BINOCULAR ACCOMMODATION
AUTO REF/KERATO METER

WAM-5500

ADVANCED

Specification

Refraction Measurement	Sphere −22～+22D(VD=0)
	−30～+17.4D(VD=12)(0.01/0.12/0.25DStep)
	Cylinder 0～±10D(0.01/0.12/0.25DStep)
	Axis angle 0～180°(1°Step)
	Vertex Distance 0、10、12、13.5、15mm
	Minimum Pupil Diameter φ2.3mm
Measurement of Corneal Radius	Corneal radius 5.0～10.0mm(0.01mmStep)
	Refractive power 33.75～67.5D(0.01/0.12/0.25DStep)
	Cylindrical power 0～±9D
	Axis angle 0～180°(1°Step)
Pupil Diameter Measurement	φ2～φ8mm(0.1mmStep)
Pupillary Distance	Measurement Range 85mm(1mmStep)
Printer	Thermal printer with Automatic Cutter(Width 57mm)
Internal Monitor	5.6 inch LCD Display(Color)
Movable Distance	Back/Force ±17mm Right/Left ±43mm Up/Down ±15mm
Movable Distance of Chinrest	±30mm
Overall Dimension	(W)327mm×(D)496mm×(H)515mm
Weight	About 20kg
Output	RS232C Interface
	Video Output (NTSC)
Rated Voltage	100～240V
	50／60Hz
Consumption	80VA
Power Save	OFF, 3, 5, 10 min. (Selectable)

●Specifications and design are subject to change without prior notice for improvement.
●The part of screen is composed photograph.
●The color of instrument on the catalogue and the real product might be different.
●We judge that the LCD Monitor is qualified if the total "lit pixel" and/or "missing pixel" is less than five (excluding non-sharp one and less than half one).
●Medical equipment manufacturer license No.37B3X00002

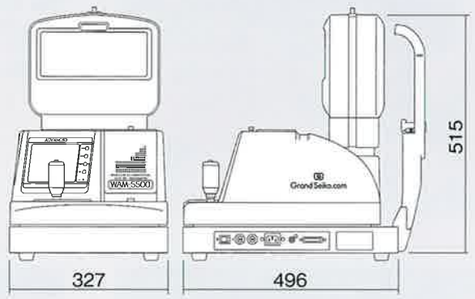
Accessories

●Test eye／1 pc ●Power cable／1 pc ●Printer paper／3 rolls
●Fuse 2A／2 pcs ●Chinrest paper／1 pack (1000 sheets)
●Chinrest pin／2 pcs ●Dust cover／1 pc ●Fixation target ／1 pc
●Fogging lens ／1 pc ●Occluder／1 pc
●Near point measurement unit／1 set ●Contact lens holder／1 pc
●WCS-1 HI SPEED MODE Control software

Option

●WMT-1 Moving target system ●WSM-1 Status monitor
●MDC-1 The maesurement data collection software
●Magnet stopper ●Electric table

Overall Dimension



Hardware equirement
OS : Japanese/English Version of Microsoft Windows Vista/7 /8
CPU : Core2 or better (recommended)
Memory : 1GB or more (recommended)
(Mentioned company and product names are the trademark or the registered trademark of each company.)

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Management System
ISO 9001:2008
ISO 13485:2003
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CAUTION For the proper and safety use, please read the Instruction Manual thoroughly before using the product.

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●Agency

Printed in Japan 1403500N

Binocular, Dynamic, Refractive, Pupil Diameter Measurements
More improvements are now available

NEW

BINOCULAR ACCOMMODATION
AUTO REF/KERATO METER

WAM-5500

ADVANCED

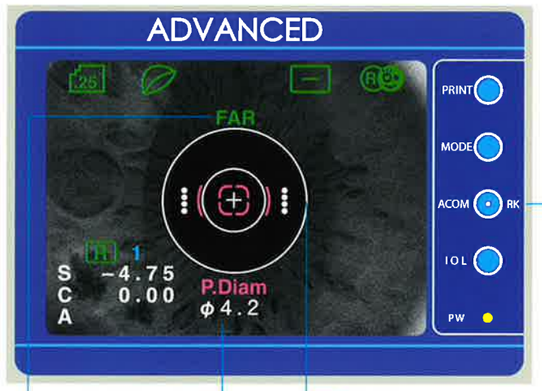
ADVANCED ACCOMMODATION MEASUREMENT

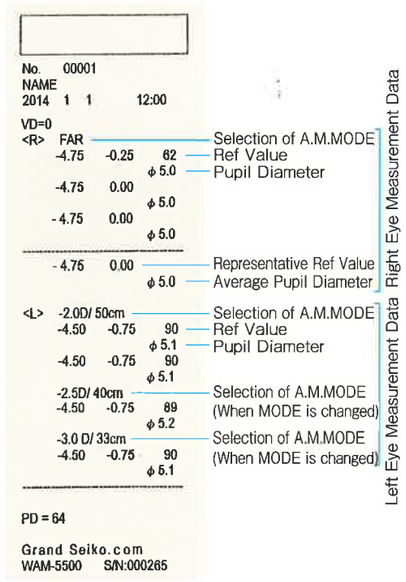
Binocular, Dynamic, Refractive, Pupil Diameter Measurements

New CPU with the faster High Speed Mode measurement From 5 times /second to 6 times /second

BINOCULAR ACCOMMODATION
AUTO REF/KERATO METER
WAM-5500
ADVANCED

In addition to the Binocular Refractor and Keratometer measurement functions, the WAM-5500 can measure the Refraction and the Pupil Diameter simultaneously. These are advanced features provided on the earlier WR-5100K AutoRef/Keratometer version.
With this function, it can be used to confirm the change on the accommodation function before and after the surgery. In addition, it can be used to confirm presbyopia and the accommodation error due to fatigue as a result of VDT work or other eye fatigue instances.
By connecting with the computer, you can measure refractive value at a rapid, continuous speed, thus allowing you to measure the accommodation response dynamically.





