

Digital PD Meter Manual Instruction





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1 Summaries

1.1 Uses

Digital PD Meter is a precision optical instrument used to measure distance between pupils in the process of optometry for spectacles.

1.2 Main Characteristics

The instrument is composed of six parts: measurement system, optical system, electronic conversion system, computer software, visual liquid crystal display system, and rechargeable lithium battery power supply system, the following characteristics:

1) Using the HD camera to dynamically observe the subject, both eyes can be adjusted at the same time to improve the measurement speed.

2) Using a visual measurement interface in HD, The optometrist visually observes the screen and adjusts it through the LCD screen, Minimize the visual error from monocular observations.

3) Change the traditional measurement patterns, The optometrist is no longer in close contact with the subject, Effectively prevent the infectious risk of infectious diseases or viruses and ensure the health of the patient.

4) The mechanical hairspring is used to aim the reflecting point of human eyes, which has the characteristics of direct sampling point, high alignment accuracy and fast measurement speed.

5) Using high-precision linear sensor, advanced intelligent electronic system, digital display of measurement results, intuitive, easy to read, accurate characteristics.

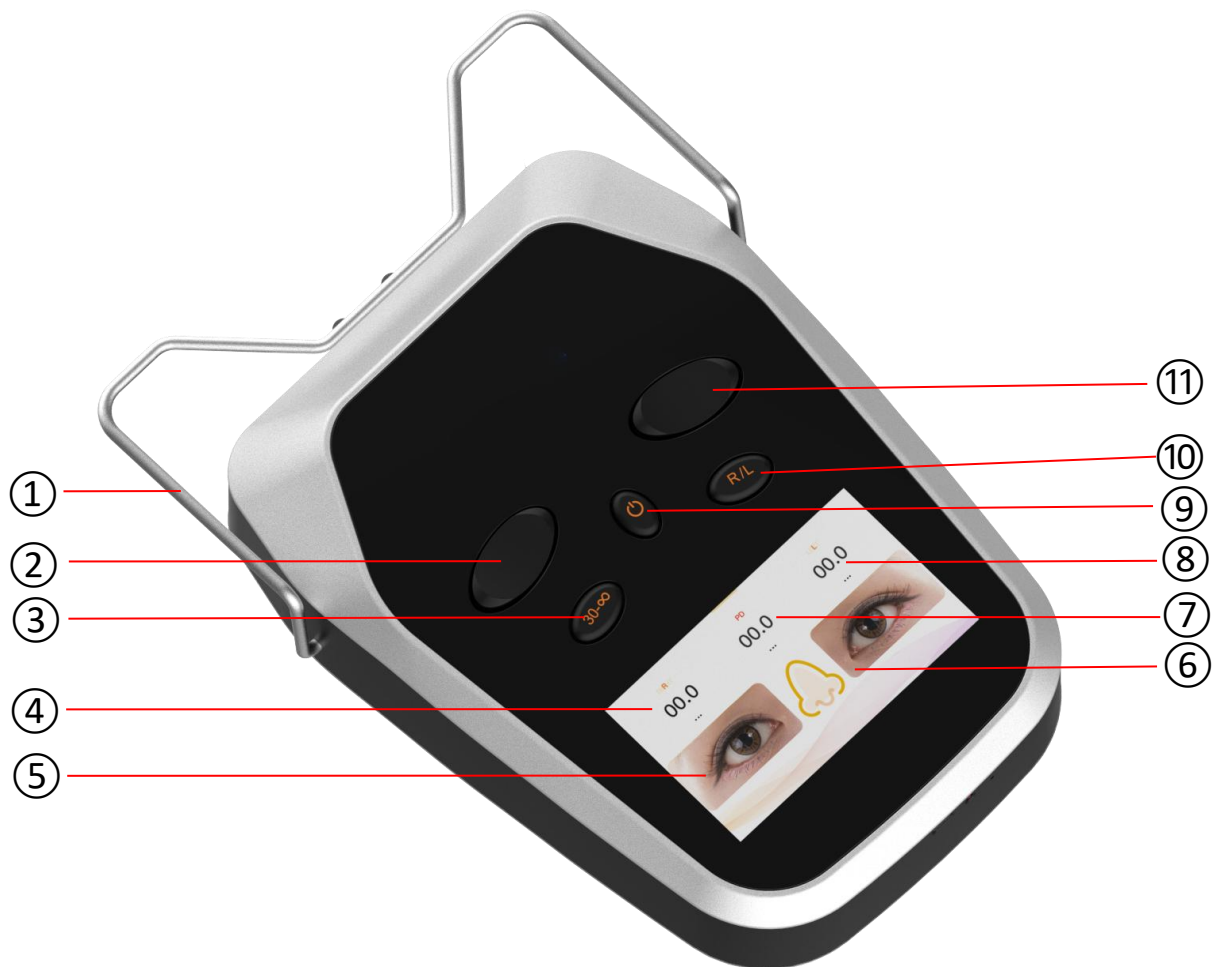
6) With the latest measurement algorithm, the measurement results of the distance of view needed by the user.

