

# All in(1)SET

Ophthalmoscope &  
Retinoscope

By:

**NEITZ**

MADE  JAPAN



Complete SET  
**BXaRC USB RX LED**

## The Features of LED Direct Ophthalmoscope BX $\alpha$ LED



### Brighter Illumination Field

- Two to three times brighter than our halogen bulb models.



### Smooth Illumination Control

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



### Boost Mode for More Brightness

- Switchable between Normal mode and much brighter Boost mode.



### Equipped with Cobalt Blue Filter

- For fluorescein examination.



### High Color-rendering LED

- Ra: More than 90, R9: More than 80 Color temperature: 2700K
- No need of light bulb replacement. Maintenance-free LED lifetime: 50,000 hours.



### Powered by Li-ion Battery

- Store the Device in the Table-top Charging Stand while charging.

**USB-C**



## 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.



### Correction 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.



### Aperture Shutter

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



### 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 Illumination 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.

## The Features Various Functions of LED Retinoscopes

**3-8**  
TIMES

### Brighter Illumination Field

- The streak light model is about three to five times, the spot light model is five to eight times brighter than our halogen bulb models.
- Easily visible screening even in a bright room.

**SMOOTH**

### Smooth Light Control

- Smooth stepless light control from the minimum to the maximum.
- Reduces the burden of the patient caused by photophobia.
- Provides clear reflected light.

**BOOST**

### Boost Mode for More Brightness

- Switchable between Normal mode and much brighter Boost mode.

**Ra:90**

### High Color-rendering LED

- Ra: More than 90, R9: More than 50 Color temperature: 3000K
- No need of light bulb replacement. Maintenance-free LED lifetime: 50,000 hours.

**Li-ion**

### Powered by Li-ion Battery

- Store the Device in the Table-top Charging Stand while charging.

**USB-C**



## Basic Functions



### Pursuit of Visibility

The anti-reflection filter provides wide and clear field of view.  
This reduces the sense of fatigue due to a long-time use.



### Pursuit of Usability

The streak can be easily set at the best position.  
The rotation and the width change of the streak are separately controlled.  
Rotating the streak does not affect the streak width.  
The lightweight retinoscope head rotates freely.



### Sharp Streak Light

The precision cut slit realizes the sharp and clear streak light.



### Free Streak Rotation

The streak rotates 360 degrees. You can rotate it from any position and is useful for measurement of the axis of myopia.  
Furthermore, the retinoscope is equipped with the Head Attachment Mount for eyeglasses wearers and the feature to attach a presbyopia lens easily.



### Fixation Card Set

The Fixation Card Set is available for use in dynamic retinoscopy. Consists of two fixation cards and a card holder. (Optional)



Two Types  
of fixation card  
(Fixation Card Set)

Fixation Card Set FC  
(Optional)



Card Holder  
(For Fixation Card Set RX)



Card Holder  
(For Fixation Card Set RX-SP)

Schematic Eye on Stand  
(Optional)



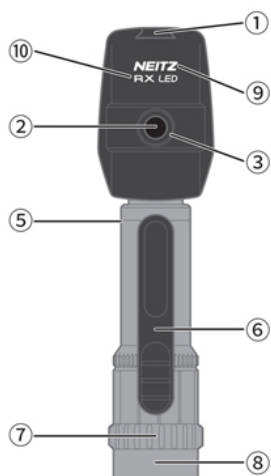
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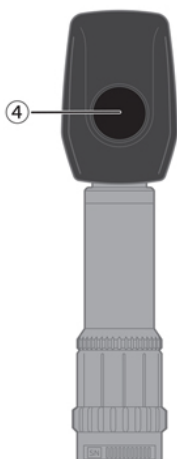


Carrying case

## RXLED Head (Streak Retinoscope)

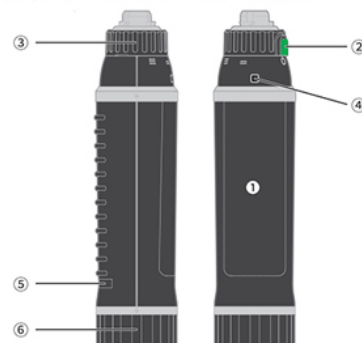


- ① Head Attachment Mount
- ② Viewing Window
- ③ Viewing Window Rim
- ④ Illumination Opening
- ⑤ Reference Line
- ⑥ Streak Adjustment Lever
- ⑦ Head Rotation Ring
- ⑧ Head Joint
- ⑨ Manufacturer's Logo
- ⑩ Model Logo

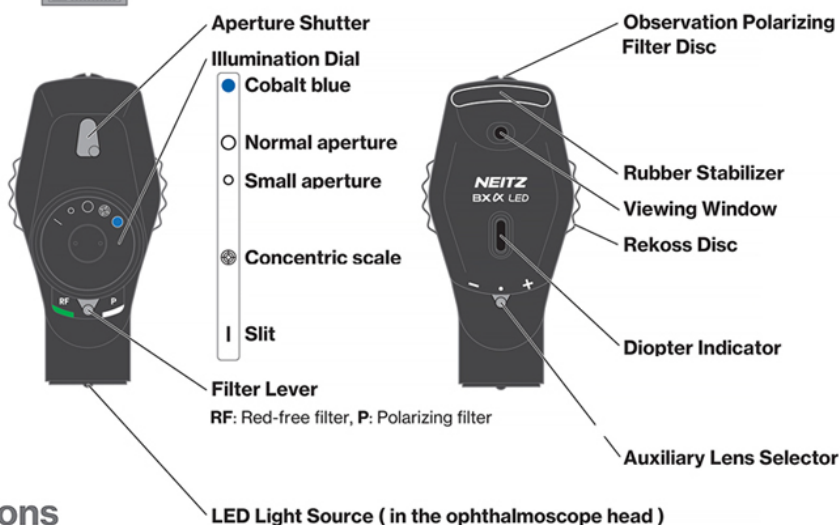


## USB Charging Handle

Charged via AC Adapter in the Delivery Set.



- ① LED Rechargeable Battery Handle (LH-1300)
- ② Switch Button
- ③ Switch Ring
- ④ Pilot Lamp
- ⑤ Serial Number and Information Mark
- ⑥ Bottom Cap with Built-in Battery Unit 1300RC
- ⑦ Rated Voltage Indication
- ⑧ USB Socket (USB Type-C)
- ⑨ Status Indicator



## Product Specifications

### BXαRCLED Specifications

Product Name	LED Direct Ophthalmoscope BXα LED
Generic Name	Direct Ophthalmoscope
Illumination Source	L-101 (a customized LED bulb)
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
Battery	1 pc. Lithium-ion battery (rated voltage 3.6V, 3200mAh)
Maximum Power Consumption	Below 2W (with the head attached)
Dimensions and Weight	45(W)×223(H)×34(D) Approx.230g (including the rechargeable battery)

### RXRCLED Specifications

Product Name	LED Streak Retinoscope RXLED
Generic Name	Retinoscope
Illumination Source	L-102 (a customized LED bulb)
Streak Variations	Divergent Streak, Parallel Streak, Convergent Streak
Streak Rotation	360° Continuous Rotation
Battery	1 pc. Lithium-ion battery (Type 18650, rated voltage 3.6V, 3350mAh)
Maximum Power Consumption	Below 2W (with the head attached)
Dimensions and Weight	34(W)×269(H)×34(D) Approx.280g (including the rechargeable battery)
Optional Accessories	Presbyopic Lens ( +1D, +2 D, +3 D), FiD, Fixation Card Set RX