



Handheld Auto Refractometer

**HAR-800/880**

# INTRODUCTION

The vision problem is one of the most common health problems in children and adolescents. And most vision problems are due to refractive errors (such as: myopia, hyperopia, astigmatism and anisometropia). There are about two-thirds of children have amblyopia problem because of refractive error; 20% of teenagers become from early pseudomyopia to true myopia; And 40% of myopia teenagers had deepened the myopia because they had not discovered it in time.

The clinical practice had proved that if children have discovered amblyopia and be treated before 4 years old, 95% of them could raise their eyesight; If pseudomyopia children could be discovered in time, they could restore vision through correct eye using habits and eye care; And the true myopia children could avoid deepening their myopic degrees.

It is an important measure that having a routine refractive inspection in infants, children and teenagers to prevent them from amblyopia, myopia, hyperopia, astigmatism, anisometropia and other refractive errors. Child specialists advocated that the preschool children and young students needed refractive inspection to discover refractive errors early and have an effective treatment timely to protect the visual health of infants and children.

The traditional vision and refractive inspection methods are visual chart and mydriasis skiascopy. But the preschool children have cooperating and perceive problem, so the result of those inspections are not so accurate; And the mydriasis skiascopy method is not convenient in group screening, it has affected the efficiency of screening.

HAR-800/880 vision screener has solved those problem of traditional methods. It can provide a convenient operation and get an objective and reliable screening result. HAR-800/880 vision screener is a convenient and efficient refractive screening instrument.



Ultrasonic Ranging

IR Output

Flashing lights, accompanied by music to attract attention



Infrared printer

# FEATURES



## ⦿ 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 and even high myopia people (HAR-880 noly); Adult mode is suitable for all adults.

## ⦿ Easy targeting

Luminant cross-shape facilitates the targeting for operator.

## ⦿ Ultrasonic distance measurement

Automatically monitor the distance with audible and visual hint.

## ⦿ Printer

Thermal printer is connected by infrared.

## ⦿ Weight

0.9kg



## SPECIFICATIONS

OPTICAL PARAMETERS	Mode		Infant mode	Adult mode	Myopia mode (HAR-880 only)	
	Sphere range		-6.0D to +8.0D	-6.0D to +8.0D	-9.0 to +2.0D	
	Sphere intervals		0.25D/0.1D <sup>①</sup>	0.25D/0.1D <sup>①</sup>	0.25D/0.1D <sup>①</sup>	
	Sphere tolerance		±0.5D	±0.5D	±0.5D	
	Cylinder range		-3.0D to +3.0D	-3.0D to +3.0D	-3.0D to +3.0D	
	Cylinder intervals		0.25D/0.1D <sup>①</sup>	0.25D/0.1D <sup>①</sup>	0.25D/0.1D <sup>①</sup>	
	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° 1.25D to 3.00D ±5°	±10° ±5°	±10° ±5°	
①Intervals are adjustable.						
FUNCTION PARAMETERS	Working distance	Adult/Infant mode	335 ± 10mm	Confidence level	10	
		Myopia mode (HAR-880 only)	268 ± 10mm			
	Output of the laser radiation		150 to 200μW	Wavelength	850 ± 20nm	
	Data acquisition time		2s/eye	Battery voltage	d.c.11.1V	
	Distance measurement		Automatic, with audible and visual hint			
	Battery life		More than 6 hours of continuous usage			
	Low-Battery warning		Indicates 15 minutes usage remains			

Specifications are subject to change without notice.

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