

# The Retinomax Series, the World's Leading Handheld Refractor and Keratometer

# **RETINOMAX 3**

The Retinomax 3 Series boasts all the same benefits as the 2 Series, plus an impressive collection of new features.

#### **Lighter With Thinner Grip**

Weighing just under one kilogram, the main body with battery is over 17% lighter for the K-plus 3 and 11% lighter for the Retinomax 3 than the conventional Retinomax Series models. The Retinomax Series 3's center of gravity is in the grip, making the Series 3 feel much more lighter and balanced.



If no measurement is made within six seconds, the unit automatically enters Quick mode. Measurement is then taken in 0.07 seconds. In Auto Quick mode, "AQ" appears on printouts.

#### NEW Auto Pupil Measurement, Display And Printout

The unit measures pupil size automatically, displays the X (horizontal) size on the monitor, and prints out the XY (horizontal and vertical) sizes separately. Results can be used in checking accommodation, mydriasis, ADIE and Horner-associated syndromes.

#### Parallel Sensor Detects

Inclination Of Main Body And Displays Value

Levelness is detected digitally with the use of the unit's parallel sensor. It is displayed on the monitor in every  $2^{\circ}$  pitch up to  $\pm 12^{\circ}$ , and every  $3^{\circ}$  pitch up to  $\pm 45^{\circ}$ .

#### **NEW Long Or Continuous Use**

With the adoption of a lithium ion battery, continuous operational time has been extended to approximately 80 minutes. The station has an AC adapter, allowing it to be connected to the main body with a DC cord (optional) to enable extended continuous operation. This facilitates screening, as well as use in an operating room.











# RETINOMAX 3

### NEW Fixation Intensity Adjustment -Automatically Lowered For Pupils Less Than 3 mm In Size

The minimum pupil measurement size in Auto Quick mode is 2.3 mm. If a pupil is less than 3.0 mm, the fixation target intensity is automatically reduced by approximately 45% to avoid pupil constriction. The intensity can also be reduced with the fixation intensity key.

#### **NEW Extended Diopter Adjustment Range**

The diopter adjustment range has been extended to -18 - +23.

#### **NEW Two Memory Functions**

Data from the last measurement is automatically saved after the Retinomax 3 is turned off. The last patient data can be recalled by pressing the PRINT key. The data can be transferred wirelessly to a printer.

# MEMORY-MENU STOCK DATA 5/10 EXIT MAX MEMORY: 10 PRINT&SEND MENU-OUTPUT DELETE ALL ATTENTION !! USE WIRE TO SEND DATA. PREPARE A LOT OF PAPER.

#### The Retinomax 3 Also Has Retro-illumination Mode

The Retinomax 3 includes the retro illumination mode for observation of the media opacities.

# **RETINOMAX K-PLUS 3 ADDITIONAL FEATURES**

#### Fast Refraction/Keratometry Readings

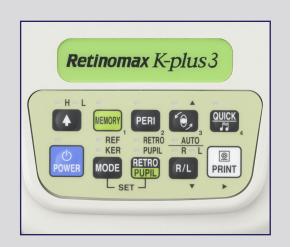
In the Refraction/Keratometry Mode, readings up until both data are indicated require only 0.25 seconds -- 0.15 seconds for Keratometry and 0.12 for Refractions.

#### Peripheral Corneal Curvature Readings

Tangential peripheral readings are possible, as is E-value printing.

#### 2.5mm Pupil Size and Selectable Fixation Intensity

When the eye is exposed to bright light, the pupil contracts, often making measurements impossible. Within the K-plus 2, the minimum required pupil diameter is only 2.5 mm plus the intensity of the fixation target is variable.



# RETINOMAX 3 AND PLUS HAND-HELD AUTOREFRACTOR

Hand Held Auto-Refractor Retinomax 3		
Measurement Range	Spherical (S $+$ C): -18.00D to $+$ 23.00D (in 0.25D increment)	
	Cylinder: 0 to +12D or 0 to -12D (in 0.25D increment)	
	Axis: 1° to 180° (in 1° increment)	
Minimum Pupil Size	ø2.3 mm (Auto Quick)	
Vertex Distance	0, 12 mm adjustable	
General		
Measurement Time	0.14 sec. per indication (continuous)	
Pupil Size Measurement Time:	+0.27 sec./1 time	
Measurement Mode	Auto/Continuous/Auto Quick/Quick	
IOL Wearing Eye	Automatic support	
Fixation Target	Picture target	
Battery Life	Approx. 80 minutes (fully charged)	
Eyepiece	4.05 x 3.02 mm LCD	
Working Distance	50 mm	
Reaching Distance	278 mm	
External Output	Infrared (Printer, Remote Vision)	
	RS-232C (Main body—PC, Printer—PC, Main body—Monitor)	
Dimensions (main body only)	170(W) x 230(H) x 240(D) mm	
Weight	Approx. 969 g (with battery) (Battery: Approx. 100 g)	

Charging Station	
Dimensions	185 x 102 x 263mm (W x H x D)
Weight Approx.	1.36 kg
Power Consumption	100 VA

Printer	
Interface	RS-232C
Dimensions	93 x 77 x 263 mm (W x H x D)
Weight Approx.	595 g (without battery)

Hand Held Auto-Refract-Keratome	Hand Held Auto-Refract-Keratometer Retinomax K-Plus 3		
Measurement Range	Spherical (S + C): -18.00D to +23.00D (in 0.25D increment) Cylinder: 0 to +12D or 0 to -12D		
	(in 0.25D increment)		
	Axis: 1° to 180° (in 1° increment)		
Minimum Pupil Size	ø2.3 mm (Auto Quick)		
Vertex Distance	0, 12 mm adjustable		
Measurement Range of Radius of Curvature			
Measurement Range	Radius of curvature: 5.00 to 11.00 mm (in 0.01 mm increment)		
	Corneal astigmatism: in 0.25D increment		
	Cylinder axis: 1 to 180° (in 1° increment)		
	Center: ø3.2 mm (R8 mm)		
	Peripheral: ø6.8 mm (R8 mm) (25° vertical/horizontal)		
General			
Measurement Time	Kerato and Refract: 0.34 sec. per indication		
	Kerato alone: 0.2 sec. per indication (continuous)		
	Refract alone: 0.14 sec. per indication (continuous), 0.07 sec. (Quick)		
Pupil Size Measurement Time:	+0.27 sec./1 time		
Measurement Mode	Auto/Continuous/Auto Quick/Quick		
IOL Wearing Eye	Automatic support		
Fixation Target	Picture target		
Battery Life	Approx. 80 minutes (fully charged, at 25°C)		
Eyepiece Diopter Adjustable Range	±8D		
Working Distance	50 mm		
Reaching Distance	278 mm		
External Output	Infrared (Printer, Remote Vision) RS-232C (Main body—PC, Printer—PC, Main body—Monitor)		
Dimensions (main body only)	170(W) x 230(H) x 240(D) mm		
Weight	999 g (with battery) (Battery alone: Approx. 100 g)		

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