User Guide

Eidolon Photo-Bluminator II

EIDOLON
OPTICAL

www.slitlamp.com

4 Strathmore Road, Unit 2, Natick, MA 01760 USA Tel: (781) 400-0586 / Fax: (781) 239-0123

Introduction

The ***Photo Bluminator II*** for the iPhone is Eidolon Optical, LLC's latest invention to look at the anterior chamber of the eye and the adnexa with (and without) fluorescein. Since its introduction in 2015, it has been enthusiastically accepted by all eye care professionals. (Ophthalmologists, Optometrists, Nurses, Veterinarians and Emergency Room specialists.) It is used to detect and keep a record of corneal abrasions, foreign bodies, and other epithelial defects.

The Photo-Bluminator II utilizes our patented Blue LED technology (US Patent No. 6,547,394) to illuminate the eye with white and blue LEDs. It is comprised of two white LEDS separated by 180 degrees, two blue LEDs (also separated by 180 degrees), and a rocker switch. When the rocker switch is tilted on the left it generates white light. When it is tilted to the right, it generates blue light; which is ideal to perform a fluorescein examination.

With the array of ***Eidolon Covers for iPhone*** and the ***Eidolon Clip*** the Photo-Bluminator II fits all the available (and upcoming) iPhones, and most androids. With your smartphone's Camera application, you will be able to capture photos and record videos of patient's eye easily.

Portable, safe, and ergonomic, this medical device can be used on anybody: children, handicapped patients, elderly patients, and contact lenses wearers.

The device comes in a waterproof hard-shell case.

Figure 1 depicts the cover/iPhone facing side (back) of the Photo-Bluminator II. Figure 2 depicts the customer facing side (front) of the Photo-Bluminator II.

