Light Protect Solution Demonstrator

User Manual

Ver:1.0 / Date: 20170728

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General Information

Intended Use

This Light Protect Solution (LPS) Demonstrator hereunder will be used during the process of lens consultancy, and in particular when it comes to narration / explanation for either UV protection story or HEV(High Energy Visible) story. The LPS Demonstrator and its function will be controlled via a dedicated App, being installed on iPad and being connected via Bluetooth. The LPS Demonstrator together with the App will, due the nature of its realization, visualize the transmission value of a UV LED light source or a HEV LED light source that will appear on the related App as a bar chart.
Standard setup: while light source is on, an ophthalmic lens will be placed/hold in-between light source and sensor.
If there is no lens between the light source and the light sensor, the life transmission bar shows 100 % of transmission. If the user put a lens with some transmission reducing properties, the light transmission bar will show the decreased transmission data.

Note: The displayed value depends on the lens material, coating, thickness and diopters value.

A software feature will allow to save the data at a chosen point in time and visualize the data on a separate bar chart. Up to 3 data, e.g. for 3 different lenses, can be saved and visualized in parallel and be used for comparison. The App contains two sub-menus with education material of UV radiation and HEV / Blue light to show some effects on the eye and explain the general story.

What it is:

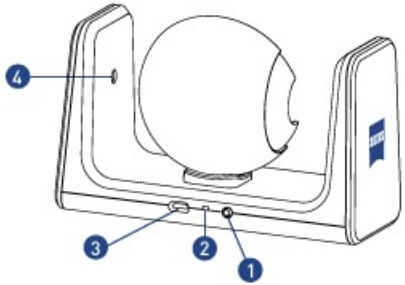
The LPS Demonstrator:
- shows the transmission value of UV light and HEV light (i.e. Blue light).
- helps to demonstrate the transmission effect of various lenses.
- helps comparing different lens types / products.
- supports the lens consultation process the consultation process.
- educates the client / consumer with some information material on UV radiation and HEV light and the eye's exposure.

What it is not:

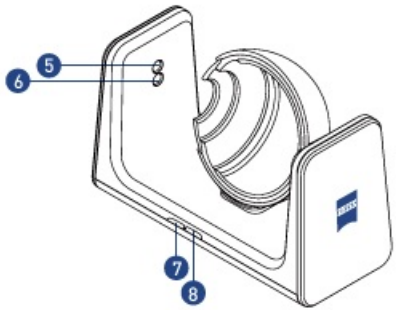
The LPS Demonstrator is NOT:
- a measurement device which delivers technical measured values or data for any further scientific utilization.
- a medical device for supporting the Eye-/Vision Care Professional during a medical consultation process.

Note: The LPS Demonstrator at no means, at no time should/can be used to make any quantitative and/or qualitative performance assessment of ophthalmic lenses.

About LPS Demonstrator



1. Power Switch
2. Charging indicator
3. Charging Port*
4. Sensor



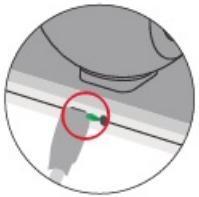
5. UV LED
6. HEV LED
7. Connection indicator
8. Power indicator

* Charging Input 5V ⎓ 2A max.

Start

Charging

Red : Charging



Green : Fully charged

Start

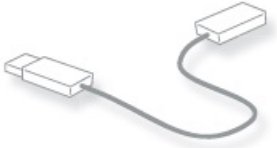
1. Press Power switch to turn on the device.

2. Start Zeiss Light Protect Solution App.*
3. Light Protect Solution LPS Demonstrator will be automatically connected to the App.

* The Light Protect Solution App is available on App store, PW is 1111.

