TOPCON

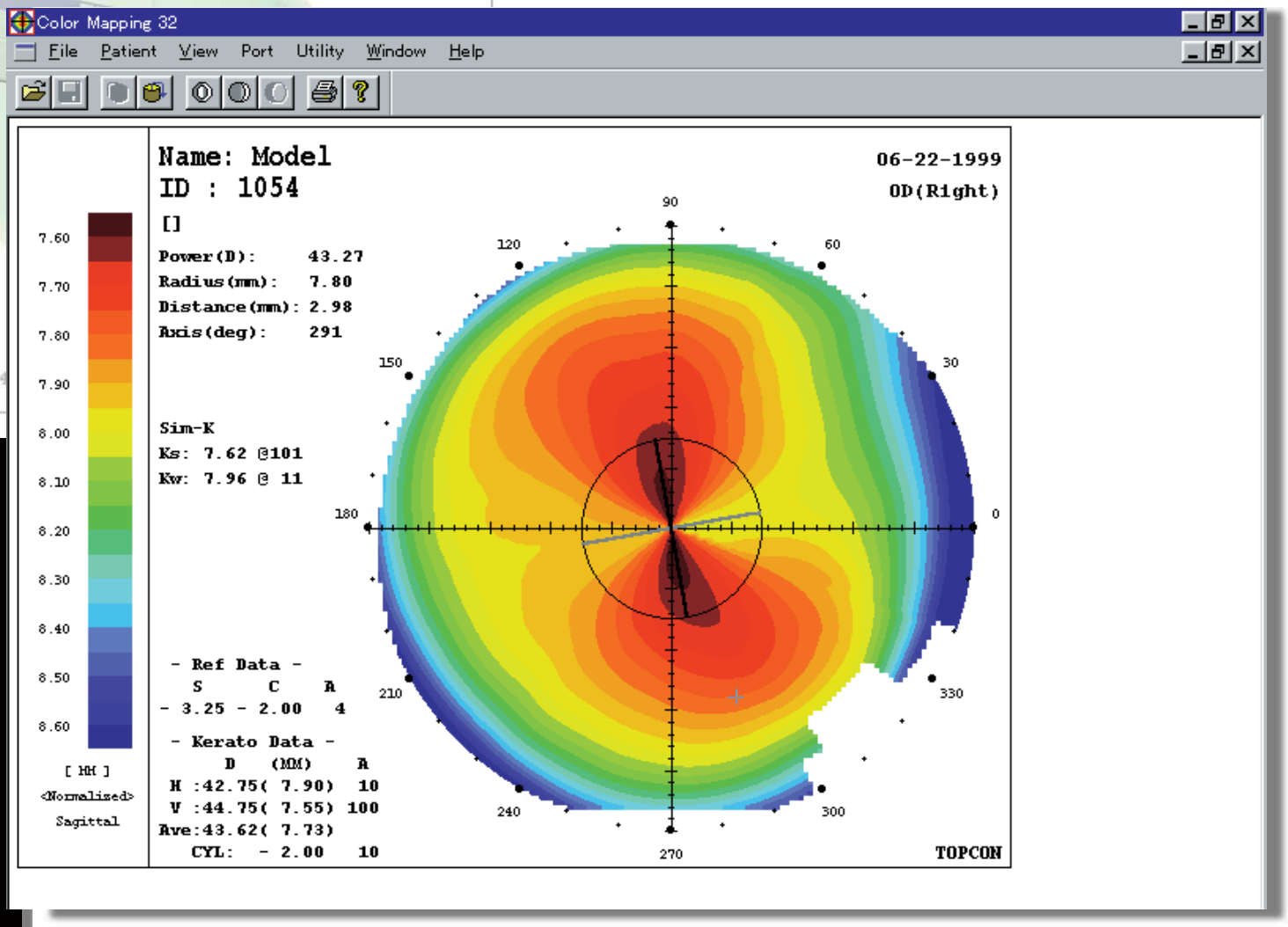
AUTO KERATO-REFRACTOMETER

KR-8000PA SUPRA

MOVE TOWARDS THE FUTURE OF VISION

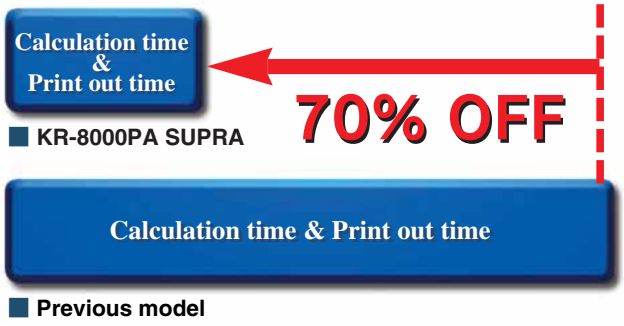
Topcon, the leader in the eyecare field, now offers the most advanced technology that provides significant operational conveniences and totally reliable diagnostic results in Auto Refractometry and Auto-Kerato-refractometry. Topcon KR-8000PA SUPRA now feature a highly sophisticated Corneal Mapping System.

KR-8000PA SUPRA



Faster for You; Easier on Your Patients 70% Faster on Mapping Output

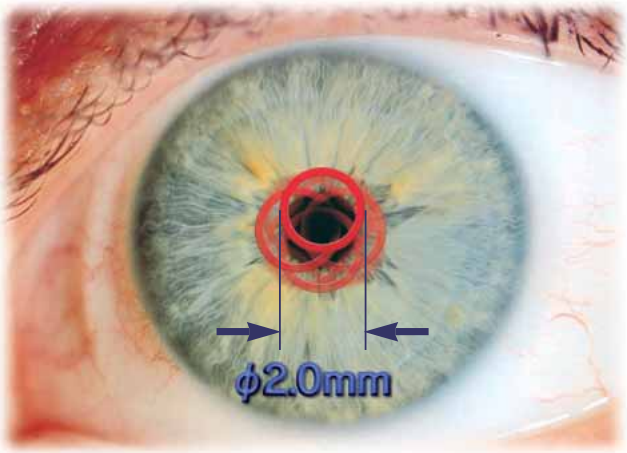
The time required for the calculation/ print out of mapping has been cut down by 70% due to the latest CPU and sophisticated algorithms applied to KR-8000PA SUPRA.



Also, the total time for 5 measurements (Kerato-Refractometry) of both eyes and print-out including mapping has been cut down by more than 50%.

The World's Smallest Pupil Dilation: 2.0mm

The innovative design of the KR-8000PA SUPRA enables accurate, reliable refraction and keratometric measurements within a pupil dilation as narrow as 2.0mm. This means easier and more precise diagnostic results when dealing with glaucoma, asymmetric pupils or elderly patients.