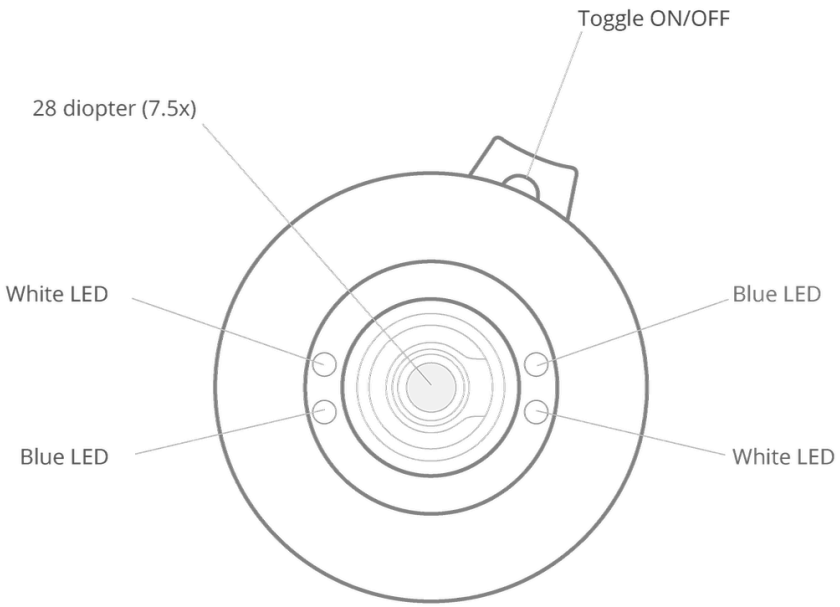

Figure 1 - The Front Eidolon Photo-Bluminator II

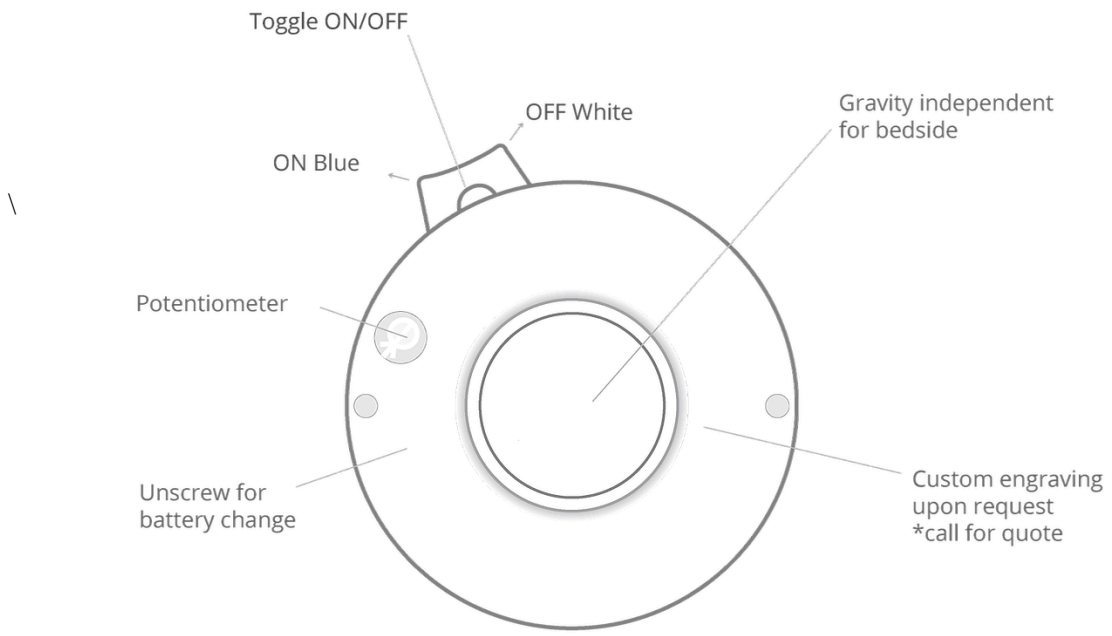

Figure 2 - The Back Eidolon Photo-Bluminator II

Clinical Applications

The clinical applications of the Photo-Bluminator II are similar to those of the Eidolon's Ophthalmic illuminator, the ***Eidolon Bluminator®***.

The white LEDs are used without fluorescein to examine at the adnexa, the anterior chamber, the iris and even conduct a lissamine green examination. The Blue LEDs are used with fluorescein to see corneal abrasions and, in some cases, detect cataracts.

Summary of the Eidolon Photo-Bluminator II Features

• Both Blue and White LED Illumination

• Replaceable Coin Cell Silver Oxide Batteries

• 7.5 times magnification, higher magnification with your smartphone's zoom

• Can be used as a standalone device, independently from smartphone as visual instrument

• Made out of high-tensile strength aluminum construction

• Ideal for children, handicapped patients, elderly patients, bedside examination, mission work, remote screenings, military triage, contact lens fittings and to look at an animal's eyes

• Detect and record corneal abrasions, foreign bodies, and other epithelial defects

• Take high-definition video in blue or white illumination

• The records (photos or videos) of the examination can be stored digitally on your phone, in the cloud, airdropped and emailed

• US Patent No. 6,547,394

How to Use the Eidolon Photo-Bluminator II

The Eidolon Photo-Bluminator is a standalone lens that is best used in conjunction with an Eidolon iPhone Cover, or an Eidolon Clip.

a) Without an Eidolon cover or an Eidolon clip

1. Tilt the rocker switch to the right to generate blue illumination and to the left to generate white illumination.
2. Position the Photo Bluminator approximately 3 cm (1.1 in) away from the patient's eye in such a way that the appropriate light illuminates your patient's eye.
3. Look into the lens.
4. If the image happens to be upside down, move the lens closer to your patient's eye.

b) With an Eidolon cover or an Eidolon clip

1. Attach the Photo Bluminator lens to the adequate Eidolon cover that is compatible with your iPhone or the Eidolon clip. back cover, with the Photo Bluminator lens, to your iPhone.
2. Open the iPhone camera application.
3.
4. Hook up theOn the iPhone camera application, select whether you want to take a photo or a video.
5. On the Photo Bluminator lens, tilt the rocker switch to the right to generate blue illumination and to the left to generate white illumination.
6. Set the iPhone camera zoom to 30% of its capacity (1/3 through).
7. Position the Photo Bluminator approximately 3 cm (1.1 in) away from the patient's eye.
8. Move the iPhone towards and away from the eye of the patient until you can get the best focus. Make sure that the focus is not on the eye lashes of your patient.
9. Take a photo or a video.
10. Once you have your photo or video, you can email or text it to yourself.

