Rexxam

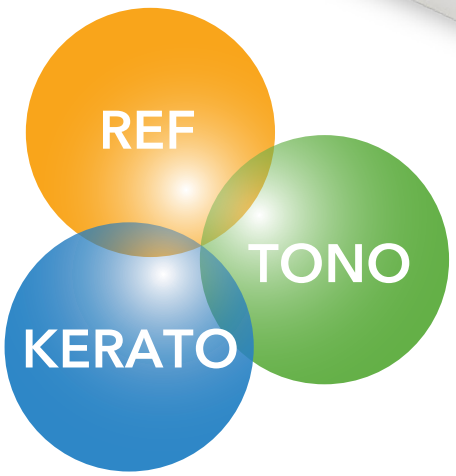
Quality in vision care

from Grafton Optical

3 in 1 Smart

Auto Ref-Kerato-Tonometer





Proudly Made in Japan

About Us



Rex + Max = Rexxam

Rexxam, which means 'the king of the kings', is a respected and reliable brand.

Rexxam is a Japanese company with a celebrated 60 year history. With over 3,000 employees worldwide, Rexxam manufacture a wide range of products for various industries; from factory automation, automobiles and air conditioning systems, to beer and ski boots.

Since 1986, Rexxam has manufactured various high quality products for leading brands in the eye care industry, including SHIN-NIPPON. Rexxam had developed and manufactured products for SHIN-NIPPON since 1993 and in 2014 the company took over the SHIN-NIPPON brand.

We will be bringing high quality ophthalmic equipment to a global market. By combining precision engineering with industry leading innovation and experience in mass production, Rexxam produce unique products to support eye care specialists across the world.

Quality in vision care, we are Rexxam.

1960
Foundation of Rexxam

1986
Rexxam started the development and manufacturing of ophthalmic devices as an OEM supplier

1993
Rexxam became the main OEM partner for SHIN-NIPPON
SHIN-NIPPON

2014
Rexxam acquired the SHIN-NIPPON brand
SHIN-NIPPON by Rexxam

2018
The manufacturer brand Rexxam was inaugurated
Rexxam

Rexxam
Quality in vision care

Proudly Made in Japan

Message from Engineer

The 3in1 Smart represents our first fully integrated solution combining an auto-refractometer and a tonometer in a single, space-efficient device. Both the user interface and mechanical architecture were carefully engineered to streamline clinical workflow while optimizing the use of examination room space. Although integrating multiple measurement functions into one platform presented significant structural challenges, our development team successfully realized a compact, refined, and modern design.

To further enhance patient comfort, substantial improvements were made to the air-puff mechanism compared with previous models. Achieving a quieter operation without compromising measurement performance required extensive research and repeated prototyping. The result is a soft, low-noise air puff that significantly reduces patient discomfort while preserving measurement accuracy.

We sincerely hope that the 3in1 Smart contributes meaningfully to daily ophthalmic practice and supports the protection of patients' most valuable sense—their vision.

N.T.
Research & Development Dept.
January-2026

Selecting Essentials in a Compact size

The 3in1 Smart focuses on essential clinical functionality delivered in a compact form factor.

- Manual alignment for rapid positioning
- Automatic measurement
- Integrated refractometry, keratometry, and tonometry in one device

A large, tilting, and swivelling colour touchscreen provides clear visualization and intuitive operation. The smooth and efficient measurement sequence improves patient flow and enhances overall practice efficiency.



3 in 1 Smart

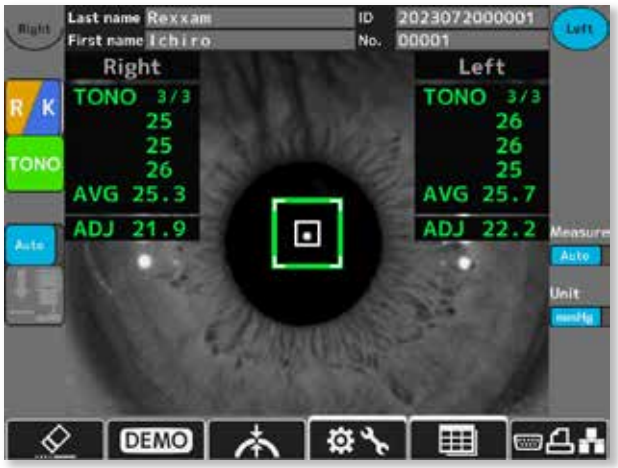
Large Colour Touchscreen with Intuitive Interface

The high-resolution colour touchscreen supports both Refraction/Keratometry mode and Tonometry mode. A clean visual layout, modern colour scheme, and quick-access buttons ensure intuitive operation with minimal training required.

