

# CV-5000

Digital Phoropter

Tailored refraction workflows that deliver greater choice for patients and clinics



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## CV-5000

Digital Phoropter

In today's environment of continuous change, optical stores and clinics must continue providing high-quality eye care solutions that meet the needs of their patients while continually evolving to keep up with their demands and expectations. Creating a customised, flexible workflow that leverages the latest technology and can be optimised for a variety of store designs is part of the solution to ensuring continued patients satisfaction. Topcon continues to deliver diagnostic solutions that deliver quality and satisfaction to both patients and clinicians.



## Optimal refraction design



- >> Flexible layout
- >> Greater choice of controller systems
- >> Satisfy customer needs and expectations

## Efficient clinic workflow



- >> Extended connectivity with other devices
- >> Seamless and Intuitive operation
- >> Flexible choice of system configuration

## More convenient experience for patients



- >> New experience with SightPilot NAVi™
- >> Variety of VA tests for customised refraction
- >> Smooth user experience and fast refraction time

### Extensibility

The CV-5000 system can be installed on a standard Windows<sup>1</sup> PC or operated via the remote desktop function of an iPad<sup>2</sup>.



<sup>1</sup> Your personal computer must meet the following specifications. OS: Windows 7 Professional (32 bits/64 bits)/Windows 10 (32 bits/64 bits)/Windows 11  
<sup>2</sup> iPad is a trademark of Apple Inc., registered in the U.S. and other countries.

# NEW Introducing SightPilot NAVi™

## Enhance the Patient Experience



Voice guided, dial-control operated self-refraction



Less wasted time waiting



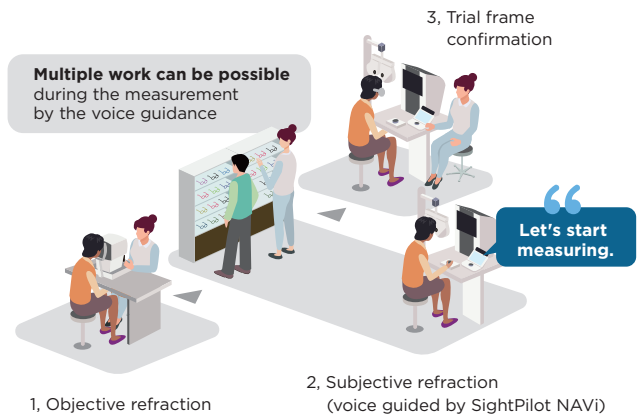
Support from clinic staff available when necessary, delivering peace of mind



Multilingual voice navigation options for clear communication

### Voice Guidance<sup>3</sup> and Dial Controller

SightPilot NAVi™, implemented with multilingual voice guidance, allows patients to follow and progress through a self-refraction examination. Using the smooth, easy-to-use dial controller, patients can compare and select the best option by themselves. Multilingual voice navigation ensures continuity of care regardless of language.



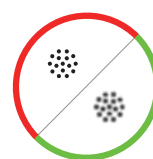
Optional Accessory SNI-1



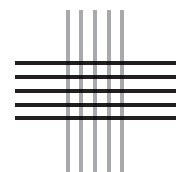
Visual acuity test



Red-green test



TOPCON cross<sup>4</sup>  
(astigmatism correction)



ADD test  
(additional correction for near vision)

<sup>3</sup> Speakers are not included.  
<sup>4</sup> Topcon cross = Auto cross

## Optimise the Clinical Workflow



Efficient and time-saving for patients and clinics



Compact design & flexible layout



Increase refraction efficiency per operator



Upgrade<sup>5</sup> CV-5000 refractions systems with reasonable investment



Standardised refraction process by SightPilot NAVi™



Increase customer base by reducing language barriers



<sup>5</sup> Contact your local distributor for the product configurations that can be upgraded.





