# OCULUS | PARK 1®

Non-Contact Pachymeter Autorefractor Keratometer



0

(alle)

# User-friendly features

Big Touchscreen for Intuitive Operation

### Your Advantages at a Glance

- All three measurements in a few seconds
- Automatic measurement of:
  - HWTW (horizontal white-to-white)
  - Pupil diameter
  - PD (pupil distance)
- Examination quality factor (QF)
- Integrated data administration software for customer and patient data management

- Touchscreen
- Built-in printer for quick printouts
- Motorized adjustable head and chinrest
- Single lever safety lock for safe blocking after measurement processes
- Winner of the "reddot award" for ergonomic and stylish design

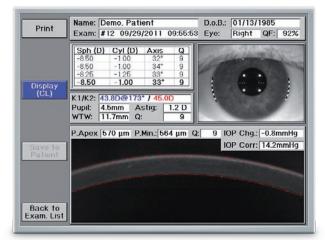


# OCULUS PARK 1®

Non-Contact Pachymeter, Autorefractor, Keratometer

### All in One

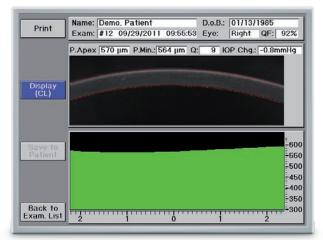
PARK 1° combines a non-contact Pachymeter, Autorefractor and Keratometer into one space saving and easy to use device. It improves patient flow by reducing measurement time and number of exam stations.



> All measurements at a glance

## Non-Contact Pachymetry

The Scheimpflug based non-contact pachymeter measures on a 4 mm horizontal slit through the corneal apex, providing the minimum thickness and corneal apex thickness values. The external measured IOP can be entered in the PARK 1<sup>®</sup> software to be corrected for corneal thickness effect using selected formulars.

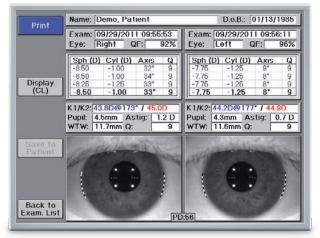


> Scheimpflug image of the cornea and corresponding corneal thickness progression

### Autoref/Keratometry

PARK 1<sup>®</sup> measures refraction and keratometric values quickly and accurately. Automatic measurement feature provides reproducible results.

Additionally, corneal diameter (HWTW), pupil size and pupil distance (PD) are measured and displayed.



> Measurement results for both eyes

#### Patient Database

PARK 1° offers a patient data management system to store all patient data. It can be easily connect to a PC, Laptop and your existing EMR system.

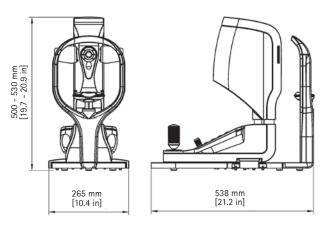
| Enter +<br>Delete<br>Char |   | OCULUS - PARK 1  |   |                                       |   |   |  |   |   |  |
|---------------------------|---|--|---|---------------------------------------|---|---|--|---|---|--|
|                           |   | Patient:<br>Last Name: [<br>First Name: [<br>D. o. Birth: [<br>Patient List:<br>Demo<br>Demo<br>Demo<br>Test |   |                                       |   |   |  | _ | - |  |
|                           |   |  |   | Patient<br>Patient<br>Patient<br>Test |   |   | 06.10.1976<br>12.12.1950<br>04.05.1963<br>11.11.1911 |   | 3 |  |
| Q                         | w | E  | R | т                                     | z | U | T.   | 0 | Ρ |  |
| A                         | S | D  | F | G                                     | н | J | к  | L | + |  |
| Y                         | × | с  | v | в                                     | N | м | •  | - |   |  |
| ESC                       |   | ++   |   |                                       |   | ö | υ  | Ă | ÷ |  |

