

From Eye to Insight



Microscope systems for markerless IOL alignment during cataract surgery

## YOUR WAY TO PRECISE OUTCOMES

2D and 3D IOL guidance systems





# YOUR WAY TO PRECISE OUTCOMES

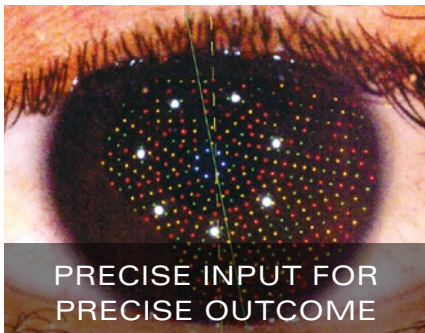
Drive minimum residual astigmatism for your patients with IOL guidance systems available from Leica Microsystems.

You strive to deliver minimal residual astigmatism so your patient can be glasses-free after cataract surgery. When dealing with miniscule eye structures there is no room for inaccuracy.

Markerless IOL guidance systems available from Leica Microsystems capture accurate eye measurements to deliver precise, dependable and dynamically optimized guidance information. The systems support you to avoid potential inaccuracies throughout the entire process from planning to positioning of the toric intraocular lens (IOL), helping you deliver the best possible patient outcome.

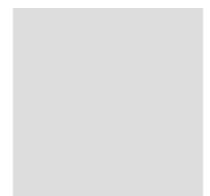
The following TrueVision 2D and 3D IOL guidance systems are available from Leica Microsystems:

- > IOLcompass Pro - 2D markerless IOL guidance
- > 3D TrueGuide - 3D markerless IOL guidance



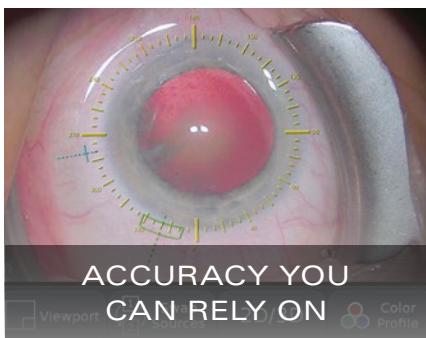
Accurate eye measurements are the foundation for accurate guidance which drives optimal patient outcome.

- > Full integration with some of the most accurate and trusted topographers
- > Data transfer via LAN, USB or Cloud\* helps ensure precision is maintained both pre- and intra-operatively



Eliminate manual steps and associated potential for inaccuracy

- > Automated eye-registration means no blue ink marking is required
- > If your plan changes in the OR the dynamic software automatically optimizes subsequent steps
- > Full data connectivity avoids manual input



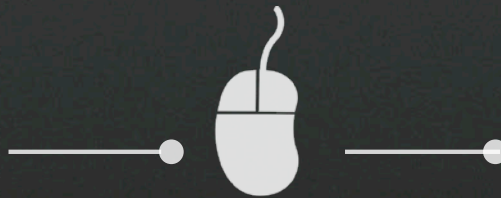
Benefit from precise guidance without deviations caused by eye movement or cyclotorsion

- > Full range of intra-operative templates support you through each surgery stage
- > Templates remain stable and accurate with low latency due to sophisticated registration and active eye tracking





Capture accurate data via your choice of pre-operative topography device\*



a few simple mouse clicks



Pre-operative planning software generates a customized surgical plan with target refractive outcome

## PRECISION FROM START TO FINISH

Avoid manual steps and associated inaccuracies with seamless connectivity and automation throughout the entire cataract workflow.

### Precise input for precise outcome

Precise lens alignment starts with precise reference images and measurement, which is why IOLcompass Pro and 3D TrueGuide are compatible with some of the most trusted and accurate pre-operative topographers\*.

- > Select the topography device you trust most and be confident of seamless interfacing
- > The planning software generates a customized surgical plan with targeted, predicted residual astigmatism based on the precise data from your chosen topographer
- > Continue working with the high accuracy of your chosen pre-operative device all the way through the procedure thanks to full data connectivity

### \*Compatibility with pre-operative devices

i-Optics	Cassini
Oculus	Keratograph 5M
Tomey	OA-2000 (in preparation)



USB, LAN,  
or Cloud (in preparation)

IOL guidance system  
integrated into your  
microscope visualization  
platform

Work without interruption  
with wireless foot switch  
control of templates

Large HD 2D or 3D  
touch-screen

### Connected and intelligent

Traditional cataract surgeries include manual steps which are time-consuming and may open up the possibility of inaccuracy. IOL guidance systems available from Leica Microsystems are designed to eliminate these steps by offering an integrated, intelligent surgical workflow.

- > No need to worry if your plan changes during surgery, the powerful, dynamic software adjusts to changes and optimizes each subsequent step of the procedure
- > Automated eye registration makes time-consuming blue ink marking and the risk of blurring a thing of the past
- > Avoid manual data input as patient data and surgeon preferences are transferred digitally from topographer through the workflow

### Documentation and teaching simplified

Live on-screen video and recording enhances collaboration in the OR and allows future sharing with students and peers as well as full documentation in patient files.

- > Live video and patient data can be simultaneously shown on the large HD touch-screen and recorded enabling the OR team and students to easily follow the surgery
- > Record in HD 2D or 3D (3D TrueGuide) with or without templates
- > Use video and captured still images for teaching and sharing with peers at seminars or online.

