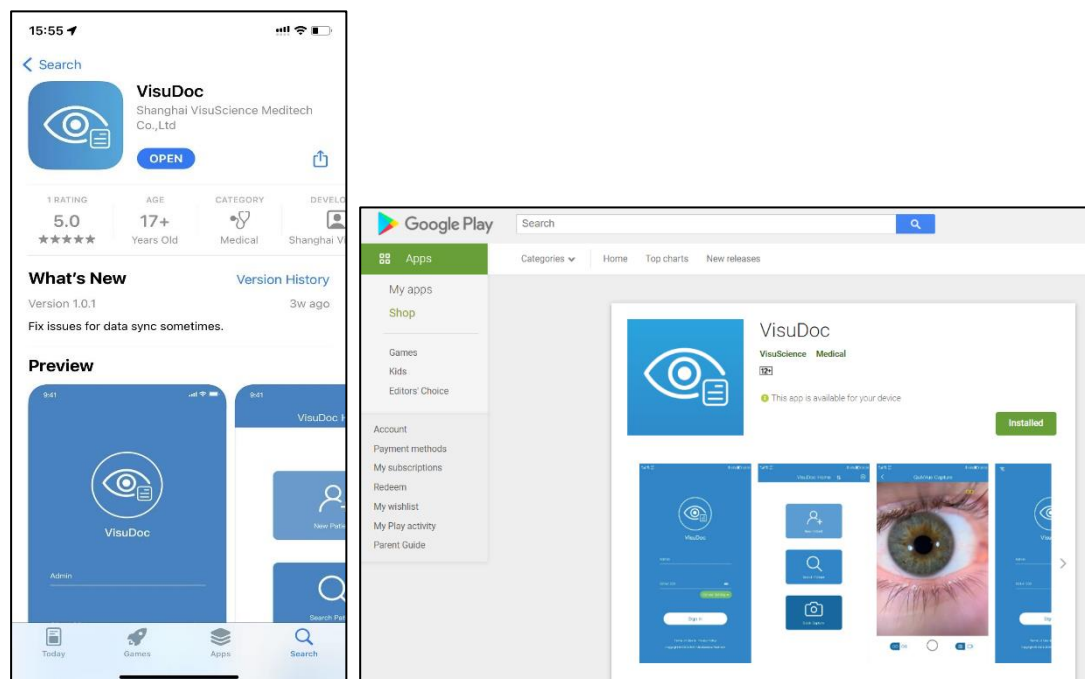
Address2:

Phone: 123456789

Email: info@abc.com

Website: www.abc.com

8. Prepare a smartphone to work with MeiboVue. Download VisuDoc app from Google Play Store or App Store and install.



9. Open VisuDoc app in the smartphone and click 'Server setting'. Select 'Cloud' or 'Local'. Input the same address and port number as you did in PC server setting. Then click 'test' and 'save'. After successful connection, input the user account name and password created in VisuDoc AMS.

V. Device Installation

1. Take out MeiboVue device and tear off the protection film on the lens.
2. If you use slit lamp attachment (optional), open the dust cover on bottom of the device and install the attachment to the slot. Fasten the screw in clockwise. If you want to take off the slit lamp attachment, please loosen the screw in counterclockwise.





Then, install the slit lamp attachment to the slit lamp's base. Fasten the screw in counterclockwise to lock it firmly on the slit lamp's base.



 Warning:

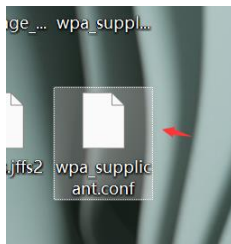
The forehead supporting is only applied when user operates MeiboVue by handheld. If the MeiboVue is installed on slit lamp's base, please flip the forehead supporting to avoid causing damage to patient's eyes.



3. Please put smartphone onto the phone clip on MeiboVue. Please make sure the smartphone is firmly fixed by the clip to avoid falling down.

VI. Product Operation

1. Long press the power switch for 4 seconds and the blue light indicator will be on.
2. Connect the device with a PC through a USB cable.
3. Open the folder on the PC and open following file wpa_supplicant.conf with txt software.



4. Input the wifi spot name and password in the file like below:

```
文件  编辑  查看

ctrl_interface=/app/bin/
update_config=1
network={
    ssid="ANP_PVT_System-(01)(B)"
    psk="11235813"
    key_mgmt=WPA-PSK
}
```

5. Switch off the device and disconnect with PC.
6. Switch on the device and the device will be in connection with wifi spot.

VII. Product Charging

MeiboVue can be used continuously for 4 hours after fully charged. When the power is less than 20%, the power switch light indicator will flick to remind user to recharge the device. When the power is less than 20%, the user can still use the device for 10 minutes and after 10 minutes, the device will be powered off automatically.

To recharge the device, insert the type-C cable into the Type-C port on device and then insert USB port on the plug. When the device is being recharged, the blue light will be on and when the recharging is finished, the green light will be on. It takes 2 hours for the device to finish recharging from zero power.



Caution:

- (1) To maintain the lifespan of the battery, when the device shows low voltage reminder, please recharge it promptly.



(2) Please use the power adaptor and Type-C USB cable provided by the manufacturer to recharge MeiboVue.

