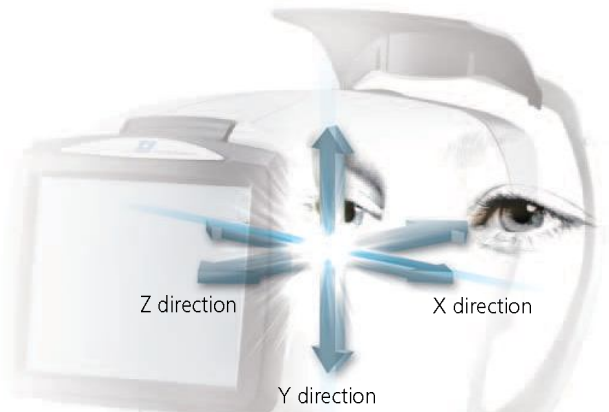**NIDEK**

Optical Biometer

AL-Scan

THE ART OF EYE CARE

Effortless Measurement of 6 Clinical Parameters in 10 Seconds

NIDEK's solution is the state of the art optical biometer - the AL-Scan. In 10 seconds, six values for cataract surgery are measured:

- Axial length
- Corneal curvature radius
- Anterior chamber depth
- Central corneal thickness
- White-to-white distance
- Pupil size

Z direction   X direction
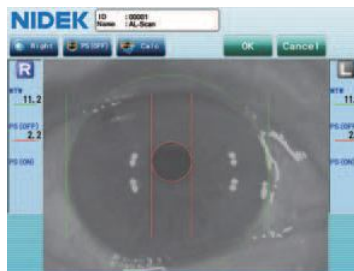
Y direction

3-D Auto Tracking and Auto Shot

The AL-Scan incorporates NIDEK's much acclaimed 3-D auto tracking and auto shot, enabling accurate measurement with ease and comfort. The 3-D auto tracking follows eye movements along the X-Y-Z directions to ensure accurate alignment of the eye. Once correct alignment is completed, the auto shot immediately captures the image and data.

Anterior Segment Observation with Scheimpflug Imaging and Double Mire Ring Keratometry

The AL-Scan provides sectional lens image, pupil image, and reflected image of double mire rings projected onto the cornea.

The sectional lens image assists in the evaluation of the severity of the cataract. The pupil image assists in the assessment for multifocal IOL. The reflected image of mire rings assists in detecting an irregular corneal surface.

Sectional lens image (Scheimpflug image)   Pupil image   Reflected image of double mire rings

Optional Built-in Ultrasound Biometer

In cases where the optical biometer cannot measure an eye with an extremely dense cataract, the AL-Scan provides an optional built-in ultrasound biometer, allowing measurement of virtually any cataractous eye with a combined model.
The AL-Scan requires no connection with an external ultrasound unit.
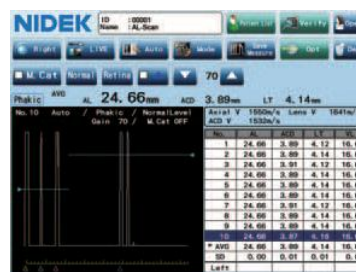
Ultrasound biometry

IOL Power Calculation and IOL Constants Optimization

The IOL power is automatically calculated after measurement.
Calculation of a personalized IOL constant improves postoperative accuracy.

IOL power calculation formula on AL-Scan
SRK, SRK II, SRK/T, Binkhorst, Hoffer Q, Holladay 1, Haigis,
Camellin-Calossi, Shammas-PL

+

Additional Barrett formulas available for the NAVIS-EX AL-Scan Viewer
Barrett Universal II, Barrett True-K, Barrett Toric Calculator

AL-Scan Viewer
for NAVIS-EX

AL-Scan Viewer is software used for viewing and
working with AL-Scan data via NAVIS-EX.
This function enhances the capability of the
AL-Scan with additional features and increases
the efficiency of any clinic.

NAVIS-EX is an image filing software that
enables data from the NIDEK diagnostic
devices to be centralized in the NAVIS-EX
database. It was initially developed for
NIDEK's retinal products and has been
expanded to network with the AL-Scan.
* NAVIS-EX is optional software and is required
for use of the AL-Scan Viewer.

Data Management and IOL Power Calculations

The large storage capacity of the NAVIS-EX database is available
for review on the AL-Scan Viewer. The basic functions of the
AL-Scan can also be performed with the AL-Scan Viewer including
IOL power calculations and optimization of IOL constants.

Toric Lens Assist Function

Acquisition of multiple toric lens assist images allows
selection of the optimal image for digitally marking the
astigmatic axis. These images allow better surgical
planning for accurate toric IOL alignment.

Recalculation of Measured Values

The AL-Scan Viewer allows recalculation of modified axial
length, white-to-white, and pupil size data for accurate
calculations.

Product/Model name: Image Filing Software NAVIS-EX