# Auto Kerato-Refractometer

## KR-800S


TOPCON®
CONNECTING VISIONS


# Auto Kerato-Refractometer with objective and subjective testing

# KR-800S

## AUTO KERATO-REFRACTOMETER

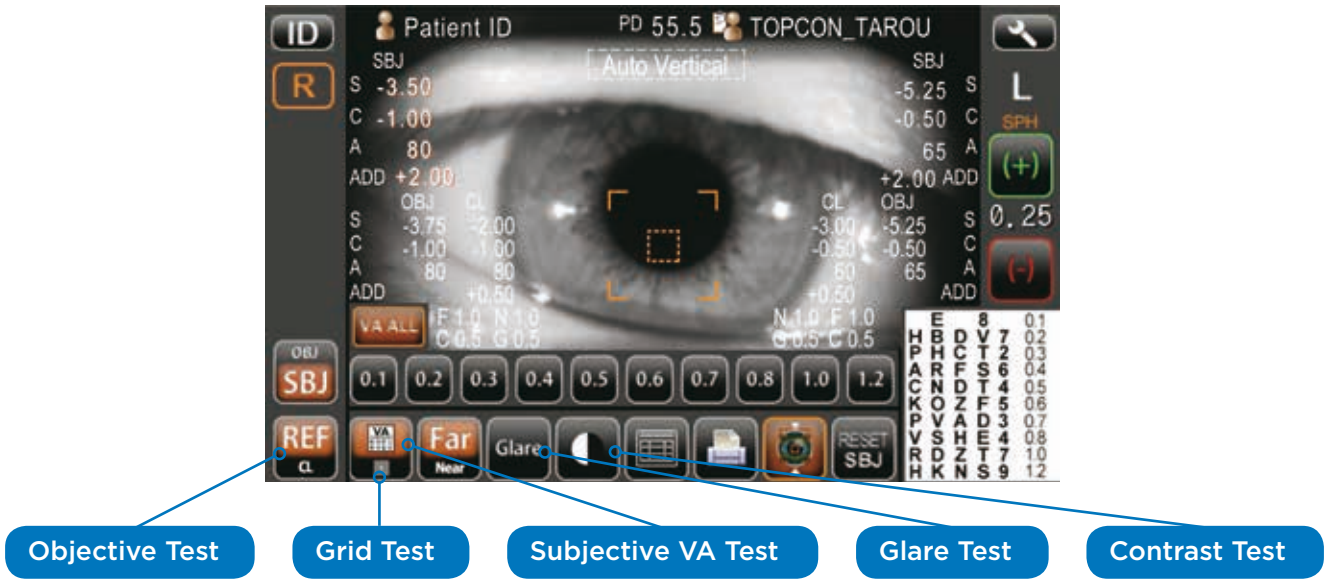
Topcon is proud to introduce the new KR-800S Auto Kerato-Refractometer. The KR-800S is unique because it features not only objective autorefraction and keratometry but it also performs subjective far and near testing as well as 3 function tests. These 5-in-1 Functions assure quick and accurate results and enhance your test workflow.

## MORE THAN A SIMPLE AUTO KERATO-REFRACTOMETER

All measured data can be observed from the wide 8.5 inch color touch screen 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.

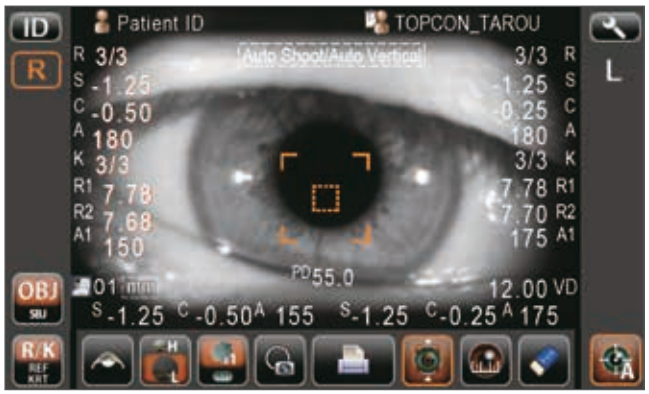
## OBJECTIVE AND SUBJECTIVE DATA

Both right and left eye information appear on a single 8.5inch wide color touch screen with all 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.