> Touchscreen patient data management system

# Technical Data OCULUS PARK 1®

| Pachymeter (P)Measurement range200 to 1200 µmNumber of analyzed measuring points600Measuring timeapprox.1 sec.Light sourceblue LEDs (455 nm UV-free)Autorefractor (AR)Corneal vertex distance (CVD)Corneal vertex distance (CVD)0; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0* to 180° (in 1* increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Keratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DTechnical specificationsDimensions (W x D x H)Violtage100 -240 V ACFrequency50 -60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter10 to 14 mm (in 0.1-mm increments)Auto alignmentautomatic negative alignment (y-direction)Auto alignment4 utomatic negative alignment (y-direction)Auto alignmentautomatic negative alignment (y-direction) |                                      |  |  |  |  |  |  |
|---|--------------------------------------|--|--|--|--|--|--|
| Number of analyzed measuring points600Measuring timeapprox. 1 sec.Light sourceblue LEDs (455 nm UV-free)Autorefractor (AR)Corneal vertex distance (CVD)0; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0* to 180° (in 1* increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 nmAccuracy± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 -240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Auto alignment10 to 14 mm (in 0.1-mm increments)Auto alignment10 to 14 mm (in 0.1-mm increments)  | Pachymeter (P)                       |  |  |  |  |  |  |
| Measuring timeapprox. 1 sec.Light sourceblue LEDs (455 nm UV-free)Autorefractor (AR)Conneal vertex distance (CVD)O; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mFixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 nmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDioner solon x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 -240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Auto alignment10 to 14 mm (in 0.1-mm increments)Auto alignment10 to 14 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Measurement range                    | 200 to 1200 µm   |  |  |  |  |  |
| Light sourceblue LEDs (455 nm UV-free)Autorefractor (AR)Corneal vertex distance (CVD)0; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Measuring rangeMeasuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)Voltage100 -240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto alignmentautomatic measurement release  | Number of analyzed measuring points  | 600  |  |  |  |  |  |
| Autorefractor (AR)Corneal vertex distance (CVD)0; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targetballoon over a landscapeKeratometer (K)Keratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specifications100 × 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Auto alignment1 to 8 mm (in 0.1-mm increments)Auto alignment1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic neasurement release   | Measuring time                       | approx. 1 sec.   |  |  |  |  |  |
| Corneal vertex distance (CVD)0; 10.5; 12.0; 13.75; 15.0; 16.5 mmSphere-20 to +22 D (CVD = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D ( $CDV = 12 mm$ ) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K) $K$ Measuring range9 to 99 D, 3 to 38 mmAccuracy $\pm 0.1 D$ Reproducibility $\pm 0.1 D$ Technical specifications $500 \times 265 \times 538 mm (19.7 \times 10.4 \times 21.1 in)$ Weight12 kg (26.4 lbs)Voltage500 - 240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Light source                         | blue LEDs (455 nm UV-free)   |  |  |  |  |  |
| Sphere-20 to +22 D (CVD = 12 mm)(choice of 0.01, 0.12 and 0.25 diopter increments)Cylinder10 D (CDV = 12 mm)(choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Keratometer (K)Measuring range9 to 99D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDion 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Autorefractor (AR)                   |  |  |  |  |  |  |
| Cylinder10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Corneal vertex distance (CVD)        | 0; 10.5; 12.0; 13.75; 15.0; 16.5 mm  |  |  |  |  |  |
| Axis0° to 180° (in 1° increments)Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Sphere                               | -20 to +22 D ( $CVD = 12 mm$ ) (choice of 0.01, 0.12 and 0.25 diopter increments |  |  |  |  |  |
