

Excellent Measurement Accuracy

ARK-530A / 510A

AUTO REF / KERATOMETER



Auto Ref/Keratometer ARK-530A / 510A

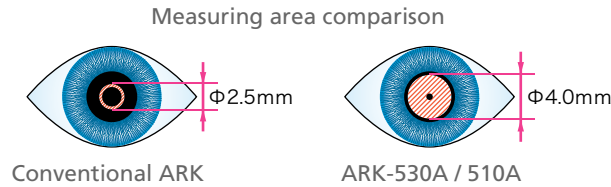
■ *Excellent Measurement Accuracy*

Highly Accurate Refractometer

The combination of new measuring principle - **Pupil Zone Imaging Method** - and unique technology - **SLD** - offers high accuracy and reliability in refraction measurement.

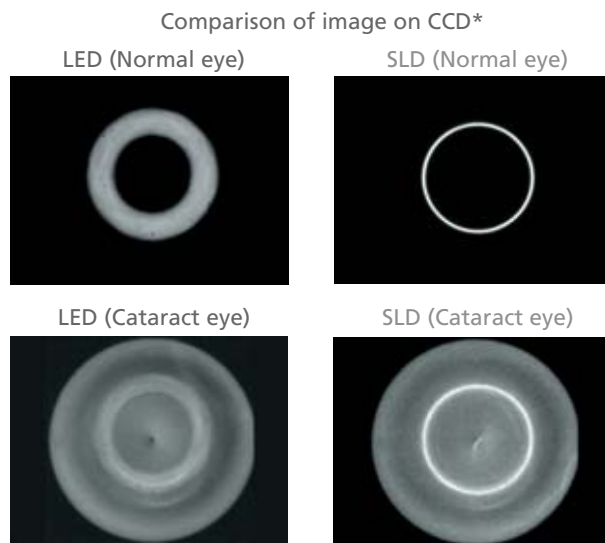
1. Pupil Zone Imaging Method

The NIDEK ARK-530A / 510A adopts the advanced **Pupil Zone Imaging Method** for refraction measurement, which analyzes a wider area (Max. $\phi 4$ mm) to obtain more reliable and realistic data that is closer to manifest refraction.



2. SLD (Super Luminescent Diode)

The ARK-530A / 510A uses the **SLD (Super Luminescent Diode)** and highly sensitive CCD device for improved image quality. The image with the SLD is sharper and clearer than those with the LED, and the system offers greatly improved measurement capability even with dense cataract and IOL implanted eyes.



*In-house trial data (Model eye)





Reliable Keratometer

The ARK-530A / 510A also offers high accuracy in keratometry measurement.

The system provides ordinary measurement ($\varnothing 3.3$ mm) using a mire ring, and also peripheral measurement ($\varnothing 6$ mm) using 4 points, both of which offer reliable and accurate keratometry data.

The ARK-530A / 510A uses double mire rings for better alignment and observation.



Projected double mire rings

■ Wide Measurement Range: -30 to +25D

The ARK-530A / 510A offers the widest measurement range of -30 to +25D.

■ Smallest Measurable Pupil Size: $\varnothing 2$ mm

The ARK-530A / 510A can measure small pupils down to 2 mm in diameter, allowing wider application.

■ 3D* Auto Tracking & Auto Shooting

The auto-alignment (X & Y directions), auto-focusing (Z direction) and auto-shooting provide faster, simpler and more accurate measurements. When alignment is performed correctly, measurement starts automatically.



*3D : ARK-530A only

Function Model	Auto Tracking		Auto Shoot
	X-Y-Z	Y	
ARK-530A	○		○
ARK-510A		○	○

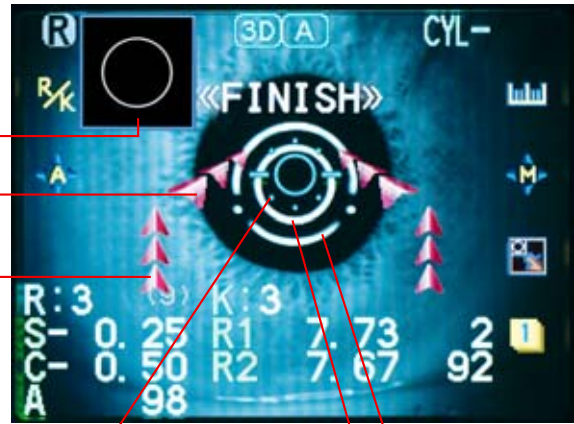
■ Informative 5.7-inch Tilttable Color LCD

Clear image and data display with user-friendly guidance allow easier and more reliable operation.

