

OM-19



An operating microscope suited to advanced ophthalmic surgery maximises the surgeon's capability

In cataract surgery, the advanced red reflex illumination mechanism vividly highlights the eye lens. In retinal vitrectomy, the bright, high-definition optics enhance the visibility of the surgical field.

OM-19 is a flagship model suitable for advance surgery.



- Supports a wide range of surgeries, from cataract surgery to retinal vitrectomy
- Independent light sources provide a wide range of illumination
- Flexible customisation with a rich variety of options



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Advanced optical design delivers the optimal view

All illuminations use high-luminance LED with excellent contrast colour reproduction. A long service life of approximately 40,000 hours allows for maintenance-free illumination.

Furthermore, the microscope is equipped with independent red reflex illumination LEDs for both the right eye and the left eye of the surgeon to provide both eyes with a stable red reflex image.

**LED operating life is defined as a state when light intensity drops to 70%. The operating life of the LED used in OM-19 is approximately 40,000 hours, although this is not guaranteed.*



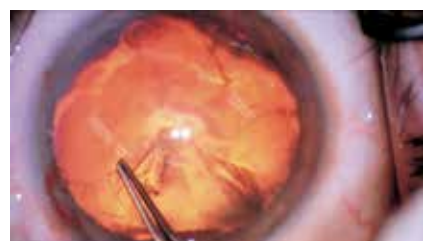
Thanks to the bright red reflex illumination, the red reflex can be seen extremely clearly.



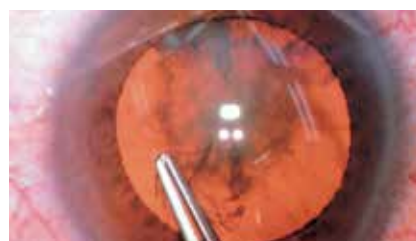
Even during ultrasonic phacoemulsification and aspiration (PEA), which can weaken the red reflex illumination, the lens can be seen clearly due to the bright red reflex illumination.



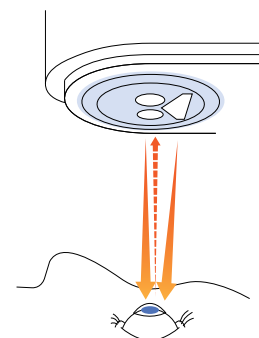
Sufficient red reflex illumination can also be obtained for small pupils. In addition, bright and stable red reflex illumination can always be obtained, even when the direction of the eye changes.



Using red reflex illumination alone produces high contrast, resulting in enhanced images of the lens.



Using the main illumination and red reflex illumination simultaneously and controlling their distribution enhances the stereoscopic appearance of the image.



The illumination is shone and observed along the same path as the optical axis, resulting in efficient return of reflected light from the fundus and ensuring bright and stable red reflex.

**The image is for illustrative purposes only.*

Since the main illumination and the red reflex illumination adopt independent LEDs, both the main illumination and the red reflex illumination can be controlled to the optimal light intensity and distribution depending on the condition of the eye under surgery.

Enhances usability for the surgeon, increases surgical efficiency

User-friendly design supports smooth surgical operations

The focus, motorised zoom, X-Y speed adjustment, light intensity adjustment, and power switches are all integrated into the control panel to make operations more efficient.

The light intensity can be adjusted using either the foot controller or the control panel, allowing an assistant to operate it directly from the panel as well.

The individual light intensity values of the main illumination and red reflex illumination are displayed on the panel to enable smooth adjustments.

Customisable foot controller for comfortable control

The pedal position can be freely customised to create the optimal layout for the surgeon's preference. High water and dust resistance (IPX6) provides peace of mind even in operating rooms subject to splashing fluids.

- ON/OFF for main illumination
- Light intensity adjustment of main illumination
- ON/OFF for red reflex illumination
- Light intensity adjustment of red reflex illumination
- UP/DOWN for focus
- UP/DOWN for zoom



Prioritising the safety of patients and surgeons

Safety stopper

The stopper limits the lowest position of the arm according to the height of the operating table. This reduces the risk of contact with the patient.



