

READING TELESCOPES

GENERAL

Reading Telescopes are telescopic systems designed for occupation and reading distances. They allow an increased working distance from that which is found with a comparably-powered microscope (reading lens), while still maintaining an adequate magnification level. Students, electricians and office workers are just a few examples of those who would benefit from this type of aid. The usefulness of these units, however, should not be considered to be limited to low vision patients. Anyone whose “seeing” requires more than normal visual acuity would benefit from these aids.

Reading Telescopes are composed of either the standard Bioptic Telescope (Model I), or the Expanded Field Prism Telescope (non-spiral). Based on the same principle as an afocal telescope combined with a reading cap, the extra power needed for close viewing is included in the lens system of the Reading Telescope. Mounted low in the carrier lens, and angled down and in for proper alignment with the eyes in their normal reading position, the telescope is “out of the way” for general seeing, but is available for reading whenever it is needed. It functions in the same manner as a standard bifocal segment. It is also possible to have the Reading Telescope mounted in a bifocal carrier lens. This allows the patient to have his normal near vision available through the bifocal (for general close work), and also be able to move into the telescope as needed.

The patient’s spectacle correction can be incorporated into the Reading Telescope, as well as a tint (in both the carrier lens and/or the Reading Telescope) for light sensitive patients. The Reading Telescope is available in a black, silver or brown housing.

FITTING

Two types of Reading Telescopes are available: The Galilean design (in powers of 2.5X, 3.5X and 4.5X) and the Expanded Field Prism design (in powers of 3.5X, 4.5X, 6.0X and 8.0X). The 2.5X has a rectangular objective – all the others are round. All of the telescopes can be ordered to be focused at any working distance.

The telescopes are mounted low in the carrier lens and angled downward. They are converged for the prescribed working distance (which must be accurately measured from the spectacle plane), and are set at the patient’s functional near P.D.

If the patient desires to have the Reading Telescopes mounted in a bifocal carrier lens, it is a good idea to have the bifocal segments focus at the same distance as the Reading Telescopes. It is not essential that this be done, but it will allow the patient to switch back and forth between the bifocal and the Reading Telescope without having to change his convergence or accommodation each time he changes his fixation. The Executive bifocal can be set at any seg height (standard height is 7 mm above the geometric center of the frame), and this style of bifocal is recommended to allow the patient an adequate bifocal segment area when he looks to the side of the telescopic unit.

POWERS AVAILABLE

Galilean Design: 2.5X, 3.5X, 4.5X

Expanded Field Prism Design: 2.5X, 3.5X, 4.5X, 6.0X, 8.0X



READING TELESCOPES

Reading Telescope

Galilean Design

- 2.5X Rectangular Objective
- 3.5X Round Objective
- 4.5X Round Objective



Binocular 2.5X Galilean Reading Telescopes with black housings, mounted in the Yeoman 6 frame

Reading Telescope

Expanded Field Prism Design

- 3.5X Round Objective
- 4.5X Round Objective
- 6.0X Round Objective
- 8.0X Round Objective



Binocular 3.5X Expanded Field Reading Telescopes with black housings, mounted in the Yeoman 6 frame