

# KR-800S

Auto Kerato-Refractometer



# Introducing the next-level auto kerato-refractometer

The KR-800S is unique. Besides objective auto-refraction and keratometry, it also performs subjective near and far checks and glare, macular grid and contrast tests. This 6 in 1 functionality ensures the quick capture of comprehensive results that will enhance your test workflow.

With the KR-800S, the VA can be checked and the spherical component subjectively refined before and after cataract surgery. Unique KR-800S features like the glare and contrast tests provide understanding of functional vision at each stage.

The KR-800S allows the patient to visualise the potential post-surgical difference between the correction of sphere and cylinder versus the spherical equivalent. Simply push a button to switch from one to the other and back. The patient can then appreciate the difference in vision with and without cylinder correction. This feature may also be useful for contact lens patients considering a lens to correct astigmatism.



# 6-in-1 Auto Kerato-Refractometer

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## Overview



**Easy to use**



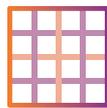
**Objective Testing  
with keratometry**



**Subjective VA check**



**Glare test**



**Macular grid test**



**Contrast test**

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## Enhanced efficiency and easier operation

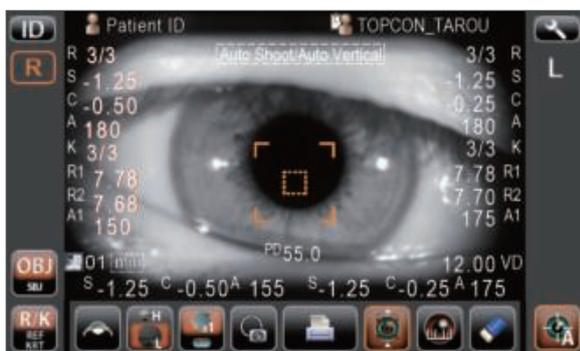
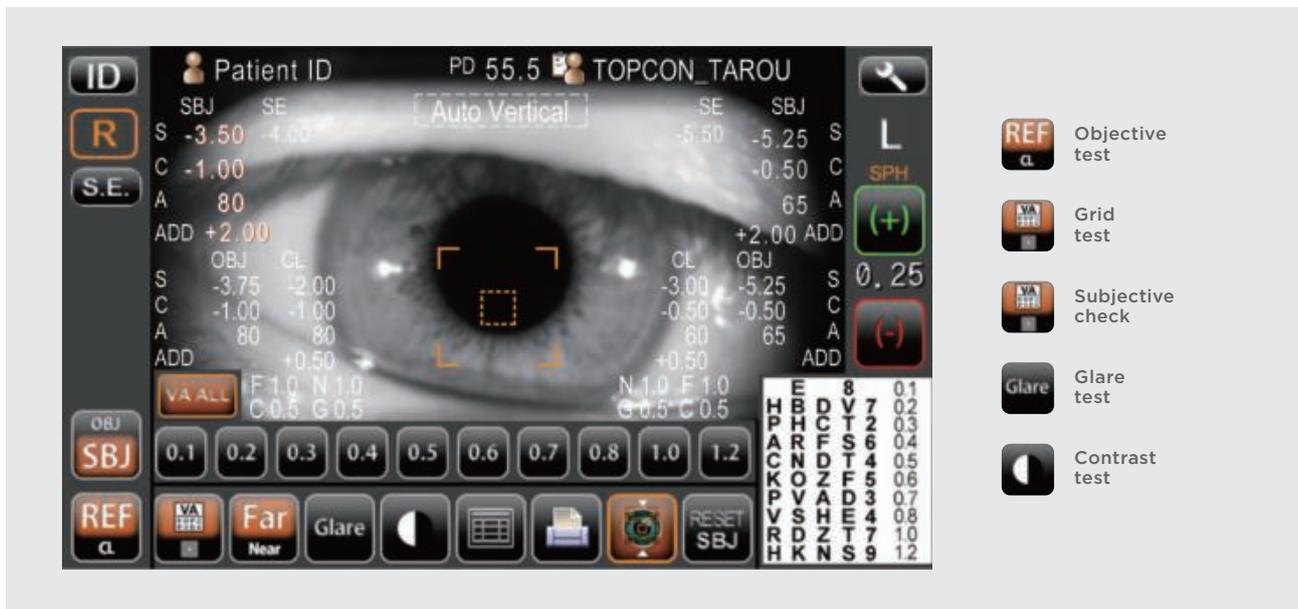
All measured data can be observed from the 8.5 inch colour touchscreen panel, allowing the user to quickly see each data point and explain the results to the patient. The streamlined design is approximately 23% lighter than older Topcon autorefractors, while the Auto Vertical mode assists smooth control of the unit during the measuring process. The KR-800S surpasses standard auto kerato-refractometers in terms of functionality and is perfectly tailored to your needs.



