

# Automated phoropter

CV-5000



# COMFORTABLE AND VERSATILE OPERATION



## CV-5000

Topcon's CV-5000 automatic phoropter is the heart of your refraction system. The CV-5000 offers various operation interfaces such as a Topcon KB-50S controller, a tablet, an integrated PC in the CV-5000 or an external PC.

The CV-5000's automatic phoropter head provides fast and silent lens rotation for user and patient comfort.

The CV-5000 is connectable to other refraction instruments. Data import and export can be done through a direct connection with these instruments, or through database software, such as Topcon IMAGEnet i-base.



# CV-5000 FEATURES

## CV-5000 phoropter

- » Small & compact design
- » High speed lens disc rotation
- » Near vision LED illumination
- » Tilting function for near vision test

## Small & compact design

The open and compact design allows perfect interaction with your patient.

## High speed lens disc rotation

Efficient lens disc rotation reduces ocular stress as well as confusion for the patient. The total refraction is reduced significantly.

## Versatile auxiliary lens pack

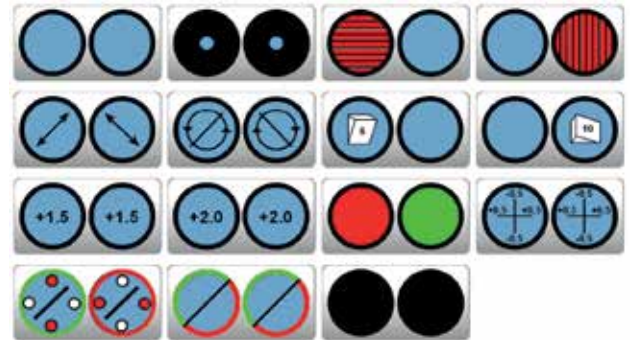
A variety of available auxiliary lenses ensures a professional subjective refraction examination.



Near vision LED

## Tilting function for near vision test

To provide a natural and comfortable reading position during the near test, the CV-5000 phoropter can be tilted within a wide range.



Auxiliary lenses CV-5000 phoropter

## Near vision LED illumination

LED illumination from the CV-5000 phoropter provides bright illumination of the near test chart. The use of external illumination is no longer required.



## CV-5000 operation

- » KB-50S, 1-dial control
- » Mouse & monitor control
- » CV-tablet control, wireless operation by tablet

# KB-50S, 1 DIAL CONTROL

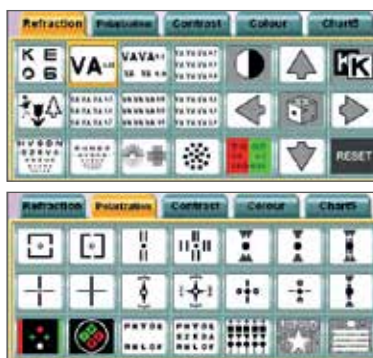
The KB-50S is a dedicated controller for the CV-5000 phoropter. This controller enables an easy and intuitive operation of the CV-5000. The buttons are ergonomically placed with a 1-dial button in the centre of the KB-50S, combined with a large LCD touch screen.



## Large 10.4" colour LCD touch screen

The large colour screen provides clear display of examination data. All relevant data, such as lens meter data, objective data, can be viewed at a glance.

The touch screen ensures quick and easy access of various refraction functions.

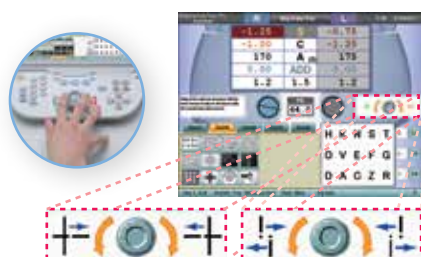


## Personalised display lay-out

The KB-50S incorporates all the charts which are available in all Topcon Computerised Chart systems, such as CC-100XP. Depending on your personal preference and depending on the selected Computerised Chart System, test charts are displayed on five tab pages. The lay out of these five tab pages can be defined by the user.

## Pre defined examinations

The KB-50S provides pre-defined examinations to correct the spherical, cylindrical refraction as well as phoria tests and binocular function tests.

