CV-5000

Digital Phoropter

Tailored refraction workflows that deliver greater choice for patients and clinics

TOPCON Healthcare

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CV-5000

Digital Phoroptor

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[1] PC or operated via the remote desktop function of an iPad[2].

Introducing SightPilot NAVi™

Enhance the Patient Experience

Voice guided, dial-control operated self-refraction
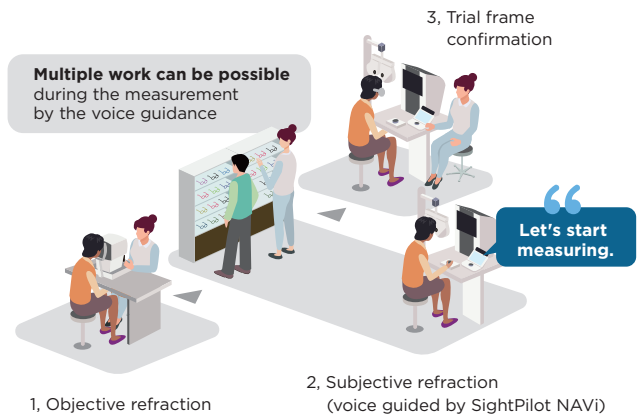
Less wasted time waiting

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

Multilingual voice navigation options for clear communication

Voice Guidance[3] 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.
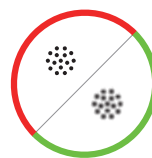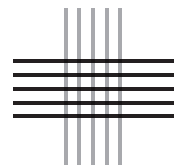
3, Trial frame confirmation

Multiple work can be possible during the measurement by the voice guidance

Let's start measuring.

1, Objective refraction

2, Subjective refraction (voice guided by SightPilot NAVi)

Optional Accessory SNi-1

Visual acuity test

Red-green test

TOPCON cross[4] (astigmatism correction)

ADD test (additional correction for near vision)

3 Speakers are not included.
4 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[5] CV-5000 refractions systems with reasonable investment

Standardised refraction process by SightPilot NAViTM

Increase customer base by reducing language barriers

CV-5000 Features

Compact, space-saving design

Time Saving

Flexible System Configurations

Comfortable Patient Experience

Stable Measurement

Easily configurable for Multiple User Requirements
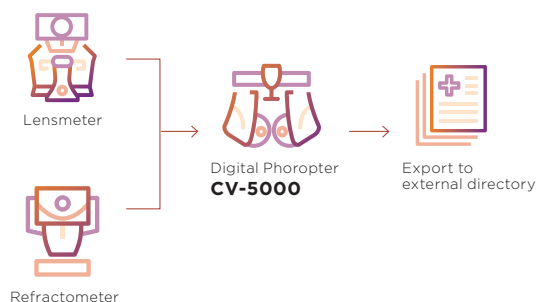
Multiple User Requirements

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 prefered program while giving trained professionals the option to incorporate additional testing, such as 21-point refraction, binocular vision testing, or polarisation testing.
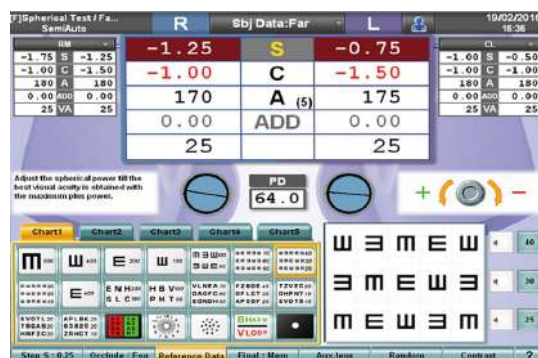
Digital Connectivity

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

Lensmeter

Digital Phoropter
CV-5000

Export to
external directory

Refractometer

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.

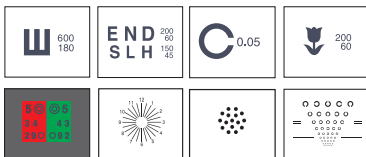## Standard or Custom Programs

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.
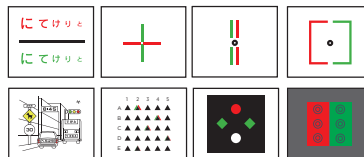
Variety of Test Content

The CV-5000 can be used a variety of test chart options[6], allowing customisation of the refraction process to suit a wide range of patients and operator preferences.
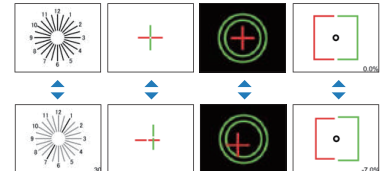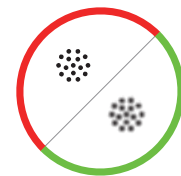
Standard charts

Variety of visual function test

Original chart

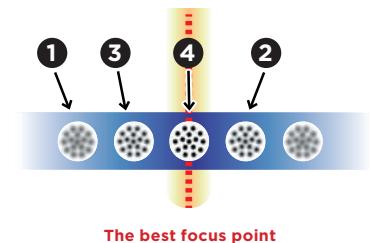## Topcon Cross[7]: A unique colour for the Cross cylinder test

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.

