

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 guickly 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.

| roduct Specifications: | |
|-------------------------------|----------------------------|
| Sensor 5N | megapixels |
| Preview Resolution 192 | 20 x 1080, 25fPs |
| Image Resolution 259 | 92 x 1944 |
| Image Format JP | EG |
| Data transfer Wi | -Fi |
| Power 3.7 | 7V/2000mAh, 7.4Wh, Li-ion |
| bat | tery |
| Working Time 4 h | ours |
| Charging Time 2 h | ours |
| Recharging Ty | pe-C USB cable DC 5V 1A |
| Charging Power AC | 5110~220V ±10%, 50/60Hz |
| Product Dimension 94 | mm x 68mm x 89mm (L/W/H) |
| Product Weight 14 | 6g (with battery) |
| Working Environment Te | mperature∶ +5°C ~ +40°C |
| Re | lative Humidity∶ ≤90% |
| Air | Pressure: 860hPa ~ 1060hPa |
| Storage Environment Te | mperature∶ +5°C ~ +40°C |
| Re | lative Humidity∶ ≤90% |
| Air | Pressure: 860hPa ~ 1060hPa |
| Transportation Environment Te | mperature: +5°C ~ +40°C |
| Re | lative Humidity∶ ≤90% |
| Air | Pressure: 860hPa ~ 1060hPa |

Ρ



Label and Symbols

| Item | Symbol | Description |
|------|------------------|---|
| 1 | | Manufacturer |
| 2 | | Manufacturing date |
| 3 | Ĩ | Refer to user manual |
| 4 | MD | Medical device |
| 5 | CE | CE sign |
| 6 | SN | Serial number |
| 7 | EC REP | 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 | С U | Power On/Off |



Content

| I. | Packing List | 1 |
|-------|----------------------------------|----|
| II. | Application | 1 |
| III. | Product Structure | 1 |
| IV. | Software Installation | 1 |
| V. | Device Installation | 6 |
| VI. | Product Operation | 7 |
| VII. | Product Charging | 8 |
| VIII. | Product Maintenance and Cleaning | 9 |
| IX. | Problem Shooting | 10 |
| Х. | Maintenance Term | 10 |
| XI. | Disclaim | 10 |
| FCC | C Statement | 11 |
| CE | Statement | 12 |

I. Packing List

| No. | Part Name | Quantity |
|-----|--------------------------------|----------|
| 1 | Meibomian Gland Imaging Camera | 1pc |
| 2 | Power Adaptor | 1pc |
| 3 | Type-C USB Recharging Cable | 1pc |
| 4 | Software USB Disc | 1pc |
| 5 | Instruction for Use | 1pc |
| 6 | Carry Box | 1pc |
| 7 | Slit Lamp Attachment | 1pc |

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.



| 🗃 VisuDoc 1.0.1 Setup | – 🗆 🗙 | 🥃 VisuDoc 1.0.1 Setup | – 🗆 X |
|---|---|---|--|
| | Welcome to VisuDoc 1.0.1 Setup | Choose Install Location Choose the folder in which to i | install VisuDoc 1.0.1. |
| | Setup will guide you through the installation of VisuDoc 1.0.1. It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer. Click Next to continue. | Setup will install VisuDoc 1.0.1 Browse and select another fold | in the following folder. To install in a different folder, click der. Click Next to continue. |
| 凤 | | Destination Folder C:\Users\Aaron\VisuDoc\ | Browse |
| | | Space required: 93.5 MB Space available: 159.0 GB Nullsoft Install System v3.08 | |
| | Next > Cancel | | < Back Next > Cancel |
| 👼 VisuDoc 1.0.1 Setup | - 🗆 X | 🕽 VisuDoc 1.0.1 Setup | |
| Choose Start Menu Folder Choose a Start Menu folder for | r the VisuDoc 1.0.1 shortcuts. | | Completing VisuDoc 1.0.1 Setup |
| Select the Start Menu folder in also enter a name to create a | n which you would like to create the program's shortcuts. You can new folder. | | VisuDoc 1.0.1 has been installed on your computer. Click Finish to close Setup. |
| 10日1026 360安全中心 360安全中心 7-26 ABSYV FineReader 8.0 Accessionies Administrative Tools Administrative Tools Administrative Tools Administrative CADE称重開 CADE称重開 CADE称重用 CFCA CFCA CFCA CFCA CFCA CFCA CFCA CFC | * * | | Run VisuDoc 1.0.1 |
| Nullsoft Install System v3.08 | < Back Install Cancel | | < Back Einish Cancel |

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: Cloud and Local. Please set the server according to the preferred storage option.

1) Cloud Storage

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

2) Local Storage

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

Click 'Server Setting'

| | VisuDoc |) |
|----------|---------------------------|----------------------|
| Account | | |
| Password | | <u>م</u> |
| | | Server Setting |
| | Sign In | |
| Copyriį | Terms of Use & Privacy Po | olicy ce Meditech |

Select 'Local'. Input server PC's IP address in LAN and the default port number is '9991'. Click 'Connect' to connect local server. If the connection succeeds, the 'Server Setting' button will be green. If the connection failed, click 'Log' to download a log in the download file.

| O Cloud | Local | | | | |
|------------------|----------|-----|----------|-------------|----------------|
| Server address | | | Account | VisuDoc | |
| Server Port 9991 | | F | Password | | \$ |
| | | | | VisuDoc AMS | Server Setting |
| Connect | Log Cano | cel | | Sign In | |

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.

