

One vision, Two sharp eyes  
with Our Innovation

# OA-2000

Optical Biometer



- Fourier domain axial length measurement + Topography
- Enhanced usability
- Connection with ultrasonic measurement unit
- One-shot IOL power calculation
- Internal Database

## OA-2000 SPECIFICATIONS

### Measurement range

Axial length	14 - 40mm
Anterior chamber depth	1.5 - 7.0mm
Crystalline lens thickness	0.5 - 6.0mm
Corneal thickness	0.2 - 1.2mm
Corneal curvature radius	5.0 - 11mm
Pupil diameter	1.5 - 13mm
Corneal diameter	7 - 16mm

### Measurement accuracy

Axial length	±0.03mm
Anterior chamber depth	±0.05mm
Crystalline lens thickness	±0.05mm
Corneal thickness	±5μm
Corneal curvature radius	±0.02mm(φ3 mm / φ2.5 mm)
Pupil diameter	±0.1mm
Corneal diameter	±0.3mm

### Type of light source

Swept laser source

### Display resolution

Axial length	0.01mm
Anterior chamber depth	0.01mm
Crystalline lens thickness	0.01mm
Corneal thickness	1μm
Corneal curvature radius	0.01mm

### IOL power calculation formula

Barrett Universal II, Barrett Toric Calculator, Haigis standard, Haigis optimized, Hoffer® Q, Holladay 1, OKULIX, SRK/T, Shammas-PL, SRK/T Double K

### Built in Printer

Thermal printer

### Data output type

USB-Hx2, USB-Dx2, LAN  
SD Card (for Internal Database)

### Display

10.4 inch color TFT monitor

### Dimensions

300(W) × 490(D) × 450(H)mm

### Weight

Approx. 24kg

### Power Supply

100 - 240VAC, 50/60Hz  
110VA



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## Optical Biometer

New approach to pre-cataract surgery examinations



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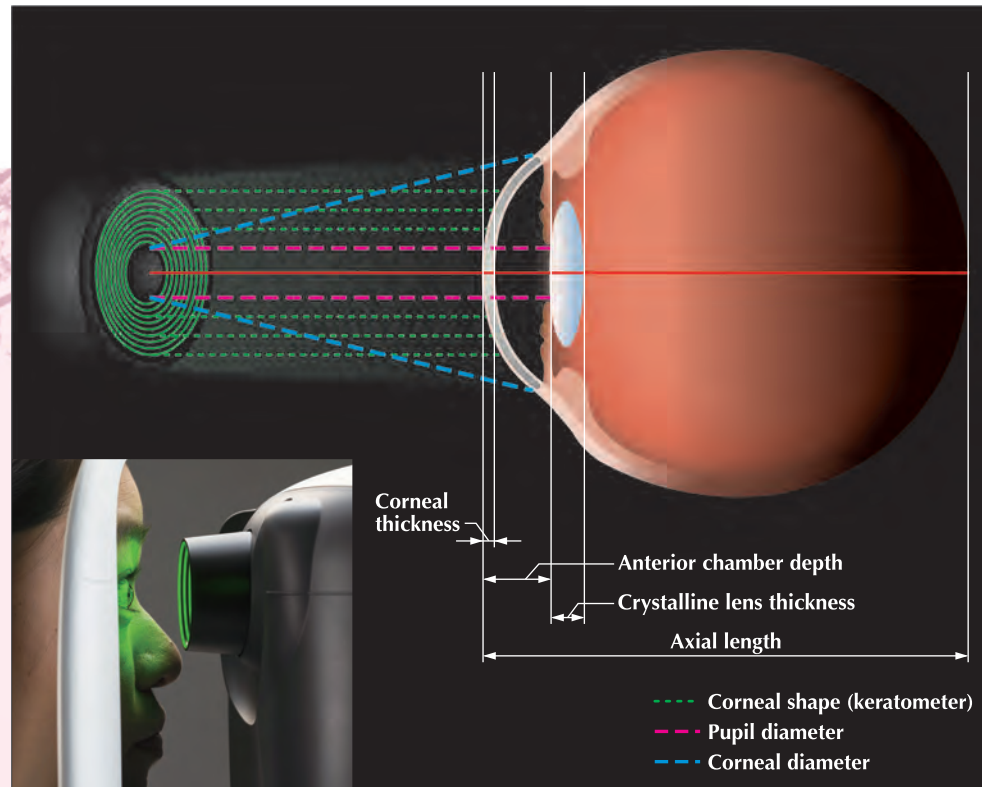


