



*One vision, Two sharp eyes
with Our Innovation*

EM-4000

SPECULAR MICROSCOPE



- 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 + 12 peripheral points

Cornea thickness measurement accuracy

+/- 10 μ m

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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Total Automation capturing in faster and more accurate exams!



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Wide variety of capturing and analysis functions

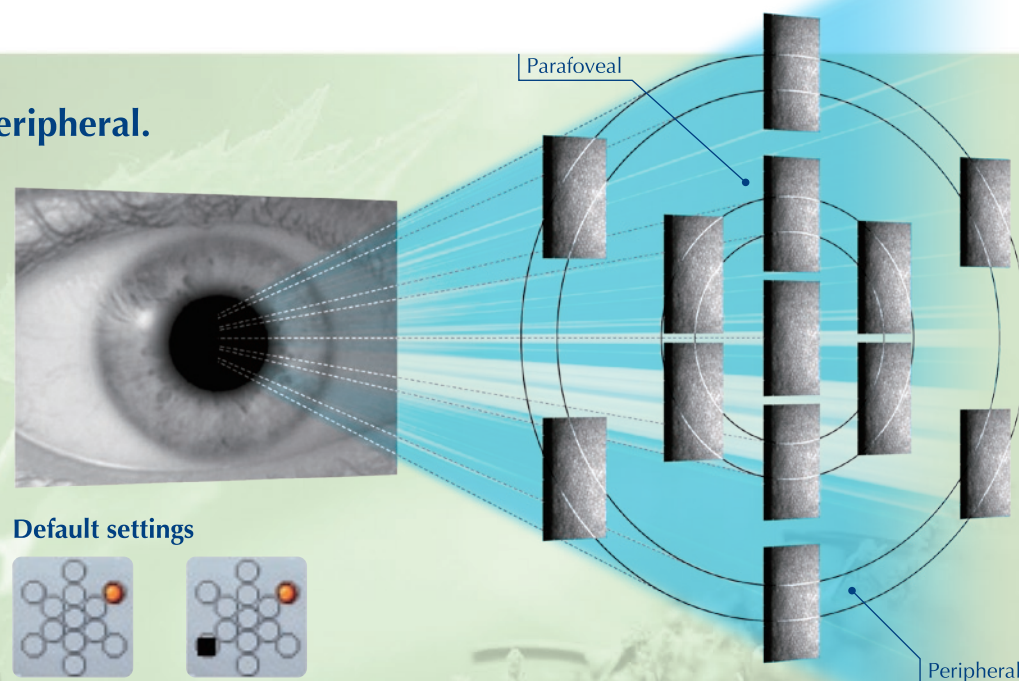
● Wide Capturing area including peripheral.

Wide capturing area of 0.25×0.54mm 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.



Default settings



Indication of light position OFF



Indication of light position ON

● 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

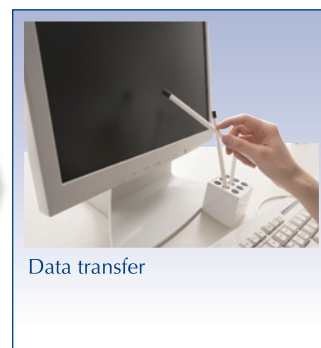
Capture errors have been reduced by continuously capturing 16 images with one-time capturing operation.

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



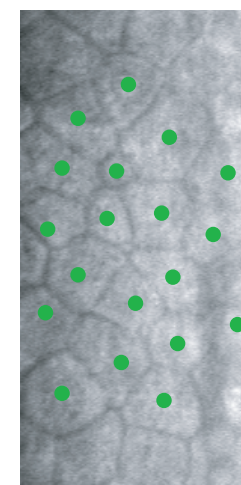
● Increased speed ensures patient comfort

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.