Auto Ref-Keratometer mode



Non-Contact Tonometer mode

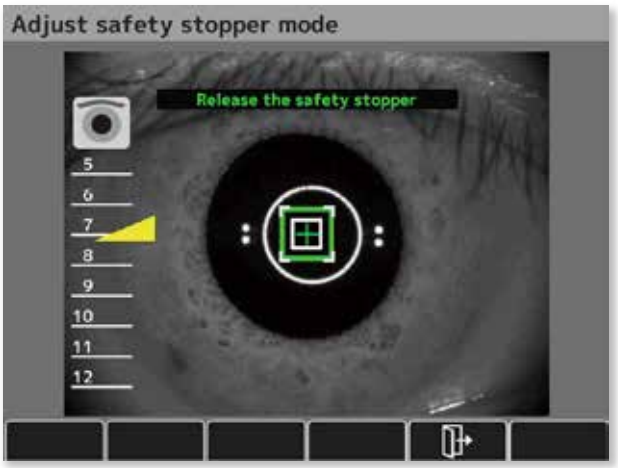


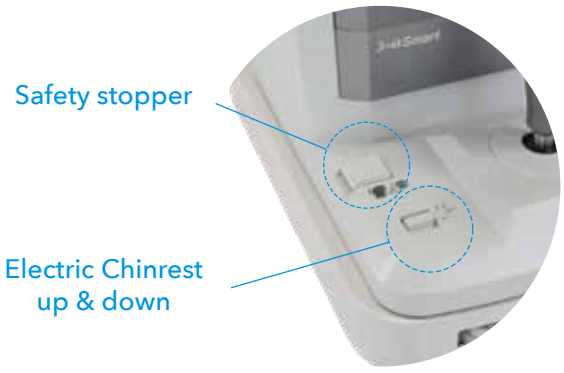
Safety and Reliability Features

Patient safety is a core design priority.

- A built-in safety stopper sensor prevents unintended contact between the measuring unit and the patient during tonometry.
- Automatic vertical movement is disabled unless the device is correctly positioned toward the examiner.
- Clear warning messages are displayed if unsafe conditions are detected.

These features provide both operator confidence and patient protection.





Fast, Simple, and Stress-Free Operation

The combination of electric movement and joystick control enables smooth, efficient operation. The intuitive workflow reduces examination time while maintaining measurement accuracy, ensuring a comfortable experience for both operator and patient.

- Fast alignment and measurement
- Automatic mode change between R/K and tonometry
- Reduced patient stress through quiet and gentle operation