OPERATIONAL CONVENIENCES SUPPORTED BY ADVANCED TECHNOLOGY

The Newly introduced KR-8000PA SUPRA features superior handling and Multi-functionality in a compact design. It offers you the most reliable and accurate keratometry values by making use of the placido ring and a sophisticated measurement principle, using data coming from measurement points on human cornea.

Auto-Alignment

The 3D auto-alignment system offers easy operation and speedy measurement in which a precise focus is automatically obtained without any skill.

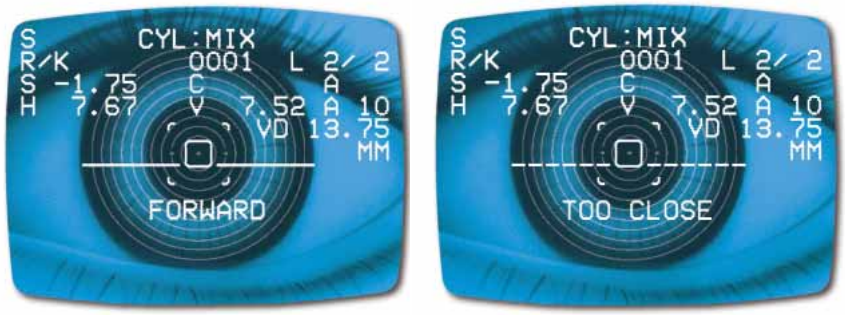
Before Auto Alignment
Roughly align toward the center area

Auto alignment ON
Auto alignment function is activated.

Measurement done
Measurement is done followed by continuous measurements.

Auto-Start

The KR-8000PA SUPRA offers Auto-Start function. As soon as the instrument is properly aligned, this innovative function initiates the measurement process and completes three readings of each eye. When the readings are complete, a printout of measurement results is automatically generated.