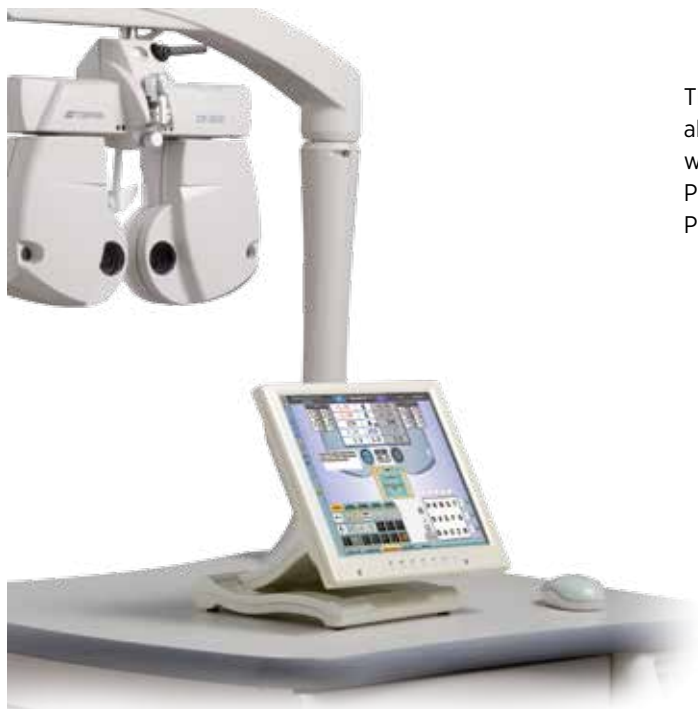


## 1-Dial navigation help

The 1-dial button is used to fine-tune several procedures such as axis rotation, adjusting refractive power etc. The 1-dial navigation helps to indicate the rotation direction of the 1-dial according to the responses of the patient.



# MOUSE & MONITOR CONTROL



The operation software which is controlled by KB-50S can also be controlled by a mouse & monitor. Depending on your wishes, the operation software can be running on your own PC or the operation software can be run from an embedded PC in the power supply of the CV-5000.

## Operating software on the integrated PC

The newly designed user interface offers the best in user friendliness. All relevant data, such as lens meter data, objective data, can be viewed at a glance.



## Operating software on external PC

Using an external PC, enables you to use other software such as Topcon I-base, which enables you to integrate other refraction and diagnostic instruments such as Topcon fundus cameras or slit lamps.



## Integration in IMAGeNet i-base

The CV-5000 / KB-50 software integrates with the IMAGeNet i-base software system. Subjective, objective and lensmeter data can be transferred from the CV-5000 system to IMAGeNet i-base™ and assigned to a patient. As the communication is bi-directional IMAGeNet i-base™ can transfer objective, old glasses and lensmeter data to the CV-5000 system as a starting point for subjective refraction.

# CV-TABLET CONTROL



## CV-tablet control, wireless operation by tablet

The CV-5000 can be controlled by a tablet. The wireless tablet offers flexible operation within the refraction room. Intuitive operation of the CV-5000 through tablet features, such as sliding and touching the screen.

The CV-tablet control operates in combination with Topcon Computerised Charts Systems, such as CC-100, and CC-100XP. The tablet offers unique wireless control of the CV-5000, as well as controlling the CC-100 or CC-100XP at the same time.

The CC-100 and CC-100XP LCD chart systems are versatile solutions to present charts to patients. The high resolution LCD ensures clear and bright chart display. All commonly known acuity tests are available, including ETDRS. The CC-100XP offers additionally polarisation.



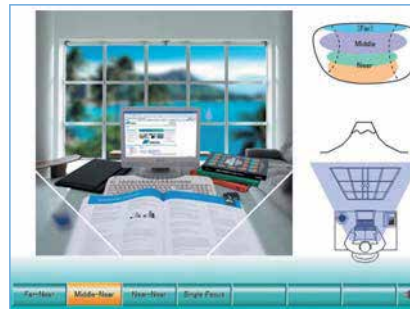
# SALES SUPPORT FUNCTION

CV-5000 provides a sales support, through which the operator can advice the customer which type of lens is most beneficial to fulfill their needs. Clear images display the view for different lens types, single vision, mid range progressive and full range progressive lenses. Lens type selection is made easier and more time saving.