The best focus point

Quality of Patient Education Content

Convenient Simulation Content

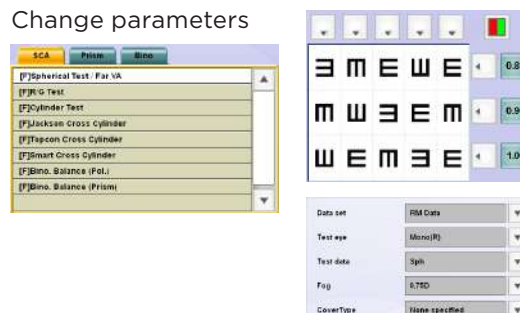Far view   Near view

One-dial controller | KB-50S

6 Not all charts are introduced.
7 Topcon cross = Auto cross
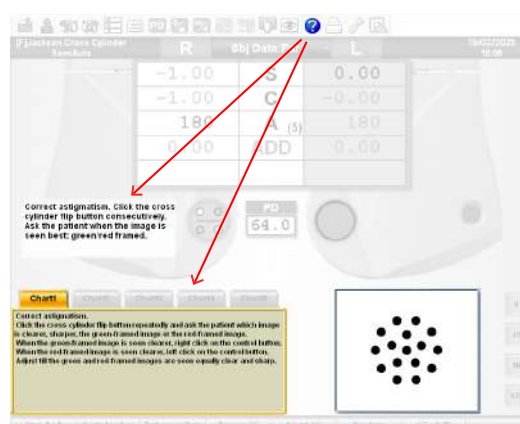
Easy-to-select Test Functions

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[8]

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® PC[9]

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.
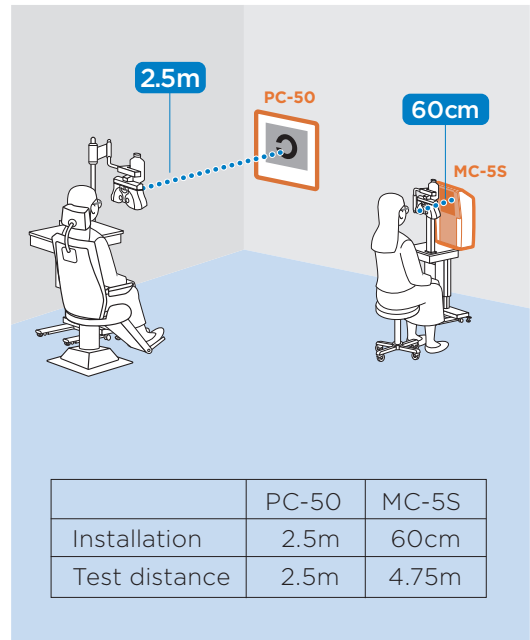
8   Available only for iPad.
9   Available for Windows 7,10,11.

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[10] ensures ease of use.

	PC-50	MC-5S
Installation	2.5m	60cm
Test distance	2.5m	4.75m

STANDARD

CC-100 Series[11]

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.

Specifications

Spherical power	Measuring range	+27.00 to -27.00D
	Measuring step	0.25D/1.00D/2.00D/3.00D
Cylinder power	Measuring range	+8.00 to -8.00D
	Measuring step	0.25D/1.00D
Cylinder axis	Measuring range	0 to 180°
	Measuring step	1 °/5°/15°
Prism	Measuring range	0 to 20△(all directions)
	Measuring step	0.1△/0.2△/0.5△ /1.0△
Pupillary distance	Adjustment range	48 to 80mm
	Adjustment step	0.5mm/1.0mm
Cross cylinder	Jackson Cross cylinder	±0.25D/±0.50D
	Auto Cross cylinder	±0.25D
Test lens (Aux lens)		Red-green filters, Polarizing filter (45°/135°, Circular Polarizing Filter[1]), 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.
Reference eyeglass wearing distance		12mm, 13.75mm, 16mm, 18mm, 20mm
Convergence		Near point distance 40/67cm (Minimum papillary distance at near-point 40cm convergence: 53mm)
Forehead rest adjustment ranqe		15mm
Dimensions and weight	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

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