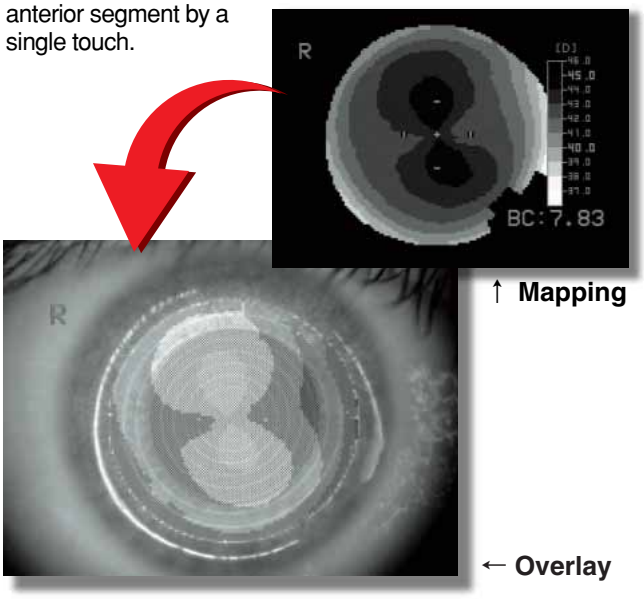


ADVANCED OPHTHALMIC TECHNOLOGY INSIDE THE MULTIFUNCTIONAL KR-8000PA SUPRA

TOPCON'S KR-8000PA SUPRA provides you with the functions of an auto-refractometer, auto-keratometer and even a mapping function in a single compact designed instrument.

Mapping ／Overlay

The KR-8000PA SUPRA provides accurate refraction and keratometry measurements. It also displays corneal mapping very quickly and even overlays the mapping output onto the anterior segment by a single touch.

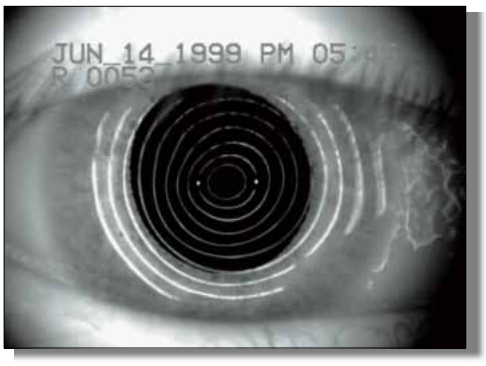


↑ Mapping

← Overlay

Corneal Irregularity Detection

In case of corneal irregularity, the placido ring projected on the cornea will be sort of distorted. However, if the irregularity is not substantial, it will not be noticeable. The KR-8000PA SUPRA detects corneal irregularity like irregular astigmatism and gives a marking to attract the operator's attention.



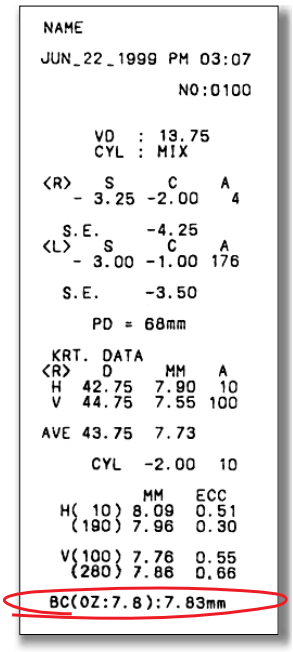
Wider Measuring Area

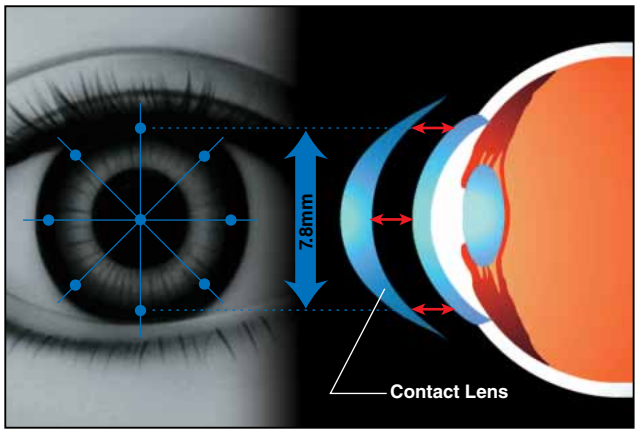
Now with the KR-8000PA SUPRA, wider area of 1.5mm ϕ ~9.2mm ϕ can be measured using 10 placido rings (in case of R=8mm).