## CV-5000 Features



**Compact, space-saving design**



**Time Saving**



**Flexible System Configurations**



**Comfortable Patient Experience**



**Stable Measurement**



**Easily configurable for Multiple User Requirements**

## Multiple User Requirements

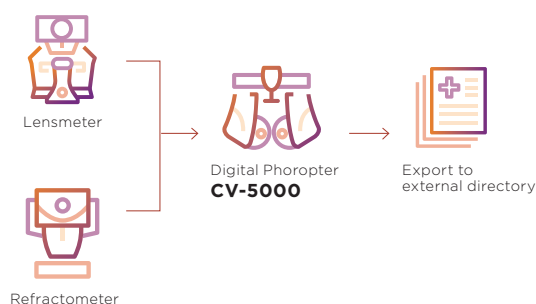
The CV-5000 offers versatile user interfaces to support any clinic workflow. The mini help supports any user. Create and save custom programs to standardise refraction programs for different patient types and operator preferences. Create consistency with custom programs for smooth and preferred program while giving trained professionals the option to incorporate additional testing, such as 21-point refraction, binocular vision testing, or polarisation testing.



## Digital Connectivity

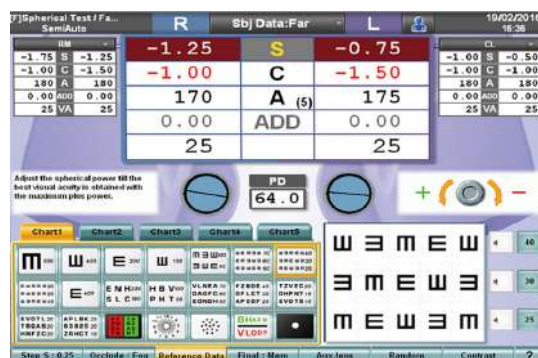
The CV-5000 can receive refraction data from selected Topcon instruments and non-Topcon devices, such as refractometers and lensmeters, allowing an operator to import data rapidly at the start of an examination. Automatic data transfer avoids transcription errors associated with manual typing and speeds up workflow. It also enables rapid comparison of the final refraction with the previous spectacles, allowing patients to easily compare and appreciate the value of small changes in their prescription.

### System Chart



## Easy-to-see Reference Data

The versatile user interface allows users to view all relevant data at a glance, in one screen. Additionally, the main data view can be modified according to user preferences.



## Standard or Custom Programs

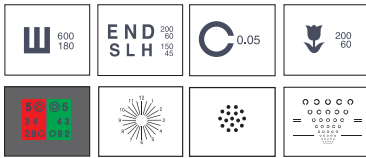
Preprogrammed refraction routines optimise refraction efficiency. The standard program automatically moves through common tests to refine sphere and cylinder at the touch of a button. Alternatively, create and save custom programs for different patient types and operator preferences.



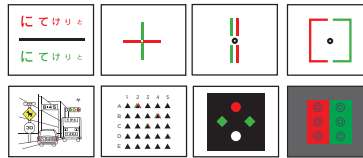
## Variety of Test Content

The CV-5000 can be used a variety of test chart options<sup>6</sup>, allowing customisation of the refraction process to suit a wide range of patients and operator preferences.

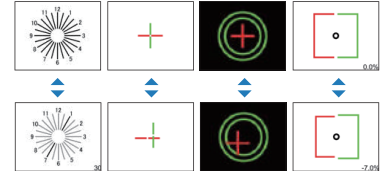
### Standard charts



### Variety of visual function test

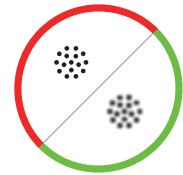


### Original chart



## Topcon Cross<sup>7</sup>: A unique colour for the Cross cylinder test

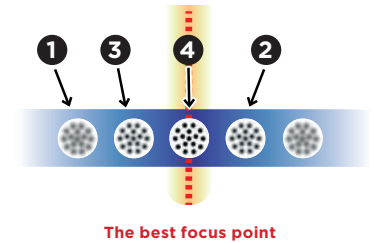
The CV-5000 displays the Cross cylinder target in a red or green circle to aid patient understanding.



## Smart Cross: A unique logic for the Cross cylinder test

The Smart Cross test is the semi-automatic process for cylinder refinement where clear and blurred images are deliberately shown to the patient, thereby making comparison easier.