## Vision of progressive Lens



Far-Near



Middle-Near



Near-Near



Single Focus

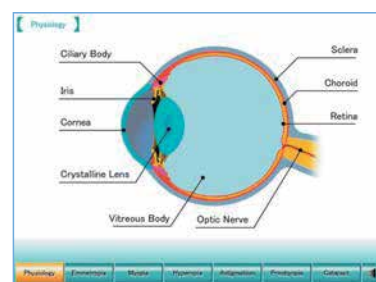
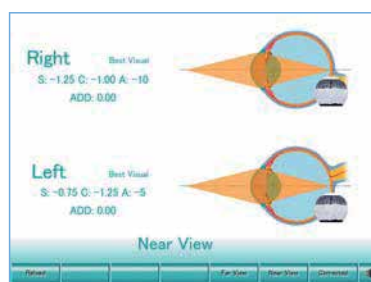
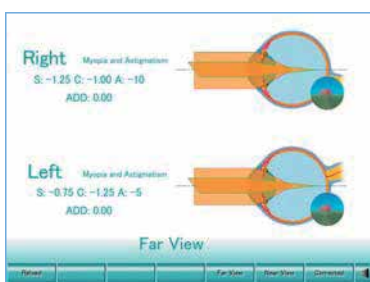
## Accommodation



## Patient Information

Patients like to know why they need glasses.

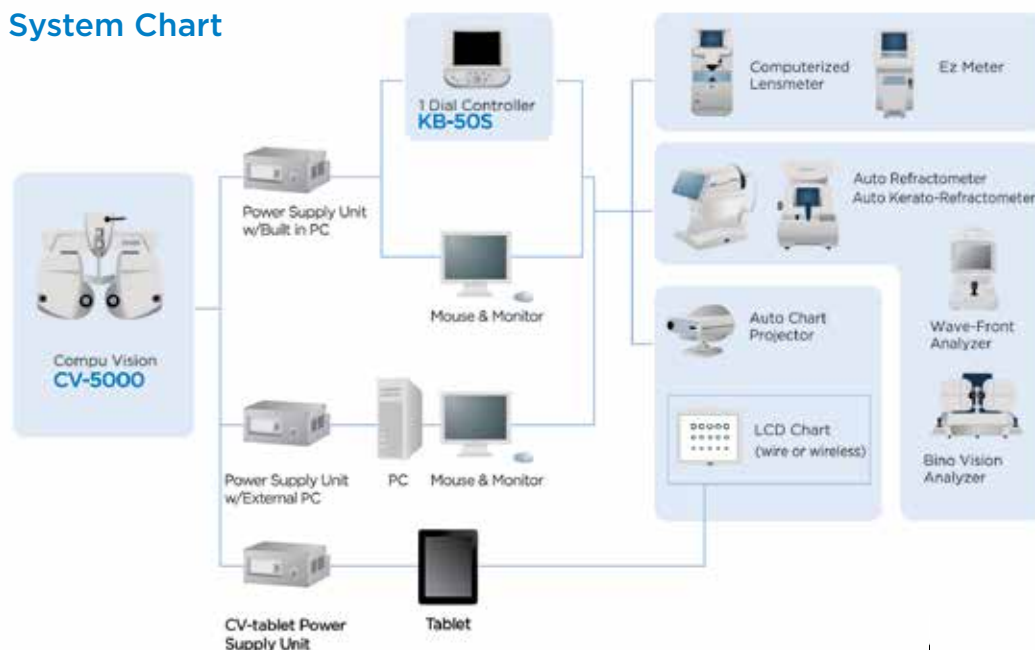
The animated patient information provides a clear understandings to the patient.



## Specifications

<b>Spherical power</b>	Measuring range	+27.00 to -27.00D
	Measuring step	0.25D/3.00D
<b>Cylinder power</b>	Measuring range	+8.00 to -8.00
	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 Δ (all direction)
	Measuring step	0.1 Δ/0.2 Δ/0.5 Δ/1.0 Δ/
<b>Pupillary distance</b>	Measuring range	48 to 80mm
	Measuring 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 filter, Polarizing filter (45°/135°), Prism (6 Δ/ 10 Δ), 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>Dimensions and weight</b>	Measuring head(Non-arm mounted type)	294-328mm (W) x 115mm (D) x 261mm (H) 4.0kg
	Measuring head(Arm-mounted type)	294-328mm (W) x 115mm (D) x 324mm (H) 4.6kg
	Power Supply Unit W/External PC	276mm (W) x 197mm (D) x 117mm (H) 2.7kg
	Power Supply Unit W/Built-in	276mm (W) x 197mm (D) x 117mm (H) 3.9kg
	1Dial Controller	300mm (W) x 250mm (D) (MAX) x 200mm (H) (MAX) 2.3kg

## System Chart



### IMPORTANT

Subject to change in design and/or specifications without advanced notice.

In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.



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