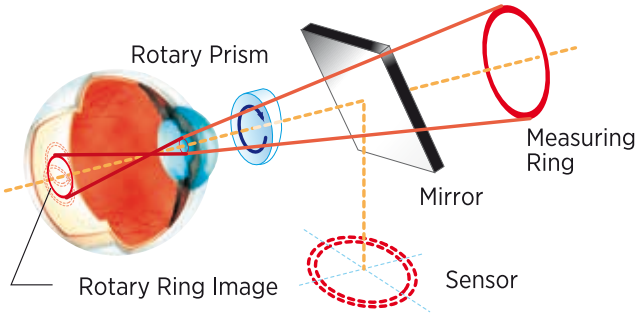


## OBJECTIVE TEST

The unique Rotary Prism™ Technology, exclusive to Topcon, allows for 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.



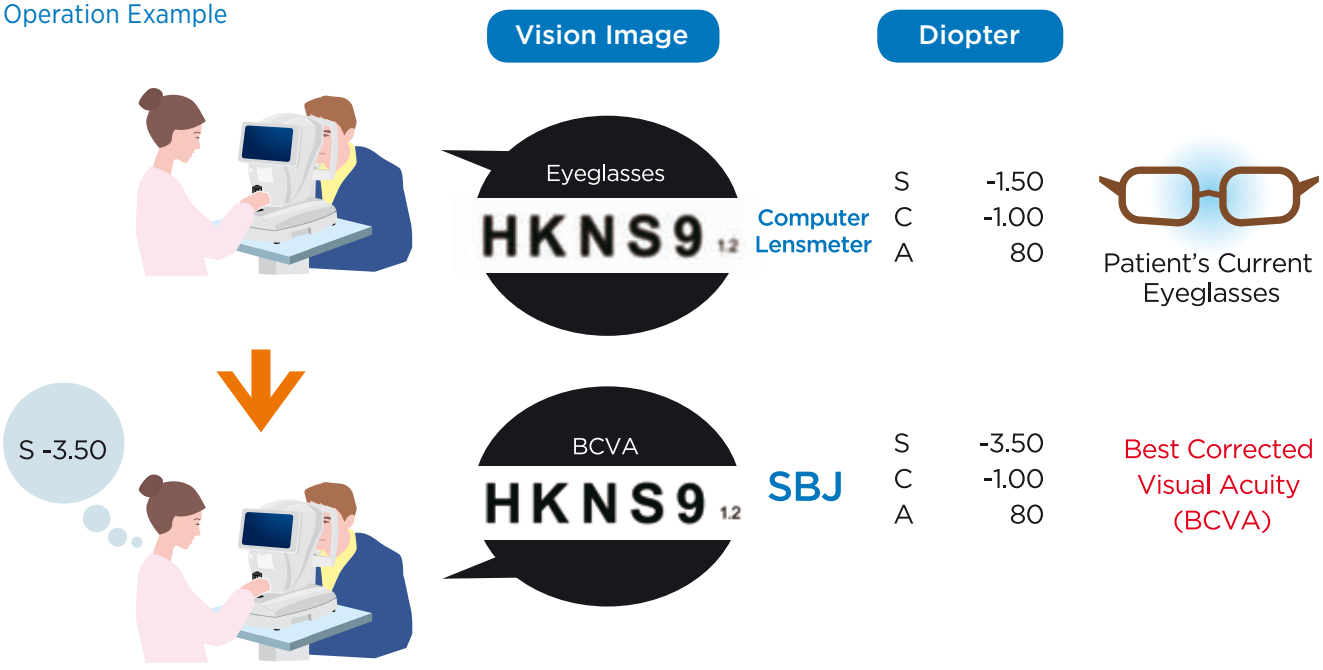

### Rotary Prism Measuring System (Image)




## 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.

*For a precise prescription of eyeglasses, we recommend that you perform the binocular test.

## GLARE TEST

The Glare test is useful for screening cataract patients by understanding the patient's VA with/without Glare. The test can also be used to understand the patient's VA of pre & post LASIK surgery or to know the patient's QOV.

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

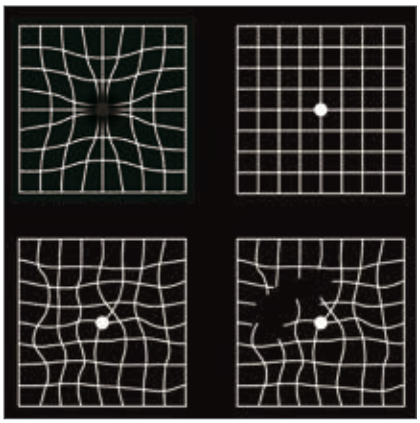

Glare Vision

Normal Vision

## GRID TEST

The Grid test can be performed for screening AMD and other macular related diseases. Patients with macular disease may see wavy lines or missing lines. The test can be helpful in detecting early signs of abnormality in the eye so a treatment plan can be started.