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

| | VisuDoc | |
|----------|----------------------------|---|
| Account | | |
| Password | | 8 |
| | VisuDoc AMS Server Setting | g |
| | Sign In | |

4. Input 'Admin' in username and the default password is '12345678'. Click 'Login'.

| | VisuDoc Account Management System | A× |
|---|--------------------------------------|----|
| • | Admin | |
| ô | visu20211111 | |
| | Login | |

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

| | VisuScience | Dashboar | rd / Users | | | | | |
|---------------|----------------|-----------|-------------|------------|-----------|----------|-------------------------|------------------------|
| ø3e Da | ashboard | | 2 Create | | | | | |
| 💄 Us | sers 1 | User ID | Account | First Name | Last Name | Is Admin | Join Time | Operation |
| Pa | atients | 2 | zhouyaya | zhou | yaya | No | 2022-01-11 18:40:41 CST | Update Password Remove |
| ⊚ Exa | kams | 1 | Admin | Super | User | Yes | 2021-12-31 14:46:46 CST | Update Password Remove |
| 🛢 Re | eport Setting | Total 2 < | 1 > | | | | | |
| Op | peartion Logs | | | | | | | |
| 🔒 Ch | nange Password | | | | | | | |
| | | | | | | | | |

6. Input user name and password, then click "Submit". 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 | User1 |
|------------|--------|
| First Name | Sara |
| Last Name | Zhou |
| Password | |
| Is Admin | |
| | Submit |

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

| 4 | VisuScience | E Dashboard / Report Setting | | | | |
|-------------|-----------------|------------------------------|---------------------|--|---|--|
| £ 80 | Dashboard | Title | | | | |
| • | Users | Title | EYE TEST REPORT | | | |
| | Patients | | 0 | | _ | |
| ۲ | Exams | Name | ABC HOSPITAL | | | |
| 8 | | Address1 | NO.344 SAN LIN ROAD | | | |
| 0 | Opeartion Logs | Address2 | | | | |
| ô | Change Password | Phone | 123456789 | | | |
| | | Email | info@abc.com | | | |
| | | Website | www.abc.com | | | |

8. Prepare a smartphone (iOS 11 or higher version, Android 5.0 or higher version) to work with MeiboVue. Download VisuDoc app from Google Play Store or App Store and install.

| 15:55 4 | | | nii 🗢 📭 |
|------------------|----------------------------------|--------------------|--------------|
| < Search | | | |
| | VisuDoo Shanghai V Co.,Ltd | C 'isuScience M | editech |
| | OPEN | | Û |
| 1 RATING 5.0 | AGE 17+ Vears Old | | DEVELO |
| | | in curcur | onungitur vi |
| Version 1.0.1 | W | Versio | 3w ago |
| Fix issues for d | lata sync someti | mes. | 011 190 |
| Preview | | | |
| 9:41 | t | * = 941 | |
| | | - | VisuDoc F |
| 6 | | | |
| | <u>e)</u> | | 2 |
| | /isuDoc | | New Pate |
| | | | |
| Admin | | - | Q |
| | - | | Search Pat |
| Today | Games | Apps | Search |

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 'Connect'. 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.





3. 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.



Marning:

1. 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.



2. 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. Open 'Setting' in the smartphone to search Wi-Fi spot started with "VMC100-". Input password 'VMC1001234' to connect the MeiboVue.

3. After login VisuDoc account, tap 'New Patient' and input patient information and select 'MeiboVue' to enter image preview interface or select MeiboVue button to enter quickly capture interface.



4. Invert the eyelid to expose the meibomian glands, focus MeiboVue onto the meibomian glands and move forth and backward to find the clearest image (the working distance is around 3.5cm) and then press capture button to capture image.



VII. Product Charging

MeiboVue can be used continuously for 4hours 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 10minutes and after 10minutes, the device will be powered off automatically.

To recharge the device, insert the type-C cable into the Type-C charging port on device and then insert USB port on the power adaptor. 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 2hours 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 3 years 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 | Long press power switch for 4seconds The device is in low power. Please recharge the device. | | | | |
| 2 | The smartphone cannot find MeiboVue Wi-Fi spot | Please refresh the Wi-Fi list after the device is switched on for 20 seconds. 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.

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 $5^\circ\!C$ and $40^\circ\!C$

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

SAR: The device complies with RF specifications when the device used at 5mm from your body.

The SAR value for this device when tested 0.57 W/Kg (10g) for Head; 1.73 W/Kg (10g) for Body; 0.37 W/Kg (10g) for Front-to-face; 3.64 W/Kg (10g) for Limbs.

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: 5.8g, Maximum efficiency: 11Mbps

Manufacturer: VisuScience Meditech Co., Ltd.

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

E-mail: info@visuscience.com



Subject to change in design or specifications without advance notice

Version: 1.1

Issue date: 20240801



VisuScience Meditech Co., Ltd.

Add: Room 501, 503 Ruiyun 5 No. 99 Furongzhongsan Rd, Wuxi, China Tel: +86 510-85757880 | Email: info@visuscience.com Website: www.visuscience.com



SUNGO Europe B.V.

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

© 2019-2024 VisuScience. All rights reserved.

CE