



EM-4000

Specular Microscope

Specifications



MEASUREMENT PERFORMANCE

Capturing scope (WxH)	0.25 x 0.54 mm
Measurement range central corneal thickness	300 – 1000 µm
Measurement accuracy central corneal thickness	±10 µm

MAIN UNIT

Display size	10.4" colour LCD
Dimensions WDH	309 x 491 x 450 mm
Weight	~ 22 kg
Voltage	100 VAC to 240 VAC
Frequency	50/60 Hz
Power consumption	100 VA

AUXILIARY FUNCTIONS

MEASUREMENT

Measurement method	Non-contact
Number of fixation points	1 central + 12 peripheral
Number of images per examination	16

DATA MANAGEMENT

Built-in printer	Thermal printer
Internal database	SD card
Data output	USB-H, USB-D, LAN

ANALYSIS

Analysis method	Automatic analysis (Trace method), L-count, Core method, Dark Area analysis
Output	Number (the number of cells analysed) CD (cell density) AVG (average cell area) SD (standard deviation of cell area) Max (maximum cell area) Min (minimum cell area)
Histogram	Area (polymegathism: distribution by areas), Apex (pleomorphism: distribution by polygonal shapes types)

Distributed in Canada by



CLARION PN: EM4000PHYBRO-EN

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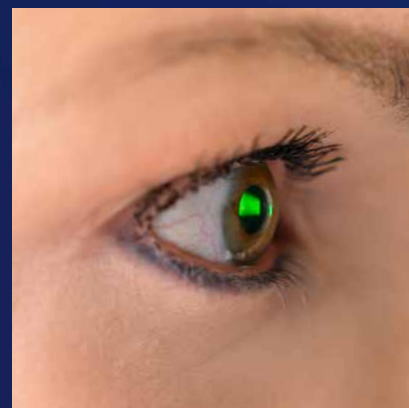
2025/01 - subject to change without notice / Picture credits: Mountains © Ralph Ravi Kayden, www.unsplash.com / Sky with clouds © Stacey Gabrielle Koehnitz, www.unsplash.com

Technology meets expertise

Non-contact examination, auto alignment and measurement, plus automatic analysis of the endothelium layer make working with the EM-4000 fast and precise.

- + Auto alignment and auto measurement
- + Integrated non-contact pachymetry
- + 13 measurement areas
- + Integrated database
- + L-count, Trace, Core method, Dark Area analysis
- + Counts more than 300 cells
- + Integrated printer

You + eye.
We care.



"THE EM-4000 IS AN AMAZING DEVICE THAT GENERATES REPRODUCIBLE ENDOTHELIAL CELL INFORMATION IN THE SIMPLEST WAY."

Udo Schmidt

HEAD OF PRODUCT MANAGEMENT/
R&D

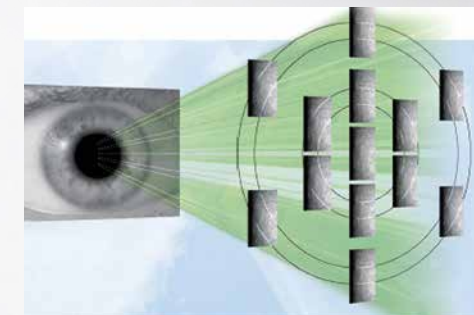
EM-4000 Specular Microscope

Non-contact examination, auto alignment and measurement, plus automatic analysis of the endothelium of the cornea layer make working with the EM-4000 fast and efficient (four sec. for each eye). Thanks to our auto alignment technology, the reproducibility of the measured area and therefore the analysed values are very precise.



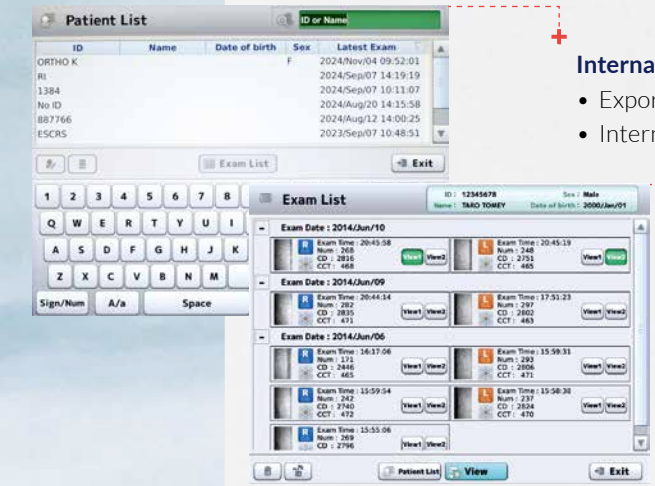
Effortless operation

- Touch-screen operated
- Auto alignment per 1-2 sec
- Auto capture of 16 images
- Measurement of CCT
- Multi-fixation targets



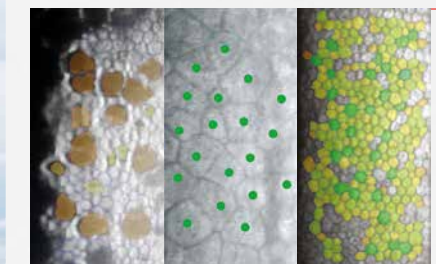
Complete corneal information

- Central
 - Paracentral
 - Peripheral
- Clinical changes can appear in different cornea areas.



Internal and external data

- Export as PDF/JPG/DCM
- Internal printer



Follow up in dual-view

- Compare right and left sides
- Follow up pre- and post-op:
- Check "left" and "left" eye

Analysis options

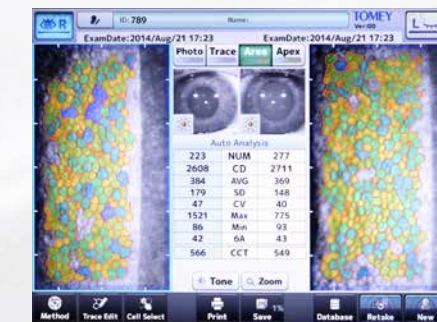
- Trace method
- Dark Area analyses
- L-count method:
- Standardised area
- Standardised cell density
- Core method (center count)



Cell size and shape

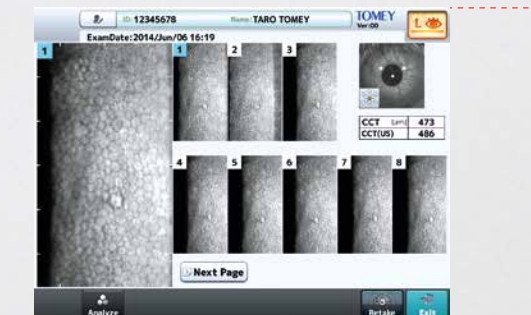
- Area polymegathism
- Apex pleomorphism
- The early signs of change

For more detailed information, please use single-view.



Standard dual-view

- Compare OS/OD
- Compare pre- and post-op



Preselection of best image

- Wide measurement range
- High reproducibility
- Markable landmarks
- Auto contrast adjustment