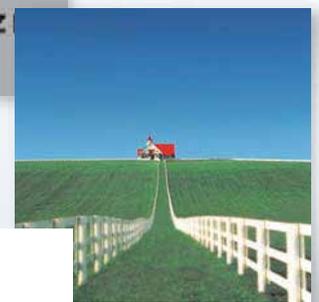
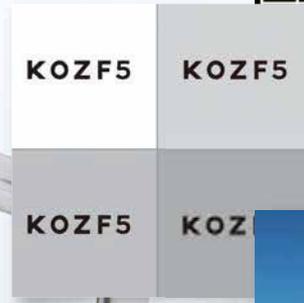
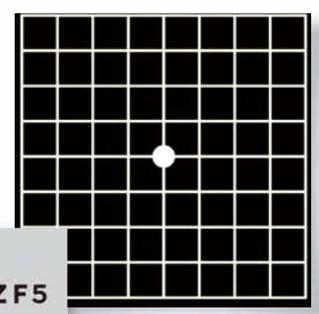


# KR-800S

Auto Kerato-Refractometer





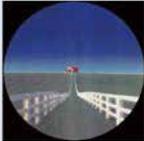
## Printout Sample

- 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 lensmeter
- 7 Near VA for lensmeter
- 8 Glare test VA for lensmeter
- 9 Contrast test VA for lensmeter

|   | OID : -KR 010001-         |          |        |             |
|---|---------------------------|----------|--------|-------------|
|   | NAME                      |          |        |             |
|   | 2013_12_24                | AM 10:00 |        |             |
|   | No. 0001                  | 01       |        |             |
|   | SN:                       |          |        |             |
| 1 | <b>SBJ. DATA(REF)</b>     |          |        |             |
|   | <R>                       | S        | C      | A VA        |
|   |                           | -5.00    | -2.00  | 75 0        |
|   | <L>                       | S        | C      | A VA        |
|   |                           | -0.25    | -1.00  | 90 1.2      |
| 2 | <b>NEAR TEST(REF)</b>     |          |        |             |
|   | <R>                       | DIST.    | ADD    | VA          |
|   |                           | 40 cm    | +2.50  | 0           |
|   | <L>                       | DIST.    | ADD    | VA          |
|   |                           | 33 cm    | +2.25  | 1.2         |
| 3 | <b>GRID CHART(REF)</b>    |          |        |             |
|   | <R>                       | <L>      |        |             |
|   | TS: NG                    | NS: NG   | NS: OK | TS: OK      |
|   | C: NG                     |          | C: OK  |             |
|   | TI: OK                    | NI: OK   | NI: OK | TI: NG      |
| 4 | <b>GLARE TEST(REF)</b>    |          |        |             |
|   | <R>                       | <L>      |        |             |
|   | VA                        | 0.6      | VA     | 0.6         |
| 5 | <b>CONTRAST TEST(REF)</b> |          |        |             |
|   | <R>                       | VA       | LVL.   | <L> VA LVL. |
|   |                           | 0.8      | 50%    | 1.0 50%     |
| 6 | <b>SBJ. DATA(CL)</b>      |          |        |             |
|   | <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 | <b>NEAR TEST(CL)</b>      |          |        |             |
|   | <R>                       | DIST.    | ADD    | VA          |
|   |                           | 40 cm    | +1.00  | 0.5         |
|   | <L>                       | DIST.    | ADD    | VA          |
|   |                           | 33 cm    | +1.00  | 0.          |
| 8 | <b>GLARE TEST(CL)</b>     |          |        |             |
|   | <R>                       | <L>      |        |             |
|   | VA                        | 0.3      | VA     | 0.6         |
| 9 | <b>CONTRAST TEST(CL)</b>  |          |        |             |
|   | <R>                       | <L>      |        |             |
|   | VA                        | 0.5      | VA     | 0.7         |
|   | LVL.                      | 50%      | LVL.   | 25%         |

Sample

## Chart thumbnail

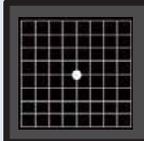


Objective chart



Subjective chart

|                              |                               |                              |                              |                              |
|------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|
| <b>E 8</b><br>0.1<br>20/200  | <b>HBDV7</b><br>0.2<br>20/100 | <b>PHCT2</b><br>0.3<br>20/80 | <b>PVAD3</b><br>0.4<br>20/30 | <b>VSHE4</b><br>0.5<br>20/25 |
| <b>RDZT7</b><br>0.6<br>20/20 | <b>ARFS6</b><br>0.7<br>20/60  | <b>CNDT4</b><br>0.8<br>20/50 | <b>KOZF5</b><br>1.0<br>20/40 | <b>HKNS9</b><br>1.2<br>20/15 |



