

# NEAR VISION TESTER

MANUAL

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# 1 SUMMARY OF TESTS

Near vision tester enables a complete refractive and binocular vision investigation to be carried out with the head and eyes in their normal posture at any working distance.

**The refractive tests include:**

- a. Measurement of visual acuity using Snellen letter and illiterate E-chart, and Times Roman reading types.
- b. Accurate determination of presbyopic additions and other near corrections.
- c. Near vision astigmatism tests.
- d. Amplitude of accommodation including monocular measurements under binocular conditions.

**The Binocular balance tests include:**

1. Fixation disparity test for uncompensated heterophoria motor eye dominance.  
Accommodation-convergence relationship.
2. Quantitative evaluation of foveal suppression in heterophoria patients.
3. Near point of convergence.
4. Targets for subjective cover tests for heterophoria and harmonious ARC.

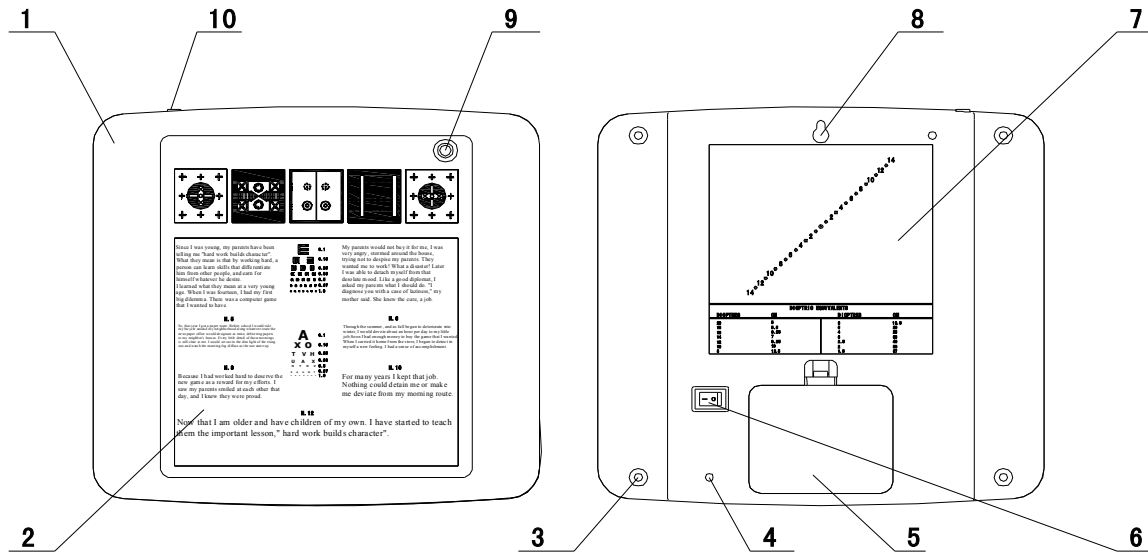
A centimeter ruler for measuring working and testing distance is included.

The chart can be illuminated individually by means of an infra red remote controller.

## 2 COMPONENT

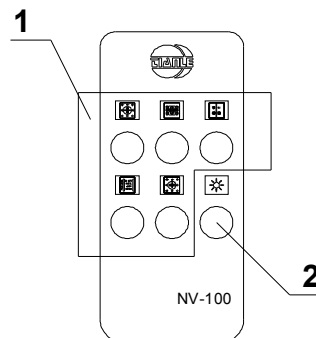
Near vision tester has three parts. They are Main body, remote controller and the polarized filter.

### 2.1 Main body



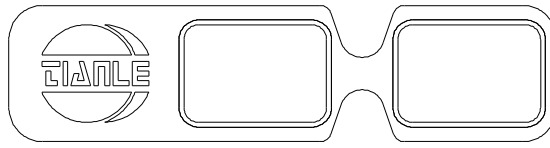
- 1 front cover
- 2 charts (refer to chapter 4.)
- 3 screws
- 4 sensor
- 5 battery cover
- 6 switch
- 7 distance-dioptre conversion table
- 8 rear cover
- 9 tape
- 10 manual switch (turns on the chart one by one)

### 2.2 Remote controller



- 1 chart buttons
- 2 power switch (turn on the LED light on the rear of the Near vision tester)

### 2.3 Polarized filter



Make sure that each eye can only see one part of the chart though the polarized filter.

	chart	Left	right
1			
2			
3			
4			
5			

### 3 SET UP

Near vision tester is held by hands when using.

Near vision tester is powered by three AAA batteries. When installing the batteries, please pay attention to the electrode-mark on the battery box..

When taking out the batteries, picking the middle one first will make the process easy.

The charts are design at the distance of 36cm.

