

# Slitlamp Microscope 700GL

Slit lamp with a feeling of being “visible”



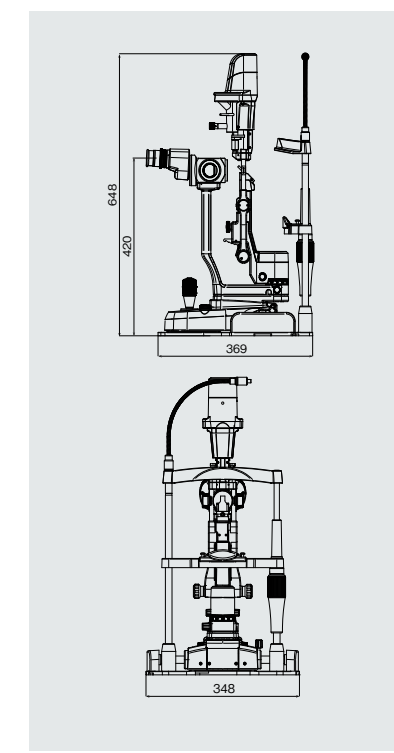
Our relentless pursuit of “visualizing” and our latest evolutionary slit lamp. Slit lamps cannot provide medical treatment, but we cannot talk about ophthalmology without slit lamps.