Note: that you are responsible for making sure the the photo transferred is HIPAA compliant and does not disclose the patient's personal information.

To Change the Batteries

The Eidolon Photo-Bluminator II uses four (4) 303/357 Silver Oxide Batteries, also known as SR44 Batteries. To change the batteries you will need: a phillips head screwdriver and a small straight tip screwdriver to push out the batteries from their enclosure.

1. With the phillips head screwdriver, take of the two (2) screws on the back case of the Photo-Bluminator II.
2. Once you make sure that both screws are removed, gently separate the front and back of the Photo-Bluminator II aluminium case.
3. To do this, we recommend putting a small straight tip screwdriver in the seam of the case, and to gently work the small straight tip screwdriver around, until the Photo-Bluminator II opens up.
4. Once you separated the front from the back of the case, you will notice that the lens will be staying in the back of the case (also called base).
5. On the other half of the case, you will see the four (4) SR44 batteries, inside of a bridge-looking battery holder. Pay attention to the polarity of the battery.
6. Using the small straight tip screwdriver, push out the batteries of their holder.
7. Once the old batteries are out, take the new batteries and put them inside.
8. Make sure that the flat side of the batteries face you/away from the circuit. Fig 3

Figure 3 shows how to take of the two (2) screws on the back case of the Photo-Bluminator II with the phillips head screwdriver.

Figure 3 -Unscrewing the screws on the back case of the Photo-Bluminator II with the phillips head screwdriver.

Figure 4 shows how to separate the front and back of the Photo-Bluminator II aluminium case.

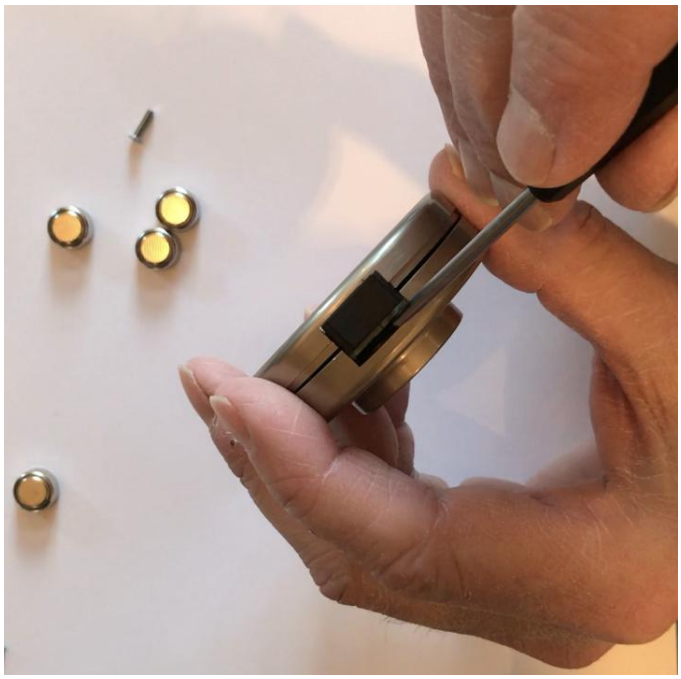

Figure 4 - Separating the front and back of the Photo-Bluminator II aluminium case with a small straight tip screwdriver.

Figure 5 shows what you should see as you open up the Photo-Bluminator II.

Figure 5 - Photo-Bluminator II being opened up.

