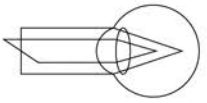
Marco ARK-Series

Auto Refractors and Keratometers

SAMPLE PRINTOUTS

Measurement values are printed out using a high-speed printer. Contact lens data can be included, as can eyeprint illustrations to aid in explaining myopia, hyperopia or astigmatism to the patient.

```
----------0002----------
ID   12345678901234567890
NAME                 M/F
  FEB/28/2013    16:10
VD=13.75mm
WD=16inch
<R>     S       C       A
     - 1.75  - 0.50   173  9
     - 1.25  - 1.00   177  9
     - 1.25  - 1.00     5  8
   <- 1.25  - 1.00   177>
   <- 2.00 SE          >



TL   - 1.25 - 1.00   177
CL   - 1.25 - 1.00   177
     - 1.75 SE
L. DATA
     - 1.50 - 1.00   177
PS   4.5
ACC  0.50
  MIN- 1.75 MAX- 2.25
  (PS MIN 4.6 MAX 5.5)

<L>     S       C       A
     - 1.25  - 1.00   177  9

PD 63                N 59

<R>      mm        D   deg
<R1    7.98    42.25   174>
<R2    7.65    44.00    84>
<AVG   7.82    43.25     >
<CYL           -1.75   174>
 CS 12.5

<R>      mm        D   deg
<AVG   7.82    43.25     >
<CYL           -1.75   174>
 CS 12.5

      NIDEK  ARK-1s
```

1	Patient ID Patient ID scanned by the optional barcode scanner or magnetic card reader
2	Vertex distance
3	Near working distance
4	AR-measured values (center) S: Spherical refractive error C: Cylindrical refractive error A: Cylinder axis
5	Confidence index
6	AR median values
7	Spherical equivalent value
8	Printing of eye diagram
9	Thin lens data
10	Contact lens conversion value
11	AR large area measured values
12	PS (Pupil Size) measured value When measurement is performed with the chart-illuminating lamp turned off during manual PS measurement, "(LAMP=OFF)" is printed out.
13	Accommodation measured values MIN: AR-measured minimum value MAX: AR-measured maximum value (PS MIN: Pupil size minimum value, MAX: Pupil size maximum value) An accommodation graph is printed out depending on the "58. ACC GRAPH PRINT" parameter setting.
14	PD (Pupillary Distance) Distance PD, monocular PD, near PD
15	KM median values R1: Flattest meridian R2: Steepest meridian deg: Corneal cylinder axis AVG: Average of R1 and R2 CYL: Corneal cylindrical error
16	CS (Corneal Size) measured value
17	Comments: Characters and symbols can be freely entered.

```
----------0003----------
NAME                 M/F
  FEB/28/2013    10:50
WD=16inch
<R>     S       C       A
     - 1.50  - 1.00   177  9
     - 1.50  - 1.00   174  9
     - 1.50  - 1.00   176  9
   <- 1.50  - 1.00   176>
L. DATA
     - 1.50  - 1.00   177

<L>     S       C       A
     - 2.50  - 1.00   177  9
     - 2.50  - 1.00   174  9
     - 2.50  - 1.00   176  9
   <- 2.50  - 1.00   176>
L. DATA
     - 1.50  - 1.00   177
PD 65

UCVA    (R 25    L 40)

SUBJ
  R - 1.75 - 1.00 176
  L - 2.75 - 1.00 176

BCVA   (R  25    L  25)
LOW    (R  30    L  30)
GLARE  (R  40    L  30)

ADD
  R + 2.00 VA   30 WD35
  L + 2.00 VA   30 WD35

LM
  R - 1.50 -1.00   177
  L - 2.50 -1.00   176

LM ADD
  R + 2.00 + 2.50
  L + 2.00 + 2.50

<R>      mm        D deg
<R1    7.98   42.25 174>
<R2    7.65   44.00  84>
<AVG   7.82   43.25   >
<CYL          -1.75 174>
 CS 12.5

<L>      mm        D   deg
<R1    7.98   42.25   174>
<R2    7.65   44.00    84>
<AVG   7.82   43.25     >
<CYL          -1.75   174>
 CS 12.5

      NIDEK  ARK-1s
```

1	Uncorrected VA values
2	Subjective refractive error measured values An eye diagram is printed out depending on the "52. EYE PRINT" parameter setting.
3	Corrected distance VA values
4	Contrast VA values
5	Glare VA values
6	Near addition powers, near VA values, WD
7	LM values These are values of the patient's own glasses measured by a lensmeter. When the following conditions are satisfied, printing is conducted. • The device is connected to a lensmeter and data is saved in the lensmeter or LM data has been imported from an Eye Care card. • Subjective refractive error measurement has been performed.
8	LM addition powers (ADD1, ADD2)