# ACCURACY YOU CAN RELY ON

Operate secure in the knowledge that you will be supported by stable, precise guidance data.

## Aligned from the start

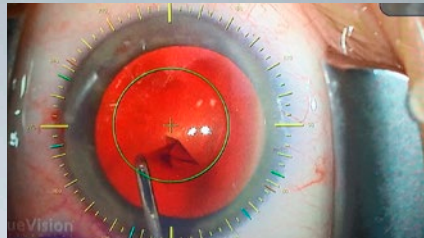
With IOLcompass Pro and 3D TrueGuide you can avoid potential sources of deviation from inaccurate registration of templates to the eye thanks to auto-registration. No blue dot marking is required as the software uses the pre-operative reference image to recognize patterns of the limbus and scleral blood vessel structures. Upon surgeon confirmation, the templates are automatically aligned to the live surgical image.

## A moving target

During surgery the patient's eye moves. Without a guidance system it can be tricky to continually adapt to the changing position. Worry no longer! The sophisticated tracking system follows the eye in real-time for stable, precise guidance you can always count on.

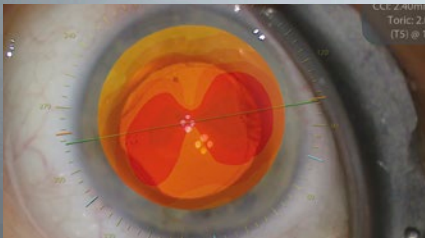
## A template for every step

A wide selection of precise guidance templates support you through every step of your cataract surgery.



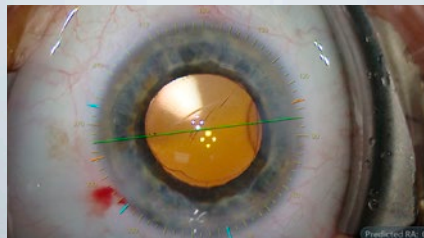
## CCI / LRI

The exact position and size of the incisions is displayed to enable a precise start to the procedure taking into account surgically induced astigmatism.



## Rhexis

Displays the individually planned shape and size of the capsulorhexis to position the IOL along the optical or visual axis.



## Topography overlay

Confirm positioning against a topography overlay which shows the exact curvature of the cornea.

## Axis

Use the optimized target axis to ensure toric IOL alignment with the lowest predicted residual astigmatism.



## YOUR CHOICE, YOUR WAY

Choose 2D or opt for 3D and experience a new OR perspective working "heads-up".

The software features of the IOL guidance systems available from Leica Microsystems and the OpenArchitecture design of the microscopes, make it easy to upgrade from 2D IOLcompass Pro to 3D TrueGuide whenever you wish.



### 2D IOLcompass Pro markerless IOL guidance

Benefit from precise, reliable navigation assistance from planning to surgery with IOLcompass Pro.

- > View guidance templates on the large HD touch screen  
OR
- > Work with the guidance templates additionally injected into the eyepiece so you have all the information you need without moving your head
- > IOLcompass Blue, a simplified, economic guidance solution, is also available, providing templates based on manual data input and using your blue ink marks as alignment reference.



### 3D TrueGuide markerless IOL guidance from TrueVision

All of the benefits of 2D guidance plus the additional advantages of working "heads-up" looking at a HD 3D screen:

- > Enjoy an immersive experience thanks to enhanced depth of field and fundus visualization
- > Work in an upright, comfortable position looking straight ahead
- > Support communication and teaching as all share the same 3D surgical view
- > Use the 3D screen as visualization center for your OR by additionally displaying data from third party imaging devices

See the back page for a full product comparison

## OVERVIEW OF IOL GUIDANCE SYSTEMS

		2D IOL Guidance		3D IOL Guidance
		IOLcompass Blue	IOLcompass Pro	3D TrueGuide
Pre-operative planning			•	•
Interfacing with pre-op topographers (see p.4 for compatibility)			•	•
Digital data transfer from pre-op topographer to planning software, to microscope			•	•
Templates	CCI Incision, capsulorhexis, IOL centration and toric alignment	•	•	•
	Pre-OP image and topography overlay		•	•
Tracking of templates to eye structures		•	•	•
No need for corneal ink marking			•	•
Touch-screen set-up and control		•	•	•
Foot-switch / hand-switch control of templates		•	•	•
Retro-fit to your Leica ophthalmic microscope (M822/M844 F40, Proveo 8)		•	•	•
Facilitates working "heads-up" looking at a 3D screen				•

All systems compatible with Cassini from i-Optics, Keratograph 5M from Oculus, and OA-2000 from Tomey (in preparation).

### REGULATIONS AND STANDARDS

Surgical microscopes Leica M844 F40, Leica M822 F40 and Proveo 8 with integrated TrueVision IOL guidance system:

- » Council Directive 93/42/EEC on Medical Devices (MDD) and its amendments. Classification: Class I, in compliance with Annex IX, rule 1 and rule 12 of the directive.
- » IEC 60601-1 / EN 60601-1 Medical Electrical Equipment, Part 1: General requirements – including national differences of EU, CA, US.
- » IEC 60601-1-2 / EN 60601-1-2 Electromagnetic Compatibility.

The Medical Division, within Leica Microsystems (Schweiz) AG, holds the management system certificates for the international standards ISO 9001, ISO 13485, and ISO 14001 relating to quality management, quality assurance and environmental management.



CONNECT  
WITH US!

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