



Auto Lensmeter

# LM-1800PD/1800P



reddot design award  
winner 2011

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

**THE ART OF EYE CARE**

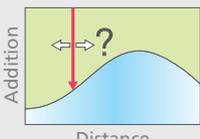
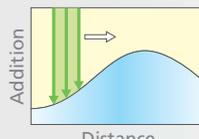
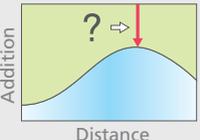
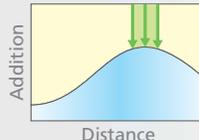
# Auto Lensmeter LM-1800PD / 1800P

## 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

Advanced simultaneous measurement of 108 multiple points within the nosepiece provides easier and faster measurements with greater accuracy and reliability.

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 displays the lens distortion of glasses being used by the customer by obtaining the vertex power difference from the nosepiece aperture at the center to those of eight portions of the lens around it and compares the results as a guide with the tolerances of ISO standards.



\*The results can only be used as a guide because the distribution of 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

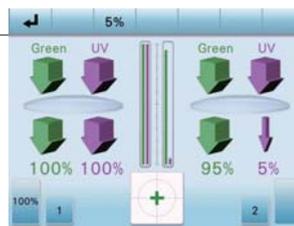
Green light close to the ISO standard gives more precise measurement values without Abbe value compensation.

### Green light transmittance measurement

The LM-1800PD / 1800P became 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.



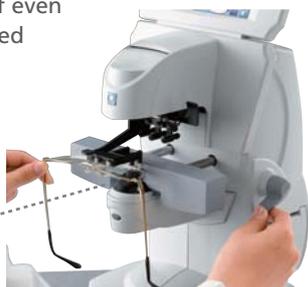
Transmittance comparison screen



Transmittance measurement result screen

## A new lens table expanding measurement range

The new 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

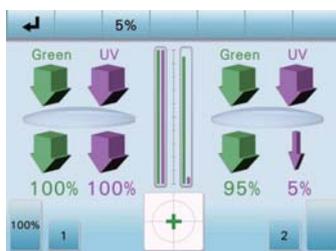
Entering the prism prescription value in advance allows easy blocking by just following the target shown on the screen for blocking lenses at the prism prescription position.

## Improved marking dots

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

## UV transmittance measurement

A new 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 feature a high-speed printer with fast and easy to read printouts. Measurement data is simply laid out and is useful for explanation to customers.



< 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 0.25	
+ 1.75	ADD	+ 2.00	
PD			
30.5	81.5	31.0	
NIDEK LM-1800PD			

Sample Printout (LM-1800PD)

## Full graphic LCD with 5.7-inch touch color panel

The adoption of the touch panel achieves ideal layout display superior in operability, visibility and external appearance. Moreover, you can choose a favorite color from a lot of choices.



## User-friendly tiltable LCD

The 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 tracer, eliminating paper print outs from the auto refractometers and the auto optometry systems, which are leading products that also carry built-in Eye Care card system.



## Interface enhancement

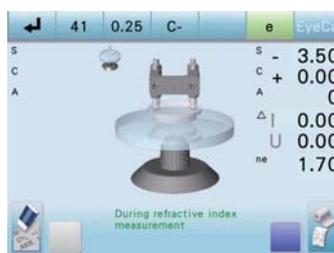
In addition to the conventional three interfaces, LAN interface is preloaded in the LM-1800PD/1800P. It is accessible to the auto refractometer, the auto optometry system and a PC directly.



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 to +25 D	
Sphere (Contact lenses)	-25 to +25 D (BC=6.0 to 9.0) (0.01 / 0.06 / 0.12 / 0.25 D increments)	
Cylinder	0 to ±10 D (-, MIX, +) (0.01 / 0.06 / 0.12 / 0.25 D increments)	←
Axis	0 to 180° (1° increments)	
ADD	0 to +10 D (Add, Ad2) (0.01 / 0.06 / 0.12 / 0.25 D increments)	
Prism	0 to 20Δ (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 to ±20 D)	←
Compensation function for high index lenses	The abbe number is changeable in the range of 20 to 60.	←
Marking system	Ink cartridge type (red)	←
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, Interface cable, USB cable, Foot switch, Ink cartridge (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.

Caution : U.S. Federal Law restricts this device to sale, distribution, and use by or on the order of a physician or other licensed eye care practitioner.

Specifications may vary depending on circumstances in each country.

Specifications and design are subject to change without notice.



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