VIII. Product Maintenance and Cleaning

1. Please make sure the camera is firmly attached to smartphone when using the device.
2. Please don't put any container filled with fluid near the device.
3. Please power off when the device is not in use and put it into the packing box.
4. Please take out the battery if the device will not be used for over one month.
5. The device life span is 3years in good maintenance condition.
6. Please don't touch the lens protect cover with fingers. The dirt on lens protection cover will affect the image quality captured by the device.
7. User can only clean the surface of the device by following instructions below:
 - 1). Lens Protection Cover
 - a). Please blow the dust on the surface.
 - b). Use clean and soft cloth to dip in glass detergent and clean it from the center to the peripheral in circle way. Please make sure not scratch the lens cover during the cleaning.
 - c). After operating the cleaning method mentioned above, if there is still dirty on the surface, please don't continue cleaning the lens cover to avoid damage to the surface.
 - 2). Other surface on the device
 - a). Please use the soft cloth to clean device surface other than the lens protection cover.
 - b). Please avoid the label and symbol on the device during cleaning.

IX. Problem Shooting

No.	Problem	Solution
1	Cannot switch on device	1. Long press power switch for 4seconds 2. The device is in low power. Please recharge the device.
2	The smartphone cannot find MeiboVue Wi-Fi spot	1. Please refresh the Wi-Fi list after the device is switched on for 20 seconds. 2. The device is in low power. Please recharge the device.



X. Maintenance Term

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

XI. 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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

CE Statement

Herby, VISUSCIENCE MEDITECH CO., LTD. declares that this Meibomian Gland Imaging Camera, VMC-100 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

Use the Meibomian Gland Imaging Camera in the environment with the temperature between 5°C and 40°C

Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

The product shall only be connected to a USB interface of version USB2.0

5150-5250 indoor use only.

Adapter shall be installed near the equipment and shall be easily accessible.

The plug considered as disconnect device of adapter

Adapter Model: UES06WNCPU-050100SPA

Input: AC 100-240V 50/60Hz 0.2A Output: DC 5.0V, 1.0A

Operating frequency: 5150MHz-5350MHz, 5470MHz-5725MHz,
5725MHz~5875MHz

Max output power: 5G WIFI: 0.0366W

Manufacturer: VISUSCIENCE MEDITECH CO., LTD.

Address: Room 718-720, No. 208 Guangyi Road, Wuxi, Jiangsu Province 214016, China

E-mail: info@visuscience.com

Importer: SUNGO Europe B.V.

Address : Fascinatio Boulevard 522, Unit 1.7, 2909VA Capelle aan den IJssel, The Netherlands



DECLARATION OF CONFORMITY

I hereby declare that the product

Product:

Product Name: Meibomian Gland Imaging Camera
Model: VMC-100, VMC-200, VMC-300, VMC-500
Brand Name: VisuScience
Hardware Version: 1.0 20220110
Software Version: 1.0.4 20220625

Accessories:

Adapter Information:

Model: UES06WNCPU-050100SPA
Input: AC 100-240V, 50/60Hz, 0.2A
Output: DC 5.0V, 1.0A, 5.0W
Manufacturer: Dongguan Shilong Fuhua Electronic Co., Ltd

USB Cable Information:

Model: VMC.100.9002.00
Length: 1.0m
Manufacturer: SHENZHEN ZHENGHUAXING TECHNOLOGY CO., LTD.

Battery information:

Model: VB-2000
Specification: 3.7V, 2000mAh, 7.4Wh
Manufacturer: Dongguan Aixin Electronic Technology Co., Ltd.

(Name of product, type or model, batch or serial number)

satisfies all the technical regulations applicable to the product within the scope of Council Directives 2014/53/EU, 2014/35/EU and 2014/30/EU:and declare that the same application has not been lodged with any other notified body.

EN IEC 62368-1:2020+A11:2020

EN IEC 62311:2020

ETSI EN 301 489-17 V3.2.4 (2020-09)

ETSI EN 301 489-3 V2.3.2 (2023-01)

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 893 V2.1.1 (2017-05)

ETSI EN 300 440 V2.2.1 (2018-07)

(Title(s) of regulations, standards, etc.)

All essential radio test suites have been carried out.

NOTIFIED BODY: MiCOM Labs Inc

– **Address:**

575 Boulder Court,
Pleasanton, California 94566
USA
Identification Number: 2280

MANUFACTURER or AUTHORISED REPRESENTATIVE:

– **Address:**

VISUSCIENCE MEDITECH CO., LTD.
Room 718-720, No. 208 Guangyi Road, Wuxi, Jiangsu Province 214016, China

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorised representative.

Point of contact:

YINGMING HONG, +8613524443833/N/A
(Name, telephone and fax number)

2023-02-10
(Place, date of issue)

Yingming Hong

(Signature)

YINGMING HONG, MANAGING
DIRECTOR
(Name and title in block letters)



Subject to change in design or specifications without advance notice

Version: 1.0

Issue date: 20221223



VisuScience Meditech Co., Ltd.

Add: Room 718, No. 208 Guangyi Road, Wuxi, China

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

Website: www.visuscience.com



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The Netherlands

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