

The TRIumph of Excellence

TONOREF® II

AUTO REF/KERATO/TONOMETER





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TONOREF® II

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Three essential measurements combined in
one UNIQUE instrument:
The world's first

Auto Refractometer

Auto Keratometer

Non-Contact Tonometer

combination unit.

Compact and User Functional

This newer compact, more user friendly design allows for enhanced patient flow by providing Auto Refractometer / Auto Keratometer / Non-Contact Tonometer measurement in one setting.

The user can easily select patient measurement modes and allow easy access to patients eyelids.

NEW TECHNICAL ADVANCEMENTS incorporated in TONOREF II allow:

- Smooth, Easy transition patient measurement modes
- New Design facilitates quick access to eyelid



--- Size of Previous Model



Accuracy of the Refraction

Building on NIDEK's tradition of high quality and accuracy, the TONOREF II adopts the state of the art measurement principle found in the NIDEK ARK-500 and AR-300 series.

Pupil Zone Imaging Method

The Pupil Zone Imaging Method for refraction measurement analyzes a wider area (Max. $\phi 4$ mm) to provide more reliable data.

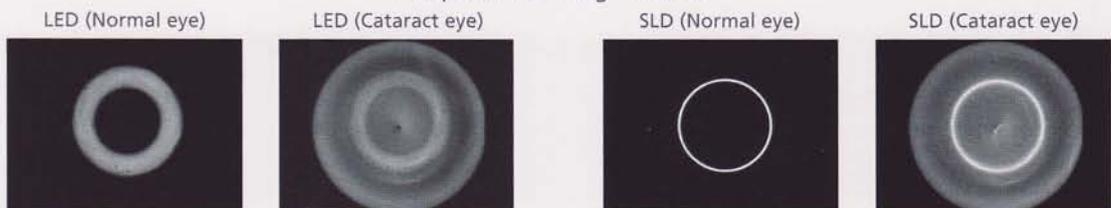


SLD (Super Luminescent Diode)

A SLD and a highly sensitive CCD device enable.

- Improved image quality
- Measurement of densely cataractous eyes and pseudophakic eyes
- Sharper Clearer images than LED

Comparison of image on CCD*



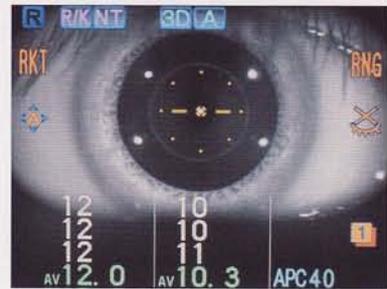
*In-house trial data (Model eye)

■ **Attractive 5.7-inch VGA Tiltable Color LCD**

Clear image and data display with user-friendly colored graphical icons help operators easily recognize the data.

New Mire Ring for Screening and Detecting

The newly adopted mire ring enables simple and quick screening and detecting of corneal surface abnormalities.



Tilting color LCD

The clear 5.7-inch VGA color LCD with tilting function offers easy operation even for a standing operator.



■ **Comfortable Tonometry Measurement**

Recent enhancements such as the advanced APC (Auto Puff Control) and noise reduction provide for a more comfortable patient experience.

■ **Quick and Accurate Keratometer Measurement**

■ **Printer with Easy Loading & Auto Detachment**

Newly adopted printer provides fast and auto paper loading capabilities. The built-in auto detachment cuts the data-printed paper automatically.





TONOREF II Specifications

Auto Refractometer	
Measurable range	Sphere -30.00D to +25.00D (VD=12 mm) (0.01 / 0.12 / 0.25D increments)
	Cylinder 0D to ±12D (0.01 / 0.12 / 0.25D increments)
	Axis 0° to 180° (1° / 5° increments)
Measurable minimum pupil diameter	ø 2 mm
Chart	Scenery chart
Auto Keratometer	
Radius curvature	5.00 to 13.00 mm (0.01 mm increments)
Refractive power	25.96D to 67.50D (n=1.3375) (0.01 / 0.12 / 0.25D increments)
Astigmatism	0D to ±12.00D (0.01 / 0.12 / 0.25D increments)
Axis	0° to 180° (1° / 5° increments)
Non-Contact Tonometer	
Measurement range	1 mmHg to 60 mmHg
Measurement range setting	APC40, APC60 (APC=Automatic Puff Control), 40, 60
Working Distance	11 mm
Eye Fixation	Inner Fixation light
Auto tracking & Auto shooting	X-Y-Z direction Auto shooting
PD measurable range	30 mm to 85 mm (indication increments: 1 mm)
Corneal size measurable range	10.0 mm to 14.0 mm (indication increments: 0.1 mm)
Pupil size measurable range	1.0 mm to 10.0 mm (indication increments: 0.1 mm)
Monitor	5.7" VGA color LCD Tilttable
Printer	Thermal line printer with automatic paper cutter
Interface	RS-232C (IN / OUT), USB
Power supply	AC100 - 240 V ±10 % 50 / 60 Hz
Power consumption	100 VA
Dimensions & Weight	260 (W) x 481(D) x 505 (H) mm / 23 kg at ARK standard measurement
	260 (W) x 481(D) x 460 (H) mm / 23 kg at NT standard measurement
	10.24 (W) x 18.94 (D) x 19.88 (H) " / 50.7 lbs. at ARK standard measurement
	10.24 (W) x 18.94 (D) x 18.11 (H) " / 50.7 lbs. at NT standard measurement
Standard accessories	Spare printer paper (x3), Power cord (x1), Dust cover (x1), Chinrest paper (x1), Fixing pins (x2), Model eye (x1)
Optional accessories	Interface cable, Eye care card system (x1)

*Manufacturer
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Caution : U.S. Federal Law restricts this device to sale, distribution and use by or on the order of a physician or other licensed eye care practitioner.



*Specifications and design are subject to change without notice for improvement.



Printed on environment-friendly recycled paper.

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