A.M. MODE

It measures the pupil diameter at 0.1mm step (minimum 2mm) simultaneously with refractive value. The measurements are then presented on the monitor. Subsequently, you can print the results and check the constriction of pupil. Studies have indicated that pupil constriction is evident when the eye is accommodating. Thus, the pupil diameter measurement function allows you to more precisely ascertain whether the subject's eyes are accommodating or not.
Another option is to present the image via video thus giving you precise image analysis of the pupil constriction as well.
The ideal refractive value for 50, 40, 33, 25, and 20cm is displayed, thus you can compare the patient data with the ideal value more easily as it relates to the actual distance of the Near Point Card.

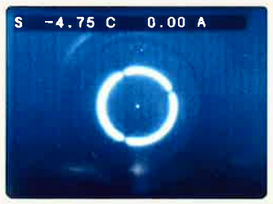
FAR→50→40→33→25→20→K·R→R→K

Easier measurement of IOL patient

Compare to before, unnecessary reflection from IOL is reduced and it leads to more assured measurement of IOL Patient.

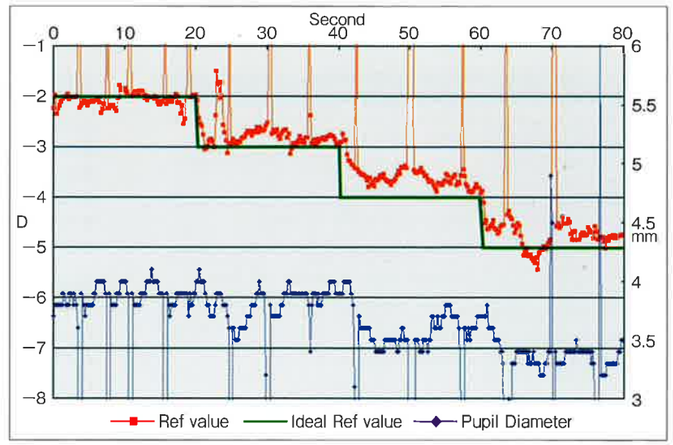
Easier access to the eye ground image

Able to confirm the eye ground image right after the measurement (Freeze Image function). It is useful to check the reason of non-measurement and confirm the good or bad measurement.
In the case IOL is not at the proper position, it sometimes cannot be measured. With this function, the alignment can be adjusted easily for the patient that cannot be measured even with the IOL mode.



HI SPEED MODE

By connecting with the computer and using our dedicated software - WCS-1, you can measure the SE value and Pupil Diameter at 0.16 seconds per step. In addition, you can analyze this data with spreadsheet software like Microsoft Excel.
Unlike the previous model, WR-5100K, this Hi Speed Mode allows you to more dynamically measure the eye. Additionally, in this Mode, since the refractive value is calculated on the entire meridian instead of a specific one, you can understand the refractive value precisely.



●Example ; 33 years old male
This is the data of moving the Near Point Card every 20 seconds.
With this data, the subject eyes are accommodating from the ideal value of -2.00D to -5.00D. Additionally, the pupil diameter is constricting from 4.0mm to 3.2mm. (Blinking at the same interval.)

Error handling mechanism during the Hi Speed Mode is improved

Up till now, the measurement could not be taken for a few seconds after the patient blinks and the difference would be too big compare to the previous ones. With the improved algorithm, it would judge the blink and move to the next measurement immediately without losing the data for a few seconds.

Measurement with Both Eyes

With both eyes open, the natural condition, the measurement is taken. Thus, there would be less Instrumental Myopia, and allows you to achieve more precise measurement.

Easy Measurement with Open View Window

The Open View Window, which adopted the Half Mirror, makes it possible to take a measurement without the subject being aware as there is no distraction of view. For the infant/children, it gives less pressure, and you can measure easily and quickly. Additionally, it allows you to go through the measurement process smoothly since you can observe the condition of a subject directly.

Any Target

You can select from any target, as you like. Needless to say, it can be an eye-test chart. Or for the infant/children, you can choose from what they are interested in, such as toy and cartoon. It helps the measurement process go more smoothly. Additionally, since you can put a target at any distance, you can measure middle and near target as well.

Indication of SE (Spherical Equivalent)

You can confirm the change of accommodation as the SE is indicated on the monitor each time (3 data).

Easy Over-Refraction Measurement

Since it is adopting the Open View Window, you can measure a subject with glasses and contact lens as well as a subject with the IOL, easily. It also allows you to confirm the prescription.