Ergonomic design

The angle of the binocular tubes can be adjusted up to 90 degrees, allowing the surgeon to keep a comfortable posture and maintain concentration for a long time.



Specifications

Model name		OM-19 Operating Microscope
Microscope	Magnification changer	Motorised zoom magnification (zoom ratio 1:6)
	Objective lens	F = 200 mm
	Eyepieces	10x (high-eyepoint & wide field)
	Binocular tube	Tiltable binocular tubes F = 170 mm
	Total magnifications	3.4x-20.4x
	X-Y movement (motorised)	± 25 mm in each direction with speed 1.6-3.3 mm/sec and centering control
Illumination	Light source	2 types of LED
	Filters	Heat-absorbing / Blue correction / Blue cut / Retina shield
Arm & Base	Type	Floor stand with 4 casters and 2 stoppers
	Maximum load tolerance on arm	Up to 7.7 kg of accessories
Power Unit	Power supply	AC 100-230 V, 50-60 Hz
	Power input	125 VA
Weight (excl. options)		156 kg

Accessories

Flexible customization with a rich variety of options

1	O11-03	Beam Splitter	A camera can be attached (beam ratio: surgeon 80%, camera 20%)
2	O08-11	TV Camera Adapter	A C-mount compatible TV camera can be attached (F = 50 mm, with iris)
3	O06-19SE	Coaxial Binocular Microscope	Provides the same observation image viewed by the surgeon
4	O06-29SE	Rotatable Coaxial Stereoscopic Assistant Microscope	Can be positioned to the left or right of the surgeon
5	O06-27	BIOM Adapter	OCULUS BIOM* ¹ adapter for retina and vitreous surgery can be attached
6		EIBOS Adapter	Haag-Streit EIBOS* ² adapter for retina and vitreous surgery can be attached
7	O06-30	Camera Control Rack	Camera control unit can be stowed
8	O06-29	Monitor Arm	An LCD monitor can be attached

*¹ BIOM and OCULUS are registered trademarks of OCULUS Optikgeräte GmbH.

*² EIBOS and Haag-Streit are registered trademarks of Haag-Streit AG.

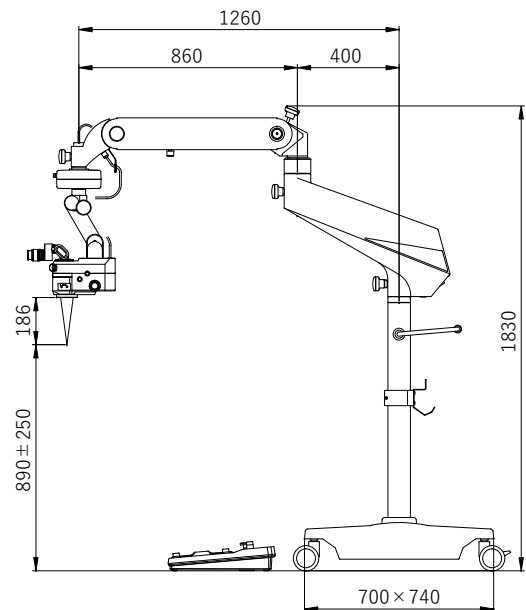
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 To ensure safe and correct handling please read the user manual before using.

Dimensions

Dimensions (mm)



The compatible fundus observation devices are the OCULUS BIOM, the Haag-Streit EIBOS and the Volk SOLR.

The above devices can be used in conjunction with the O06-19SE Coaxial Binocular Microscope and the O06-29SE Rotatable Coaxial Stereoscopic Assistant Microscope. Please note that when using the BIOM or the SOLR in combination with the O06-29SE Rotatable Coaxial Stereoscopic Assistant Microscope, the field of view of the assistant microscope may be limited.

*Please contact our sales department for details about BIOM and EIBOS adapters and SOLR.

Takagi Ophthalmic Instruments Europe Ltd.

Citylabs 1.0
(Former Royal Eye Hospital Building)
Nelson Street
Manchester, M13 9NQ
United Kingdom
T: +44 (0)161 273 6330
W: <https://www.takagieurope.com>



Takagi Seiko Co., Ltd.



takagieurope.com

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