

KR-800S

Auto Kerato-Refractometer
Subjective Refractometer



KR-800S More than just an Auto Kerato- Refractometer



Auto Kerato-Refractometer with objective and subjective testing

The KR-800S is unique because it features not only objective autorefractometry and keratometry, but it also performs subjective far and near testing as well as 3 function tests. These 6 in 1 functions assure quick and accurate results and will enhance your test workflow.



6 in 1 Auto Kerato-Refractometer



More than just an Auto Kerato-Refractometer

All measured data can be observed from the wide 8.5 inch color touchscreen panel, allowing the user to quickly see each data point and explain the results to the patient. Moreover, Topcon's ability to engineer a weight reduction of approximately 23%, as compared to older Topcon autorefractors, as well as the new Auto-Vertical mode have contributed to a smooth control of the unit during the measuring process. The KR-800S is more than a simple Auto Kerato-Refractometer, it will perfectly match your needs.

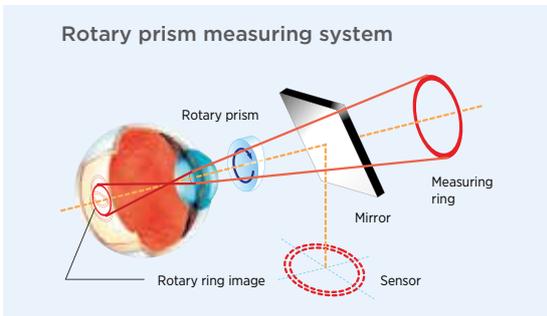
Objective and Subjective data

Both right and left eye information appear on a single 8.5 inch wide color touchscreen with all the obtained data together, which makes it extremely easy to compare: Objective (SCA), Subjective (SCA & ADD & VA), CL (SCA & ADD & VA), Glare/Grid/Contrast VA. Utilizing this single display of all the

data, the operator can easily understand the current refraction SCA of both eyes, whether the patient has presbyopia, as compared to the current SCA prescription. Moreover, the KR-800S can perform several function tests such as glare/grid/contrast without the need to prepare any other special devices.

Objective test	Grid test	Subjective VA test	Glare test	Contrast test
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6 in 1 Auto Kerato-Refractometer



Objective test

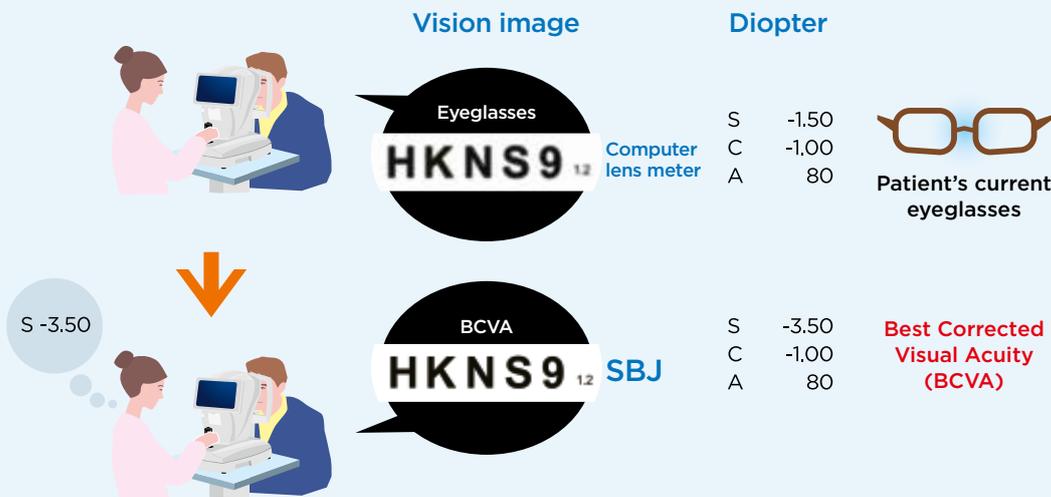
The unique Rotary Prism™ Technology, exclusive to Topcon, allows for an unparalleled precision and reliability. Quick measurement becomes available by decentering and rotating the measurement ring projected on the retina rapidly. Moreover, it decreases the influence of an uneven reflection on the eye or a cataract eye.