ARK-Series COMPARISON

User-Friendly Design
Tiltable Color 6.5" LCD Screen

"Marco Connect" enables the use of EMR cards or wireless data transfer

High Speed Printer with Easy Loading and Auto Cutter

ARK-Series PRODUCTS

FEATURES	Palm-ARK	M3	ARK-1	ARK-1a	ARK-1s
Super Luminescent Diode Technology	●	●	●	●	●
Automatic	●	●	●	●	●
Measurable Range -20D to +25D/Cyl 0D to +12D	●	●	●	●	●
Scenery Balloon Target Chart	●	●	●	●	●
"Marco Connect" EMR Internet Capability	●	●	●	●	●
Hand Held Portable Unit	●				
Minimum Pupil Diameter 2.6mm	●				
Automatic "Eye Tracking" Technology Y			●		
Automatic "Eye Tracking" Technology X, Y, Z		●		●	●
Minimum Pupil Diameter 2.0mm		●	●	●	●
Measureable Range -30D to +25D/Cyl 0D to ±12D		●	●	●	●
Rotary Prism Technology		●	●	●	●
Non-Contact Tonometry		●			
Peripheral Spherical Power -15 to +15D			●	●	●
Peripheral Cylindrical Power 0D to 6D			●	●	●
Auto Pupil Size Measurement 1.0 to 10.0 mm			●	●	●
Auto Corneal Size Measurement 10.0 to 14.0 mm			●	●	●
Double Ring Technology			●	●	●
Accommodation Measurement				●	●
Retro-illumination				●	●
Low Contrast Testing					●
Glare Testing					●
Visual Acuity Chart					●
Subjective Spherical Refinement					●
Compare Glasses vs. AR reading					●
Unaided Vision vs. AR reading					●
Near Vision Testing					●

ARK-Series SPECIFICATIONS

Model	ARK-1s	ARK-1a	ARK-1
Auto refractometer			
Measurement range	Sphere -30.00 to +25.00 D (VD = 12 mm) (0.01 / 0.12 / 0.25 D increments) Cylinder 0 to ±12.00 D (0.01 / 0.12 / 0.25 D increments) Axis 0 to 180° (1° / 5° increments)	←	←
Minimum measurable pupil diameter	ø2 mm		
Auto keratometer			
Measurement range	Curvature radius 5.00 to 13.00 mm (0.01 mm increments) Refractive power 25.96 to 67.50 D (n = 1.3375) (0.01 / 0.12 / 0.25 D increments) Cylindrical power 0 to ±12.00 D (0.01 / 0.12 / 0.25 D increments) Axis 0 to 180º (1° / 5° increments)	←	←
Sagittal measurement	25º each from the center (superior side, inferior side, temporal side, nasal side)		
VA measurement			
Measurement mode	Uncorrected VA, Corrected VA (distance, near)		
Measurement range	Less than 0.1, 0.1, 0.25, 0.32, 0.4, 0.5, 0.63, 0.8, 1.0, 1.25 or Less than 20 / 200, 20 / 200, 20 / 80, 20 / 60, 20 / 50, 20 / 40, 20 / 30, 20 / 25, 20 / 20, 20 / 16	Not available	Not available
Correction range	Sphere -20.00 to +20.00 D (VD = 12 mm) (0.25 D increments) Cylinder 0 to ±8.00 D (0.25 D increments) Axis 0 to 180º (1º / 5º increments)		
Vision comparison	Available with VA chart	Scenery Chart	Scenery Chart
Retroillumination image	Available	←	Not available
Accommodation measurement range	0 to 10.00 D (0.01 / 0.12 / 0.25 D increments)	←	Not available
PD measurement range	30 to 85 mm (1 mm increments)	←	←
Automatic Corneal size measurement	(Near point PD: 28 to 80 mm at WD = 40 cm) 10.0 to 14.0 mm (0.1 mm increments)	←	←
Automatic Pupil size measurement	1.0 to 10.0 mm (0.1 mm increments)	←	←
Auto tracking / Auto shot	X-Y-Z directions Auto shot	←	Y direction Auto shot
Display	Tiltable 6.5-inch color LCD	←	←
Printer	Thermal line printer with easy loading and auto cutter	←	←
Interface	RS-232C (in / out), LAN, USB, Eye Care card system*5	←	←
Power supply	AC 100 to 240 V 50 / 60 Hz	←	←
Power consumption	100 VA	←	←
Dimensions / Mass	260 (W) x 495 (D) x 457 (H) mm / 20 kg 10.2 (W) x 19.5 (D) x 18.0 (H)" / 44 lbs.	←	←

Marco technologies integrate with Marco Connect software

NIDEK | MARCO

Designed and Manufactured by NIDEK – Represented by MARCO

800.874.5274
www.marco.com

V135000 BR-ARK-SERIES