

# Excimer Laser System EC-5000CXIII

NIDEK offers the EC-5000CXIII Excimer Laser System - the ultimate refractive corneal surgery system built over years of experience to provide safer and more reliable performance with greater accuracy and stability.

## ■ **Advanced Ergonomics & User Friendly Platform**

The EC-5000CXIII is 15% smaller in dimensions compared to NIDEK's other conventional models, offering small foot print yet greater versatility.

## ■ **The PC Unit & Hardware Modules are integrated** into the main console and unit,

## ■ **Innovative Algorithms for Optimized Laser Treatments & Surgical Outcomes**

## ■ **Superior Protective & Safety Mechanisms**

The system has integrated automated mirror protection windows to keep the optical mirrors clean. The special window opens when the "Laser Ready" button is pressed and closes when the operation is completed.

## ■ **Special Function LCD Monitor on Laser Arm\***

The LCD Monitor displays information and laser parameters for easier operation - these include eye tracking image, TED image, laser operation time and other clinically relevant parameters.

## ■ **Faster Operation** - The system check and mechanical alignment time is approx. 60% faster compared to our conventional model.

\*optional



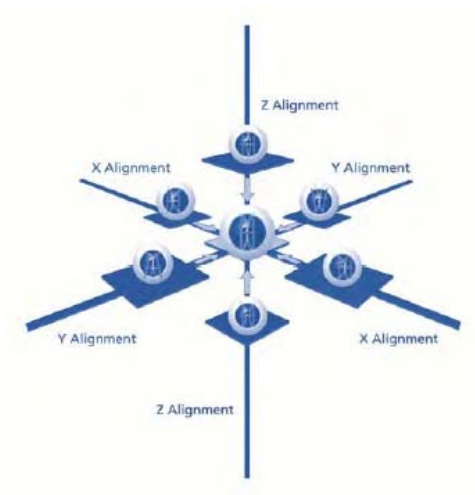


- **Torsion Error Correction (TEC)\***  
- Hands free axis correction during operation  
**OR**  
**On-line Torsion Error Detector (On-line TED)\* -NAVFocus**
- **High Speed 200Hz Eye Tracking System with offset function -NAVFocus**
- **Advanced Motorized Magnification Controls -NAVFocus**
- **MultiPoint™ Ablation -NAVScan**
- **Super Flex Scan -NAVScan**
- **Plume Evacuator**
- **Coaxial & Oblique Internal Illuminators**
- **User Friendly Operation** - employing advanced remote controller mechanisms
- **Greater Stability** with enhanced drive capacity

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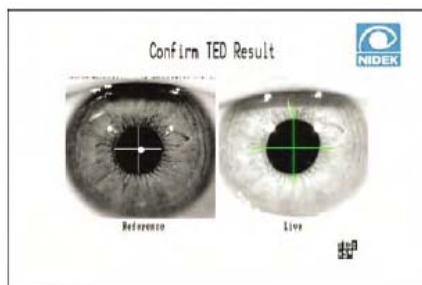


An advanced technology to provide easy alignment with greater accuracy and precision.



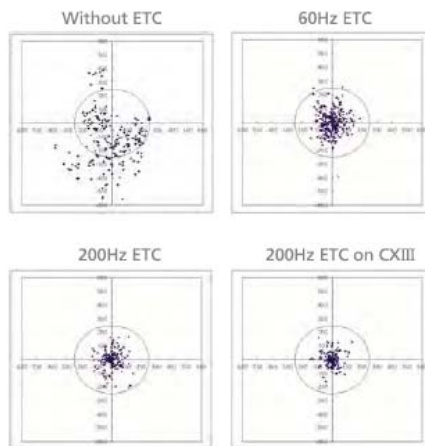
## ■ Torsion Error Correction or Detection

The Torsion Error Correction (TEC) or Torsion Error Detector (On-line TED) detects and compensates Cyclo-Torsion and improves cylinder correction accuracy while ensuring that the EC-5000CXIII laser ablates with unparalleled precision during conventional and customized refractive surgery procedures.



## ■ 200Hz Eye Tracking System

Built-In Advanced Eye Tracking Systems (200 Hz) utilizes high-speed digital image processing technology to follow the patient's eye, ensuring accurate and precise laser alignment and delivery during the procedure. With the advanced offset function, the surgeon can set the tracking point at anywhere within  $\pm 1\text{mm}$  from the pupil center as needed. Also, the alignment speed has been greatly improved, allowing faster and smoother operation.



\*Sampling rates are 100 msec.

## ■ Motorized Magnification Controls

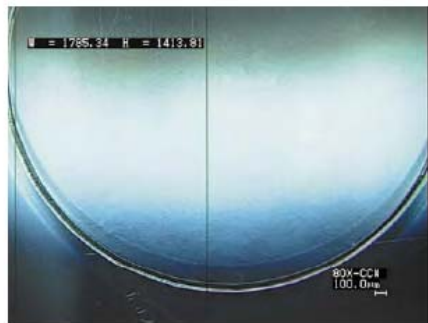
The EC-5000CXIII offers Advanced motorized magnification controls, allowing the surgeon to change the magnification easily, using a switch on the controller.



An innovative scanning technology to realize a uniform ablated surface and the optimized custom ablation with highest precision.

### ■ **Super Flex Scan**

Advanced Energy Delivery Systems - Super Flex Scan - is a unique slit scanning ablation profile that improves accuracy of the refractive correction. The scanning slit beam smoothly sweeps the cornea, quickly ablating tissue with cool, overlapping ultraviolet energy.



Slit Scanning Ablation Surface

### ■ **MultiPoint™ Ablation**

MultiPoint™ Ablation system can correct certain high-order aberrations. Surgeons can choose to perform MultiPoint™ Ablation before or after the conventional scanning-beam ablation of sphere and cylinder error components of low order aberrations. MultiPoint™ Customized Ablation module divides the rectangular-shaped laser beam into six equal gaussian spots of 1.0 mm in diameter, which can be individually or simultaneously projected onto the cornea for a highly precise ablation of small area irregularities.

