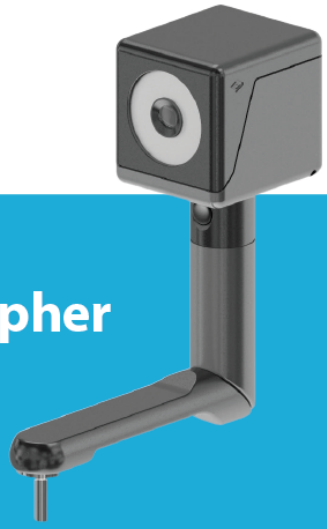
OPERATIONS MANUAL



Portable Meibographer

OPTASE® MX2

Contents

Introduction

Thank you for purchasing the MX2. This portable meibographer can be connected directly to Windows-based PCs. Compared to conventional ophthalmic cameras, the MX2 features portable cloud-based imaging that can provide a cost-effective solution to imaging the eye and surrounding area. It can be managed on any PC terminal that has the client software installed.

The simple installation procedures and cloud-based interface allow you to integrate it into your existing network easily. The camera features a simple portable imaging solution, allowing you to install and use it in any clinical setting. The cameras versatility allows you to adapt it to your clinic flow instead of adapting your clinic to the technology. In addition, with comprehensive applications supported, the MX2 is your best solution for high-resolution images.

Please note that the illustrations or setting values in this manual are intended as a reference only. The actual settings and values may depend on your system and network. If you are not sure about the respective information, please ask your network administrator or MIS staff for help.

The MX2 camera is not intended to be sterilized and does not require routine cleaning, disinfection or servicing.

Features and Benefits

Simplicity

The MX2 was designed with quality, clinical efficiency, and durability in mind. Composed of a durable brushed aluminum chassis, the MX2 is unobtrusive and fits perfectly in the flow of any clinic. Mounted on a slit lamp they can be placed in a centralized location as a centralized imaging station or placed in any examination room for easy integration. This design element has helped doctors adapt the technology to their clinic flow instead of the other way around.

Cloud-based Database

The MX2 software utilizes Amazon Web Services, a HIPPA compliant storage database providing doctors convenience, security and peace of mind. The advantages of cloud-based software systems include:

- Protection of data ensured by Amazon
- No licensing fees for multiple viewing stations and installation
- No concerns of lost data due to server malfunctions
- Automatic updates ensuring the latest software
- Easy download of data to into electronic medical records
- Multi-location offices can access data for patients anywhere

Image Enhancing Software

Image processing technology is available for enhancing your images. With the click of a button, images can be enhanced. Inversion lighting allows you to see a negative of the image to support visual review. The intelligent lighting features allow you to click on any area of the picture that you would like to see and enhances the surrounding light.

Unboxing

Unpack the box and check all the items carefully. In addition to this Operations Guide, be certain that you have:

- 1 - MX2 Unit
- 1 - Stand
- 1 - 10-ft. long USB Cable
- 1 - Cordless Mouse
- 1 - Allen Wrench

If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packing materials in case you need to ship the unit in the future.

Components

This section describes the externally visible features of the MX2.

Base Pin

The pin at the base of the MX2 is intended to sit in the slit lamp accessory mounting hole creating a platform for you to utilize the device.

Capture Button

The Capture Button sits below the camera and can be used to trigger an image capture.

Anterior Optics

The MX2 uses frosted plastic disc to diffuse the emitted LED Light. The lens hood houses an anti-reflective coated glass window which allows light to enter the lens.

Lighting

The MX2 uses high quality LEDs to aid the capture of images.

USB Port

The USB port is located at the base of the camera head which powers the device and provides a data connection to the PC.

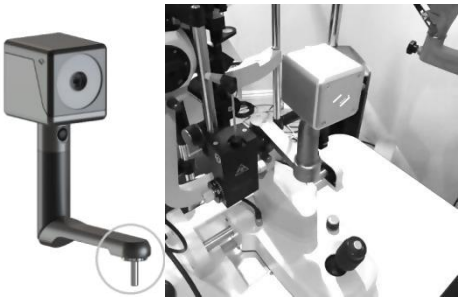
Attaching the Camera

Step 1

On your slit lamp, find the accessory mounting hole (note, sometimes there is a cover over the hole that needs to be removed).

Step 2

Insert the Base Pin into the slit lamp accessory mounting hole. Note, to detach the camera from the slit lamp - simply lift it out from the slit lamp accessory mounting hole.



Step 3

Connect one end of the USB Cable to the USB port on the camera. Fix the USB cable to the camera by gently screwing the set screw near the USB port using the provided Allen Wrench.

Step 5

Attach the other end of the USB cable directly into your computer.

