YZ24

STREAK RETINOSCOPE INSTRUCTION MANUAL

YZ24 Streak Retinoscope

1. **Function and Features:**

YZ24 Streak Retinoscope is an instrument for determining refractive errors and axis of astigmatism. It is beautifully constructed, giving an intensive illumination, and is convenient to use. The streak can be conveniently rotated through 360°. The motion of the slide shaft is reliable.

2. **Basic Construction:**

The instrument is composed of head and handle.

(1) A Plano-mirror and a condenser lens are assembled in the head.
(2) A bulb with linear filament is fitted in the handle.

3. **Methods of Operation:**

(1) In general, the application of the streak retinoscope is similar to the spot retinoscope. Holding instrument as shown in diagram.

(2) The optometrist holds the handle with right hand. By using thumb and index fingers, the slide shaft can be rotated through the opening of the handle to change the meridian of the streak through a range of 360°. The vengeance of projected streak can be controlled by pushing the slide shaft up and down.
(3) The moving direction of the handle should be perpendicular to the streak. For instance, to determine the refractive power of 180° meridian, a 90° streak should be applied. If the refractive power of 45° is going to be determined, the streak should be positioned at 135°.

(4) Owing to the distance between the examiner and subject eye is usually one meter. So there is 1 diopter of myopia objectively.

If the image from pupil is even at every direction, no astigmatism is present. Push the slide shaft upward to its top, neutralize the image-motion with a trial lens, add 1 diopter for myopia and decrease 1 diopter for hypermetropia to the diopter of the neutralization lens. Then the diopter for the corrected lens is obtained.

(5) Skiascopy for Astigmatism

Push the slide shaft upward to the top position, observe the image while the streak is being rotated. When the streak outside the pupil is parallel to that in the pupil, the main axis of the astigmatism can thus be orientated. For instance, the streak image in the pupil is finest and brightest when the streak outside the pupil is at 90°, and is parallel to that in the pupil, the main axis of astigmatism is at 90°. The difference of diopters between two main axis is the diopter of astigmatism. If the diopter of astigmatism is too large and the streak image in pupil is too dark, too wide, push the slide shaft downward to make the streak image as fine and bright as possible.

(6) Don’t push the slide shaft up and down, when the streak is being rotated.

4. **Attention**

(1) It is necessary to dilate the patient’s pupil fully. Otherwise, the adjustment might influence the result of examination.

(2) For obtaining a good observation of image motion, the suitable frame and sit position should be selected in according to the patient’s age.

(3) The distance between examiner and patient should be one meter. Otherwise, the correct of examing will be influenced.

5. **Spare parts:**

(1) Spare bulbs (3V/2W) 2 pieces.

(2) Transformer (input 220V, output 3V/2W) 1 piece.