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# OA-2000

Optical Biometer

# New approach to pre-cataract surgery examinations



## Fourier domain axial length measurement + Topography

The Fourier domain method is used as a measuring method that features high-speed superior tissue penetration. It is equipped with a search function that automatically detects a measurable point even when the crystalline lens is unclear.

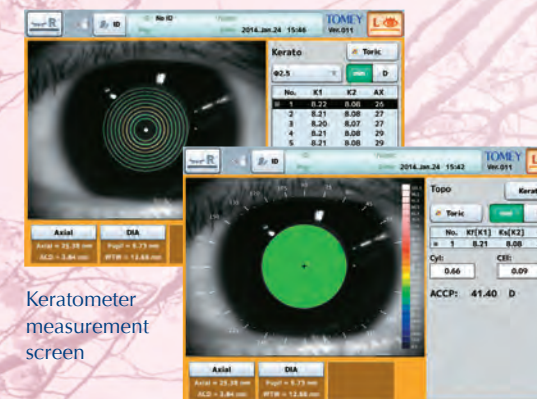
The ring cone method is used to measure the radius of corneal curvature.

In addition to the  $\phi 3.0$  mm position measured by general keratometer,  $\phi 2.5$  mm and  $\phi 2.0$  mm positions are also simultaneously measured.

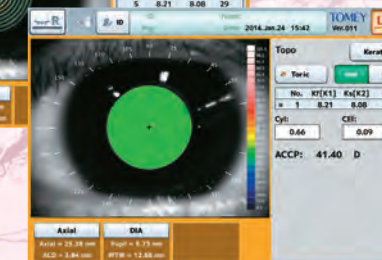
Additionally, up to  $\phi 5.5$  mm of the cornea is captured and the topography (corneal shape map) is drawn using the ring cone method. The topography is useful for checking eyes after LASIK surgery or for identifying corneal irregular astigmatism, or observing variations in the corneal shape before and after surgery. It is also equipped with a function that supports the axis where the toric intraocular lens is to be inserted in cataract surgery.



Measurement result screen with search waveform



Keratometer measurement screen



Topography screen



Toric intraocular lens auxiliary function screen

IOL power can be calculated in the main unit based on the data obtained.

## IOL power calculation function

The OA-2000 is supporting the following formulae. (\*: optional)

Barrett Universal II\*, Barrett Toric Calculator\*, Haigis standard, Haigis optimized, Hoffer® Q, Holladay 1, SRK/T, OKULIX\*

<Formulae exclusively for eyes after LASIK surgery>

Shammas-PL, SRK/T Double K



IOL calculation screen

## Enhanced usability

In spite of sizing that allows the unit to be installed on a compact optical bench, it is equipped with a 10.4-inch large monitor with a tilting function that adjusts the position to the level of the physician's eyes.



Simply touching the center of the pupil displayed on the monitor screen begins alignment. Measurement starts immediately via the Auto Alignment and Auto Shot functions. Even when the physician operates the unit for the first time, intuitive operation is possible.

In the event that automatic measurement is difficult, manual measurement is possible using the joystick.



## Connection with ultrasonic measurement units

In cases where optical measurement is difficult due to ophthalmic issues, the OA-2000 can be connected to the ultrasonic axial length measurement units AL-4000 / AL-100. IOL power calculation, data storage and other operations can be performed on the main unit of the OA-2000.



AL-4000

## One-shot IOL power calculation

Up to seven sets of measurement data, such as corneal thickness and anterior chamber depth in addition to axial length and corneal curvature, can each be obtained in one shot in short time.

A series of operations from examination before cataract surgery to management after surgery can be performed with the OA-2000, including IOL power calculation, post-surgery data storage, A-constant optimization, and statistical processing.



Measurement screen