



Auto Ref/Kerato/Tonometer  
**TONOREF™ II**

*The Art of Eye Care*

A close-up, low-angle shot of the NIDEK TONOREF II device. The device is white with a black frame. The NIDEK logo is visible on the side. The lighting is dramatic, highlighting the contours of the device.

# AUTO REF/KERATO/TONOMETER TONOREF™ II

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## *The TRIumph of Excellence*

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

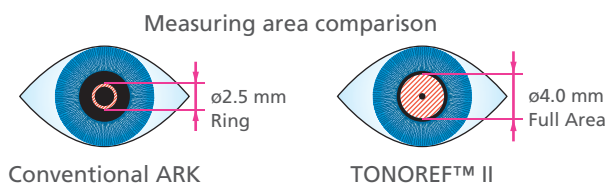


## ■ Accuracy of the Refraction

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



\*In-house trial data (Model eye)

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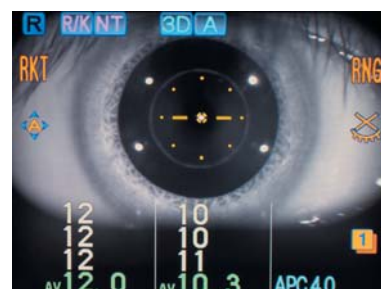
## ■ **Attractive 5.7-inch VGA Tiltable Color LCD**

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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.



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## ■ **Comfortable Tonometry Measurement**

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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**

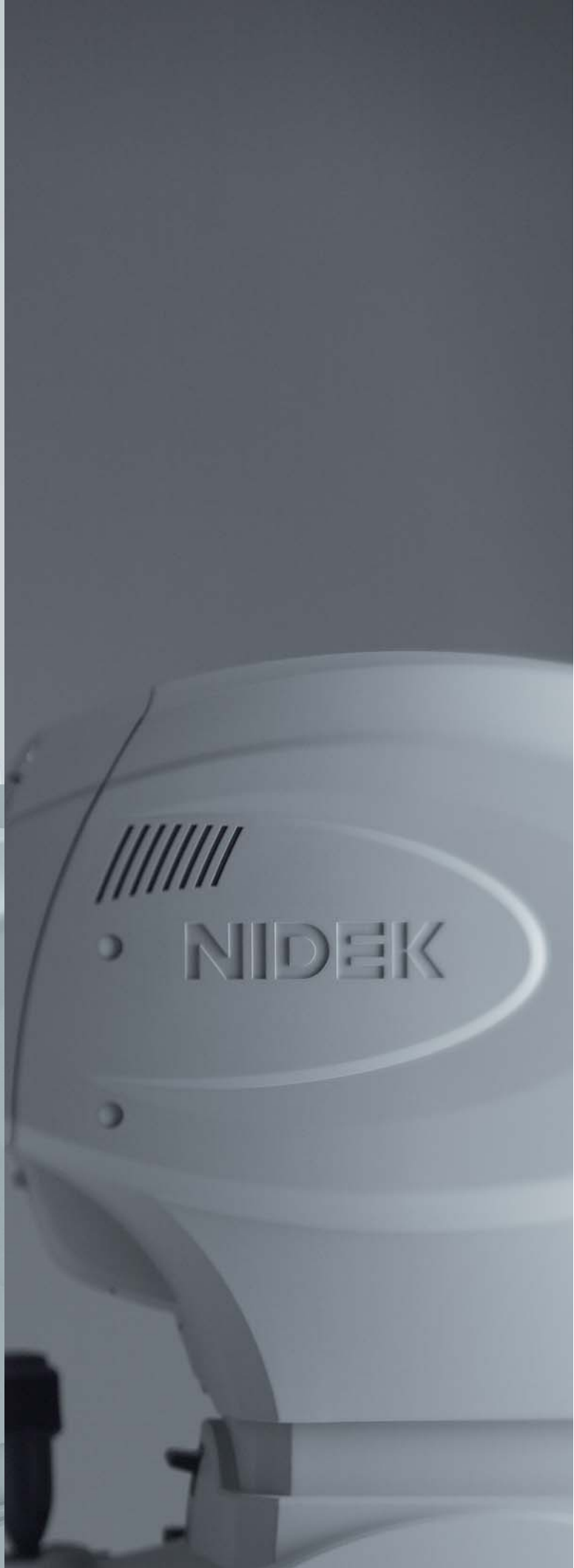
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## ■ **Printer with Easy Loading & Auto Detachment**

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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 Measurement range	Sphere	-30.00 to +25.00 D (VD=12 mm) (0.01 / 0.12 / 0.25 D increments)
	Cylinder	0 to ±12.00 D (0.01 / 0.12 / 0.25 D increments)
	Axis	0 to 180° (1° / 5° increments)
Measurable minimum pupil diameter	ø2 mm	
Chart	Scenery chart	
Auto keratometer Measurement range	Radius curvature	5.00 to 13.00 mm (0.01 mm increments)
	Refractive power	25.96 to 67.50 D (n=1.3375) (0.01 / 0.12 / 0.25 D increments)
	Astigmatism	0 to ±12.00 D (0.01 / 0.12 / 0.25 D increments)
	Axis	0 to 180° (1° / 5° increments)
Measurement area	ø3.3 mm (R=7.7 mm)	
Non-contact tonometer Measurement range	1 to 60 mmHg	
Measurement range setting	APC40, APC60 (APC=Automatic Puff Control), 40, 60	
Working distance	11 mm	
Eye fixation	Inner fixation light	
PD measurement range	30 to 85 mm (indication increments: 1 mm)	
Corneal size measurement range	10.0 to 14.0 mm (indication increments: 0.1 mm)	
Pupil size measurement range	1.0 to 10.0 mm (indication increments: 0.1 mm)	
Auto tracking / Auto shot	X-Y-Z direction Auto shot	
Display	Tilttable 5.7-inch color LCD	
Printer	Thermal line printer with automatic paper cutter	
Interface	RS-232C (IN / OUT), LAN, USB	
Power supply	AC 100 to 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	Printer paper, Power cord, Dust cover, Chinrest paper, Fixing pin, Model eye	
Optional accessories	Interface cable, Barcode scanner, Magnetic card reader, Eye Care card system	

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.



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