Installing the Software

Step 1

Download the OPTASE® Medbase Software from here:
optase.com/mx2/medbase_installation

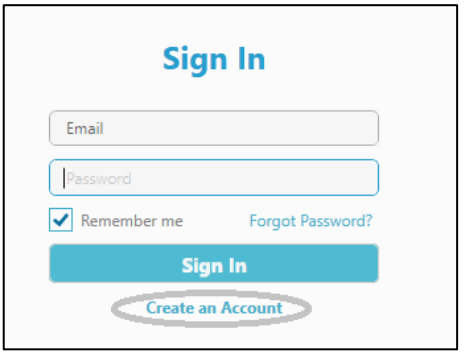
Step 2

Double-click on the installation icon and follow the setup wizard.

Creating an Account

Step 1

Open the application and select **Create an Account**



Step 2

Fill in the fields indicated with the details required and select **Create Account.** An email will be sent with a link to activate the account.

Step 3

Sign in to the OPTASE® Medbase software with the email and password you registered. This will ensure that the account will not be suspended.

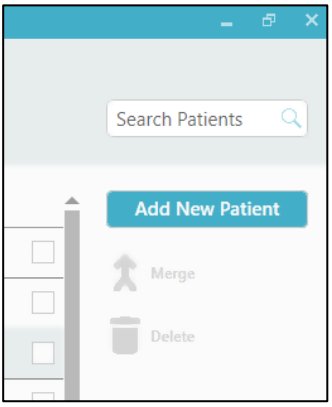
To recover your password, click **Forgot Password?**.

Operations

Image Capture

Step 1

Click **Add New Patient** on the right panel.



Step 2

Enter patient demographics information and select **Save Patient**.

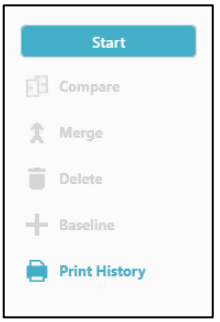
Image Capture (cont.)

Step 3

In the patient summary screen, select one of the session types on the left panel.

Step 4

Click **Start** on the right panel.



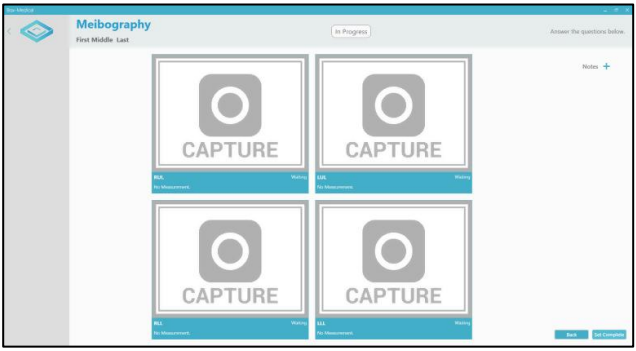
Step 5

Move slit lamp beam splitter/tower to 45/135° position - depending on hand dominance - Do not move beam splitter beyond the 45/135° position or the slit lamp can potentially topple. Attach the camera at 90° plane to the patient. Place the cordless mouse on the slit lamp table.

Image Capture (cont.)

Step 6

Initiate image capture process by selecting which eyelid you would like to take a picture of by clicking on the camera or capture icon.



Step 7

Move slit lamp back all the way towards you and position the patient behind slit lamp. Move slit lamp towards patient until eyelids are in good focus. Slit lamp does not have to be on, the focus is viewed on the computer monitor. The optimum distance for best clarity is approximately 150mm (6”) from eye to camera.

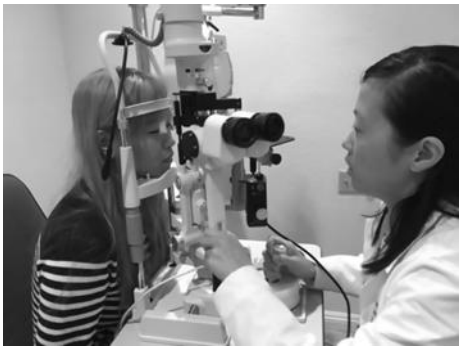
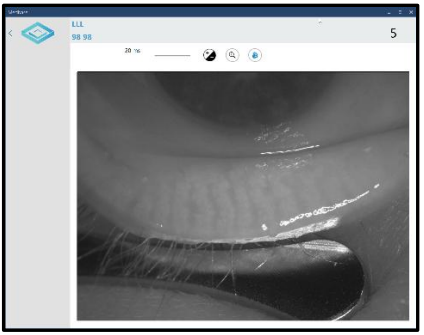


Image Capture (cont.)

Step 8

Evert the eyelid. Start image capture by pressing the capture button on the device or use the mouse to click on the live image of the eye. There will be a 3 second countdown as 4 images are captured.



Step 9

Click **Select** to save the preferred image or select **Edit** to enhance an image.