Package Contents

Light Protect Solution Demonstrator



USB Charging Cable

Quick Guide

What you additionally need

Device

iPad Air1/Air2/Pro with iOS version 8 or later

App installation

1. Search Zeiss Light Protect Solution APP on Apple store

ZEISS

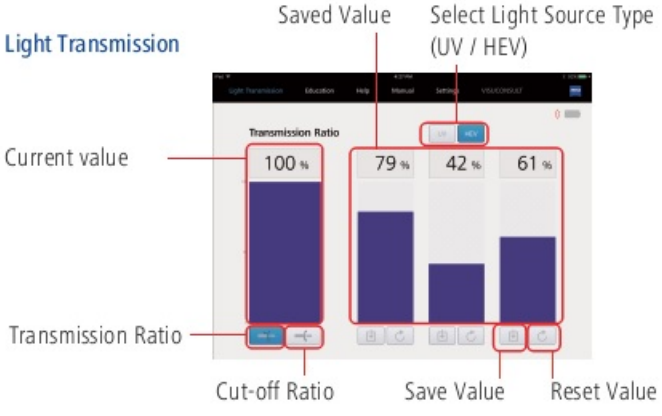
Download on the App Store

2. Install Zeiss Light Protect Solution App on your iPad

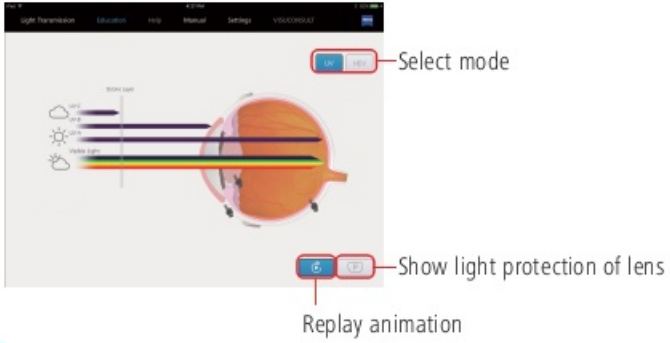
3. The first time you run the App,
   the App requires password.
   Password is 1111.

About App

Light Transmission



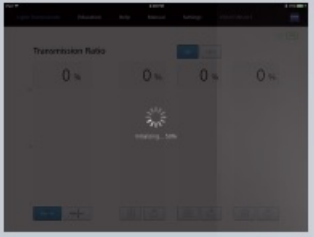
Eudcation



Help

Definition of each icon

⚠ Caution



Do not insert a lens while INITIASIZING PROCESS
a LPS Demonstrator for use.

Safety, Operation and Warranty

Please read the following warnings carefully before using this product.

- Handle the LPS Demonstrator with care. Do not drop the instrument and protect it from any impact.
- Do not leave the LPS Demonstrator in direct sunlight. Exposure to direct sunlight may damage the devices.
- Do not store or use the LPS Demonstrator in damp rooms. Do not expose the LPS Demonstrator to water splashes, dripping water or sprayed water.
- Ensure that the power charging adapter is suitable and certified for the local connection.
- Do not directly look at the 2 LED light sources instructed source.
- Never unscrew or perform modifications yourself to the product as it may lead to damage that is not covered by warranty.
- This LPS Demonstrator may only be installed, operated, used and maintained by persons who have been properly trained or who have the required knowledge and experience to do so.

The warranty period for ZEISS Light Protect Solution Demonstrator is 12 months from the date of purchase. Never perform modifications by yourself to the LPS Demonstrator. Any problems or damages caused by modifications or opening the device will not be covered by warranty. The warranty does not cover the aging or wear and tear of the rechargeable battery.

Cleaning & Recycling

Cleaning

When cleaning, wipe gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the LPS Demonstrator. Do not clean with chemicals such as alcohol, thinners, or benzene.

