



Auto Lensmeter

LM-1800PD/1800P



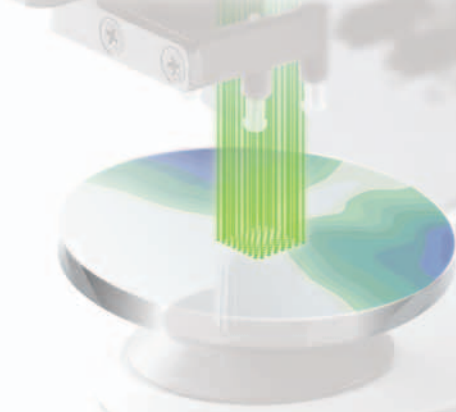
* LM-1800PD won the "red dot design award 2011".

THE ART OF EYE CARE

Auto Lensmeter LM-1800PD / 1800P

Beyond compare – like nothing else –

The culmination of NIDEK's accumulated experience and passion for the Auto Lensmeter



Hartmann sensor with 108 multiple measurement points

An advanced measurement principle, that incorporates simultaneous measurement of 108 data points within the nosepiece, provides greater accuracy and reliability with easier and faster measurements.

| Conventional | LM-1800PD / 1800P |
|---|--|
| <p>Unable to determine the direction of the reading point without moving the lens around.</p> | <p>Instantly decides the direction of the reading point.</p> |
| <p>Unable to detect the reading point immediately.</p> | <p>Detects the reading point immediately.</p> |

Distortion check*

This function shows the lens distortion of glasses used by customers. It compares the vertex power of peripheral eight portions with the power of center portion in the nosepiece aperture. The degrees of deviation from ISO standards at the peripheral eight portions are displayed by colors.



*The results can only be used as a guide because the distribution of the entire lens distortion cannot be measured.

Automatic lens type detection

Placing the lens on the nosepiece activates the auto lens detection to automatically determine the lens type and automatically switches its measuring mode accordingly.

Green measurement light

Green light close to the ISO standard gives more precise measurement values without Abbe number compensation.

Green light transmittance measurement

The LM-1800PD / 1800P is able to measure the transmittance of visible light by using the green light source. This function digitally calculates the transmittance through tinted lenses such as sunglasses, which has been estimated only on feel until now. It enables to recommend sunglasses with quantitative color strength based on the visible light transmittance.

Additionally, this function helps to ease the vision difficulty at nighttime due to the aging of a customer using tinted Rx lenses on a daily basis.

Note: Please use the measurement result of visible light (green) transmittance just for reference. According to the in-house data, this measurement result and luminous transmittance showed a correlation.



Transmittance comparison screen



Transmittance measurement result screen

A unique lens table expanding measurement range

A unique mechanism of the lens table allows the nosepiece to partially enter into the lens table. The mechanical change enables easy measurement of near portion of progressive lens without taking the lens table off even though the near portion is located on the edge of the frame.



PD measurement (only for the LM-1800PD)*



Pupillary distance can be measured easily. The LM-1800PD offers automatic Right / Left detection with the special PD slider, which also helps the operator easily hold glasses while measuring.

* It is also possible to measure approximate PD using scale mode function of the LM-1800PD/1800P.

Prism layout function

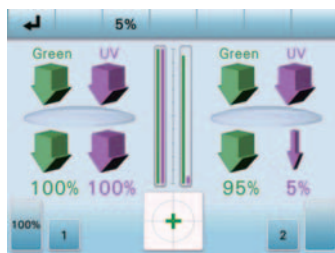
Entering the prism prescription value in advance allows easy blocking of lenses at the prism prescription position, by just following the target shown on the screen.

Improved marking dots

NIDEK's newly developed marking ink provides clear dots even on lenses with water repellent coating / finish.

UV transmittance measurement

A UV measurement with the visually-enhanced display shows the UV transmittance in the range of 0 to 100% by 1 or 5% increments. The comparison of the two lenses can be easily displayed.



High-speed line printer with auto cutter

The LM-1800PD / 1800P features a high-speed printer with easy to read printouts. Measurement data is simply and logically presented for easy explanation.



| < PROGRESSIVE > | | | |
|-----------------|------|--------|--|
| RIGHT | | LEFT | |
| - 2.00 | SPH | - 2.25 | |
| - 1.00 | CYL | - 0.50 | |
| 10° | AXS | 170° | |
| 0 0.25 | PSM | 0 0.00 | |
| U 0.50 | U | 0.25 | |
| + 1.75 | ADD | + 2.00 | |
| ----- | | ----- | |
| 30.5 | BI.5 | 31.0 | |
| NIDEK LM-1800PD | | | |

Sample printout (LM-1800PD)

Full graphic LCD with 5.7-inch touch color panel

The adoption of the touch screen achieves ideal layout display, superior in operation and visibility.