Subjective VA test*

The test results of all objective and subjective measurements can be shown on the monitor. Therefore, it is very easy to compare the VA difference between the objective and subjective tests. If a computerized lensmeter is connected, it can also test and show the patient's VA result with their current eyeglasses. Since it is easy to compare VA with the patient's current eyeglasses and the BCVA result, if necessary, new eyeglasses can be introduced.

Operation example



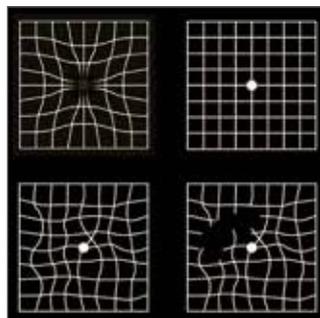
*Cylinder power and axis cannot be changed for the subjective test. Instead, refractometer data will be used.



Glare vision



Normal vision



Glare test*

The test is simple, standardized and provides a consistent and reliable way to evaluate vision changes in the presence of bright lights.

*The glare test can only be performed with the subjective far distance test.



Contrast test*

The contrast test is an ideal test to check the patient's quality of vision. The contrast of the chart can be changed across a range of percentages.

* The contrast test can only be performed with the subjective far distance test.
* Only the contrast of the background changes.



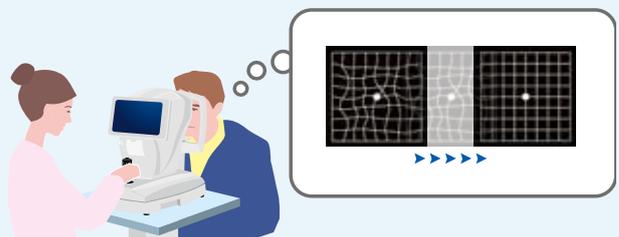
Grid test*

The grid test can be performed for conditions affecting the macula. Patients with macular disease may see wavy or missing lines. The test can be helpful in detecting early signs of an abnormality in the eye. New grid test function shows the grid for no longer than 0.25 seconds to prevent the natural "completion phenomenon" filling in the grid.

*The grid test can only be performed with the subjective far distance test.

What is completion phenomenon?

The human brain is able to restore "crooked" lines back to straight lines in just over 0.25 seconds, losing the actual result.



Topcon's Cataract workstation

Cataract Workstation

KR-800S

Auto Kerato-Refractometer



ALADDIN

Optical Biometry & Topography System



Pre-Operative

Subjective refraction
and Pre-op-diagnostics

Biometry

Pupillography
Topography
Biometry incl. K1 & K2
IOL calculation

Cataract Surgery

Cataract surgery quality control

Visual Acuity (VA) is the most common clinical measure following cataract surgery. It is how we describe and measure the success of surgery. Measurement of VA must be standardized and systematic. Topcon's KR-800S Auto Kerato-Refractometer with subjective VA check will do exactly that. With the KR-800S the VA can be subjectively tested pre- and post-operative cataract surgery. With the unique features of the KR-800S, such as "glare" test and "contrast" test, you can even evaluate the progression of cataract and identify the cataract that is causing the impaired quality of vision without a significant reduction in high contrast VA.

Premium IOL VA Simulation

KR-800S offers a Spherical Equivalent mode which can simulate the benefit of a premium (toric) IOL.