Starting the examination with an intentionally out-of-focus astigmatic axis and gradually shifting the axis in the opposite direction makes it easier for the patient to recognise large differences in vision, as well as helping them recognise the progress of the examination as the differences become smaller and smaller. Additionally, the axis shift and refining accuracy are automatically optimised, facilitating a smooth and efficient examination.



### Quality of Patient Education Content

### Convenient Simulation Content

Far view

Near view



One-dial controller | KB-50S

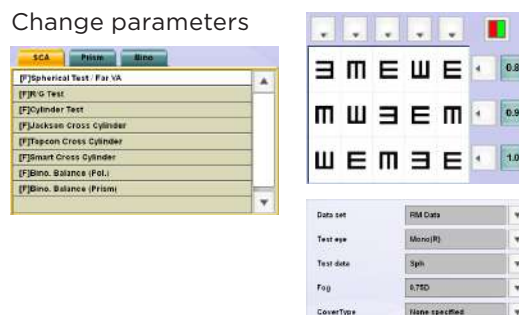
<sup>6</sup> Not all charts are introduced.  
<sup>7</sup> Topcon cross = Auto cross



## Easy-to-select Test Functions

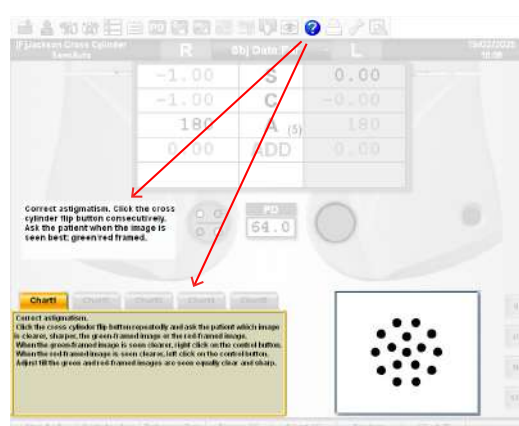
The CV-5000 provides predefined examinations for spherical, cylindrical and prismatic testing and refinement. When coupled with a Topcon computerised vision chart, selection of the test automatically brings up the relevant test chart.

Change parameters



## “HELP” Function

At the touch of a button the HELP display is displayed. HELP provides useful information on the selected test. A simplified (short text) and an advanced (longer text) HELP can be selected.



## Comfortable Near Vision Tests

To provide a natural, more realistic reading position during the near-point tests, the CV-5000 head can be tilted, and the LEDs come on automatically when near tests are selected. Text can be displayed on the KB-50S controller or a range of near charts can be presented by lowering the robust near rod and mounting the near-point card. Alternatively, a near-point chart is used.



## Fast & Smooth Lens Disc Rotation

Efficient lens disc rotation reduces ocular stress and supports patient decision making. In tandem with digital connectivity, this also significantly reduces the total refraction time.



# Controller Options

## One Dial Controller KB-50S

The dial navigation function simplifies control over the sphere, cylinder, or prism power in response to the patient's answers. Functionality can also be controlled from a keyboard or a touchscreen, to suit personal preference.



## Tablet<sup>8</sup>

The wireless tablet option offers flexible operation from any position within the refraction room. Control of the refraction system can be combined with other useful clinical tablet applications to optimise clinic workflow. The tablet enables intuitive operation through the touching and swiping of the screen.



## Controller app works with Windows<sup>®</sup> PC<sup>9</sup>

A convenient feature in this market is the ability to control the CV-5000 through an existing Windows PC, minimising disruption to clinical workflow, saving space, and enabling the use of other software simultaneously.