Base Curvature Advice

Based on the mapping data, the KR-8000PA SUPRA advises the base curvature for the contact lens. The KR-8000PA SUPRA reconstruct corneal shape from mapping data of the whole cornea obtained by the projected placido rings. The internal software calculates the radius of curvature of a circle consisting of 3 points (2 optic zone ends and corneal peak on the same meridian).

This is done for totally 4 meridians to assure the best **BC.** This method has proven to be effective even in case of keratoconus.





Scenic Fixation Chart

This scenic color chart is adjustable in two brightness level for optimal results with large or small pupils, making eye fixation easier.

Picture Chart

Omni-Directional Joystick

Fast, positive and responsive control of operations is performed with our omni-directional joystick that leaves the user one hand free to operate other functions. Even novice operators can obtain excellent results. Also for the KR-8000PA SUPRA, the vertical movement is electric and corresponds to the rotation of the joystick.

Improved Functionality

Auto Shut-Down
To conserve enegy and prevent any built-up of heat from electronic circuitry, the instrument incorporates an automated function to shut down the instrument when left unused for more than 10 minutes.

Automatic PD Measurement
For binocular readings, PD measurement is performed automatically; the value obtained is stored in the patient's data file and printed out together with the results of objective tests.

Corneal Diameter Measurement

Corneal diameter can be measured either during testing of the patient or later by recalling an image of the cornea on the monitor. Measurements can be obtained for both eyes, with the data recorded on the printouts if required.

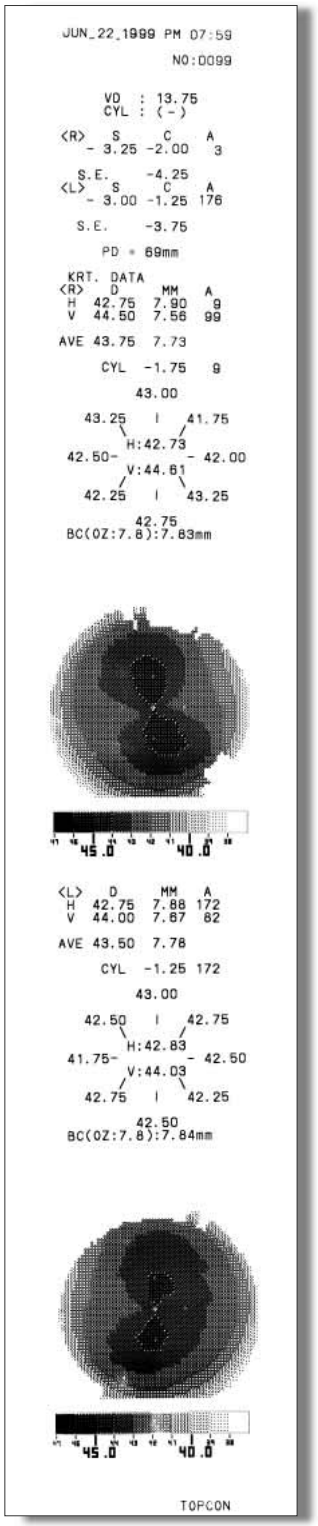
Positioning bar

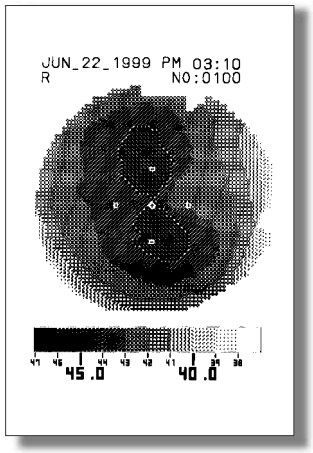
Convenient Control Panel

Touch-switch on the control panel provides a convenient method to change settings.

Printing Measurement Results

A complete printout of test results for record purposes can be accomplished with one touch of the print switch. The operator can choose among 3 data formats:





- ALL
  Prints out all measurements (10 readings per eye) with date
- AVE
  Prints out averaged value of all measurements with date
- SIM
  Prints out only the average measurement value of all readings

By changing output format, mapping image can be include/excluded. Even mapping only can be printed out.