Grid chart

## More Than Just an Auto Kerato Refractometer

The sleek and modern design of the KR-800S incorporates the latest technology designed to increase practice efficiency and enhance the patient experience. The KR-800S provides auto refraction, keratometry, contrast screening, visual acuity, and glare testing all in one easy to use instrument.

This multi-functionality supports enhanced work flow, and enables the KR-800S to be used in any variety of settings from hospitals, multi-specialty ophthalmic and optometric clinics and even vision screening centers.

- » Enhances workflow efficiency and improves utilization.
- » Comfortable and smooth examination provides superior patient experience
- » Assessment of visual acuity under glare conditions
- » Multi-functional instrument helps you quickly document the patient's vision during treatment and follow up of a range of ocular diseases
- » Small footprint and LAN connection supports flexible installation.





# KR-800S

Auto Kerato-Refractometer

KR-800S will dramatically change  
the clinical workflow

Subjective  
VA Test

Subjective  
IOL Type  
Selection

Grid Test

Glare Test

Contrast  
Test

Objective  
Test

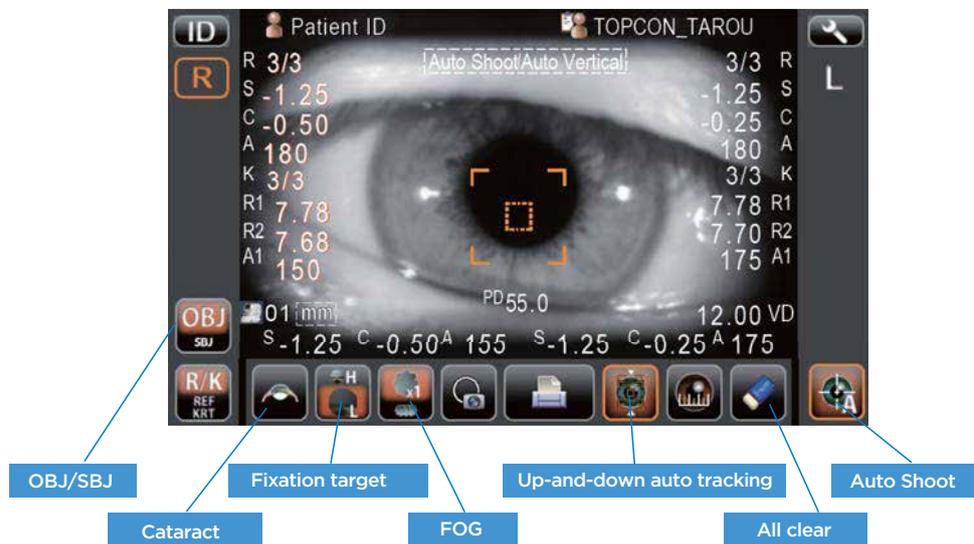


## Objective and Subjective Data



KR-800S displays the test results of all objective and subjective measurements on a single screen. This all-in-one instrument saves examination time and offers wide functionality in situations where a manual refractor is not available, such as school screening, athletic or occupational screening, and nursing homes. Refractive results can be viewed on the screen, printed out, or exported to an Electronic Health Record.

