



One vision, Two sharp eyes  
with Our Innovation

# EM-4000

**SPECULAR MICROSCOPE**

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# EM-4000

## SPECULAR MICROSCOPE

Total Automation capturing in faster and more accurate exams!



- Wide area capture including outer peripheral
- Continuous automatic capturing reduces capturing errors
- Increased speed ensures patient comfort.
- Large volume database and back-up capabilities with SD card
- Oversized adjustable touch screen
- Automatic acquisition and automatic shot

### EM-4000 SPECIFICATIONS

#### Observation and analysis of corneal endothelium

**Photographing method**

Non-contact

**Photographing range**

0.25mm x 0.54mm

**Measurement mode**

Auto/Manual/Auto Alignment Manual Shot

**Capturing position**

Center + 12peripheral points

**Cornea thickness measurement accuracy**

+/- 10 μm

**Analysis method**

Core Method

**Analysis values**

Number (the number of analyzed cells)

CD (cell density) AVG (average cell area)

SD (standard deviation of cell area)

CV (coefficient of variation of cell area)

Max (maximum cell area) Min (minimum cell area)

**Histogram**

Area (Polymegathism: Distribution by areas)

Apex(Plemorphism: Distribution by polygonal shapes types)

**Main unit****Display**

10.4"color LCD

**Stroke of moving sections**

88 mm (X axis); 40 mm (Y axis); 50 mm(Z axis)

**Stroke of chin rest**

70 mm

**Built in Printer**

Thermal printer

**Data output type**

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

**Dimensions and weight**

309 (W) x 491 (D) x 450 (H) mm; approx. 22 kg

**Power source**

100 VAC-240VAC; 50/60 Hz, 100 VA



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## Wide variety of capturing and analysis functions

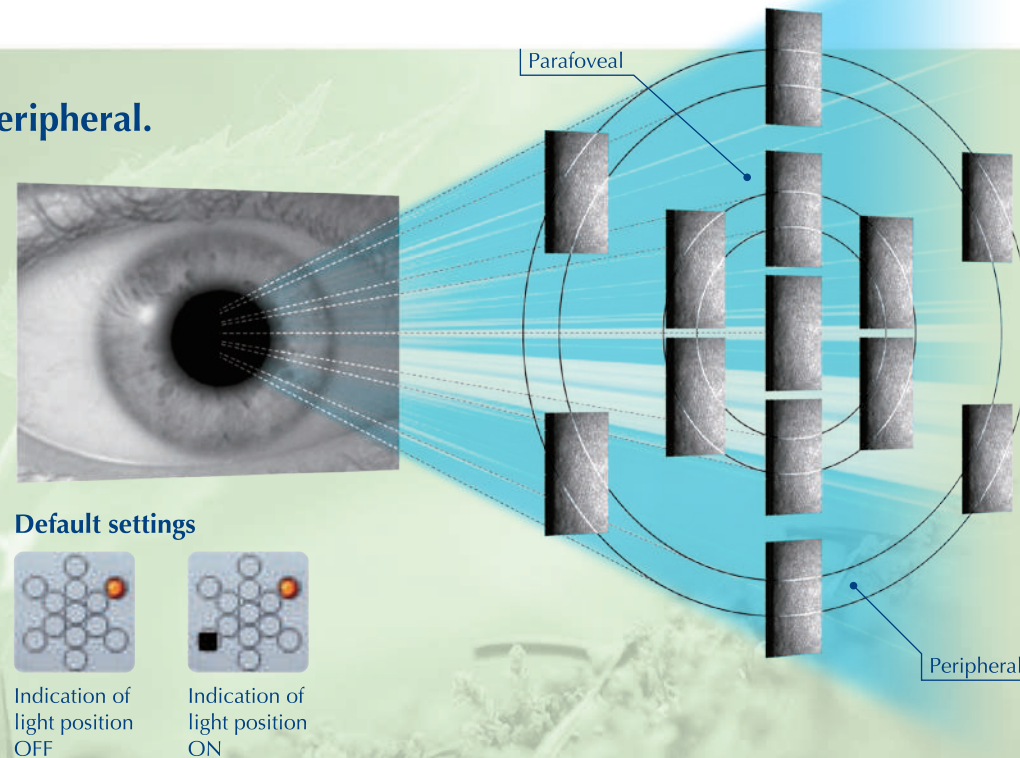
### ● Wide Capturing area including peripheral.

Wide capturing area of 0.25x0.54mm can be viewed utilizing original technologies. The endothelium can be viewed in a wide area of the cornea. Having the patient fixate their eye on the fixation light enables the unit to capture images at 13 points in total. The wide range of capturing positions has increased the chances of capturing images on patients with partial cornea opacity.

A mark indicating the image capture location can be added to the icon that indicates the selected position of the fixation light.

Central cornea thickness can be measured simultaneously.

The estimated measurement in the ultrasound mode can also be displayed.



### ● Database function and its usage New

A database function is provided in the main unit.

Two sets of data can be displayed simultaneously, allowing you to compare observations before and after surgery for the same patient.

Data for approx. 16,000 patients can be stored in the SD card set in the main unit. Performing reanalysis using a different analysis method is possible by retrieving data that has been stored.

\* For facilities that handle enormous amounts of data, it is recommended to use a personal computer to perform analysis and data management.

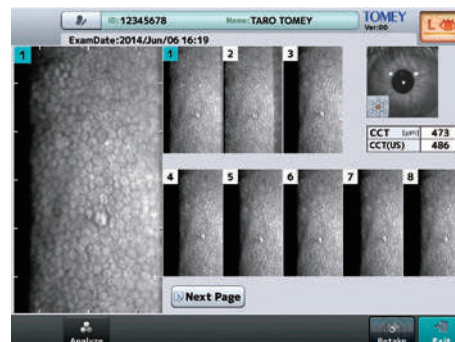


## Smooth and speedy

### ● Continuous automatic capturing reduces capture errors

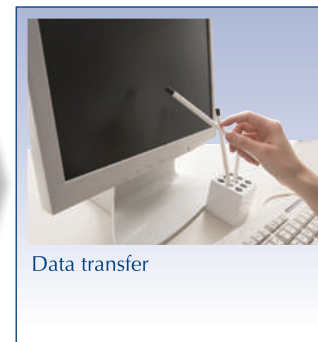
Capture errors have been reduced by continuously capturing 16 images with one-time capturing operation.

The best quality image is automatically selected and displayed. Selecting the desired image is also possible.



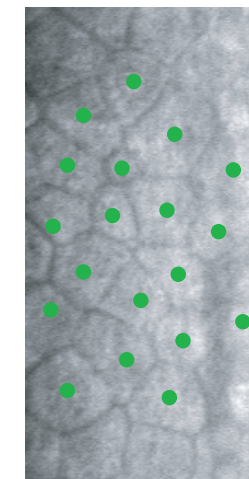
### ● Increased speed ensures patient comfort

Compared to older models, capture and export can be completed in half the time, resulting in patient comfort.



### ● Core method

Touch the core of endothelium tissues in the area containing a large number of cells to perform analysis based on that information.



### ● Equipped with built-in printer

Displays the endothelium image and the analysis result.

An external printer is not necessary, leading to cost reduction.

