

# ARK 7610

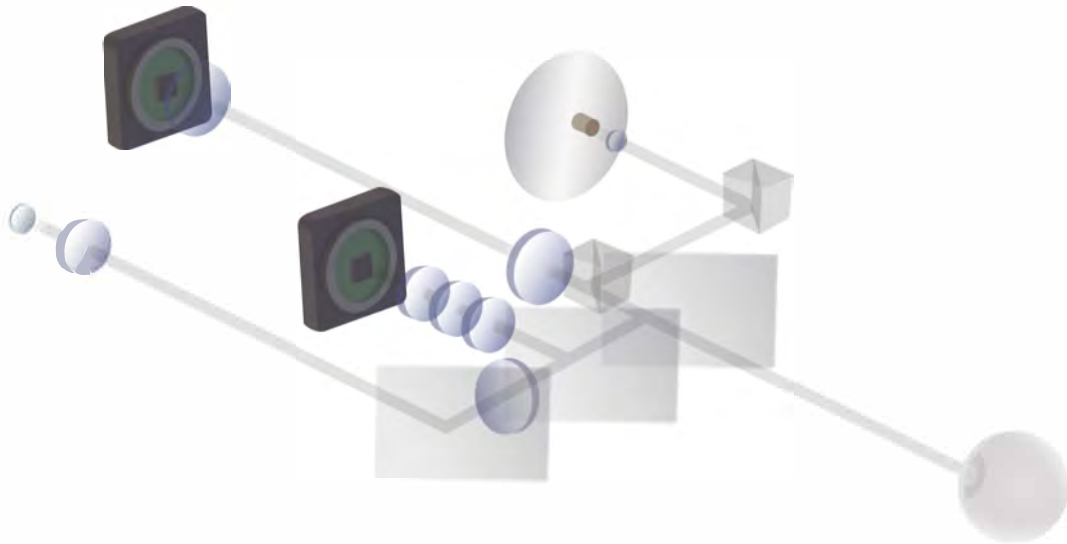
## AUTO REFRACTOR KERATOMETER

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## Shack-Hartmann Wavefront Technology Fast & accurate measurements

The ARK-7610 Auto-Refractor Keratometer uses advanced Wavefront technology to measure a patient's refraction status. With its Shack Hartmann sensor and uniquely designed optical system, the ARK-7610 provides a fast examination and delivers accurate measurements based on aberration analysis.





## Uniquely designed optical system

The unique optical system and algorithm used by the ARK-7610 enable it to measure high myopia eyes (up to -30.00D), mild to medium cataract eyes and patients wearing IOLs. Unlike the mire technology used in traditional auto refractometers, the light from ARK-7610 can penetrate the cloudy lens and reach the retina making measurement possible.



## Manual focus operation guide

When the pupil is out of focus during manual operation, the screen will show arrows to guide the operator to move the joystick to achieve focus.



## Auto tracking in vertical direction

When the focusing mark is moved to the middle of the pupil, the ARK-7610 will automatically vertically scan to track the centre of the pupil. When the centre is located, the device will measure automatically in auto-measuring mode.

## Two-dot alignment focusing with auto measuring

The ARK-7610 uses two-dot alignment technology which is an objective focusing method. When the two dots are aligned horizontally, it indicates that the measurement is in focus. This increases the focusing accuracy in comparison with subjective observation by the operator's eyes. When in focus, the device will measure automatically in auto mode.





## Quick measuring mode

For children and patients with nystagmus whose eye balls move rapidly and are hard to fix for a short time, the ARK-7610 offers a quick measuring mode which can capture the refraction information in very short time.

## Motorised chin rest

The motor used to control and adjust the chin rest operates quietly and smoothly, providing a comfortable experience for the patient.



## Data storage

The ARK-7610 stores three groups of data in each measurement. The maximum number is 10 groups to be stored at one time.

DATA RECORD							
R	SPH	CYL	AX	L	SPH	CYL	AX
1	-0.50	-1.50	95	1	-0.50	-1.25	99
2	-0.50	-1.50	95	2	-0.50	-1.25	99
3	-0.50	-1.50	95	3	-0.50	-1.25	99
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
AVG	-0.50	-1.50	95	AVG	-0.50	-1.25	99

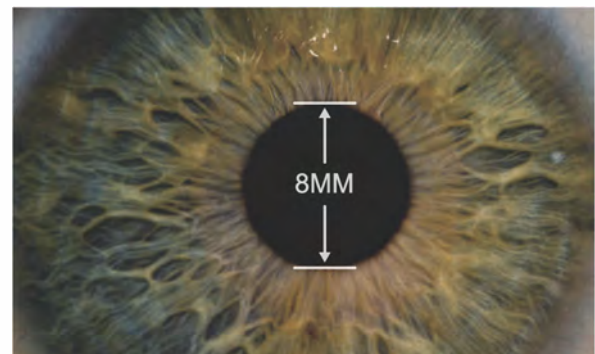
## Adjustable touch screen

The ARK-7610 offers a high resolution 7" tiltable touch screen to make operation very user friendly. The operator can tilt the screen up to 20 degrees for easy review.



## Pupil diameter measurement

The ARK-7610 can measure the pupil diameter from 2mm to 8mm.



## Specification

### REFRACTOMETRY

Vertex Distance(VD)	0.0, 12.0, 13.75, 15.0
Sphere(SPH)	-30.00D ~ +25.00D (When VD=12mm) (0.01D / 0.06D / 0.12D / 0.25D step)
Cylinder(CYL)	0.00D ~ ±10.00D (0.06D / 0.12D / 0.25D step)
CLBC Mode	1° ~ 180° (1° step)
Cylinder Mode	+, +/-, -
Pupil Distance(PD)	10 ~ 86mm
Minimum Pupil Diameter	2.0mm

### KERATOMETRY

Radius of Curvature	5.0 ~ 10.0mm (0.01mm step)
Corneal Power	33.00D ~ 67.00D (When corneal equivalent refractive index is 1.3375)
Corneal Astigmatism	0.00D ~ 15.00D (0.06D / 0.12D / 0.25D step)
Axis	1 ~ 180° ( 1° step)
Memory of Data	10 measurements for each eye

### OTHERS

Display	Tiltable 7" touch color TFT LCD
Interface	RS-232 port, USB port
Internal Printer	Thermal line printer
Chart	Auto fog
Measuring Light Energy	<30µw
Input Voltage	AC 100~240V, 50/60Hz
Dimension	650 x 400 x 620 (mm) (L/W/H)
Weight	19.5 Kgs