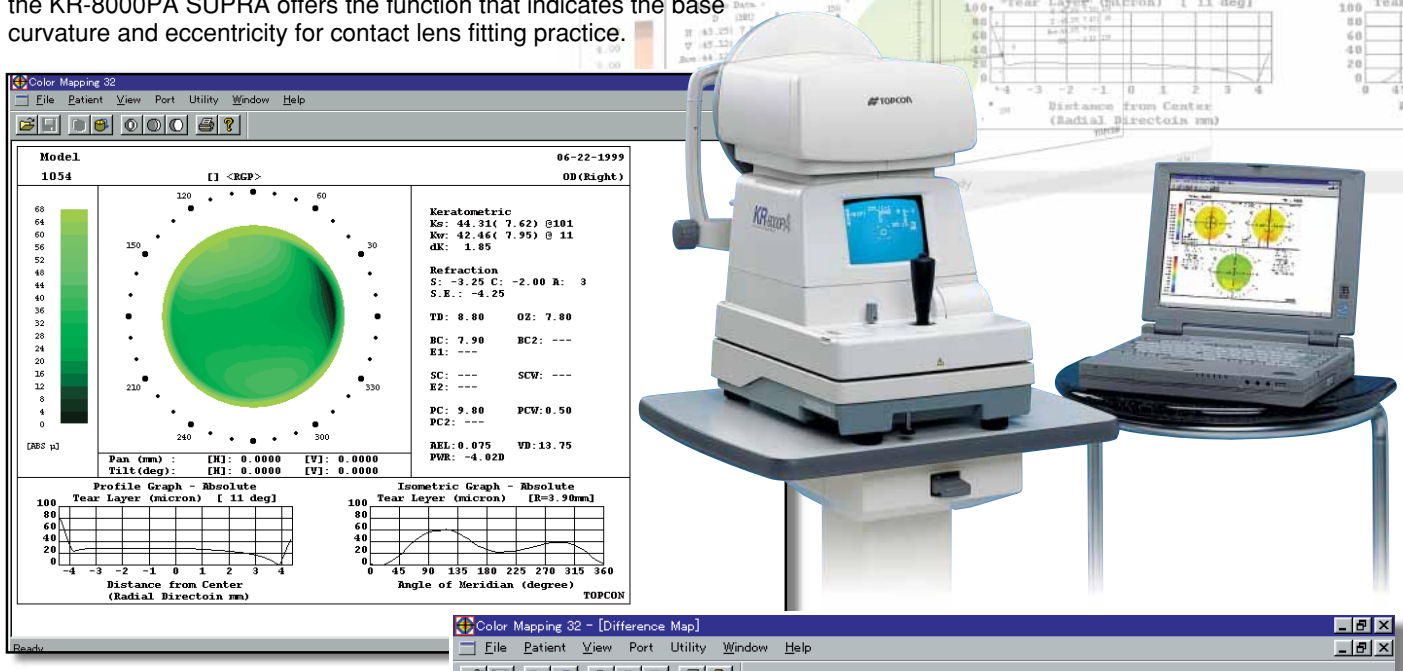
Simultaneous Measurement of Corneal Curvature

The KR-8000PA SUPRA provides precise measurements of corneal curvature.

OPTIONAL ACCESSORY
COLOR MAPPING 32 SOFTWARE FOR KR-8000PA SUPRA.

