



**BINOCULAR  
INDIRECT OPHTHALMOSCOPE  
USER'S MANUAL  
*EQ-6760***

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## **DISCLAIMER**

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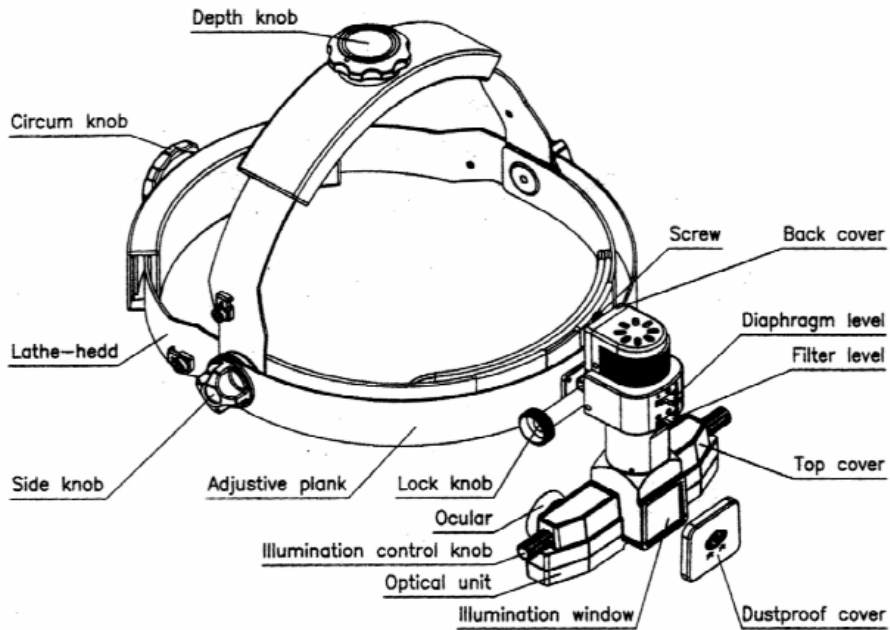
## **GENERAL SAFETY REQUIREMENTS**

Please read the following warnings carefully to avoid injury as well as to not damage the instrument.

## **WARNINGS**

1. Do not use the instrument under flammable, explosive, or dusty environments. Keep it clean and dry. Avoid high temperatures.
2. Confirm that the power cord is plugged in before using.
3. Be sure to turn off the instrument power before replacing the bulb.
4. Use the dimmest illumination possible and always switch off the power supply after use.
5. Do not unplug by pulling on the electrical cord. Always pull on the plug to remove.
6. Do not touch the lens surface with any object, including fingers or sharp objects.
7. In case of trouble with the instrument, first read the troubleshooting guide. If this does not solve the problem, contact an authorized ophthalmic equipment service repairperson.