R K

Auto Refractometer & Keratometer measurement

Intuitive & Fast



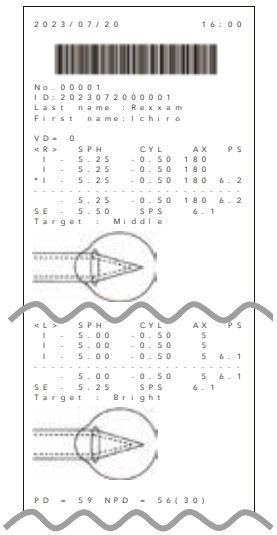
Automatic electronic switching

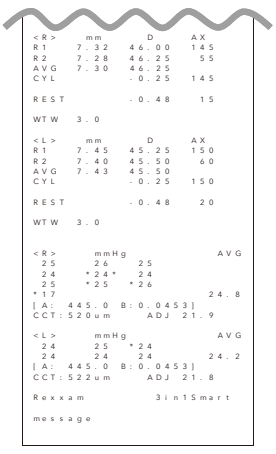
TONO

Non-Contact Tonometer measurement



Auto print out

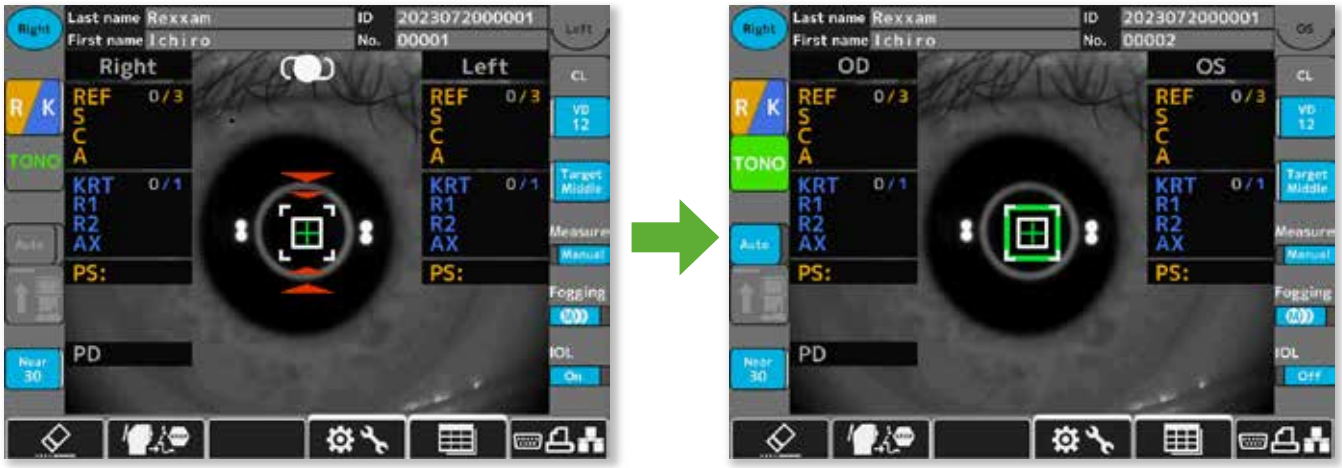




Auto Refractometer & Keratometer

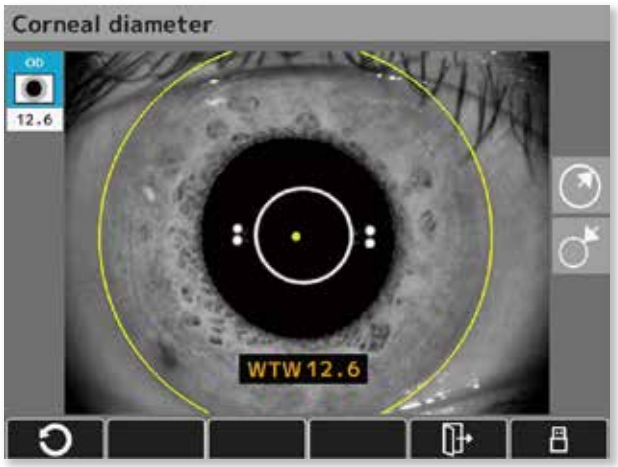
IOL Mode (Colour Focus Indicator)

The dedicated Intraocular Lens (IOL) mode allows reliable measurements in eyes with implanted IOLs. A red/green colour focus indicator simplifies alignment, even in cases with irregular reflections caused by certain IOL types.



White-to-White (WTW) Measurement

WTW corneal diameter measurement supports various ophthalmic applications, including contact lens fitting and surgical planning.



Pupil Diameter Measurement

The 3in1 Smart automatically measures pupil diameter during objective refraction. Additionally, Scotopic Pupil Size (SPS) measurement can be performed independently, without objective refraction.

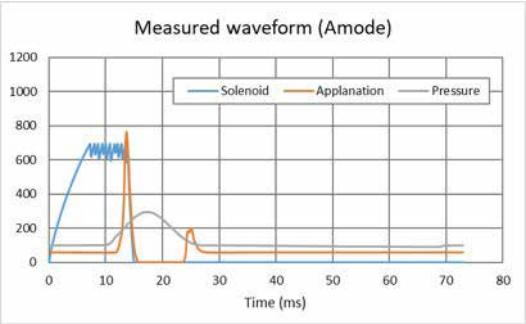


TONO Non-Contact Tonometer



Smart Puff Control (SPC) System

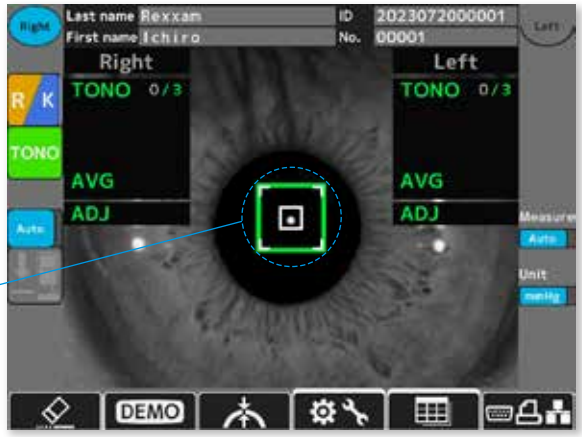
The SPC system uses a newly developed measurement algorithm to instantly and precisely adjust air pressure according to the patient's intraocular pressure. This results in quiet operation, soft air delivery, and enhanced patient comfort.