2 Main Technical Indexes

1) Effective range of measurement : Binocular pupillary distance : 44-86mm; Left or right eye pupil distance: 22-43mm.

- 2) Absolute value of indicated error: $\leq 0.5\text{mm}$.
- 3) Absolute value of asymmetrical error: $\leq 0.5\text{mm}$.
- 4) Absolute value of rounding error: $\leq 0.5\text{mm}$.
- 5) Distance of target: $30 \sim \infty$.
- 6) Battery capacity: 3000mA/h.
- 7) Instrument appearance size: 220mm (L) x 160mm (W) x 65mm (H).
- 8) Weight: 0.9kg.

3 Description Of The Structure



- ① Forehead bearer: The testee's forehead rests on the forehead bearer to assist orientation of pupils.
- ② Right pupil measure key : It is used to measure distance of right pupil .Sliding the key to the outer side,the numerical value of the right eye and pupil distance in both eyes will rise gradually.Sliding the key to the inner

side, now numerical value of the right eye and pupil distance in both eyes will decrease gradually.

③ Convert key for optic distance: For the measurement value of different optic distances.

④ The pupil distance of the right eye: Right pupil distance values for the testee.

⑤ Display window the right eye : Right eye of the measured person is displayed.

⑥ Display window the left eye: Left eye of the measured person is displayed.

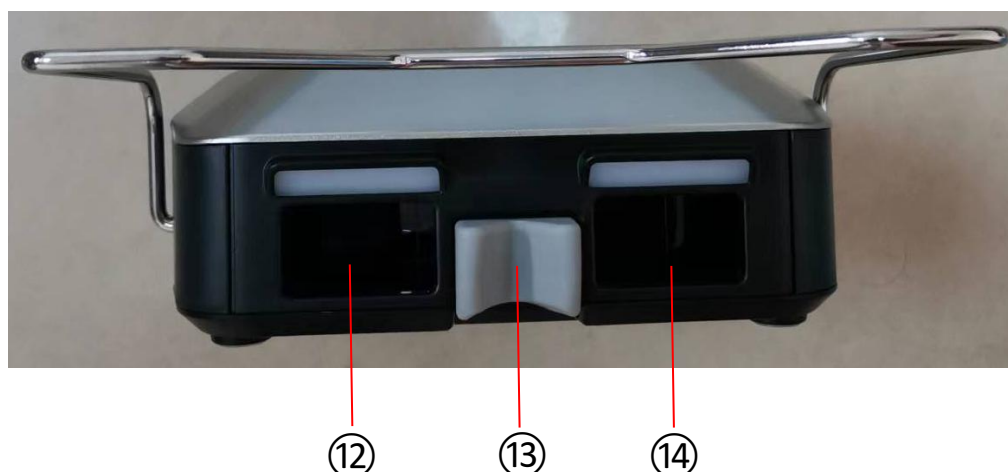
⑦ Total pupil distance: Total pupil distance values for the testee.

⑧ The pupil distance of left eye: Left pupil distance values for the testee.

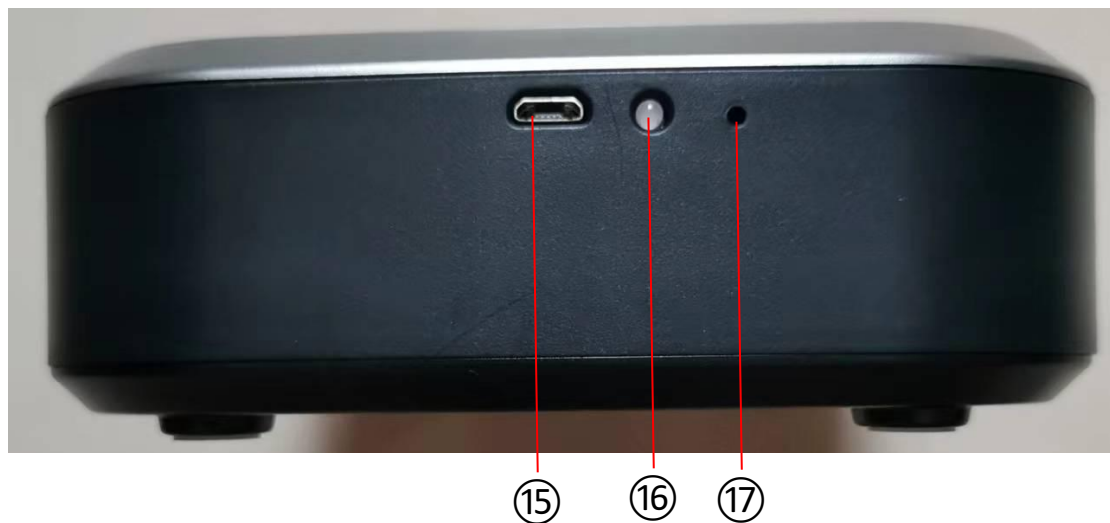
⑨ Power key: Press this key to turn on the device, and press it again to turn off.