# 6-in-1 Auto Kerato-Refractometer

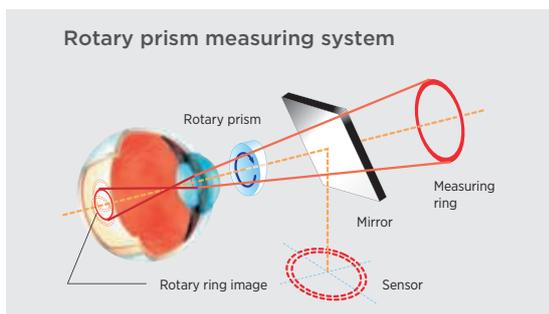
## Objective and subjective data

Information for both the right and left eyes are displayed on a single 8.5 inch wide colour touchscreen that shows all measured data together, which makes it extremely easy to compare objective and subjective with imported data, if a computerised lensmeter is connected. In addition, any visual acuity data measured at far, near, or under contrast or glare conditions are displayed. Utilising this single overview of the data, the operator can easily understand the current refractive status of each eye, the visual function and whether or not the patient has presbyopia in addition to the current prescription.



## Objective test

With Topcon's Rotary Prism Technology, the KR-800S provides stable measurement, even for patients with media opacities.

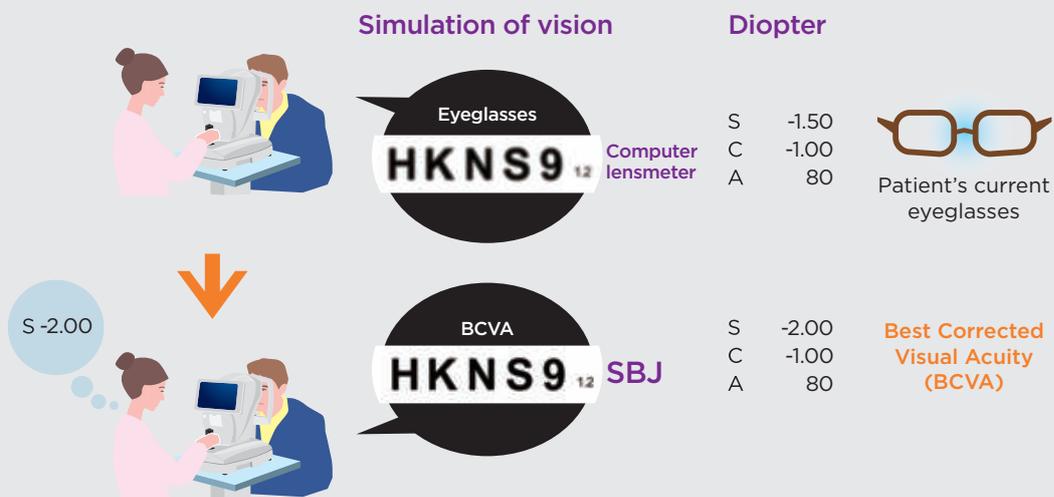


# 6-in-1 Auto Kerato-Refractometer

## Subjective Check\*

The KR-800S allows refinement of the spherical component subjectively. The near addition can also be refined for presbyopic patients, and the visual acuity measured at both far and near. If a computerised lensmeter is connected, visual acuity can also be measured with the patient's current spectacles, and then compared with the new subjective refraction.

### Process example



\*Cylinder power and axis cannot be changed for the subjective check. Instead, the cylinder from the refractometry measurement will be used.