*This slit lamp is the number one performer behind the scenes.*

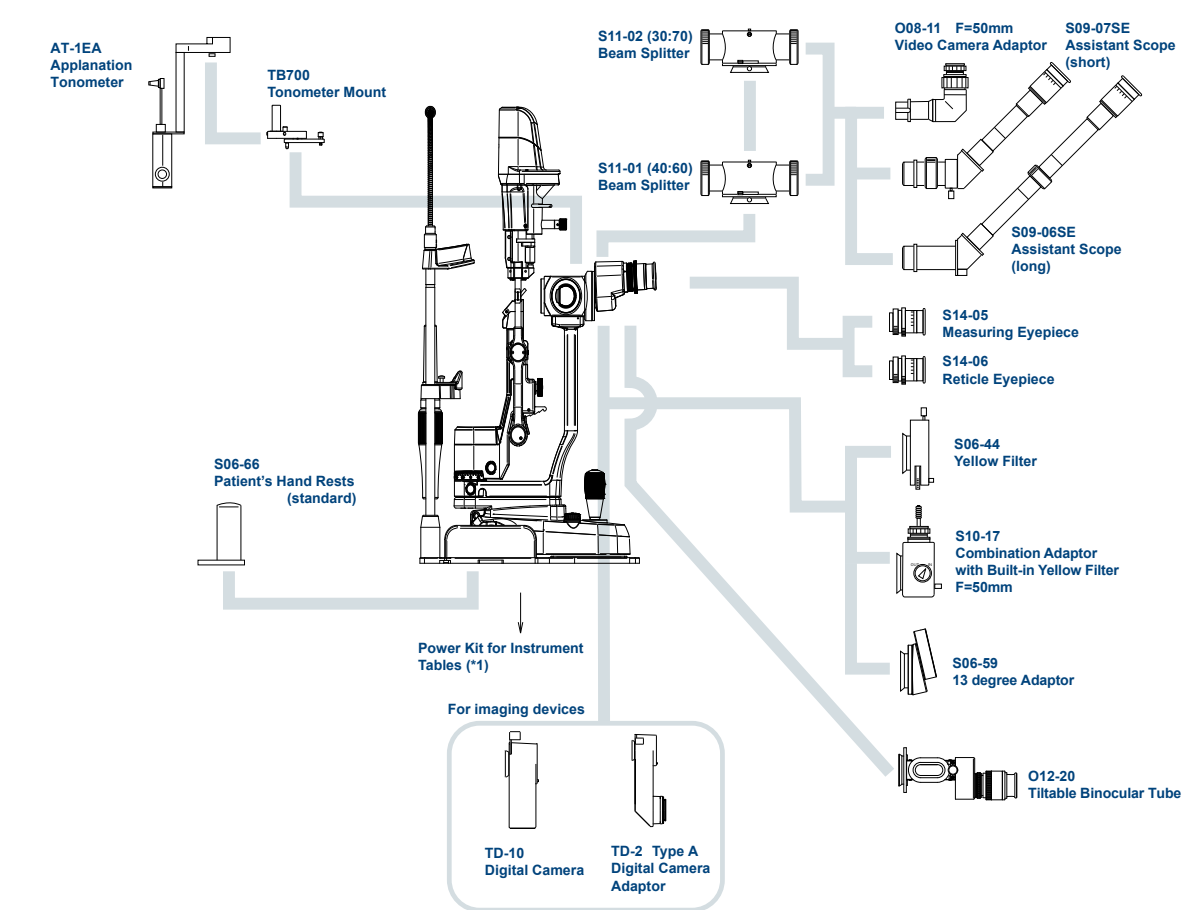
## Major Specifications

	Model	700GL	700GL NSW
<b>Microscope</b>	Type	Galilean converging binocular stereomicroscope	
	Magnification change	Five-position rotating drum	
	Eyepieces	16x wide-field, high-eyepoint	12.5x wide-field, high-eyepoint
	Total magnification	6.3x, 10x, 16x, 25x, 40x	6x, 9x, 15x, 24x, 37x
	Real field of view (diameter)	35.9mm, 23.3mm, 14mm, 8.8mm, 5.5mm	37.8mm, 25.2mm, 15.1mm, 9.5mm, 6.0mm
	Convergence viewing angle	10°	12° Prism-OUT, 4.1° Prism-IN
	Eyepiece convergence	6°	6°
	Objective lens configuration	Two lens achromatic	Three lens apochromatic
	Interpupillary adjustment	52 - 82mm	
	Diopter adjustment range	+/- 7 diopters	+/- 5 diopters
<b>Base Unit</b>	Horizontal (coarse) movement	105mm	
	Horizontal (fine) movement	15mm	
	Vertical movement	30mm	
<b>Chinrest Unit</b>	Elevation stroke	85mm	
	Slit width	0-14mm continuously variable	
<b>Illumination Unit</b>	Aperture diaphragm (diameter)	Φ14, Φ10, Φ5, Φ3, Φ2, Φ1, Φ0.2mm	
	Filters	Blue filter, Red free filter, Blue correction filter, Yellow filter	
	Light source	LED	
<b>Power Unit</b>	Power supply	AC100V - 240V (+/- 10%)	
	Power consumption	DC5V 2A	
<b>Fixation Light Unit</b>	Fixation light source	Red LED	
	Background illumination	Built-in	
	Weight	12.5kg	13kg

## Dimensions



## Optional Components



\*1: For further information on power kits, contact our Sales Department.

● Design and specifications are subject to change as improvements are made to the product.

**TAKAGI SEIKO CO.,LTD.**

330-2 IWAFUNE, NAKANO-SHI, NAGANO-KEN, 383-8585, JAPAN  
 TEL.+81-269-22-4512 FAX.+81-269-26-6321  
 URL:http://www.takagi-j.com E-mail:info@takagi-j.com



# Slitlamp Microscope 700GL 700GL NSW

Serving your vision



## Design

### Innovative Design without a cable

- Innovative Design: No cables are exposed. Even the power supply cable is concealed.
- Conventional power cable from the chinrest to the light housing has been eliminated – now neatly concealed inside the slit lamp body.
- 700GL looks neat and compact with no exposed cables, giving a sleek look with an innovative design.
- Even cables for connecting an imaging system can be concealed.
- New product color.
- Background illumination also discreetly built in with no exposed cables.



## Usability and Ergonomics Tailored for You

### Improvement of Usability

The size, placement and other features of various controls are reconsidered based on ergonomics in order to enhance usability

### Built-in Background Illumination

- For use with an imaging system, the background illumination is now equipped as standard.
- The color balance of an image taken through 700GL is not lost because the same LED is used for both main light source and background illumination.
- Intensity of the background illumination is adjustable by hand using the lower left hand side control.



## LED

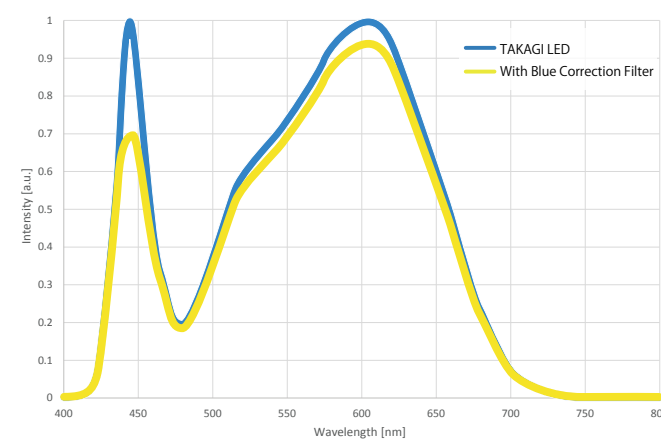


### New LED Optimized Slit Lamp

- One of the best advantages of LED illumination is that affected anatomy and structures of the eye can now be more clearly and visibly seen.
- We haven't simply replaced the halogen light source with an LED type, 700GL has been designed and engineered from scratch to accommodate the new superior LED lamp.
- LED optimized 700GL provides brighter and sharper light.