Smart Alignment & Auto Shoot

Once proper alignment is achieved, the system automatically initiates measurement. This fast and accurate alignment process minimizes patient anxiety and improves examination efficiency.

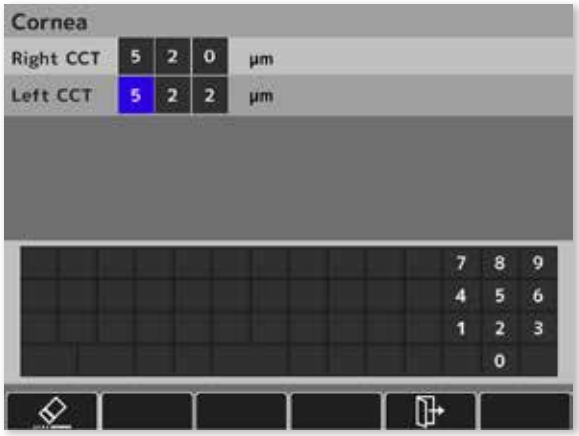
Turns green when aligned, triggering automatic measurement



TONO

IOP Correction Function

Intraocular pressure values can be automatically corrected based on central corneal thickness (CCT) input. Corrections can be applied either before or after measurement, offering flexibility in clinical workflow.



3in1Smart Specifications

Refractive Measurement (Ref Measurement)	Sphere (S)	Measurement Range	-30D ~ +22D (VD=12) -22D ~ +30D (VD=0)
		Step	0.01D, 0.12D, 0.25D (Switching)
	Cylinder (C)	Measurement Range	0D ~ ±10D (VD=0)
		Step	0.01D, 0.12D, 0.25D (Switching)
		Symbol	- , + , ± (Switching)
	Axis (A)	Measurement Range	0˚ ~ 180˚
		Step	1˚ , 5˚
	Vertex Distance		0 , 10 , 12 , 13.5 , 15 mm
	Minimum Pupil Diameter Measurable		Φ2.0 mm
Corneal Curvature Radius Measurement	Corneal Curvature Radius	Measurement Range	5.0 mm~ 10.0 mm
		Step	0.01 mm
	Corneal Refractivity	Measurement Range	33.75D ~ 67.5D (where corneal refractive index n = 1.3375)
		Step	0.01D, 0.12D, 0.25D (Switching)
	Degree Of Corneal Astigmatism	Measurement Range	0D ~ ±10D
		Step	0.01D, 0.12D , 0.25D (Switching)
		Symbol	mm , -D , +D (Switching)
	Axis Angle	Measurement Range	0˚ ~ 180˚
		Step	1˚ , 5˚
PD Measurement	Measurement Range		85mm
	Step		1mm
Pupil Diameter Measurement	Measurement Range		Φ2.0 mm ~ Φ8.5 mm
	Step		0.1mm
Corneal Diameter Measurement (WTW Measurement)	Measurement Range		Φ2.0 mm ~ Φ14 mm (diagonal dimensions : Φ14mm)
	Step		0.1mm
Intraocular Pressure Measurement (TONO Measurement)	Intraocular Pressure(IOP) Measurement Range		1mmHg ~ 60mmHg / 0.1kPa ~ 8.0kPa
	Step		1mmHg / 0.1kPa
Monitor	8.4 inch touch panel color LCD monitor		
Printer	Thermal line printer		
Power	Power Voltage	AC 100 - 240 V , 50/60Hz	
	Power Consumption	100VA	
	Sleep Mode	OFF , 3 , 5 , 10 min (selectable)	
Data Output	LAN, USB-A, RS-232C		
Size	Weight	approx. 17kg	
	Dimensions	247mm(W) × 433mm(D) × 460mm(H)	
Movement Range of The Measurement Unit	Forward - Backward : ±22mm Right - Left : ±43mm Up - Down : ±52mm		
Movement Range of The Chin Rest	Up - Down : ±30mm		
Movement Range of LCD	Swivel : left 20˚ Vertical Tilt : up 25˚		

Included Items

- Measuring Nozzle Cap
- Model Eye
- Printer Roll Paper
- Chin Rest Paper
- Chin Rest Paper Pin
- Spare Fuse
- Dust Cover

Design and specifications are subject to change without notice.

Manufacturer

Rexxam
Quality in vision care

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