

Specifications

Product name	LED Direct Ophthalmoscope BX α 13 LED
Generic name	Direct ophthalmoscioe
Illumination Source	High color-rendering incandescent LED
Correction Range	-36 D to +35 D (in increments of 1 D)
Filters (Illumination system)	Polarizing filter, Red-free filter
Observation Polarizing Filter	ON/OFF
Illumination Dial	Normal aperture, Small aperture, Slit, Concentric scale, Cobalt blue filter
Batteries	C-size alkaline batteries (2 pcs.)
Dimensions (excluding protrusions) and weight	45 mm x 34 mm x 223 mm Approximately 290 g (including batteries)

Classification

Degree of protection against electric shock	Internally powered ME equipment
Applied parts	No applied parts
Degree of protection against harmful ingress of water or particulate matter	IPX0
Method of sterilization	Do not sterilize
Suitability for use in an oxygen rich environment	Do not use in oxygen rich environments
Mode of operation	Continuous operation

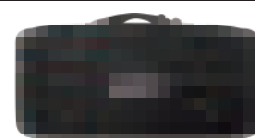
Applied Standards

Electric Safety	IEC 60601-1:2020
Electromagnetic Disturbances	IEC 60601-1-2:2020
Usability engineering	IEC 62366-1:2020
Biological evaluation	ISO 10993-1:2018
Ophthalmic Instruments	ISO 15004-1:2020 ISO 15004-2:2007 ISO 10942:2006

Environmental Conditions

	Use	Storage	Transport
Temperature	+10 °C to +35 °C (50 °F to 90 °F)	-10 °C to +55 °C (14 °F to 131 °F)	-10 °C to +55 °C (14 °F to 131 °F)
Relative Humidity (no condensation)	30 % to 90 %	10 % to 95 %	10 % to 95 %
Atmospheric Pressure	800 hPa to 1060 hPa	500 hPa to 1060 hPa	500 hPa to 1060 hPa

Accessory



Carrying Case



Neitz Instruments Co., Ltd.
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Chiyoda-ku, Tokyo 102-0082, Japan
Phone: +81-3-3237-0552
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Distributor

* As part of our policy of continued product improvement, we reserve the right to alter and/or amend specifications at any time without prior notice.
* The colors in the catalog may be slightly different from those of the actual products.

NEITZ
Made by Neitz for Your Medical Field

NEW MODEL

High Color-rendering LED

Boost Mode for More Brightness



**NEITZ LED DIRECT
OPHTHALMOSCOPE
BX α 13LED**

The Features of LED Direct Ophthalmoscope

500lx Brighter Illumination Field

Three to five times brighter than our halogen bulb models.

SMOOTH Smooth Light Control

Smooth stepless light control from the minimum to the maximum.
Reduces the burden of the patient caused by photophobia.
Clear fundus observation.

BOOST Boost Mode for More Brightness

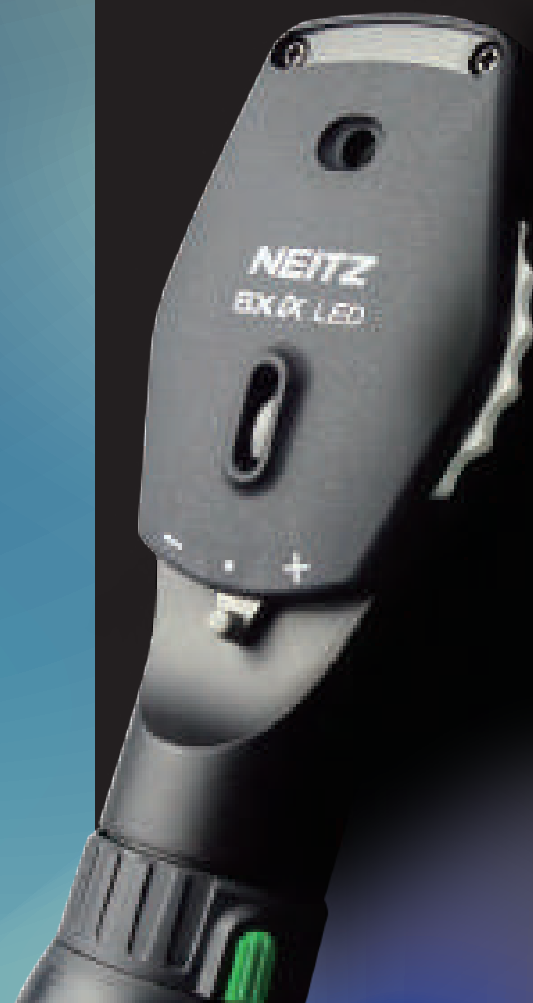
Switchable between normal mode and much brighter boost mode.

Equipped with Cobalt Blue Filter

For fluorescein examination

Ra:90 High Color-rendering LED

The color reproduction is equal to our halogen bulb ophthalmoscopes..
Ra : More than 90, R9 : More than 80
Color temperature : 2700K
No need of light bulb replacement. Maintenance-free
LED lifetime: 50,000 hours



Basic Functions

Polarizing Filter



It is theoretically and experimentally confirmed that the corneal reflex in the fundus observation is minimized by inserting two polarizing filters with the polarization axes mutually perpendicular into the illumination system and observation system. However, the entire fundus image gets dark, and this is regarded as the drawback of this method. To solve this point, Neitz made the polarizing filter in the observation system rotatable to achieve the best balance between the corneal reflex and the brightness of the fundus image by changing the angle at which two polarization axes cross each other.

Auxiliary Lens



The Auxiliary Lens corrects the diopter from -36D to +35D in increments of 1D. The lens disc rotates endlessly and a large amount of change of the diopter is smooth.

Direct-reading Diopter Indicator



Even when using the Auxiliary Lens for observation of high myopia or high hyperopia, the diopters on the correction lens can be read directly. The Diopter Indicator is illuminated and clearly readable in a dark room.

Illumination Dial



To select the small aperture for observation of macula, slit to recognize the roughness on the surface of the fundus, and the concentric scale. To use the cobalt blue filter for fluorescein examination to observe damage on the cornea, set the filter by turning the dial.

Filters



By moving the Filter Lever, insert the polarizing filter and the red-free filter that makes red tissue such as blood vessels appear black into the illumination system. Both filters can be used with all functions selected via the Illumination Dial.

Aperture Shutter



When ending to use the ophthalmoscope, shut the Aperture Shutter to prevent foreign materials from entering the optical system.

Various Functions