**1. NOMENCLATURE**

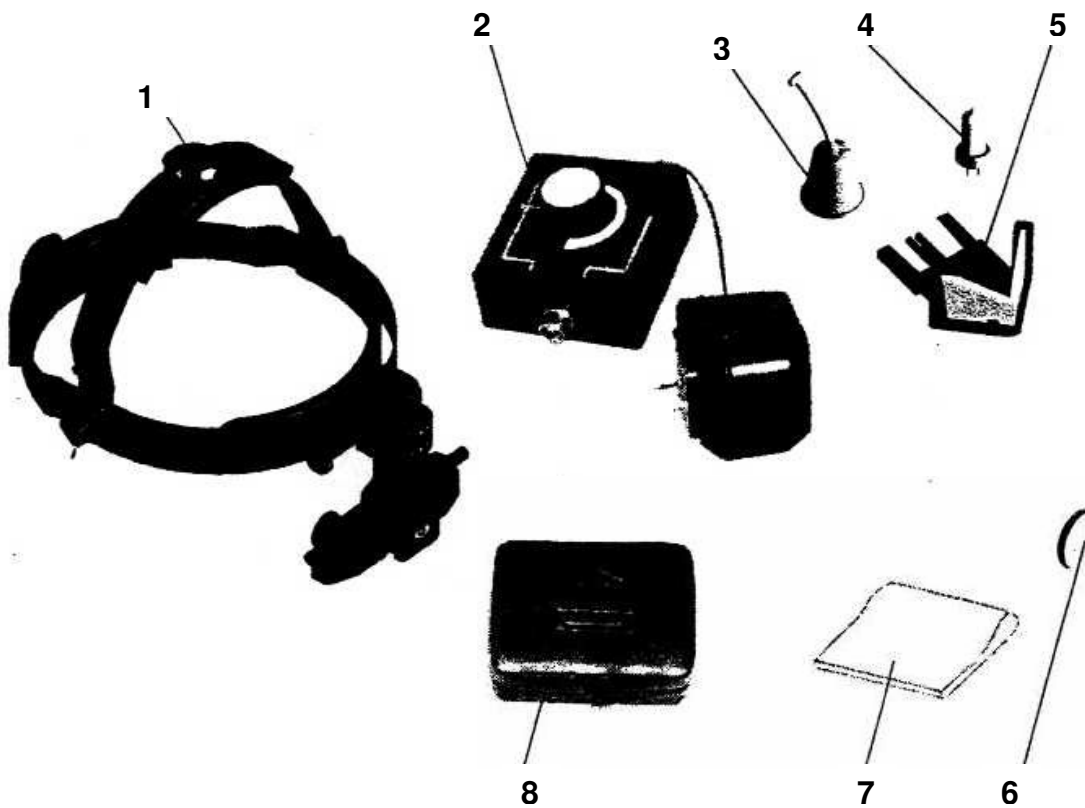


**Figure 1**

**2. ASSEMBLY**

All parts should be removed from packaging with great care in order to avoid damaging the instrument.

Number	Part Name	Quantity Included
1	Ophthalmoscope Head Unit	1
2	Power Transformer	1
3	Scleral Depressor	2 (1 large, 1 small)
4	Spare Bulb BT-6765	2
5	Teaching Mirror	1
6	Plano Lens	2
7	Lens Cleaning Cloth	1
8	Accessories Box	1



**Figure 2**

Align the groove on the electric plug of the optical unit with the tab on the socket of the dimmer then insert the plug in the socket. To prolong the life of the bulb, turn the light control knob on the dimmer to position "O" and then insert the plug of the transformer into the power socket.

Before using, remove the dustproof cover from the illumination window. Insert the transformer plug in the net power socket and turn the light control knob on the dimmer. If the green light is on, the power is on. Turn the knob until light projects from the illumination window. To choose various filters, move the filter switch on the front of the head piece.

### 3. USING THE BINOCULAR INDIRECT OPHTHALMOSCOPE

#### Adjusting the Head Set

Place the head set on the head and turn the circumference knob and height knob to make the instrument comfortable and secure on the head. Unscrew two side knobs of the head set to change the position of the optical unit. Place the oculars close to the eyes and then tighten the side knobs. Turn the power on and observe a spot of light about 30 to 40 cm of focus. Turn the illumination control knob so that the light spot appears centered vertically in the view.

#### Replacing the Ocular Lenses

The instrument is supplied with +2.00D ocular lenses in place. According to the user's need, plano lenses (which are included in the accessory box) can be inserted by unscrewing the clamping ring of the ocular and removing the +2.00D lenses. Then insert the plano lenses and screw the clamping ring into place.

