



Technology for Life Science

Automatic Perimeter

Kowa

AP-5000C

*A Wide Range of Tests, Deep Reliability,
and High Level of Usability*

Threshold Center 1 (Quick2) (Fovea) 13D >

41 20 1 42 ? OFF

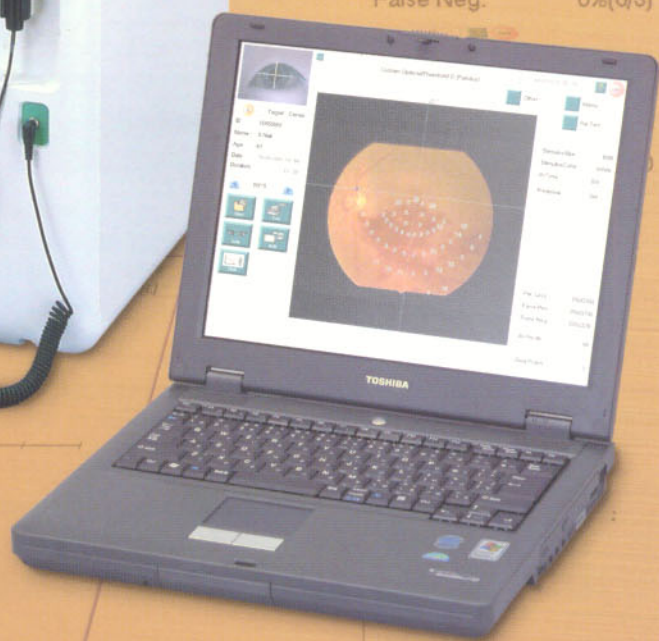
- Other
- Menu
- Re-Test

Fovea 37 dB
 StimulusSize III(II)
 StimulusColor White
 P-Time Std
 P-Interval Std

Fix. Loss 25%(2/8)
 False Pos. 17%(1/6)
 False Neg. 0%(0/3)

R Target Center
 ID 123da
 Name KOWA.I
 Age 59
 Date 31-10
 Duration 4/6

- Open
- Both
- Chart
- Eye
- Quick2



A Full Variety of 25 Types of Test Programs

Easy operation with mouse

An abundant 25 types of test program. Combinations with fundus image are also possible.

Test result display functions that are visually easy to understand, and versatile analysis functions

The data is automatically stored in PC and coordination with other software is also easy.

Threshold Program

Examination to diagnose and plot the retinal sensitivity at specific test points.

Center 1

(Measuring range: Central 30 degrees / 76 points)

Center 2

(Measuring range: Central 30 degrees / 54 points)

To examine the progress of Glaucoma, neurological impediments and post operative follow ups.

Macula

(Measuring range: Central 10 degrees / 21 points)

For Macula, and neurologic disorders.

Periphery

(Measuring range from 30 degrees to periphery points / 68 points)