Recycling

Packaging materials should be retained for future relocation or repair. If you decide to dispose of the packaging material, submit it to a recognized collection system for recycling.
The LPS Demonstrator contains electronic components. At the end of its lifetime, the LPS Demonstrator and its integrated batteries should be disposed of in accordance with the relevant national regulations.
User information for the disposal of electrical and electronic equipment (private households)
The WEEE symbol on products and/or accompanying documents indicates that used electrical and electronic products are not to be mixed with ordinary household waste. Take these products to the appropriate collection point for proper handling, recovery and recycling, where they will be taken back for free. In some states, it may also be possible to hand in these products to your local dealer when purchasing a corresponding new product. The proper disposal of this product serves to protect the environment and prevents possible harmful effects on human beings and their surroundings, which may arise as a result of incorrect handling of waste. More detailed

Cleaning & Recycling

information on your nearest collection point is available from your local authority.
According to state law, fines may be issued for the incorrect disposal of this type of waste.
For business customers within the European Union:
To dispose of electrical and electronic equipment, please contact your dealer or supplier, who will be able to provide you with more information.
Information on disposal in other countries outside of the European Union:
The WEEE symbol is applicable only in the European Union. Please contact your local authority or your dealer if you wish to dispose of this product and enquire about how to dispose of it.

Battery (Li-ion 3.7V 1100mAh)
The battery in the device is rechargeable. Only charge the battery in the operating temperature range specified in this document(and not next to fire or in intense sunshine). Only use a charging adapter that conforms to the specification. The battery may only be replaced by service. Standard commercially available batteries must not be used. Do not connect the battery terminals because this presents a risk of short-circuit.

Technical Information

Specifications*

LED Light Source	UV :390nm± 2nm HEV : 430nm± 2nm
Communication with External Device	via Bluetooth
Compatible External Display Device	iPad Air/Air2/iPad/Pro with iOS8.0 or higher
Dimensions	137(W) x 59(D) x 91(H) mm
Weight	160g
Power Supply	Rechargeable Li-ion Battery (3.7V, 1100mAh)
Charging Input	5V ⎓ 2A max

Ambient condition for intended use

- Temperature : 10˚C to 40˚C
- Relative Humidity : 30 % to 75 %

Ambient condition for storage

- Temperature : -10˚C to 40˚C
- Humidity : 30 % to 75 %

* Specifications Subject to change

Approval regulations for Europe

This equipment connected to d.c source complying with requirement of limited power source at clause 2.5 in EN 60950-1.
Replacement of battery should only be carried out by the manufacturer or its service agent or a similarly qualified person.
The Bluetooth LE (Low Energy) controller is operating in frequency range 2400 to 2483.5MHz. The power consumption is 48mW each.

Approval regulations for USA

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.

Any Changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may 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.

Approval Regulations

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 equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

Approval regulations for Canada

This device complies with Industry Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Approval Regulations

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RF Radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Cet équipement est conforme aux limites établies par Industrie Canada enmatière d'exposition aux radiations dans un environnement non contrôlé. Cet équipement ne doivent pas être colocalisés ou fonctionner en conjonction avec tout autre antenne ou émetteur. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

This Class A / Class B(whichever is applicable) digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numerique de la Classe A / Classe B (selon le cas) respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

Support

Approval regulations for Korea

기자재의 명칭 (모델명): 무선데이터통신시스템용 특정소출력무선기기
(Light Protect Solution Demonstrator)
인증번호: MSIP-CMM-CZV-BL134VIT86
적합성평가를 받은 자의 상호: Carl Zeiss Vision GmbH
제조자/제조국가: Carl Zeiss Vision GmbH / 한국
제조년월: 별도표기
해당 무선 설비는 운용 중 전파 혼신의 가능성이 있으므로 인명 안전과 관련된 서비스는 할 수 없습니다.

B급기기(가정용방송통신기자재)
Class B Equipment(For Home Use Broadcasting & Communication Equipment)

이 기기는 가정용(B급) 전자파적합기로서 주로 가정에서 사용하는 것을 목적으로 하며 모든 지역에서 사용할 수 있습니다.

This equipment is home use (Class B) electromaguetic wave suitability equipment and to be used mainly at home and it can be used in all areas.

Support

Carl Zeiss Vision GmbH
Turnstrasse 27, D-73430 Aalen, Germany
Service E-Mail: service.vts.global@zeiss.com

Made in Korea