| Minimum measurable pupil diameter2.5 mmFixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50- 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Cylinder                             | 10 D (CDV = 12 mm) (choice of 0.01, 0.12 and 0.25 diopter increments)            |  |  |  |  |  |
| Fixation targethot air balloon over a landscapeKeratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Axis                                 | 0° to 180° (in 1° increments)  |  |  |  |  |  |
| Keratometer (K)Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Minimum measurable pupil diameter    | 2.5 mm   |  |  |  |  |  |
| Measuring range9 to 99 D, 3 to 38 mmAccuracy± 0.1 DReproducibility± 0.1 DTechnical specificationsDimensions (W x D x H)S00 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Fixation target                      | hot air balloon over a landscape   |  |  |  |  |  |
| Accuracy $\pm 0.1 D$ Reproducibility $\pm 0.1 D$ Technical specificationsDimensions (W x D x H)S00 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Keratometer (K)                      |  |  |  |  |  |  |
| Reproducibility± 0.1 DTechnical specifications500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Dimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Measuring range                      | 9 to 99 D, 3 to 38 mm  |  |  |  |  |  |
| Technical specificationsDimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Accuracy                             | ± 0.1 D  |  |  |  |  |  |
| Dimensions (W x D x H)500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)Weight12 kg (26.4 lbs)Voltage100-240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Reproducibility                      | ± 0.1 D  |  |  |  |  |  |
| Weight12 kg (26.4 lbs)Voltage100-240 V ACFrequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Technical specifications             |  |  |  |  |  |  |
| Voltage100 - 240 V ACFrequency50 - 60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Dimensions (W x D x H)               | 500 x 265 x 538 mm (19.7 x 10.4 x 21.1 in)                                       |  |  |  |  |  |
| Frequency50-60 HzFar PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release   | Weight                               | 12 kg (26.4 lbs)   |  |  |  |  |  |
| Far PD20 to 80 mm (in 1-mm increments)Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Voltage                              | 100-240 V AC   |  |  |  |  |  |
| Measuring range for corneal diameter10 to 14 mm (in 0.1-mm increments)Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Frequency                            | 50 - 60 Hz   |  |  |  |  |  |
| Measuring range for pupil diameter1 to 8 mm (in 0.1-mm increments)Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Far PD                               | 20 to 80 mm (in 1-mm increments)   |  |  |  |  |  |
| Auto alignmentautomatic height alignment (y-direction)Auto shotautomatic measurement release  | Measuring range for corneal diameter | 10 to 14 mm (in 0.1-mm increments)   |  |  |  |  |  |
| Auto shot automatic measurement release   | Measuring range for pupil diameter   | 1 to 8 mm (in 0.1-mm increments)   |  |  |  |  |  |
|   | Auto alignment                       | automatic height alignment (y-direction)   |  |  |  |  |  |
| Working distance approx. 36 mm (1.4 in)   | Auto shot                            | automatic measurement release  |  |  |  |  |  |
|   | Working distance                     | approx. 36 mm (1.4 in)   |  |  |  |  |  |
| Printer thermal printer   | Printer                              | thermal printer  |  |  |  |  |  |
| Display TFT – LCD 5.7" (touchscreen)  | Display                              | TFT – LCD 5.7" (touchscreen)   |  |  |  |  |  |
| Interface USB   | Interface                            | USB  |  |  |  |  |  |
| Standard accessoriesprinter paper, power cable, dust cover, chinrest paper, USB mini cable,<br>instructions for use, occluder (eye patch)   | Standard accessories                 |  |  |  |  |  |  |

C€ in accordance with Medical Device Directive 93/42/EEC



### WWW.OCULUS.DE

OCULUS Optikgeräte GmbH Postfach • 35549 Wetzlar • GERMANY Tel. +49-641-2005-0 • Fax +49-641-2005-295 Email: export@oculus.de • www.oculus.de

- OCULUS USA, sales@oculususa.com
- OCULUS Asia, info@oculus.hk
- OCULUS Czechia, oculus@oculus.cz
- OCULUS Iberia, info@oculus.es
- OCULUS Poland, biuro@oculus.pl