Figure 6 shows how to push one (1) SR44 battery out of its Photo-Bluminator II battery holder.

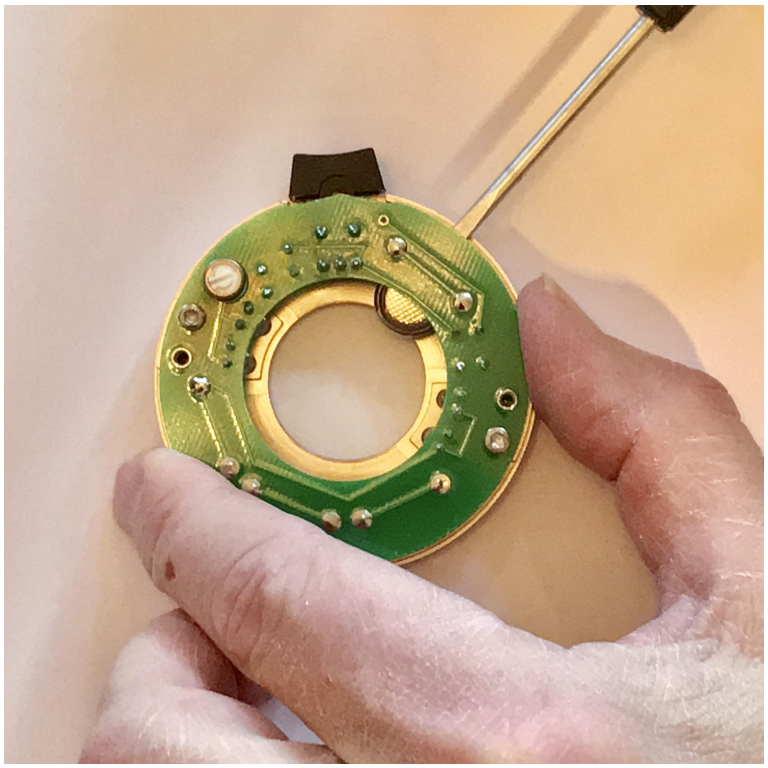

Figure 6 - How to push an SR44 battery out of its Photo-Bluminator II battery holder.

Maintenance

The Eidolon Photo-Bluminator II is a durable device

Inappropriate care or impacts, such as a dropping the instrument, can compromise the quality of the image you get or reduce the lifespan of the instrument. One must especially take good care and keep the Photo-Bluminator II lens clean. To remove fingerprints or dirt from the lens, and to keep the instrument clean, wipe with a clean cloth.

After you are done using the instrument double check that the LEDs are off. Otherwise you may unnecessarily use up the batteries. Do not allow dead batteries to stay in the device; as they may swell and damage the instrument.

Using the Photo-Bluminator II after an iPhone Upgrade

Eidolon Optical, LLC provides covers for iPhones 5s, SE, 6, 6+, 6S, 6S+, 7, 7+, 8, 8+, X, XR, XS, XS Max and periodically adds on new covers to our selection to enable the Eidolon Photo-Bluminator II to be used on the newest and latest iPhones.

Note: The quality of the picture is directly correlated to the quality of the camera. Therefore a more recent phone will generate better pictures.

Appendix

Fluorescein Strips Pack

Eidolon Optical, LLC also sells separately Fluorescein Strip pack, in addition to the product. The Fluorescein Strip pack contains ten (10) sterile, hermetically sealed, non-reusable fluorescein strips to perform a corneal examination.

Photo-Bluminator II Personal Engravings

Upon special request Eidolon Optical, LLC may custom engrave your name, logo, name or your practice on the back of your Photo-Bluminator II cover. To get a quote on that email us directly at sales@slitlamp.com or dina@slitlamp.com.

The Photo-Bluminator II is a product under U.S Pat.:6,547,394. For more information on the product and animations of the Photo-Blumintor II go to: www.slitlamp.com/photo-bluminator-ii

To order our products, go to our online store:

www.slitlamp.com/store