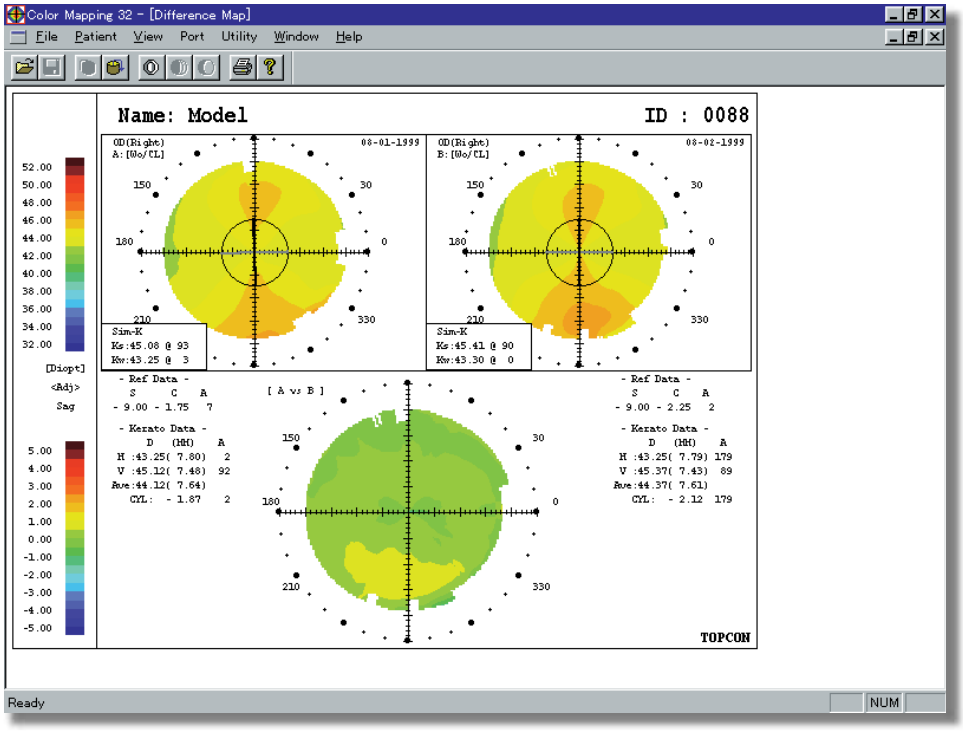
Fluorescein Pattern

In combination with the Color Mapping 32 software, the KR-8000PA SUPRA provides simulation of contact lens fitting. From the contact lens shape and the measured cornea shape, the software simulates the fluo pattern. This can be an assistance in selecting contact lenses by inputting the parameters of the lens (spherical, aspherical, toric). In addition, the KR-8000PA SUPRA offers the function that indicates the base curvature and eccentricity for contact lens fitting practice.



Versatile Color Mapping Software

The easy to use color mapping 32 software assists the more detailed mapping information. Single, multiple and differential mappings can be generated to compare the information for the pre-screening and post operative follow-up.



System Requirements

The following hardware/software is necessary to run Color Mapping 32:

- 100% IBM compatible computer with i-486DX or better
- Min. 8MB of system memory
- Min. 1MB of video memory
- 1MB of free disk space at installation
- A color printer supported by Windows
- An available COM port
- Interface cable (KR/ PC)
- Microsoft Windows 95/98 or Windows NT

SPECIFICATIONS

OBJECTIVE REFRACTOMETER MODE	
Sphere	−25 to +22D in 0.25D step (0.12D Step available)
Cylinder	0 to ±8D in step 0.25D (0.12D step available)
Axis	1° to 180° in 1° step (5° step available)
Minimal pupil diameter	ϕ2.0mm
Method of relaxation	Automatic fogging
Fixation chart	Picture chart
CORNEAL CURVATURE MODE	
Corneal curvature radius	5.00mm～10.00mm
Refraction index	1.3375
Corneal refraction	67.5D～33.75D
Corneal astigmatism	0D～±10D
Corneal astigmatism axial angle	1°～180°
Measuring area	3mm with 7.7mm radius
MEASURING STEP	
Corneal curvature radius	0.01mm
Corneal refraction	0.25D (0.12D step available)
Corneal astigmatism	0.25D (0.12D step available)
Corneal axis angle	1° (5° step available)
OTHERS	
PD measurement range	85mm max. in 1mm step
Measuring start	Auto Alignment / Auto Start / Manual
Corneal diameter measurement	Yes
(Pupil diameter)	Range ; 2～13mm ／ Step ; 0.25mm
Measurement display	TV monitor screen
Measurement recording	Built-in printer (Up to 10 measurements of each eye can be stored in memory)
Alignment	Screen display
Vertex distance	0, 12.0 and 13.75mm (selectable)
Energy saving	Automatic switch off when left unused after 10 minutes
IOL	Special IOL switch to adjust to circumstances of IOL wearers
Power supply	AC100－120, 220－240V
Output	RS-232C, VIDEO-OUT
Weight	21kg.
Dimensions	275(W)×475(D)×500(H)mm

*Subject to change in design and/or specifications without advanced notice.

IMPORTANT In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.