

**NEITZ**  
Made by Neitz for Your Medical Field

# Binocular Indirect Ophthalmoscope *IO- $\alpha$ / IO- $\alpha$ LED*



# NEITZ pursues Comfort and Flexibility. Everything is for Your Best Performance.

Fundus image can be observed stereoscopically even through a small pupil of 2 mm diameter.

Observation angle can be continuously changed. Smooth single hand adjustment of mirrors allows the observation easily in any desired angle.

The halogen light provides suitable illumination for general observation.

## Specifications

Pupillary Distance : 54mm to 74mm  
 Illumination Area :  $\Phi$ 19mm,  $\Phi$ 50mm,  
 $\Phi$ 80mm (at the distance of 500mm)  
 Filters : UV, Blue, Red-Free  
 Light Source : L-51 Halogen Bulb  
 Dimensions : 230mm (w) x 310mm (D) x 250mm (H)  
 Weight : 480g



# IO- $\alpha$

New LED Light source reproduces clean illumination in Halogen bulb color and eliminates the filament shadow.

LED light source provides steady illumination for 50,000 hours, free from exchange the light bulb.

The combination of the LED and the powerful re-chargable battery allows 5 times longer operation and 10 hours continuous lighting.

## Specifications

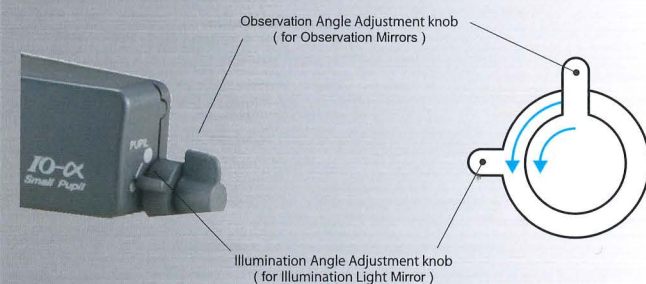
Pupillary Distance : 54mm to 74mm  
 Illumination Area :  $\Phi$ 19mm,  $\Phi$ 50mm,  
 $\Phi$ 80mm(at the distance of 500mm)  
 Filters : UV, Blue, Red-Free  
 Light Source : 3W White LED  
 Dimensions : 230mm (W) x 310mm (D) x 250mm (H)  
 Weight : 480g



# IO- $\alpha$ LED

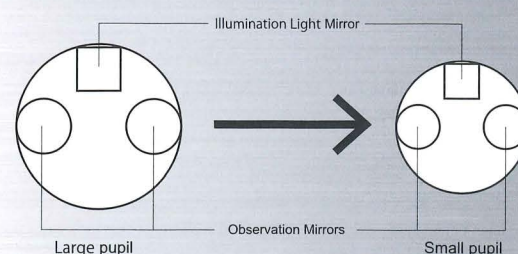
## OPTICS SYSTEM

The Illumination Light Mirror and Observation Mirrors are adjustable respectively with a single hand.



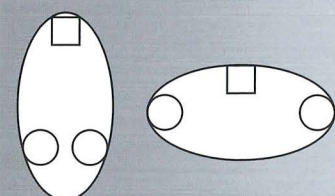
### Small pupil

Clear stereoscopic fundus image can be easily obtained through small pupil with the mirrors.

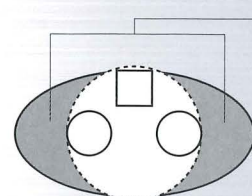


### Freedom in choice of the approach angle to the pupil.

The system allows to adjust the position of the mirrors into vertical or horizontal positions corresponding to the patient pupil. It enables the operator to observe the periphery of the patient fundus from any angle.



The optical system of Neitz IO-a can position the mirrors into either vertical or horizontal oblong in corresponding to available observation angle for the operator at examination.

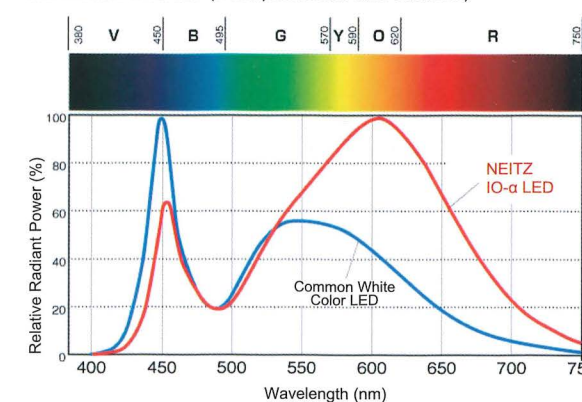


The area, the periphery of fundus, is difficult to be observed in some approach angle to the pupil unless the optical system can position the mirrors like Neitz IO- $\alpha$ .

## HALOGEN BULB COLOR LED



Characteristic of our LED (in comparison with white color LED)



The color temperature of the LED of Neitz IO-a LED is 3200°K, which is same color temperature to the halogen bulb used in the typical binocular indirect ophthalmoscope.

The colors observed in ophthalmoscopy are red of blood vessel, orange of retina and yellow of optic disc. Differently from common white color LED used in the binocular indirect ophthalmoscopes of other manufacturers, our halogen bulb color LED reproduces these colors with high color rendering properties as shown in the chart on the left. It supports operator to obtain the maximized information from the fundus observation for more precise diagnosis.

It enables to observe fundus under the same condition of illumination compatible to the halogen bulb illumination of familiar.

POWERSOURCE	TRANSFORMER	BATTERY PACK
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**PSU-3K**

- Voltage Input : AC 120V or 230V.
- Dimension : 158x100x90 (mm)
- Weight : 1200g



**LPS-250**

- Voltage Input : AC 120V or 230V.
- Dimension : 158x100x90 (mm)
- Weight : 500g



**IO-BP3**

- Consecutive Illumination Time : Approx. 5 hours at maximum intensity
- Charging Time: Approx. 2.5 hours
- Dimension: 90 x 45 x 30 (mm)
- Weight: Approx. 130g



**ACCESSORIES** Accessories included are Different depending on the set.



Teaching mirror



Carrying case

**OPTION**



**PSU-S**  
Transformer and PSU-S,  
Transformer Stand



Aspherical Viewing Lens 20D



**Lamp House Conversion Kit**  
• Lamp House with 0.6M cord  
• Extention Curl cord



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