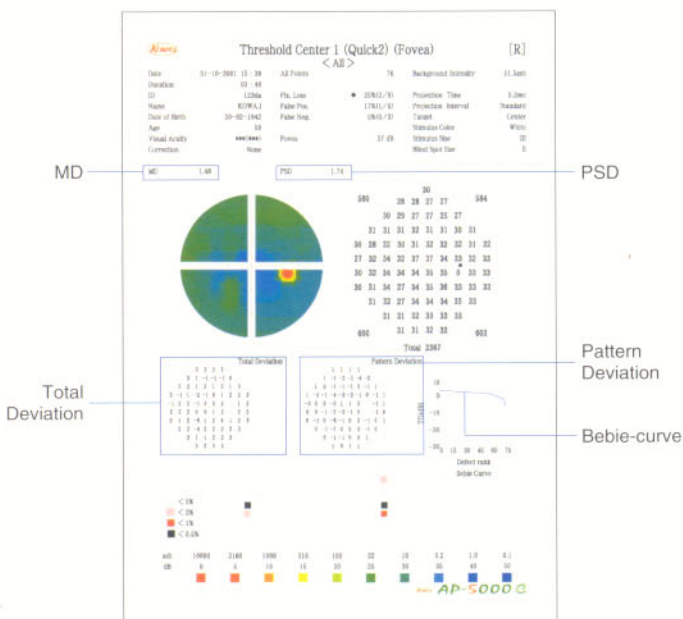
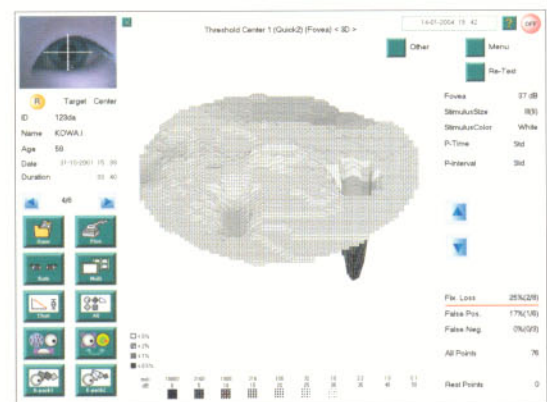
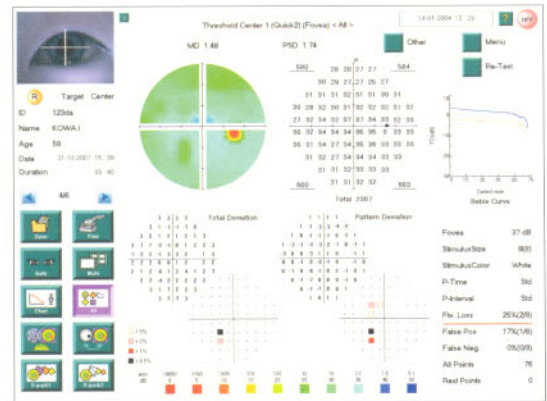
Adaptable for examining late stage Glaucoma, or peripheral field examinations, can be combined with central threshold for full field examination.

The above 4 programs are available on some "Quick" modes that obtains accurate test results in minimal time (can reduce the average time by 40%).

Meridian

(Measuring range: Any of 10 Meridians may be selected / 14 points)

For even more detailed examination after the use of other screening programs.



Interpreting Analysis Results

1. Total Deviation*

The total deviation indicates the differences between the measured values of person being tested at each test point and normal values corrected for different ages, using numeric values. The black inverted points show deterioration in sensitivity.

2. Pattern Deviation*

The pattern deviation indicates the difference between the normal visual field value of person being tested (forecast from the total threshold) and the measured value, expressing this difference as a numeric value.

3. MD (Mean Deviation)*

Mean value of difference between the measured value and normal value corrected for different ages

4. PSD (Pattern Standard Deviation)*

PSD is the mean value of calculation showing how far the visual field value of person being tested has deviated.

This value will be larger if there is any deterioration of local sensitivity.

5. Bebie-curve

The differences between the measured values of person being tested at each test point, and normal values corrected for different ages, are arranged in order from the largest value and indicated using a curve.

* "Probability Value" is available.

Screening Program

For the patient's first visit: to locate and detect defects in an efficient manner.

Standard

(Measuring range: General / 83 points)
For patient's first visit, or to measure vision disorder.
Also adaptable for Glaucoma and Hemianopsia.

Precision

(Measuring range: General / 140 points)
Adaptable for measuring Glaucoma from its midstage to later stages.

Center

(Measuring range: Central 30 degrees / 82 points)
For Glaucoma and central vision disorders.

Periphery

(Measuring range: From 30 degrees to Periphery / 58 points)
To examine the progress of mid-stage Glaucoma.