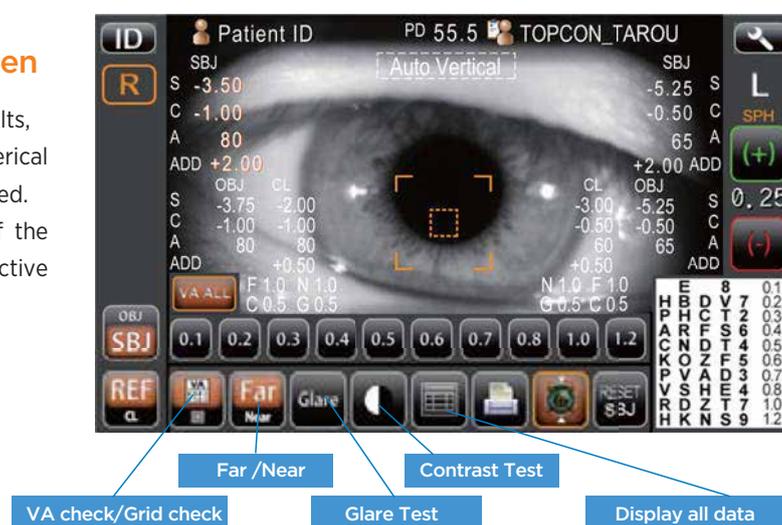
### Objective Test



### Subjective Test

**All information is shown on the one screen**

Lensmeter results, Objective results, Subjective results, and Spherical Equivalent simulation are displayed. The operator can refer to all of the information during the subjective tests.



# Range of functions

## 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.



Glare Vision



Example

Normal Vision



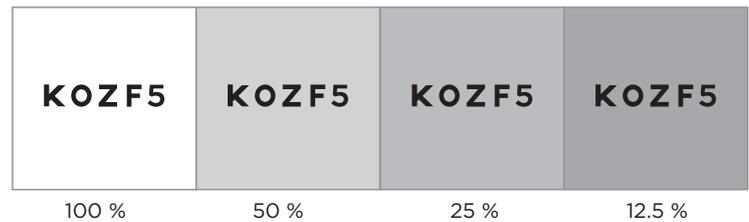
Example

## 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.

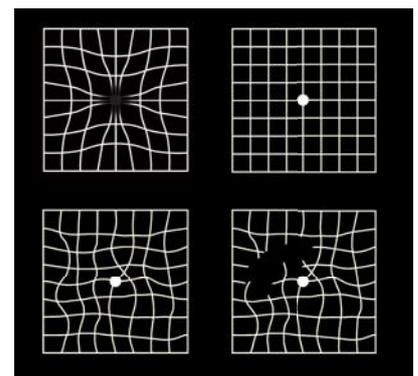
\* The Contrast test can only be performed with the subjective far distance test.  
\* Only the contrast of the background changes.



## Grid test



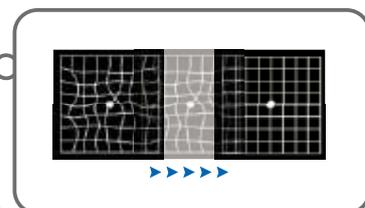
The grid test can be performed for conditions affecting the macula. Patients with macular disease may see wavy or missing lines. The test can be helpful in detecting early signs of abnormality in the eye. New grid test function shows the grid for no longer than 0.25 seconds to prevent the natural "completion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



### 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

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



# Other Features

## Compare toric to non toric correction



This software function allows the patient to visualize the potential post-surgical difference between a spherical and 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.

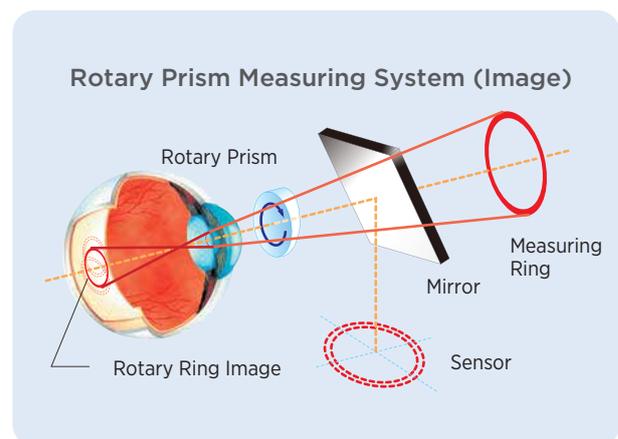


Toric IOL

This allows the patient to visualize the potential post-surgical differences between a standard and Toric IOL

## Rotary Prism Measuring System

With Topcon's exclusive Rotary Prism Technology, the KR-800S also provides unmatched accuracy and reliability. The innovative optical design incorporated into the KR-800S allows for accurate and reliable measurements with a pupil as small as  $\varnothing 2\text{mm}$ .



## Cataract Workstation

### 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 cataract that is causing impaired quality of vision without a significant reduction in high contrast VA.