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



Sample image of patient with AMD

## CONTRAST TEST

The Contrast test is an ideal test to determine the patient's QOV. The number of contrast steps can be changed accordingly; 2.5%, 5%, 10%, 12.5%, 25%, 50%, 100%.

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

* Only the contrast of the background changes.

## PRINTOUT SAMPLE

### Subjective Measurement

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

-KR 010001-

OID :

NAME

2013_ 12_24 AM 10 : 00
No.0001 01
SN:

**SBJ. DATA(REF)**

| | S | C | A | VA |
|---|---|---|---|---|
| 〈R〉 | −5.00 | −2.00 | 75 | 0.9 |
| 〈L〉 | −0.25 | −1.00 | 90 | 1.2 |

**NEAR TEST(REF)**

| | DIST. | ADD | VA |
|---|---|---|---|
| 〈R〉 | 40 cm | +2.50 | 0.7 |
| 〈L〉 | 33 cm | +2.25 | 1.2 |

**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 |

**GLARE TEST(REF)**

| 〈R〉 | | 〈L〉 | |
|---|---|---|---|
| VA | 0.6 | VA | 0.6 |

**CONTRAST TEST(REF)**

| | VA | LVL. | | VA | LVL. |
|---|---|---|---|---|---|
| 〈R〉 | 0.8 | 50% | 〈L〉 | 1.0 | 50% |

**SBJ. DATA(CL)**

| | S | C | A | VA |
|---|---|---|---|---|
| 〈R〉 | −2.00 | −1.00 | 95 | 0.6 |
| 〈L〉 | −0.25 | −1.00 | 100 | 1.2 |

**NEAR TEST(CL)**

| | DIST. | ADD | VA |
|---|---|---|---|
| 〈R〉 | 40 cm | +1.00 | 0.5 |
| 〈L〉 | 33 cm | +1.00 | 0.7 |

**GLARE TEST(CL)**

| 〈R〉 | | 〈L〉 | |
|---|---|---|---|
| VA | 0.3 | VA | 0.6 |

**CONTRAST TEST(CL)**

| 〈R〉 | | 〈L〉 | |
|---|---|---|---|
| VA | 0.5 | VA | 0.7 |
| LVL. | 50% | LVL. | 25% |

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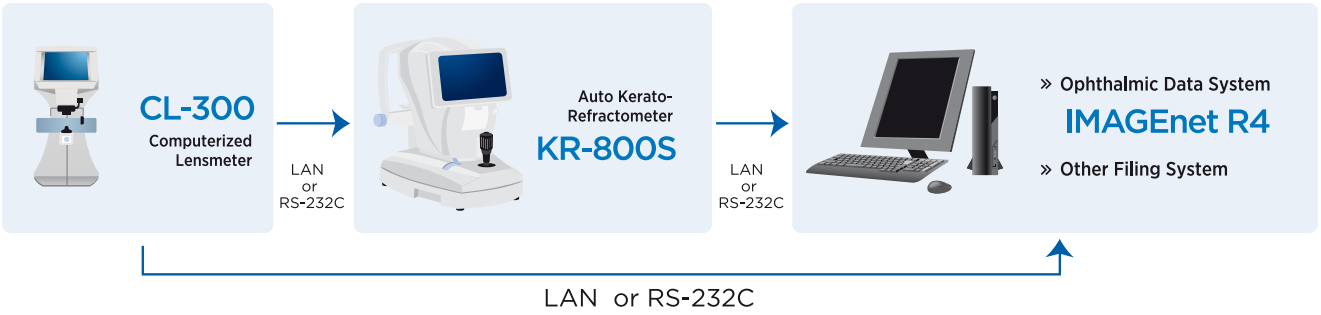
Sample

# Specifications

| | |
|---|---|
| **Refractive Power Measurement** | |
| **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** | Ø 2 mm |
| **Corneal Curvature Measurement** | |
| **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) |
| **Range of Subjective refractive check** | |
| **pherical 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 |
| **PD Measurement Range** | 20mm to 85mm (0.5mm step) |
| **Data Transport Terminal** | USB (Import) /RS-232C (Import/Export) / LAN (Export) |
| **Dimensions** | 317-341mm (W) × 521-538mm (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.

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**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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