### Reduction of the Characteristic Blue Light of LED

- The projected light is soft and easy on patients' eyes by reducing the peak of the characteristic blue band spectrum of LED.

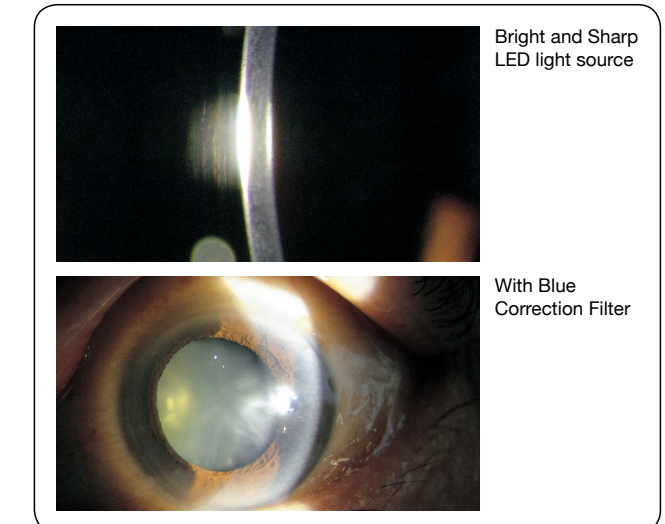


### Use of Uniform LED Illumination

- The LED slit lamp with a color temperature of 3500K provides brighter and sharper light than halogen.
- A 1-element high-luminance LED is used for 700GL providing a uniform and even light compared to multiple element LED's.

### Use of Low Voltage LED

- Even though a low voltage LED is used for 700GL, the LED slit lamp is extremely economical while obtaining a very high level of illumination.



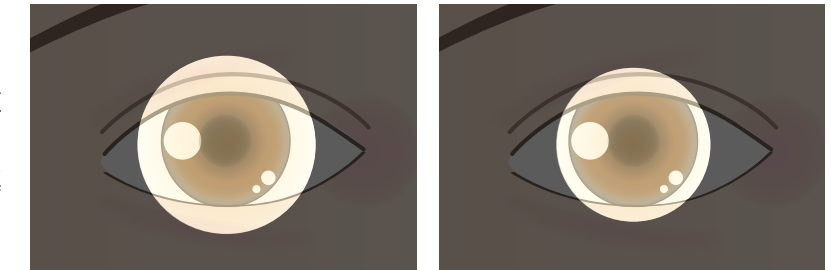
## Optical Design

### Clear Observation of both Anterior and Posterior Segments of the Eye

- As a result of our continuous pursuit in improving visibility of the fundus while simultaneously maintaining superior visibility of the anterior segment, the best, brightest and sharpest optical design of 700GL has been achieved.
- 700GL's binocular tubes with a 6-degree convergence provide easy binocular fusion ensuring a stress free observation.

### Extended Slit Length

- The diameter of the slit length is extended to 14mm from 10mm. This allows 700GL to illuminate a wider area of the anterior segment.
- This allows 700GL to maximize its characteristics such as a wider field of view.



## 700GL NSW

### What is "NSW"?

- NSW stands for "Narrow-angle Stereo Wide viewer" which means a wide-angle fundus observation device.

### Principle of "NSW"

- When observing the fundus with a slit lamp microscope, the range obtained by the binocular vision is only the part where the right and left visual fields overlap (Stereoscopic Vision Area). This is because the larger the viewing angle becomes, the narrower the range obtained by binocular vision becomes.
- By making this viewing angle at 4.1 degrees, the area where the left and right visual fields overlap has been increased, and the range obtained by binocular vision has become wider.



### Difference between 700GL and 700GL NSW

- 700GL's viewing angle is set at 10 degrees. In comparison with competitors' slit lamps, 700GL offers a better view of the fundus, and it is an excellent slit lamp microscope for general examinations.
  - When NSW is turned ON, the viewing angle is set at 4.1 degrees, which gives approximately 133% of the fundus view that 700GL offers. Therefore, it is a perfect slit lamp for doctors who frequently examine the retina of outpatients.
- \*700GL NSW is a factory option specification. Standard 700GL cannot be modified/converted to 700GL NSW.

### Features of NSW

- The NSW specification narrows the observation light path by the prism. Therefore, it can be used on patients with small pupils to observe the fundus with binocular vision.
- Competitors' similar devices make the Working Distance (distance between eyepieces and patient eye) longer by adding a beam splitter. On the other hand, NSW specification allows fundus observation without increasing the Working Distance, which will reduce stress during examinations.