#### KR-800S

Auto Kerato-Refractometer



#### ALADDIN

Optical Biometry & Topography System



#### Pre-Operative

Subjective Refraction  
and Pre-OP-diagnostics

Pupillography  
Topography  
Biometry inkl. K1 & K2  
IOL Calculation

Cataract  
Surgery

# Topcon's Cataract Workstation

## VA Simulation Premium IOL

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 necessary cataract pre-op information can be obtained by combining the KR-800S and ALADDIN, while the KR-800S assists you postop 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**  
Wave-Front Analyzer



● **Post-Operative**  
Subjective Refraction  
and Post-OP-diagnostics

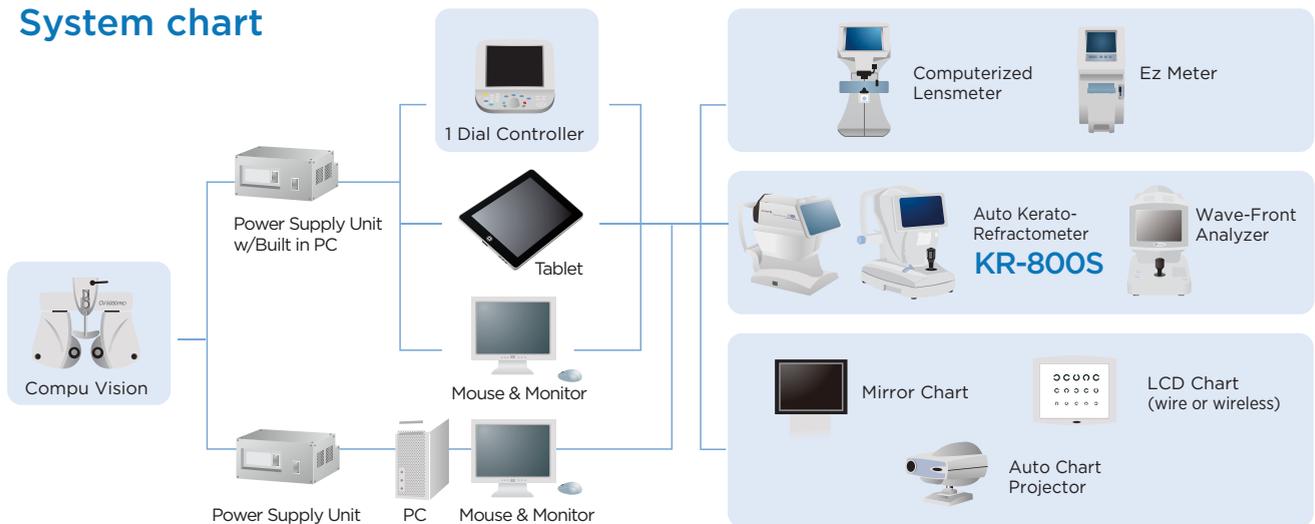
● **Follow up**

# Specifications

|   |                                     |  |
|---|-------------------------------------|--|
| <b>Refractive Power Measurement</b>         | Spherical refractive power          | -25D to +22D (0.12D/0.25D steps) ※   |
|   | Cylindrical refractive power        | 0D to ±10D (0.12D/0.25D steps) ※   |
|   | Astigmatic axial angle              | 0° to 180° (in 1° or 5° steps)   |
|   | Minimal measurable pupil diameter   | φ2 mm  |
| <b>Corneal Curvature Measurement</b>        | Corneal curvature radius            | 5.00 to 10.00mm (0.01mm step)  |
|   | Corneal refractive power            | 67.50D to 33.75D (0.12D/0.25D steps)<br>(where, corneal refractive power = 1/3375) |
|   | Corneal astigmatic refractive power | 0D to ±10D (0.12D/0.25 D steps)  |
|   | Corneal astigmatic axial angle      | 0° to 180° (1°/ 5° steps)  |
| <b>Range of Subjective refractive check</b> | Spherical refractive power:         | 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                                      |
| <b>PD Measurement Range</b>                 |                                     | 20mm to 85mm (0.5mm step)  |
| <b>Data Transport Terminal</b>              |                                     | USB (Import) /RS-232C (Import/Export) / LAN (Export)                               |
| <b>Dimensions</b>                           |                                     | 317-341mm (W) × 521-538mm (D) × 447-477 mm (H)                                     |
| <b>Weight</b>                               |                                     | 15 kg  |
| <b>Power Supply</b>                         |                                     | 100-240V AC, 50-60Hz, 70VA   |

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

## System chart



\* Please contact Topcon subsidiaries or dealers for system configurations.

**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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