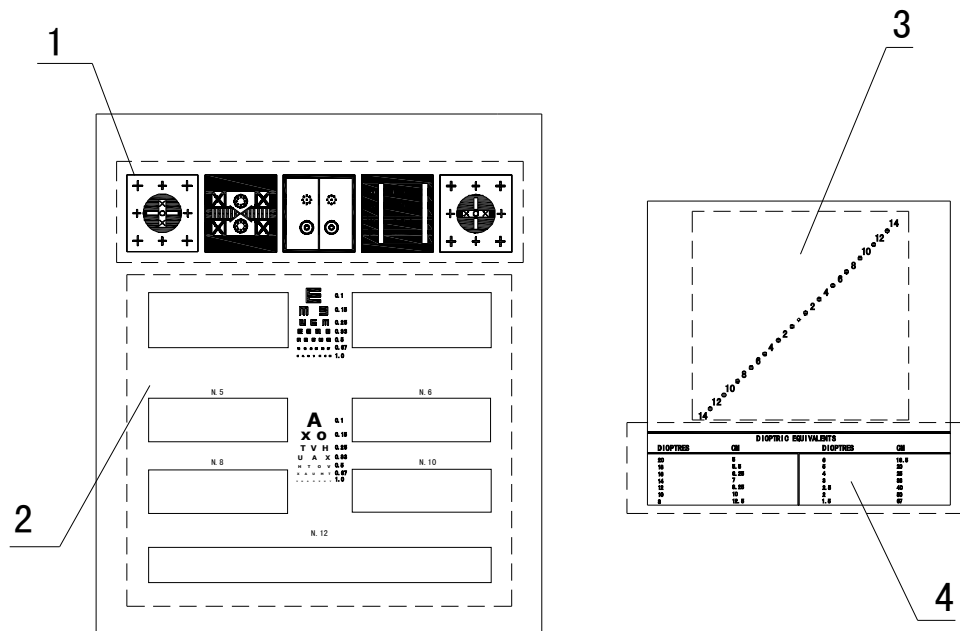
### 4 USAGE



#### CAUTION:

1. Don't press the front panel when using.
2. make sure that the film has been drawn out before the remote controller is using.

Near vision tester has four kinds of charts.

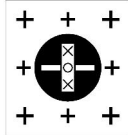
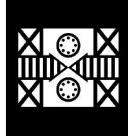
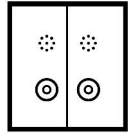

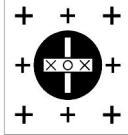


1、 polarized charts 2、 Vision chars 3、 Tangent scale and spotlight 4、 Distance-dioptre conversion table

#### 4.1 Polarized charts

When you press the buttons on the controller, the polarized charts will be illuminated one by one.


	Charts	use
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1		Fixation disparity test
2		Cross-Cylinder and Balance test
3		Bichromatic Test (not polarized)
4		Foveal Suppression Test
5		Fixation disparity test

**Note: Please refer to the concerned medical books for more detail.**

## 4.2 Vision charts

Snellen chart and E-chart

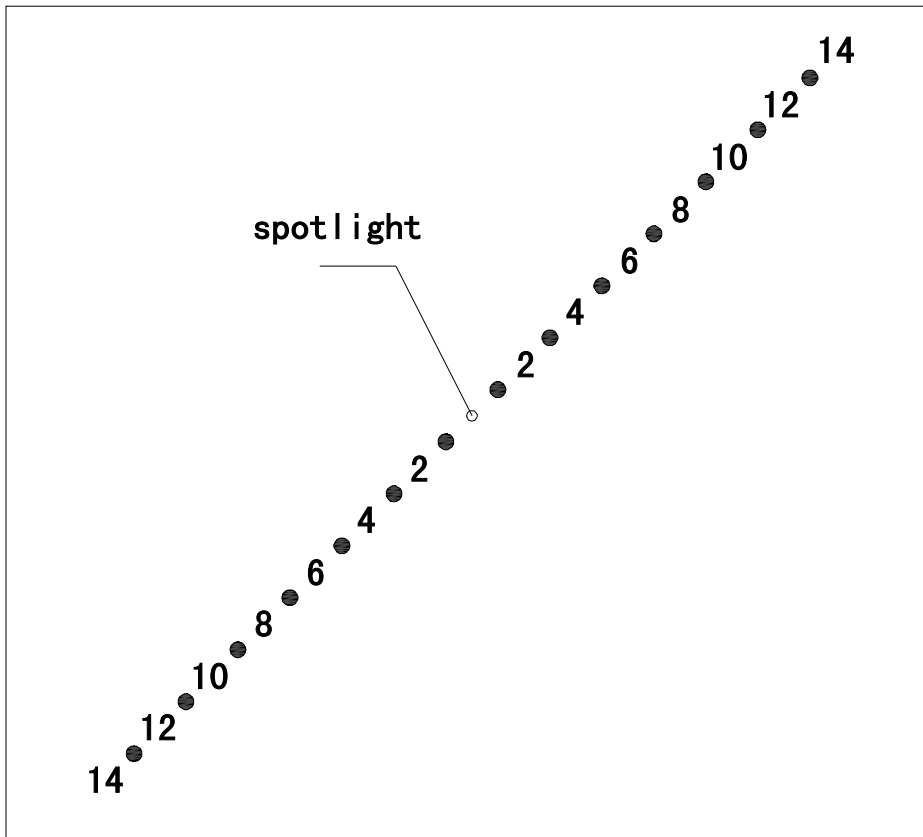
	0.1		0.1
	0.15		0.15
	0.25		0.25
	0.33		0.33
	0.5		0.5
	0.67		0.67
	1.0		1.0

Times New Roman reading types.

N. 12

Now that I am older and have children of my own. I have started to teach them the important lesson," hard work builds character".

## 4.3 Tangent scale and spotlight



This target (at the rear of the unit) provides a light source for use with striated lenses, and a tangent scale for the after-image diagnosis of eccentric fixation. The scale is graduated in prism diopter for use at 36cm.

#### 4.4 Distance-dioptre conversion table

DIOPTRIC EQUIVALENTS			
DIOPTRES	CM	DIOPTRES	CM
20	5	6	16.5
18	5.5	5	20
16	6.25	4	25
14	7	3	33
12	8.25	2.5	40
10	10	2	50
8	12.5	1.5	67