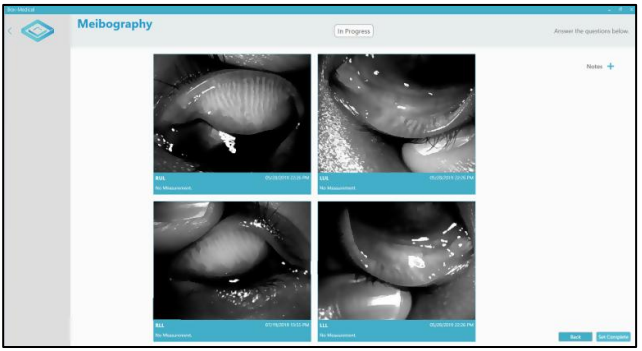
Step 10

Once all images required are captured select **Set Complete.**

Image Enhancement

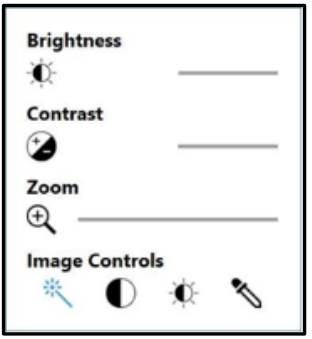
Step 1

Click on image you would like to enhance from the session screen.



Step 2

Once the image is selected there are several enhancement options available.



Enhancement Options

Contrast: Use contrast bar to adjust for better image capture

Enhance: Instant border enhancement of glands

Invert: Creates a negative image of glands for clarity.

Light: Intelligent lighting, select option and click on any area of picture that you would like to see in better detail.

Download: Download the jpeg of your image to attach to a file or email.

Image Enhancement (cont.)

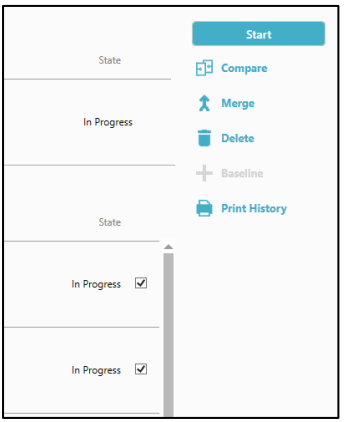
Step 3

In the summary screen the Print option is available to generate a patient report to print a summary for a patient or a PDF for attachment to an EMR system.

Compare Screen Options.

Step 1

In the summary screen check-mark the sessions you would like to compare and click the **Compare** button.



Step 2

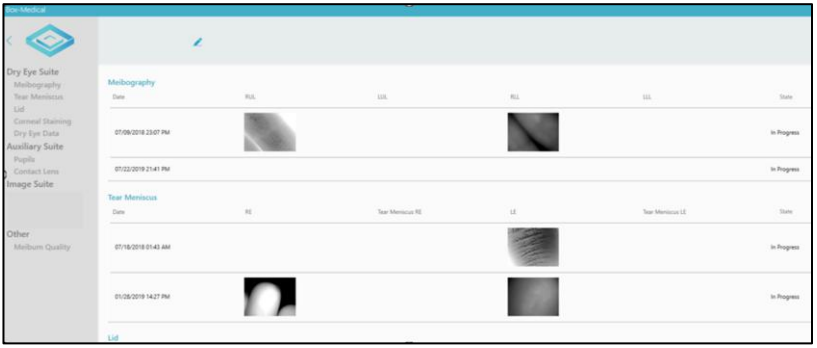
Modify and alternate between comparison screens by just selecting which images you would like to compare.

Navigation

View Past Sessions

Click on a patient name to view a summary of past sessions.

To get all past sessions for a particular session type, click on the session type name.



Hand-Held Mode

The MX2 can convert to a handle to aid in hand-held operation. Using your thumb, push up on the slider to release the bottom arm which can then be rotated into a vertical position.

Specifications

Intended Use

Ophthalmic camera used to capture digital images of the eye and surrounding areas.

Device Lifetime

Approximately five years.

Video specification

Resolution: 1920 x 1080 pixels

Gain control: Automatic

Exposure: Automatic

White Balance: Automatic

Minimum Hardware Requirements

CPU - Intel Core i5 *(or Equivalent)*

Clock Speed - 2.6GHz

RAM - 4GB

Operating System - Windows 10 64-bit *(Mac not supported)*

Power Consumption - 1W

Cables - USB A to USB attachment

Software

OPTASE® Medbase Software

Operating environment

The MX2 is designed to be stored and operated in an indoor environment.

Certifications

FCC, FDA Class 2 Medical Device

Technical Support

To search our knowledge base for frequently asked questions or create a support ticket, please visit: https://optase.com/mx2/faq

If you have any additional questions, please e-mail: mx2@optase.com

Call us toll free in the United States at: (917) 795-4227

Or visit us on the web at: www.optase.com/mx2