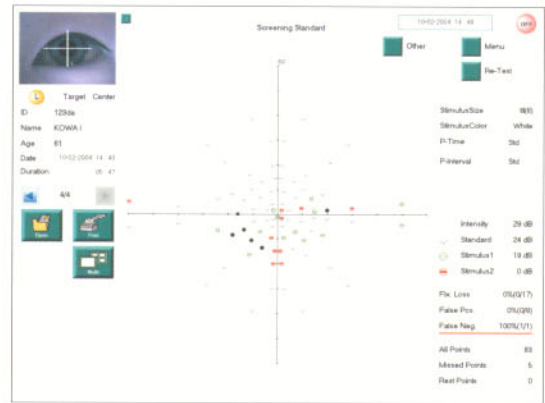
Glaucoma

(Measuring range: Bjerrum Sphere/ 117 points including nasal step)
Comprehensive coverage of the early to later stages of Glaucoma.

V. Meridian

(Measuring range: Vertical direction / 53 locations)
Quickly detects Hemianopsia.

The "Quick" mode, which the tests points are reduced for shortening the test time, is also selectable for the above six programs.

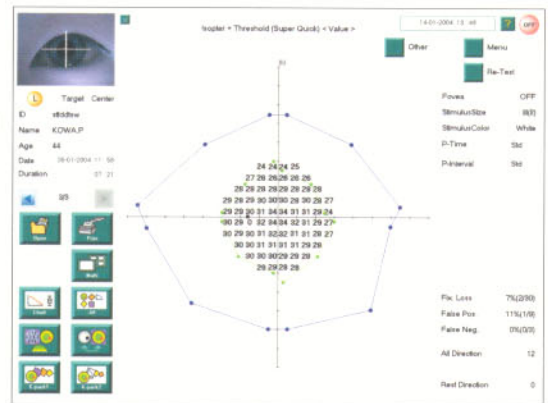


Standard Program

Isopter Program

Technology of a Goldmann and automatic perimeter are combined.

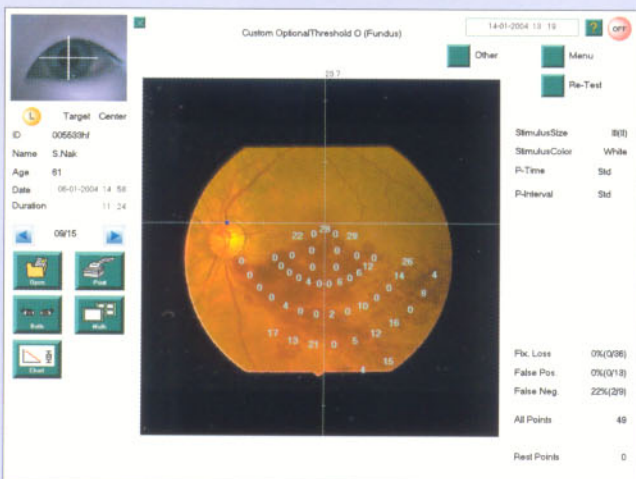
Adaptable for measuring the peripheral field and determine the shape of visual field as isopter.



Isopter+Threshold

Perimetry on Fundus image !!

In the ocular fundus perimetry, the visual field is examined with an ocular fundus image displayed on the screen. By overlapping the ocular fundus image and the perimetry result, you can grasp the correspondence between the two.



The data and coordinate is also with Kowa image filing system "VK-2" making it possible to totally manage the fundus images and perimetry results, and ensure smooth fundus image perimetry.

Other Program

Supra threshold

This is a simple examination method that is performed at the single intensity. There are four kinds of examinations, Standard, Macula, Mariotte, Optional.

Custom

There are six examinations in which the stimulus position can be set at its option or an examiner can have a dialog with a patient are available.

Chronological Change Indication

In Threshold-Center 1, Center 2, and Isopter + Threshold examination, Available to grasp the change with time in more detail.