Cataract workstation

The KR-800S completes the screening workflow of cataract surgery. All the necessary cataract pre-operative information can be obtained by combining the KR-800S and ALADDIN, while the KR-800S assists you in Visual Acuity evaluation and determining the success of the cataract surgery. ALADDIN and KR-800S - the perfect combination for your cataract practice

KR-800S

Auto Kerato-Refractometer



KR-1W

Wavefront Analyzer



Post-Operative

Subjective Refraction
and Post-op-diagnostics

Follow up

Premium IOL Visual Acuity simulation



Compare toric to non-toric correction

This software function allows the patient to visualize the potential post-surgical difference between a spherical and a toric IOL. Simply push a single button to switch "Sphere, Cylinder, and Axis" to "Spherical Equivalent". The patient may then view a comparison of their with and without cylinder correction. This feature is also useful for contact lens patients considering a toric lens versus a spherical equivalent to correct low astigmatism.



This allows the patient to visualize the potential post-surgical differences between a standard and a premium IOL, such as a toric IOL or multifocal IOL.

6 in 1 Auto Kerato-Refractometer

OID : -KR 010001-
 NAME
 2013_12_24 AM 10:00
 No. 0001 01
 SN:

1 SBJ. DATA(REF)
 (R) S C A VA
 -5.00 -2.00 75 0
 (L) S C A VA
 -0.25 -1.00 90 1.2

2 NEAR TEST(REF)
 (R) DIST. ADD VA
 40 cm +2.50 0
 (L) DIST. ADD VA
 33 cm +2.25 1.2

3 GRID CHART(REF)
 (R) (L)
 TS: NG NS: NG NS: OK TS: OK
 C: NG C: OK
 TI: OK NI: OK NI: OK TI: NG

4 GLARE TEST(REF)
 (R) (L)
 VA 0.6 VA 0.6

5 CONTRAST TEST(REF)
 (R) VA LVL. (L) VA LVL.
 0.8 50% 1.0 50%

6 SBJ. DATA(CL)
 (R) S C A VA
 -2.00 -1.00 95 0.6
 (L) S C A VA
 -0.25 -1.00 100 1.2

7 NEAR TEST(CL)
 (R) DIST. ADD VA
 40 cm +1.00 0.5
 (L) DIST. ADD VA
 33 cm +1.00 0.

8 GLARE TEST(CL)
 (R) (L)
 VA 0.3 VA 0.6

9 CONTRAST TEST(CL)
 (R) (L)
 VA 0.5 VA 0.7
 LVL. 50% LVL. 25%

TOPCON

Sample

Printout sample

- 1 Subjective refraction Far VA value
- 2 Subjective refraction Near VA value
- 3 Grid test result
- 4 Glare test result
- 5 Contrast test result
- 6 Far VA for lens meter
- 7 Near VA for lens meter
- 8 Glare test VA for lens meter
- 9 Contrast test VA for lens meter



KR-800S Chart selection



E 8	6/60	0.1
HBDV7	6/30	0.2
PHCT2	6/20	0.3
ARFS6	6/15	0.4
CNDT4	6/12	0.5
KOZF5	6/10	0.6
PVAD3	6/8.6	0.7
VSHE4	6/7.5	0.8
RDZT7	6/6	1.0
HKNS9	6/5	1.2

