

**RODENSTOCK** Instruments



# CX Series

Auto Ref-Keratometer  
Auto Ref-Topographer

Making analysis fashionable



**optohellas**  
Worldwide Representation Platform

# The CX Series: Choose the perfect match for your business

## What's your benefit?



**Consistent quality**  
Long-term experience  
you can rely on



**Intuitive operation**  
User-friendly application



**Time savings**  
Shortened  
refraction process



**Added value**  
Topography and Tear Stability  
Analysis as an exclusive  
function of the CXT 3000



**Patient-friendly**  
Comfortable and fast  
examination



**Connectivity**  
Ready for connection to our  
Phoromat 2000 (only with the  
CX 800 and CX 2000)



“ The wide range of  
choices was impressive.  
And I found the perfect  
device.”

A smart selection  
to suit your needs.

# The CX 800 Auto Ref-Keratometer

Economic

## ☆ Auto measurement

By aligning the optical head towards the patient's eye, the measurement is automatically taken by the CX 800.

## ☆ Refraction

Accurate starting values for subjective refraction are essential. The high-speed mode allows accurate results to be obtained – even in uncooperative patients.

## ☆ Keratometry

The CX 800 provides you with the central ( $\varnothing$  3 mm) keratometer readings within one second. Measurements can be taken from the front surface of the cornea or the back surface of RGP contact lenses.



## Pupil & cornea diameter

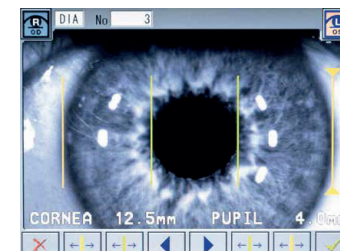
Measurements can be taken easily by moving the two cursors on the display to the boundary of the cornea or pupil. This is useful for deciding the diameter of a contact lens and for other contact lens fitting practices.

## IOL/CAT mode

This mode is used to measure cataracts and pseudophakic eyes.

## Colour touch screen

The 5.7" colour touch screen is used as the operating monitor, while simultaneously displaying all measured values.



# The CX 2000 Auto Ref-Keratometer

Advanced

## ☆ Auto alignment & auto measurement

Anyone can easily take measurements with auto alignment and auto measurement. The measurement variation is significantly reduced and does not depend on the operator's skill level.

## ☆ Enhanced keratometry

The CX 2000 provides keratometer values for the central ( $\varnothing$  3 mm) and peripheral ( $\varnothing$  6 mm) cornea simultaneously within one second. Measurements can be taken from the front surface of the cornea or the back surface of RGP contact lenses. KAI (Kerato-Asymmetry Index) and KRI (Kerato-Regularity Index) display irregularities of the cornea.

## ☆ Touch screen operation

The 5.7" colour touch screen is used as the operating monitor, while simultaneously displaying all measured values. The measurement head can be moved in all directions simply by touching the screen.

## ☆ Power motion joystick

Five power motion modes ensure precise and silent movement of the head in all directions. You have the choice between incremental or smooth movement towards the patient's eye.



## Refraction

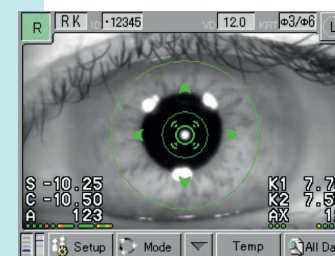
Accurate starting values for subjective refraction are essential. The high-speed mode allows accurate results to be obtained – even in uncooperative patients.

## Pupil & cornea diameter

Measurements can be done easily by moving the two cursors on the display to the boundary of the cornea or pupil. This is useful for deciding the diameter of a contact lens and for other contact lens fitting practices.

## IOL/CAT mode

This mode is used to measure cataracts and pseudophakic eyes.



# The CXT 3000 Auto Ref-Topographer

Professional

## ☆ Corneal topography

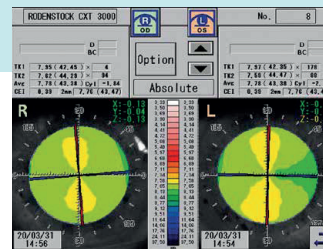
Various topography maps support you in carrying out vision screenings, contact lens fittings and in patient education.

## ☆ Tear Stability Analysis System (TSAS)

The TSAS analyses the tear stability using the light-cone system. The mire ring is projected onto the cornea of the patient's eye for either 6 or 10 seconds, and the image of the mire ring is captured at specific intervals. The system shows in the colour code map the position and time where the tear layer changes.

## ☆ Touch screen operation

The 6.4" colour touch screen is very convenient – it is used as the operating monitor, while simultaneously displaying all measured values. The unit can be moved in all directions by simply touching the screen.



## Refraction

Accurate starting values for subjective refraction are essential. The high-speed mode allows accurate results to be obtained – even in uncooperative patients.

## Keratometry

The CXT 3000 provides keratometer values for the central cornea ( $\varnothing$  3 mm) within one second. Measurements can be taken from the front surface of the cornea or the back surface of RGP contact lenses. KAI (Kerato-Asymmetry Index) and KRI (Kerato-Regularity Index) display irregularities of the cornea.

