



**OMEGA TYPE ES-336** Experimental Set-Up has been designed specifically for determination of Cardinal Points of a system of two thin Convergent Lenses separated by a distance using Nodal Slide Assembly. The set up consists of Optical Bench, Nodal Slide Unit, Light Source, Optical Screen, Plane Mirror and Convex Lenses.

The set-up is complete in all respects and requires no other apparatus. Practical experience on this set-up carries great educative value for Science and Engineering Students.

#### OBJECT

- 01 To Determine the Cardinal Points of a system of two thin Convergent Lenses separated by a distance and then to verify the formula.

$$L_1 H_1 = + \frac{x F}{f_2} \quad \text{and} \quad L_2 H_2 = - \frac{x F}{f_1}$$

#### FEATURES

The complete experimental Set-up consists of:

- 01 **NODAL SLIDE ASSEMBLY :**

Comprising of the following :

- 1.1 **Optical Bench :** Two 150cm long steel rods 3/4" dia forming a bench with end supports having levelling screws. One of the two steel rods is graduated in cm & mm. It has four riders, two with transverse motion.

- 1.2 **Nodal Slide Unit :** Two vertical axis contains a carriage with suitable arrangement for combination of single & double lens holders. The lens holders are adjustable in height and are provided with lateral motion by rack & pinion. These motions can be noted along a scale. The vertical carriage containing the whole mount can rotate along the vertical axis along a circular graduated scale.

- 1.3 **Lamp House :** An electrical 40W bulb housed in a case.

- 1.4 **Optical Screen :** With fine cross slit

- 1.5 **Plane Mirror :** Inclined

- 02 **CONVEX LENS :** Two no's.

- 03 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

We are committed to the continuous development of our products, and therefore reserve the right to amend specifications without prior notice.

**OMEGA ELECTRONICS**