User’s Manual
A Handbook of Trial Lens Set 275 pcs

- **Spheres**
  The curved surface forms a part of the spherical lens and the dioptric power on all axis positions is the same. After passing the lens, the light beam focuses in one point (or a virtual focus). Spherical lens includes concave lens (-) and convex lens (+), which are used to examine myopia, hyperopia and presbyopia.

- **Cylinders**
  The curved surface forms a part of cylindrical lens and the dioptric power on all axis positions is not the same. After passing the lens, the light beam focuses into a straight line (or a broken line). Cylindrical lens consists of concave cylindrical lens and convex cylindrical lens that are used to examine astigmatism.

- **Prisms**
  The tangent plain of prismatic lens shows cuneiform. After passing the lens, the light beam bends to the bottom and the object shifts to edges. This kind of lens is used to test eye-flesh, slant and invisible slant as well as to train eye-flesh.

- **Occluder**
  This is a kind of opaque lens for covering the uninspected eye of the examinee in a dark room.

- **Frosted Lens**
  This is a kind of semi-transparent cover lens and
mainly used for babies or used outside of the room as an occluder.

- **Slit**
  In its center, there is a split, through which light beam can pass while it can not pass the other part of the lens. By turning this lens in front of the eye, astigmatism can be examined as your vision changes in better or in worse at a certain axis position, on the contrary, it proves no existence of astigmatism if your vision has change.

- **Plano lens**
  This is a kind of transparent plain lens and the light beam never bends when it passes the lens. It is used to examine false blindness.

- **Color Lens**
  This kind of lens has different colors, red, green, blue, yellow and dark brown and is used to examine color sensitivity. To such person whose dioptic image is muddy (e.g. a patient with cataract), the red or green lens is suitable. It also can be used for re-inspection and examination of color blindness.

- **Cross cylinder**
  This is a kind of lens with contrary dioptic in two axis positions and used to examine the degree and axis position of the cylindrical lens for determining astigmatism. When using, put the cross cylinder lens before cylindrical lens and make its one axis coincide with the axis position of cylindrical lens, then turn the cross cylinder lens 90°
counter-clockwise and see the change of vision. If his vision has no change, the degree of cylindrical lens used can be considered as suitable, otherwise, the degree of cylindrical lens would be adjusted according to the variant results. In correcting the axis position, respectively put the two axes of cross cylinder lens at the right side (45°) and the left side (45°) of primary test axis of cylindrical lens, then turn it counter-clockwise and see differences of vision at two positions. If vision on one position is better than that on another position, the axis of cylindrical lens can be slightly turned in the direction of position mark of the better one, then test again by the used above, until difference of vision at two positions can hardly be distinguished, thus proving that the cylindrical lens is the correct position.

- **Maddox**
  
  On its surface, there is one row of bars which point light can pass, and then bends into a line to the direction, which is perpendicular to the glass bars.

- **Pin hole**
  
  In its center, there is a small hole, through which light beam passes to form artificial pupil and it is used to improve diopter especially the astigmatism after wearing it.