



ES-HR800 & ES-HR880

Handheld auto-refractometers



OPHTHALMOLOGY / ENT





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Handheld auto-refractometers



- Cod. **ES-HR800**
Standard version
- Cod. **ES-HR880**
Version with
myopia mode

- **Non-contact and non-invasive**

The light power is safe for eyes;
The distance between the instrument and the eyes is 35 cm (14inches).

- **Child-friendly**

Little cooperation is required, suitable for infants and those who have a language barrier.

- **Speedy inspection**

One key operation to complete the automatic detection of two eyes.

- **Accurate result**

The advanced optical detection principle provides an accurate result: including myopia, hyperopia, astigmatism, axial and anisometropia.

- **Comprehensive detection modes**

Infant mode is specially designed for infants;
Myopia mode is customized for myopia people even high myopia people (just for ES-HR880 only);
Adult mode is suitable for all adults.

- **Easy targeting**

The cross-shape light facilitates the targeting for operator.

- **Ultrasonic distance measurement**

Automatic display of the distance with audible and visual hint.

- **Printer**

Thermal printer is connectable by infrared.

- **Weight**

0.9kg



Ultrasonic Ranging

IR output

Flashing lights, accompanied by music for attention capture



Infrared printer

Technical Features

Optical parameters

Mode	Infant mode	Adult mode	Myopia mode (Just for ES-HR880)
Sphere range	-6.0D to +8.00D	-6.0D to +8.00D	-9.0D to +2.00D
Sphere intervals	0.25D / 0.1D	0.25D / 0.1D	0.25D / 0.1D
Sphere tolerance	±0.5D	±0.5D	±0.5D
Cylinder range	-3.0D to +3.00D	-3.0D to +3.00D	-3.0D to +3.00D
Cylinder intervals	0.25D / 0.1D	0.25D / 0.1D	0.25D / 0.1D
Cylinder tolerance	±0.5D	±0.5D	±0.5D
Axis of astigmatism range	1° to 180°	1° to 180°	1° to 180°
Axis of astigmatism intervals	1°	1°	1°
Axis of astigmatism tolerance	0.25D to 1.00D ±10°	0.25D to 1.00D ±10°	0.25D to 1.00D ±10°
	1.25D to 3.00D ±5°	1.25D to 3.00D ±5°	1.25D to 3.00D ±5°

*intervals are adjustable

Function parameters

Model	ES-HR800	ES-HR880
Detection modes	Adult Mode, enfant mode	Adult Mode, enfant mode, myopia mode
Working distance	Adult/Infant mode	335 ± 10mm
	Myopia mode	/
Distance detection	Automatic, with audible and visual signals	Automatic, with audible and visual signals
Data acquisition time	2s/eye	2s/eye
Battery voltage	DC 11,1V	DC 11,1V
Battery life	More than 6 hours of continuous usage	More than 6 hours of continuous usage
Low battery warning	Indicates 15 minutes usage remains	Indicates 15 minutes usage remains
Wavelength	850 ± 20nm	850 ± 20nm
Output of the laser radiation	150~200µW	150~200µW