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

The CV-5000PRO’s automated vision tester head provides fast and silent lens rotation for user and patient comfort.

The CV-5000PRO 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.
CV-5000PRO Features

**CV-5000PRO vision tester**
- 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.

**Tilting function for near vision test**
To provide a natural and comfortable reading position during the near test, the CV-5000PRO vision tester can be tilted within a wide range.

**CV-5000PRO operation**
- KB-50S, 1-dial control
- Mouse & monitor control
- CV-5000PRO Tablet control
CV-5000PRO Features

**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.
CV-5000PRO Control options

The CV-5000PRO subjective refraction system can be controlled in various ways. Beside the KB-50S 1-dial controller, the system can be controlled by an iPad tablet and two ways through the use of mouse and monitor.

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

**Operating software on the integrated PC**
Instead of the KB-50S as a controller using the software on the integrated CV-5000PRO system PC you can also simply connect a mouse and LCD monitor. In this way the user interface which normally is displayed on the KB-50S dedicated controller is now displayed on a LCD monitor. All functionalities are similar to the KB-50S controller.

**Operating software on external PC**
A unique feature is controlling the CV-5000PRO vision tester through the use of your own Personal Computer which enables you of using other software simultaneously.
CV-5000PRO Control options

**CV-5000 tablet, wireless control**
The CV-5000PRO vision tester can be stand alone controlled with a tablet or the tablet can be used simultaneously with the KB-50S 1-dial control. Using the same CV-5000PRO software user interface makes it possible during subjective examination to switch easily between the use of the KB-50S 1-dial controller and the wireless tablet in an instant.

Seamless integration with chart screen or projector

**CC-100 series**
The CC-100 and CC-100XP LCD Led chart systems are versatile solutions to present opto-type charts to patients. The high resolution Led LCD ensures clear and bright chart display. All commonly known acuity tests are available, including ETDRS, spatial frequency contrast test and HRR colour test. The CC-100XP offers additionally polarization. The CC-100 series are fully integrated in the CV-5000 user interface, which means that they are fully controllable through the CV-5000PRO controllers such as KB-50S and tablet.

**ACP-8 Auto chart projector**
The Topcon ACP-8EM Auto Chart Projector provides improved sharp and clear image projection and fast chart rotation. A cordless remote controller allows instant projection of the 30 test charts at a rate of 0.03 seconds per frame. In addition, the ACP-8EM Chart Projector offers 3x5 character charts with a wide projection size (330x270) for fast and efficient testing. The ACP-8 is fully integrated in the CV-5000PRO controller interface.
CV-5000PRO 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**

<table>
<thead>
<tr>
<th>Far-Near</th>
<th>Middle-Near</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near-Near</td>
<td>Single Focus</td>
</tr>
</tbody>
</table>

**Accomodation**

**Patient Information**

Patients like to know why they need glasses.
The animated patient information provides a clear understandings to the patient.
Specifications

Spherical power  Measuring range +27.00 to -27.00D
Measuring step  0.25D/0.50D

Cylinder power  Measuring range +8.00 to -8.00D
Measuring step  0.25D/0.50D

Cylinder axis  Measuring range 0 to 180°
Measuring step  1°/5°/15°

Prism  Measuring range 0 to 20 Δ (all direction)
Measuring step  0.1/0.2 Δ/0.5 Δ/1.0 Δ

Pupillary distance  Measuring range 48 to 80mm
Measuring 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 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), Oculding plate, Pinhole, and Cross hairs glass.

Reference eyeglass  12mm, 13.75mm, 16mm, 18mm, 20mm

Convergence  Near-point distance 40/67cm (Minimum papillary distance at near-point 40cm convergence : 53mm)

Dimensions and weight

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

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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.