Technology for Life Science

Kowa **AP-5000C**
Automatic Perimeter

AP-5000C Software

Examination

Screening (4zones) (Quick mode available)	Standard, Precision, Center, Periphery, Glaucoma, V.Meridian
Threshold (Quick mode available except Meridian) (Fovea test available for Center 1, Center 2)	Center1, Center2, Macula, Periphery, Meridian
Isopter (Kinetic)	Standard, Isopter+Screening, Isopter+Threshold
Suprathreshold (2zones)	Standard, Macula, Mariotte, Optional
Custom	Circle Threshold, 1-Point Threshold Optional Threshold (○: Pole coordinate stimulus) Optional Threshold (# : X-Y coordinate stimulus) Screening (○), Screening (#), Quadrant Threshold
Fundus image perimetry	Perimetry combined fundus image except Isopter, Threshold-Meridian, Custom-Circle Threshold, 1-Point Threshold, Quadrant Threshold

Analysis

Analysis for Threshold (Center1, Center2, Isopter+Threshold)	Gray/Color Scale 3D image (Hill of vision) Total Deviation (Actually value & Probability value) Pattern Deviation (Actually value & Probability value) MD (Mean Deviation, Actually value & Probability value) PSD (Pattern Standard Deviation, Actually value & Probability value) Bebie Curve (Actually line & Parobability line) Indication of change with passage time (All analysis data & Boxplot)
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Data indication

Multi-indication	for each patient (automatic loop display is available)
A pair of L/R examination Comparison	for each patient Screening Threshold Suprathreshold
Combination	(Center1, Center2, Periphery, Macula) Center+Periphery (Screening, Threshold) Center+Isopter (Screening, Threshold)

Patient data

	ID, Name, Date of Birth, Correction, Vision, Sex, Diagnostic name, Doctor name, Comment
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AP-5000C Specifications

Type	Projection type (Dome: 300mm in radius)
Control	External PC controlled
External Interface	RS-232C (for Control), USB (for Eye fixation monitor)
Measurement range	80 degrees
Stimulus Size	Goldmann I, II, III, IV, V
Stimulus Color	White, Red, Green, Blue
Stimulus Intensity	0.03-3.183 cd/m ² (0.10-10,000 asb)
Stimulus Presentation Time	0.2 sec.: Standard (0.1-1.0 sec. selectable)
Stimulus Presentation Interval	0.6-3.2 sec. (automatically adjusted)
Background Intensity	10 cd/m ² (31.5asb) (automatically adjusted)
Eye Fixation Target	RED LED 1 point at central, 4 points for Fovea examination. 4 points sub-target
Eye Fixation Monitoring	Heiji-Krakau method. Eye fixation monitor on personal computer screen
Hardcopy Printout	Printers for personal computer
Examination Programs	25
Power Supply	350W or less
Dimensions	724(W)x440(D)x720(H)mm
Weight	45kg*
Power Source	AC100,117, 220, 240V, 50/60Hz
Power Consumption	250VA

*Dome body only (Not including Personal computer & Printer)

Requirement for PC

Contents	Specifications
CPU	Celeron® 1.30GHz or higher processor
Memory	128MB or higher
HDD	10GB or higher
OS	Windows®XP
Video Card	XGA, 4MB or higher (1024x768, 24 or 32 bit higher)
CD-ROM Drive	1 (for install software)
USB (2.0)	1 (for eye fixation camera)
Serial (RS-232C)	1 (for control dome, 9 pin male)
Port for Keyboard	1
Port for Mouse	1
CD-R Drive and so on	For backup, 1

*Use the Personal Computer authorized by IEC-950 or with CE Mark.

Requirement for Monitor

· 15 inch, XGA (1024x768) or higher resolution

Requirement for Printer

· Windows®XP correspondence
· A4 paper correspondence and color printer is recommendation.

Windows® is the trademark of Microsoft Corporation.
Celeron® is the trademark of Intel Corporation.
Specifications, Programs, and appearances are subject to change without notice.

Distribution name : KOWA AP-5000C



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