User-friendly tiltable LCD

A tiltable (30°) full-graphic LCD monitor provides easier operation for both standing and sitting operators.

Built-in Eye Care card system

The LM-1800PD / 1800P incorporates the card slot for Eye Care card system, which provides quick and easy wireless data transfer, eliminating paper printouts from the auto refractometers and the auto optometry systems, which also carry built-in Eye Care card system.



Interface enhancement

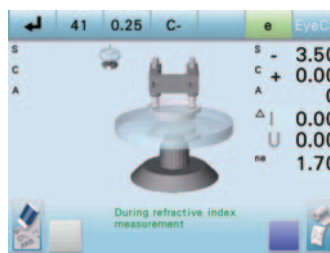
The LM-1800 series comes with standard LAN connection, in addition to conventional RS-232C and USB connections. It is directly accessible to the auto refractometer, the auto optometry system and a PC.



LAN



Refractive index measurement



The refractive index is measurable with optional kit GO-MEISAN*. No special software is required and an operator can start it with graphical assistance in the measurement screen just by pressing the lens mode

button, and the index is automatically measured.

*GO-MEISAN is a trademark of TOKAI OPTICAL CO., LTD.

LM-1800PD / 1800P Specifications

| Model | LM-1800PD | LM-1800P |
|---|--|---------------|
| Measurement range | | |
| Sphere (Spectacle lenses) | -25.00 to +25.00 D | |
| Sphere (Contact lenses) | -25.00 to +25.00 D (BC=6.0 to 9.0) (0.01 / 0.06 / 0.12 / 0.25 D increments) | |
| Cylinder | 0.00 to ±10.00 D (-, MIX, +) (0.01 / 0.06 / 0.12 / 0.25 D increments) | ← |
| Axis | 0 to 180° (1° increments) | |
| ADD | 0.00 to +10.00 D (first add, second add) (0.01 / 0.06 / 0.12 / 0.25 D increments) | |
| Prism | 0.00 to 20.00Δ (0.01 / 0.06 / 0.12 / 0.25Δ increments) | |
| Prism mode | Δ, θ, Base In / Out, Base Up / Down | ← |
| PD measurement* | 20.0 to 49.5 mm (monocular), Single vision PD, Progressive lens far vision PD | Not available |
| UV / Green transmittance | 0 to 100% (1 or 5% increments) with central wavelength 365 nm (UV-A) and 535 nm (green) | ← |
| Measuring time | 0.06 second ±10% (minimum) | ← |
| Measurable lens diameter | | |
| Spectacle lenses | ø20 to 120 mm | ← |
| Contact lenses | Larger than the inner diameter of the nosepiece (ø5 mm) | ← |
| Measurable transmittance | 10% and over (20% and over for ±15.00 to ±20.00 D) | ← |
| Compensation function for high index lenses | The Abbe number is changeable in the range of 20 to 60. | ← |
| Marking system | Ink cartridge type | ← |
| Wavelength / Measuring point | 535 nm (green) / 108 within nosepiece | ← |
| Display | 5.7-inch color full graphic TFT-LCD, 640 x 480 dots with LED backlight | ← |
| Printer | Thermal line printer with auto cutter (paper width: 58 mm) | ← |
| Interface | RS-232C, USB2.0 HOST, USB2.0 FUNC, 10 / 100 BASE-T Ethernet - 1 port each | ← |
| Power supply | AC 100 to 240 V, 50 / 60 Hz | ← |
| Power consumption | 60 VA | ← |
| Dimensions / Mass | 220 (W) x 252 (D) x 430 (H) mm / 5.0 kg 8.7 (W) x 9.9 (D) x 16.9 (H) " / 11.0 lbs. | ← |
| Standard accessories | Printer paper, Power cord, Dust cover, Nosepiece for contact lenses, Measuring Progressive Power Lenses explanation guide | ← |
| Optional accessories | Eye Care card, RS-232C communication cable (OPIF-6), USB communication cable (equipped with the dedicated USB driver), Foot switch, Ink cartridge (red, blue), Ink pad type marking unit, Measurement kit of refractive index, Barcode scanner, Magnetic card reader | ← |

*It is also possible to measure approximate PD using scale mode function of the LM-1800PD / 1800P.

Product / Model name: Auto Lensmeter LM-1800P / 1800PD

Brochure and listed features of the device are intended for non-US practitioners.

Specifications may vary depending on circumstances in each country.

Specifications and design are subject to change without notice.



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