

# CA-800

Corneal Analyzer

10 reasons  
to choose  
CA-800



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## Detailed examination of the corneal surface

The CA-800 is a placido-based topography system that delivers accurate, high resolution images of the anterior corneal surface. The keratoscope cone with 24 rings equally spaced on a 3D sphere analyzes over 100,000 data points with axial and instantaneous curvature evaluation.

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## Fast and ease of use

The CA-800 is extremely easy to handle and use. Visual signals support fast and easy alignment and focusing on the patients eye. The CA-800 has a right and left eye detection and prevents incorrect savings in right/left eye measurements. The automated best image selection mode in the software of the CA-800 decides the best focused position and automatically acquires the image. Acquisitions can be made for topography, pupillometry and real time flueroscein imaging.

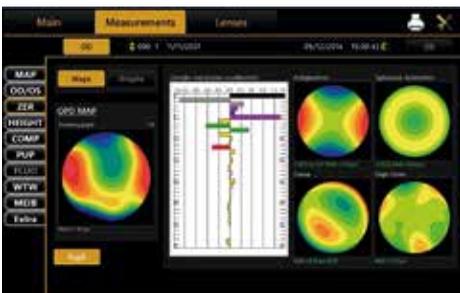
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## Full keratoconus screening

With the CA-800, signs of assemtry of the cornea can easily be detected even in an early stage. By analyzing the apical curvature, apical gradient and symmetry of the cornea, a Keratoconus probability index will show in color code (green, yellow & red) if the topography is compatible with Keratoconus. With the CLMI (Cone Location and Magnitude Index) it is easy to follow up on Keratoconus and Keratoconus-like patterns.

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## Reliable corneal Zernike analysis

The Zernike analysis module consists of 36 polynomials into the 7th order, and provides a clear view on the optical deficiencies which can disturb vision. Based on this information, the CA-800 provides the visual acuity summary. Zernike analysis is the basis for the calculation of the ablation area for laser treatment. The Zernike expansion coefficient is used to determine which component(s) dominate the aberration structure of the cornea and to what degree.

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### Precise corneal comparison

With the CA-800, it is easy to compare topography maps between two examinations of a patient, which can be used for follow up and for pre- and post-operative corneal analysis. With the differential map, progress in recovery of the cornea can be observed after refractive surgery. Parameters such as keratometry, apical curvature and corneal symmetry can be analyzed to follow the development of any corneal surface changes.

The CA-800 comparison and differential maps help you with the treatment of collagen cross linking to stop the development of corneal keratoconus.

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### Dynamic pupillometry

The CA-800 is equipped with two white LED's for dynamic and static pupillometry. With the CA-800 on board, the user can check the pupil position and diameter (from Photopic to Scotopic condition) in relation to the position of the optical zone in Ortho-K, laser treatment or refractive surgery treatments. Dynamic pupillometry provides clear information on the reaction time of the pupil and the contraction of the pupil.

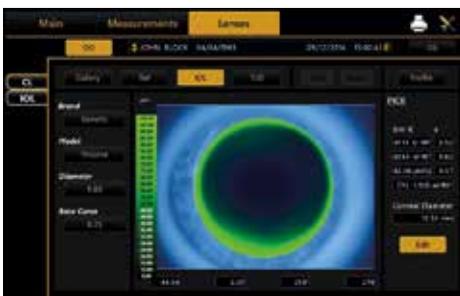
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### Real time fluorescein films

The CA-800 incorporates eight blue LED's for fluorescein images and real time fluorescein videos which are essential for contact lens fitting. During every measurement the CA-800 automatically registers the pupil diameter, which allows the eye care practitioner to judge the movement of the contact lens on the cornea.

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### Contact lens fitting simulation

The CA-800 provides the perfect platform for contact lens fitting. Simulation software is provided on board, which automatically selects the best fitting contact lens based upon an included complete contact lens database for all the main manufacturers (upgradable and customizable by the user). With the option to input refractive powers, the contact lens proposal is accurate and complete.

The on board fluorescein acquisition system allows full control of the contact lens position on the eye.

The comparison between different contact lenses is easy in order to ensure the best fit.

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## Meibomian gland analysis

With the infrared illumination of the CA-800, the Meibomian glands of the upper and lower eyelid can be captured and analyzed. Posterior blepharitis is the most common form of lid margin disease. MGD (Meibomian Gland Dysfunction) can cause or exacerbate dry eye symptoms and eyelid inflammation. The oil glands become blocked with thickened secretions. Chronically clogged glands eventually become unable to secrete oil which results in permanent changes in the tear film and dry eyes. With the CA-800, MGD can easily be observed and compared with previous Meibomian gland examinations of the patient.



## Tear film breakup time analysis

The CA-800 offers a comprehensive analysis of the tear film by using the Blink detection and Tear Breakup Time measuring modes. The Blink detection records the patient blinks over a period of time. Blinks are automatically detected the average blinks per minute and blinks interval are calculated. The Tear Breakup Time (TBT) records the patients tear film condition while they hold their blink and calculates the time of first breakup and average time for breakup of the tear film. This feature allows video playback with a colored overlay to show the quality of the corneal surface.

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