#### Adjusting the Pupillary Distance of the Oculars

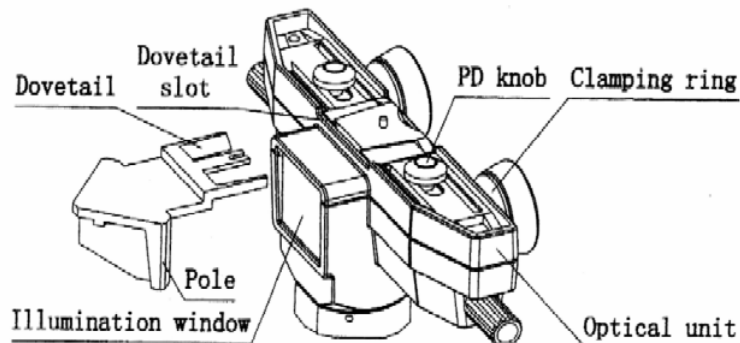
Observe the light spot alternately with the right then the left eye. Adjust the PD knobs so that the light spot is seen in the center with each of the right eye and the left eye. The stereoscopic view should be centered also. Take the instrument off of the head and check whether the PD knobs are set at equal distances. If they are not at equal distances, move each to an equal distance from the other, being sure to keep the total binocular PD the same.

#### Using the Instrument

Choose the diaphragm size according to the size of the patient's pupil. Select the appropriate filter for the task. Using a +20D lens (or similar) in front of the patient's eye, observe the fundus. Adjust the illumination for the specific patient. After use, turn the light control knob counterclockwise to the position "O" until the green light is off, indicating that the power supply is off.

#### Installing the Teaching Mirror

The teaching mirror is installed in the front of the viewing window on the optical unit. Hold both sides of the base of the teaching mirror and insert it with the dovetail aligned with the slot on the bottom of the optical unit.



**Figure 3**

## **4. MAINTENANCE**

### **Replacing the Bulb (BT-6765)**

Turn off the power supply before removing the old bulb. After the bulb has cooled, unscrew and pull open the back cover and take out the used bulb. Clean the new bulb with a soft cloth. Insert the new bulb aligning the position pin to the slot inside the lamp housing. Close the back cover and fasten the screw.

### **Cleaning the Instrument**

The lens and viewfinder can be wiped with a lens cleaning cloth and AR Kleen liquid. The headset can be cleaned using soap and water, wiping with a soft cloth. Do not touch the lens with fingers or sharp objects.

### **Protecting the Instrument**

This instrument has been calibrated before leaving the factory. Do not disassemble the instrument. The instrument should be used in a clean environment.

## **5. STORAGE**

### **Periods of Nonuse**

If it is not to be used for a long period of time, store it in the provided protective case to protect from dust.

### **Transporting the Instrument**

This instrument should be stored in a well ventilated room where the relative humidity is between 10-80%. The temperature should be from -40° to 50°C.

## 6. TROUBLESHOOTING GUIDE

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>	<b>Page</b>
Bulb will not turn on	Transformer and net socket are not connected tightly	Fasten the transformer	4
	Light control knob is in the "O" position	Turn the knob clockwise	4
	Connection between the socket and plug is loose	Fasten the plug	4
	Back cover of the bulb is not in position	Close the back cover and fasten screw	6
	Bulb is damaged	Replace the bulb	6
Illumination is too dim	Light control knob isn't in position	Turn the knob clockwise	4
	Bulb is old	Replace the bulb	6
	Incorrect filter selection	Change the filter selection	4
	Lens or viewfinder has been stained	Clean the lens	6
Spot light is not complete	Diaphragm or filter is not in position	Turn to the position	4



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## 7. SPECIFICATIONS

Working Distance:	50.5mm (from the user's cornea to aspheric lens)
Pupillary Distance:	Adjustable from 52-74mm
Illumination Intensity:	Continuously adjustable up to 500 Lx
Head Band Size:	530-630mm circumference, 85-125mm depth
Light Spots:	Large, Medium, Small
Filters:	Clear, Red-free, Cobalt Blue
Teaching Mirror:	Coated mirror with viewing through both sides
Input Voltage:	220V $\pm$ 10%V
Input Frequency:	50Hz $\pm$ 1Hz
Input Power:	20VA
Illumination Power Supply:	6V/10W Halogen Bulb, BT-6765 from Amcon
Dimensions:	142 x 48 x 128mm
Weight:	230g