Vision with glare



Normal vision

## Glare test\*

The test provides a consistent way of evaluating vision changes in the presence of bright lights.

\*The glare test can only be performed with the subjective refraction result for far distance.



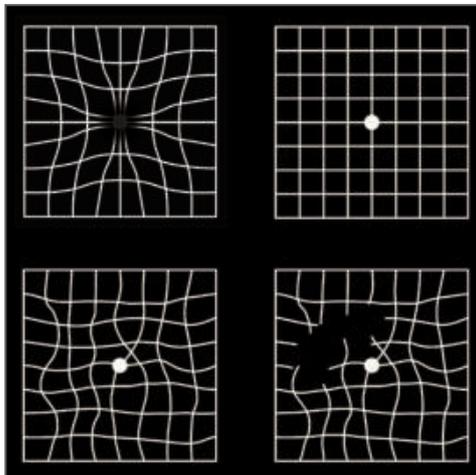
# 6-in-1 Auto Kerato-Refractometer



## Contrast test\*

The contrast test is ideal for checking 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 for distance vision with the subjective distance refraction result.
- \* Contrast is created by changing the background with respect to the optotype.

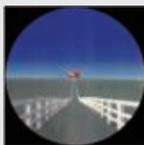


## Macular grid test\*

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 of central vision.

- \*The grid test can only be performed with the subjective far distance refraction result.

## KR-800S chart options



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	6/7.5	0.8
VSHE4	6/6	1.0
RDZT7	6/5	1.2
HKNS9		

E 8
0.1
6/60

HBDV7
0.2
6/30

PHCT2
0.3
6/20

ARFS6
0.4
6/15

CNDT4
0.5
6/12

Objective chart Subjective chart

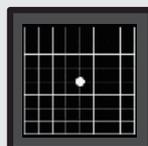
KOZF5
0.6
6/10

PVAD3
0.7
6/8.6

VSHE4
0.8
6/7.5

RDZT7
1.0
6/6

HKNS9
1.2
6/5



Grid chart

# 6-in-1 Auto Kerato-Refractometer

Barcode	
OID : -KR 010001-	
NAME	
2023_12_24	AM 10: 00
No. 0 0 0 1	01
SN:	
<b>1</b> SBJ. DATA(REF)	
<R>	S C A VA
-5.00	-2.00 75 0.9
<L>	S C A VA
-0.25	-1.00 90 1.2
<b>2</b> NEAR TEST(REF)	
<R>	DIST. ADD VA
40 cm	+2.50 0.7
<L>	DIST. ADD VA
33 cm	+2.25 1.2
<b>3</b> 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	
<b>4</b> GLARE TEST(REF)	
<R>	<L>
VA 0.6	VA 0.6
<b>5</b> CONTRAST TEST(REF)	
<R>	VA LVL. <L> VA LVL.
0.8	50% 1.0 50%
<b>6</b> 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
<b>7</b> NEAR TEST(CL)	
<R>	DIST. ADD VA
40 cm	+1.00 0.5
<L>	DIST. ADD VA
33 cm	+1.00 0.7
TOPCON	

Sample

## Printout example

1. Subjective refraction, far VA value
2. Subjective refraction, near VA value
3. Macular grid test result
4. VA with glare
5. Contrast test result
6. Imported lensmeter data and VA (far)
7. Imported lensmeter addition and VA (near)



## System Chart



\*CL-300PDL only

# Specifications of KR-800S

Range of Refractometry 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° (1°/ 5°steps)
Minimal measurable pupil diameter	φ2 mm
Range of Cornea Curvature Measurement	
Corneal curvature radius	5.00mm to 10.00 mm (0.01mm step)
Corneal refractive power	67.50D to 33.75D (0.12D/0.25D steps) (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 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	20mm to 85mm (0.5mm step)
External I/O terminal	USB (Import), RS-232C (Import/Export), LAN (Export)
Dimensions	317-341mm (W) × 521-538mm (D) × 447-477 mm (H)
Weight	15kg
Power supply	100-240V AC, 50-60Hz, 70VA

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



**Understand KR-800S**  
on YouTube



**Register Now**  
Topcon Healthcare University



**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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