⑩ Convert key of the measure eye: Convert key for monocular pupil distance measurement.

⑪ Left pupil measure key : It is used to measure distance of left pupil. Sliding the key to the outer side, the numerical value of the left eye and pupil distance in both eyes will rise gradually. Sliding the key to the inner side, now numerical value of the left eye and pupil distance in both eyes will decrease gradually.



- ⑫ Observation window of the left eye: The window used to observe the target in the testee's left eye.
- ⑬ Nose bearer: The testee's nose rests on the nose bearer in order to fix the PD and the position of the testee's pupils.
- ⑭ Observation window of the right eye: The window used to observe the target in the testee's right eye.



- ⑮ USB: Interface used for lithium battery charging.
- ⑯ Indicator light: indicator lamp for charging status.
- ⑰ Reset switch: Switch used for product reset.

4 Operating Procedures

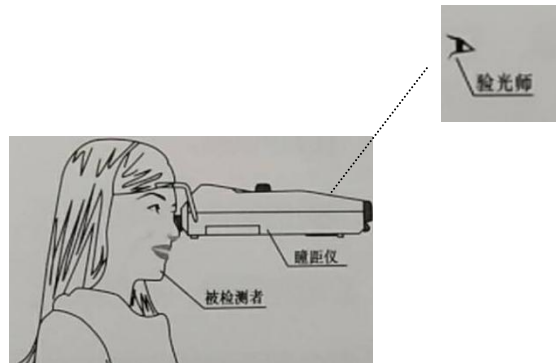
4.1 Start-Up

Press power key to make the start-up of the device. When the data is displayed on the corresponding LCD window , now you can make the measurement.

4.2 Pupil Distance Measurement In Both Eyes

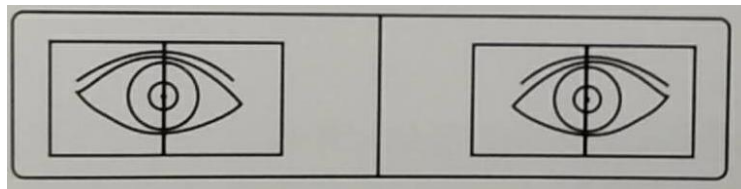
4.2.1 Start-up. The initialized setting of the device for the binocular pupillary distance is ∞ optic distance.

4.2.2 Put the forehead bearer lightly on the testee's forehead and nose bearer lightly on testee's nose, then keep the device in a horizontal state (as shown in below fig).



4.2.3 Let the testee stare at the green target inside of the device.

4.2.4 The tester observes the reflecting light spot on the testee's pupil through the LCD screen, slide the Left and Right Pupils Measuring Keys, the left and right pupillary distance pointers will coincide with the reflecting light spots of the testee's left and right pupils, respectively (as shown in below Fig). The data shown in the LCD screen is the measured pupillary distance. The numerical value of optic distance.



4.2.5 In order to get the pupillary distance at different optic distance, press Convert key For Optic Distance, you will get the pupillary distance at different optic distance such as 30cm, 35cm, 40cm, 50cm, 65cm, 1m, 2m and ∞ .

4.3 Measurement of Monocular Pupillary Distance

When needing to measure the left or right pupillary distance, press Convert Key Of The Measure Eye which can measure the monocular pupillary distance as 4.2.4.

4.4 Auto Power-off Setting

If the device is not operated within 4 minutes, it will automatically shut down. If you need to use it again, please press the power button to start.

5 Attention

- 1) Non-professional personnel, do not disassemble the device at will.
- 2) Device shall be kept and used in dry, ventilated rooms.
- 3) Colash and high fall should be avoided.
- 4) The device should be kept clean, do not touch the surface of the window glass by hand. If there is dust, stains, etc., you need to wipe clean with a skim cotton stick dipped in ethanol.

6 Accessories

name	unit	quantity
Charger	Piece	1
USB cable	Piece	1
Manual Instruction	Piece	1
Drying Agent	Piece	1