## Pupil & cornea diameter

Measurements can be taken easily by moving the two cursors on the display to the boundary of the cornea or pupil. This is useful for deciding the diameter of a contact lens and for other contact lens fitting practices.

## IOL/CAT mode

This mode is used to measure cataracts and pseudophakic eyes.

## Auto alignment & auto measurement

Anyone can easily take measurements with auto alignment and auto measurement. The measurement variation is significantly reduced and does not depend on the operator's skill level.

## Power motion joystick

Five power motion modes ensure precise and silent movement of the head in all directions. You have the choice between incremental or smooth movement towards the patient's eye.

# Specifications

## REFRACTIVE POWER MEASUREMENT

|                                      | CX 800                                 | CX 2000                                | CXT 3000                               |
|--------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Measurement range (spherical)        | -25.00 D to +22.00 D (at VD = 12.0 mm) | -25.00 D to +22.00 D (at VD = 12.0 mm) | -25.00 D to +22.00 D (at VD = 12.0 mm) |
| Display unit (spherical)             | 0.01 D / 0.12 D / 0.25 D               | 0.01 D / 0.12 D / 0.25 D               | 0.01 D / 0.12 D / 0.25 D               |
| Measurement range (cylindrical)      | 0 D to $\pm 10.00$ D (at VD = 12.0 mm) | 0 D to $\pm 10.00$ D (at VD = 12.0 mm) | 0 D to $\pm 10.00$ D (at VD = 12.0 mm) |
| Display unit (cylindrical)           | 0.01 D / 0.12 D / 0.25 D               | 0.01 D / 0.12 D / 0.25 D               | 0.01 D / 0.12 D / 0.25 D               |
| Measurement range (astigmatism axis) | 0° to 180°                             | 0° to 180°                             | 0° to 180°                             |
| Display unit (astigmatism axis)      | 1°                                     | 1°                                     | 1°                                     |

## CORNEAL CURVATURE MEASUREMENT (K1, K2, AVG)

|                   |                                                           |                                                           |                                                           |
|-------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Measurement range | 5.00 mm to 11.00 mm<br>30.68 D to 67.50 D<br>(n = 1.3375) | 5.00 mm to 11.00 mm<br>30.68 D to 67.50 D<br>(n = 1.3375) | 5.00 mm to 11.00 mm<br>30.68 D to 67.50 D<br>(n = 1.3375) |
| Display unit      | 0.01 mm                                                   | 0.01 mm                                                   | 0.01 mm                                                   |

## CORNEAL ASTIGMATISM & AXIS (C, A)

|                                                       |                          |                          |                          |
|-------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| Measurement range (C)                                 | 0 D to 10 D (n = 1.3375) | 0 D to 10 D (n = 1.3375) | 0 D to 10 D (n = 1.3375) |
| Measurement range (A)                                 | 0° to 180°               | 0° to 180°               | 0° to 180°               |
| Measurement area cornea (at 8.0 mm corneal curvature) | Ø 3.0 mm                 | Ø 3.0 mm / Ø 6.0 mm      | Ø 3.0 mm                 |
| PD range                                              | 50 mm to 86 mm           | 50 mm to 86 mm           | 50 mm to 86 mm           |
| Minimum pupil diameter                                | Ø 2.0 mm                 | Ø 2.2 mm                 | Ø 2.2 mm                 |
| Vertex distance                                       | 0.0 mm to 16.0 mm        | 0.0 mm to 16.0 mm        | 0.0 mm to 16.0 mm        |

## CORNEAL SHAPE MEASUREMENT (AT 8.0 MM CORNEAL CURVATURE)

|                          | CX 800 | CX 2000 | CXT 3000           |
|--------------------------|--------|---------|--------------------|
| Normal measurement mode  | -      | -       | Ø 1.0 mm to 8.0 mm |
| Special measurement mode | -      | -       | Ø 0.9 mm to 7.0 mm |
| Display range            | -      | -       | 9 D to 100 D       |

## MAIN UNIT

|                  |                    |                    |                               |
|------------------|--------------------|--------------------|-------------------------------|
| Built-in printer | Thermal printer    | Thermal printer    | Thermal printer               |
| Output           | RS-232C            | RS-232C            | External printer<br>LAN / USB |
| Display          | 5.7" colour LCD    | 5.7" colour LCD    | 6.4" colour LCD               |
| Chin rest        | Electr. controlled | Electr. controlled | Electr. controlled            |

## DIMENSIONS & ELECTRICAL REQUIREMENTS

|                   |                    |                    |                    |
|-------------------|--------------------|--------------------|--------------------|
| Dimensions (WDH)  | 297 × 500 × 448 mm | 300 × 493 × 466 mm | 307 × 490 × 466 mm |
| Weight            | Approx. 17 kg      | Approx. 19 kg      | Approx. 20 kg      |
| Voltage           | 100 VAC to 240 VAC | 100 VAC to 240 VAC | 100 VAC to 240 VAC |
| Frequency         | 50/60 Hz           | 50/60 Hz           | 50/60 Hz           |
| Power consumption | 80 VA to 100 VA    | 130 VA to 150 VA   | 120 VA to 150 VA   |