Thumbnailed image on CCD, which can be enlarged by pressing button

Guidance mark to move the main body toward the patient's eye

Guidance mark to raise the chinrest



Minimum pupil diameter mark Double mire rings

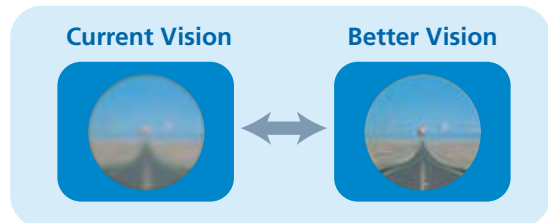


Tilting color LCD

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

■ Virtual Vision Comparison

A virtual comparison between patients' current vision (with the unaided eye or with glasses*) and AR-corrected vision can be easily demonstrated.



*Requires data transfer from a NIDEK auto lensmeter.

■ Motorized Chinrest

The motorized chinrest with simple up / down buttons facilitates smoother operation.

■ One-Touch Lock

The main body can be fixed with the advanced one-touch lock.



NIDEK's Innovative Auto Ref/Keratometer for Higher Precision and Better Operability.

High Speed Printer with Easy Loading & Auto Cutter

The ARK-530A/510A incorporates a high speed and user-friendly printer, and the printer paper can be changed easily.



Easy Paper Loading



Auto Cutter

Printed data sheet will be cut by the auto cutter for quick and easy detachment.



The desired data, such as the AR value, PD and confidence coefficient, as well as an eyeprint for documenting patient treatment, can be selected and printed out.

Sample Printout

Vertex Distance	VD=13.75mm
Working Distance	WD=40cm
Right Eye	<R> S C A - 4.50 - 0.75 158 9 - 4.50 - 0.75 158 9 - 4.50 - 0.75 158 9 <- 4.50 - 0.75 158>
AR Median Value	<R1 7.77 43.50 0> <R2 7.77 43.50 90> <AVE 7.77 43.50 > <CYL - 0.00 0>
KM Median Value	Left Eye <L> S C A - 4.75 - 0.75 160 9 - 4.75 - 0.75 160 9 - 4.75 - 0.75 160 9 <- 4.75 - 0.75 160>
Pupillary Distance	PD 68 N 64
Near Point PD	

EyePrint

NAME	M/F
2005.12.8	13:10
VD=13.75mm	
WD=40cm	
<R> S C A	
<- 4.50 - 0.75 158>	
<L> S C A	
<- 4.75 - 0.75 160>	
PD 68	N 64
NIDEK ARK-530A	

EyeCare Card System*

The ARK-530A/510A incorporates the card slot for EyeCare Card system, which provides quick and easy wireless data transfer.

*The card is optional.

ARK-530A / 510A Specifications

Auto refractometer	ARK-530A	ARK-510A	
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	←	
Auto keratometer			
Measurable range	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)		
Ordinary measurement area	ø 3.3 mm (R=7.7 mm)		
Peripheral measurement area	ø 6.0 mm (R=7.7 mm)		
PD measurable range	30 to 85 mm (1 mm increments) (Near point PD: 28 to 80 mm at WD=40 cm)	←	
Corneal size measurable range	10 to 14 mm (0.1 mm increments)	←	
Pupil size measurable range	1 to 10 mm (0.1 mm increments)	←	
Auto tracking & Auto shooting	X-Y-Z directions, Auto shooting	Y direction, Auto shooting	
Virtual vision comparison	Range: -20 to +20D	←	
Chart	Scenery chart	←	
Display	Tiltable 5.7-inch color LCD	←	
Printer	Built-in thermal type line printer (Easy loading and auto cutter)	←	
Interface	RS-232C (IN / OUT)		
	USB Eye care card system* *Card is optional	←	
Power supply	AC100 - 240 V ±10 % 50 / 60 Hz	←	
Power consumption	100 VA	←	
Dimensions & Weight	260 (W) x 481(D) x 455 (H) mm / 20 kg 10.23 (W) x 18.93 (D) x 17.9 (H) " / 44.1 lbs.	←	
Standard accessories	Spare printer paper, Power cord, Dust cover, Chinrest paper, Fixing pins, Model eye	←	
Optional accessories	Interface cable, Barcode scanner	←	



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



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