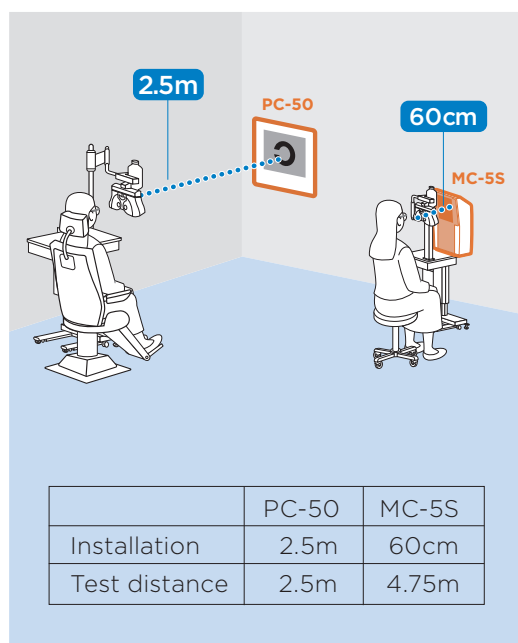


<sup>8</sup> Available only for iPad.  
<sup>9</sup> Available for Windows 7,10,11.

## SPACE-SAVING

### MC-5/MC-5S

MC-5/MC-5S provides sophisticated visual acuity testing with minimal space.



### PC-50 Series

The PC-50 series features a 19" LCD for sharp chart projection and offers a wide range of optotypes and tests. The user-friendly remote controller<sup>10</sup> ensures ease of use.



## STANDARD

### CC-100 Series<sup>11</sup>

The CC-100 series LCD chart systems offer high resolution displays for sharp acuity tests, including ETDRS, spatial frequency contrast, and HRR colour tests.



### ACP-8 Auto Chart Projector

The ACP-8 auto chart projector provides sharp image projection and fast rotation. A remote controller allows instant projection of 30 different test charts, including a range of optotypes and oculomotor status charts.



<sup>10</sup> For PC-50 only

<sup>11</sup> The CC-100 and CC-100XP are the products manufactured and distributed by VISIA imaging s.r.l

## Specifications

<b>Spherical power</b>	Measuring range	+27.00 to -27.00D
	Measuring step	0.25D/1.00D/2.00D/3.00D
<b>Cylinder power</b>	Measuring range	+8.00 to -8.00D
	Measuring step	0.25D/1.00D
<b>Cylinder axis</b>	Measuring range	0 to 180°
	Measuring step	1°/5°/15°
<b>Prism</b>	Measuring range	0 to 20△(all directions)
	Measuring step	0.1△/0.2△/0.5△ /1.0△
<b>Pupillary distance</b>	Adjustment range	48 to 80mm
	Adjustment step	0.5mm/1.0mm
<b>Cross cylinder</b>	Jackson Cross cylinder	±0.25D/±0.50D
	Auto Cross cylinder	±0.25D
<b>Test lens (Aux lens)</b>	Red-green filters, Polarizing filter (45°/135°, Circular Polarizing Filter <sup>1</sup> ), Prism(6△ /10△), Red Maddox (horizontal/vertical), Lens for retinoscopy (+ 1.5D/+2.0D), Cross cylinder for measuring presbyopia (±0.50D) , Occluding plate, Pinhole, and Cross hairs glass.	
<b>Reference eyeglass wearing distance</b>	12mm, 13.75mm, 16mm, 18mm, 20mm	
<b>Convergence</b>	Near point distance 40/67cm (Minimum papillary distance at near-point 40cm convergence: 53mm)	
<b>Forehead rest adjustment range</b>	15mm	
<b>Dimensions and weight</b>	Measuring head (Non-arm mounted type)	309-341 (W) x 114(D) x 261(H)mm / 4.0kg
	Measuring head (Arm-mounted type)	309-341 (W) x 114(D) x 324(H)mm / 4.6kg
	Power Supply Unit W/External PC	276(W) x 197(D) x 117(H)mm / 2.7kg
	Power Supply Unit W/Built-in PC	276(W) x 197(D) x 117(H)mm / 3.9kg
	1 Dial Controller	300(W) x 250(D) (MAX) x 200(H) (MAX) mm / 2.3kg

<sup>1</sup> The combination of the polarizing filter must be one of the following : 45°/ 135° and 135°/45° or 45°/ 135° and circular polarizing filter.

**IMPORTANT** In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.  
Not all products, services, or offers are available in all markets. Contact your local distributor for country-specific information and availability.

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