E 8
0.1
6/60

HBDV7
0.2
6/30

PHCT2
0.3
6/20

PVAD3
0.4
6/15

VSHE4
0.5
6/12

Objective chart Subjective chart

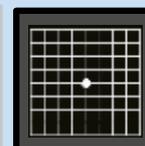
RDZT7
0.6
6/10

ARFS6
0.7
6/8.6

CNDT4
0.8
6/7.5

KOZF5
1.0
6/6

HKNS9
1.2
6/5



Grid chart

Specifications

Refractive power measurement	-25D to +22D (0.12D/0.25D steps)*
Spherical refractive power	0D to ±10D (0.12D/0.25D steps)*
Cylindrical refractive power	0° to 180° (in 1° or 5°steps)
Astigmatic axial angle	∅ 2 mm
Minimal measurable pupil diameter	
Corneal curvature measurement	5.00 to 10.00 mm (0.01 mm step)
Corneal curvature radius	67.50D to 33.75D (0.12D/0.25D steps)
Corneal refractive power	(where, corneal refractive power = 1.3375)
Corneal astigmatic refractive power	0D to ±10D (0.12D/0.25D steps)
Corneal astigmatic axial angle	0° to 180° (1°/ 5°steps)
Range of subjective refractive check	
Spherical refractive power	-18D to +18D (0.25D steps)
Test chart	Eyesight test chart of 0.1 to 1.2 or 20/200 to 20/15, Grid display
Chart display	Overall, Horizontal series, Contrast change
Test items	Far-sightedness, Near-sightedness, Glare test
PD measurement range	20 mm to 85 mm (0.5 mm step)
Data transport terminal	USB (import) / RS-232C (import/export) / LAN (export)
Dimensions	317-341 mm (W) × 521-538 mm (D) × 447-477 mm (H)
Weight	15 kg
Power supply	100-240V AC, 50-60Hz, 70VA

*-25D ≤ spherical refractive power + cylindrical refractive power or spherical refractive power + cylindrical refractive power ≤ +22D

System chart



Contact Topcon subsidiaries or dealers for system configurations.

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.
Medical device class Im. Manufacturer: Topcon Corporation.



Topcon Europe Medical B.V.
Essebaan 11; 2908 LJ Capelle a/d IJssel; P.O. Box 145;
2900 AC Capelle a/d IJssel; The Netherlands
Phone: +31-(0)10-4585077; Fax: +31-(0)10-4585045
E-mail: medical@topcon.eu; www.topcon-medical.eu

Topcon Danmark
Præstemarksvænge 25; 4000 Roskilde, Denmark
Phone: +45-46-327500; Fax: +45-46-327555
E-mail: info@topcon.dk
www.topcon.dk

Topcon Scandinavia A.B.
Neongatan 2; P.O. Box 25; 43151 Mölndal, Sweden
Phone: +46-(0)31-7109200; Fax: +46-(0)31-7109249
E-mail: medical@topcon.se; www.topcon.se

Topcon España S.A.
HEAD OFFICE; Frederic Mompou, 4;
08960 Sant Just Desvern; Barcelona, Spain
Phone: +34-93-4734057; Fax: +34-93-4733932
E-mail: medica@topcon.es; www.topcon.es

Topcon Italy
Viale dell' Industria 60;
20037 Paderno Dugnano, (MI) Italy
Phone: +39-02-9186671; Fax: +39-02-91081091
E-mail: info@topcon.it; www.topcon.it

Topcon France
BAT A1; 3 route de la révolte, 93206 Saint Denis Cedex
Phone: +33-(0)1-49212323; Fax: +33-(0)1-49212324
E-mail: topcon@topcon.fr; www.topcon-medical.fr

Topcon Deutschland GmbH
Hanns-Martin-Schleyer Strasse 41;
D-47877 Willich, Germany
Phone: (+49) 2154-885-0; Fax: (+49) 2154-885-177
E-mail: info@topcon-medical.de; www.topcon-medical.de

Topcon Polska Sp. z o.o.
ul. Warszawska 23; 42-470 Siewierz; Poland
Phone: +48-(0)32-670-50-45; Fax: +48-(0)32-671-34-05
www.topcon-polska.pl

Topcon Great Britain Ltd.
Topcon House; Kennet Side; Bone Lane; Newbury
Berkshire RG14 5PX; United Kingdom
Phone: +44-(0)1635-551120; Fax: +44-(0)1635-551170
E-mail: medical@topcon.co.uk; www.topcon.co.uk

Topcon Ireland
Unit 276, Blanchardstown; Corporate Park 2
Ballycoolin; Dublin 15, Ireland
Phone: +353-18975900; Fax: +353-18293915
E-mail: medical@topcon.ie; www.topcon.ie



TOPCON CORPORATION

75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, Japan.
Phone: 3-3558-2523/2522. Fax: 3-3960-4214. www.topcon.co.jp